

TRANSITIVITY, VALENCY AND VOICE

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Abbreviations

A	the nominal term of transitive clauses that expresses the role of agent if the clause is projected by a prototypical transitive verb
AB	absential (absent from the speech situation)
ABIL	abilitative
ABL	ablative
ACC	accusative
ACT	active
ADEL	adelative
ADESS	adessive
ADJZ	adjectivizer
ADV	adverbial
AdvCOP	copula used in combination with predicate phrases having the same form as adjuncts in verbal predication
AFF	affirmative
AffAG	affected agent
AgNMZ	agent nominalization
ALL	allative
AND	andative
ANTIP	antipassive
APPL	applicative
arb	arbitrary
ASRT	assertion marker
AUD	auditory
AUTOB	autobenefactive
AUX	auxiliary
AV	agent voice
BEN	benefactive
C	causal
CAUS	causative
CCN	concernative
CF	centrifugal
CG	common gender
CIRC	circumstantial
CJ	conjoint (in Bantu languages, a conjoint verb form is a verb form that has a tight relationship with the following phrase and cannot be found in clause-final position)
cIX	gender-number agreement marker (class) X, X a number or a letter referring to language-specific inventories of gender-number agreement patterns (classes)
CLF	classifier
COLL	collective
COM	comitative
CONNNEG	connegative
CONT	continuous aspect

COP	copula
CPL	completive
CSC	consecutive
CSTR	construct form marker
CV	conveyance voice
CVB	converb
D	depending on the individual languages, definiteness marker, or determiner that may mark definiteness or referentiality in limited contexts, and otherwise marks the semantically less-specified form of nouns
DAT	dative
DatANTIP	D-antipassive
DatAPPL	D-applicative
DEB	debitive
DECAUS	decausative
DECL	declarative
DEM	demonstrative
DenuclS	denucleativization of S
DESID	desiderative
DESIGN	designative (case)
DEST	destinative
DETR	detransitivization marker
DIM	diminutive
DIR	direct
DIRV	directive
DIST	distal
DistPST	distant past
DISTR	distributive
DJ	disjoint (in the languages that also have conjoint verb forms, a disjoint verb form is a verb form that can be found in clause-final position)
DU	dual
DUR	durative
DYN	dynamic
EMPH	emphatic
EP	epenthetic
ERG	ergative
ESS	essive
EV	evidential
EXCL	exclusive
EXPL	expletive
F	feminine
FACIL	facilitative
FACT	factual
FOC	focalization marker
FocA	focalization of A
FocS	focalization of S
FocT	focalization of a nominal term

FocV	focalization of the verb
FocX	focalization of an oblique
FUT	future
FV	final vowel (in Bantu languages, a vowel analyzable as an inflectional ending of verbs, without, however, being necessarily analyzable as carrying a particular TAM-polarity value by itself)
G	goal
GEN	genitive
GER	gerundive
GNOM	gnomic
H	human
H	(superscript) high morphotoneme
HAB	habitual
HON	honorific
HYP	hypothetic
I	index
I _A	index corresponding to a conominal in A role
I _{ADP}	index corresponding to a conominal in adpossessor role
ICPL	incompletive
I _{DAT}	index corresponding to a dative-marked conominal
IDF	indefinite
I _{ERG}	index corresponding to an ergative-marked conominal
IFR	inferential
ILL	illative
IM	immediate
IMP	imperative
ImpPASS	impersonal passive
INCH	inchoative
INCP	inceptive
IND	indicative
INESS	inessive
INF	infinitive
INFR	inferential
INS	instrumental
INT	self-intensifier
INV	inverse
I _P	index corresponding to a conominal in P role
IPFV	imperfective
IPRF	imperfect
IRR	irrealis
I _S	index corresponding to a conominal in S role
I _{S/A}	index corresponding to a conominal in S or A role
I _{S/P}	index corresponding to a conominal in S or P role
ITER	iterative
ITN	intentional
ITR	intransitive

IV	instrumental voice
I _{ZER}	index corresponding to a conominal in the zero case
K	the sole integrative case in binary case systems
L	(superscript) low morphotoneme
LH	(superscript) low-high morphotoneme
LK	linker
LKV	linking vowel
LOC	locative
LV	locative voice
LXCZ	lexicalized formative
M	masculine
MULT	multiplicative
N	neuter, or noun
nC	noncausal
NEG	negative
nFUT	non-future
NMZ	nominalizer
NOCT	nocturnal
NomCOP	copula used in combination with nominal predicates
NP	noun phrase
nPIV	non-pivot
nPST	non-past
nSP	non-specific
NuclA	nucleativization in the role of A
NuclS	nucleativization in the role of S
OBL	oblique (case marker or adposition)
OblAPPL	X-applicative
OBV	obviative
OF	oblique formative (in Nakh-Daghestanian languages, a suffix serving to form the so-called oblique stem of nominals)
OptOBL	optional oblique
P	the nominal term of transitive clauses that expresses the role of patient if the clause is projected by a prototypical transitive verb
PASS	passive
P/C	pidgin or creole
PersART	personal article (personal name marker)
PFV	perfective
PIV	pivot
PL	plural
PLAC	pluractional
PNC	punctual
PORT	portative
POSS	possessive
POSTP	postposition (gloss mainly used for multifunctional postpositions showing a very low degree of semantic specificity)
POT	potential

PREP	preposition (gloss mainly used for multifunctional prepositions showing a very low degree of semantic specificity)
PrepC	prepositional case (case exclusively used for complements of prepositions)
PREV	preverb
PRF	perfect
PRN	proper name
PRO	pronoun
PROG	progressive
PROH	prohibitive
PROX	proximal (as opposed to distal), or proximate (as opposed to obviative)
PRS	present
PRTV	partitive (case)
PST	past
PTCP	participle
PV	patient voice
Q	question marker
qPASS	quasipassive
qREFL	quasireflexive
REAL	realis
RECP	reciprocal
RecPST	recent past
REFL	reflexive
REL	relativizer
RES	resultative
RESTR	restrictive
S	the nominal term of intransitive clauses whose coding properties coincide with those of the sole essential participant of (a major subclass of) monovalent verbs, if such a term is present
S/A	adposition or case marker flagging noun phrases in S or A role
SAP	speech act participant (1st or 2nd person)
SBJV	subjunctive
SEQ	sequential
SG	singular
S/P	adposition or case marker flagging noun phrases in S or P role
STD	standing
SUPESS	superessive
T	transferee
TA	transitive with animate P
TAM	tense-aspect-modality marker
TERM	terminative
THS	thematic suffix (a particular type of formative in the morphological structure of Kartvelian verbs), or theme suffix (a particular type of formative in the morphological structure of Algonquian verbs)
TOP	topicalization marker
TopS	Topicalization of S
TR	transitive

TRNSL	translative
V	verb
VAL	validator (marker of authority for assertion and degree of certainty)
VBZ	verbalizer
X	oblique (nominal term of clauses that cannot be analyzed as either S, A or P) N.B. X is also used to represent a variable (alongside with Y and Z)
ZER	zero case

Chapter 1

Introduction

The morphosyntactic mechanisms involving the notions commonly discussed in terms of transitivity, valency and voice are at the very heart of the most basic aspects of the organization of verbal predication in any language, but the details of their organization vary greatly from language to language. The ambition of the present book is to set up a consistent framework, novel in many respects, for analyzing transitivity, valency and voice phenomena in the morphosyntax of the languages of the world. Throughout the book, the emphasis is on accounting for the cross-linguistic variation in the domain of transitivity, valency and voice and capturing regularities in this variation.¹

1.1 Overview of the topics addressed in this book

In this section, I give a brief and informal overview of the topics addressed in this book, in which I try to use only terms and notions familiar from traditional grammar and/or introductory courses in morphosyntax. The conceptual framework and terminology to which the remainder of this book will refer will be introduced in §1.2.²

1.1.1 Transitivity

TRANSITIVITY refers to a type of organization of verbal clauses typically found in clauses projected by verbs denoting two-participant actions exerted by one of the participants (the agent) and resulting in a change in the state of the other participant (the patient), as in *The child broke the glass* or *John fixed the bicycle*. Hopper and Thompson (1980: 251) define the traditional interpretation of transitivity as follows:

¹ The data used in this book are taken from a variety of languages, and the only criteria in the selection of the languages were my awareness of their relevance to the various issues under discussion, the reliability of the information available to me, and the possibility of illustrating the issues under discussion without having to enter into lengthy explanations about aspects of morphosyntax irrelevant to the point. The reason why I didn't use a cross-linguistic sample of the type often used in typological studies is simply that the sampling method is suitable for an investigation of the cross-linguistic distribution of parameters whose definition follows from a pre-established framework, not for the discussion of a framework for the cross-linguistic investigation of a given domain.

² Given the topic of this book, we will be only marginally concerned by non-verbal predication, which consequently need not be discussed in detail here. Suffice it to say that, as regards the distinction between verbal and non-verbal predication, I basically agree with Hengeveld's (1992) approach. To put it in a nutshell, I adhere to the conception of non-verbal predicative constructions as constructions giving rise to non-elliptical clauses analyzable as consisting of an argument phrase and a predicate phrase in which the property- or relation-denoting element that acts as the semantic nucleus of the predicate phrase is not a verb. Crucially, I do not equate the notions of verbal/non-verbal predication and verbful/verbless clause. For example, English *John is a teacher* is a verbful clause, whereas Hungarian *János tanár* 'J. is a teacher' is a verbless clause, but both clauses express the particular variety of non-verbal predication in which the property the argument *John / János* is said to have is the lexical meaning of a noun.

“an activity is ‘carried over’ or ‘transferred’ from an agent to a patient. Transitivity in the traditional view thus necessarily involves at least two participants... and an action which is typically EFFECTIVE in some way.”

Traditionally, transitive clauses are characterized as having a subject and a direct object. Crucially, the morphosyntactic organization of clauses denoting actions involving an agent and a patient can also be found in clauses denoting other semantic types of two-participant events (as for example *John saw the accident*). However, there are also clauses denoting two-participant events whose construction does not follow the transitive pattern, as for example *John agreed with me*.

The problem is that, in traditional grammars, the direct object of the verb is commonly defined as the thing being acted upon, which suggests a purely semantic conception of transitivity. It is true that ‘being acted upon’ can be understood in a more or less strict sense, but even if ‘being acted upon’ is taken in a very broad sense, there are verbs, such as English *see*, that refer to events that cannot be described as denoting an action exerted by a participant on another participant, and are nevertheless unanimously classified as transitive by traditional grammarians. The verb *see* denotes a situation involving a perceiver and a stimulus, in which it would not make sense to describe the perceiver as ‘acting upon’ the stimulus, and consequently, the identification of *see* as a transitive verb whose direct object refers to the stimulus in a perception event must in some way or another involve the formal characteristics assigned by *see* to the noun phrase representing the stimulus.

Quite obviously, the relationship between a semantic definition of transitivity and syntactic transitivity as characterizing verbs taking a particular formal type of complement traditionally designated as their direct object is much less straightforward than suggested by traditional grammars, as evidenced by the fact that verbs taking direct objects in a given language do not necessarily correspond to verbs taking direct objects in another language (as for example English *climb the tree* / French *grimper à l’arbre*, lit. *climb to the tree*).

However, such observations must not necessarily lead to the conclusion that the division of verbs into transitive and intransitive ones on the basis of their compatibility with a particular formal type of complement traditionally designated as their direct object would be nothing else than a language-specific and semantically arbitrary distinction. In fact, it is possible to reconcile a semantic definition of transitivity and a language-specific delimitation of the set of transitive verbs on the basis of formal criteria. This can be done by considering that, for example, the identification of the English verb *hear* in *The dog heard a noise* as a transitive verb with *a noise* in the role of direct object is justified by the fact that this clause is constructed in the same way as clauses denoting transitive events in which an agent acts upon a patient (‘agent, ‘act upon’ and ‘patient’ being taken in their strictest sense), such as *The dog caught a rabbit*, and this will be the idea developed in this book.

In other words, transitivity as a morphosyntactic property of verbs/clauses must be distinguished from transitivity as a semantic property of the events denoted by verbs/clauses, but at the same time, syntactic transitivity cannot be defined independently of the semantic notion of transitive event, which is logically anterior to the notion of transitive verb/clause. This approach to transitivity was advocated in a particularly clear and explicit way in Gilbert Lazard’s works, which were a major source of inspiration to me (see in particular Lazard 1994, translated into English as Lazard 1998).

The most important questions that must be addressed in a typological approach to transitivity are as follows:

- The articulation between semantic transitivity and syntactic transitivity

There are obvious differences in the way languages articulate semantic transitivity as a semantic characterization of the events denoted by clauses and syntactic transitivity as a formal property of clauses. In particular, languages differ in the extension of the coding that characterizes agents and patients of typical action verbs to the coding of participants in other semantic types of states of affairs. They also differ in the availability of various possible types of constructions commonly viewed as intransitive alternatives to the transitive construction, such as passive constructions (*The glass was broken by the child*, *The bicycle was fixed by John*).

- The cross-linguistic variation in the formal characteristics of the transitive construction

Languages differ in the formal characteristics of the transitive construction. For example, in the transitive clauses of English, if both nominal terms are nouns, they show no morphological marking of their role in the construction, and consequently do not vary if they exchange their roles (*The hunter killed the lion / The lion killed the hunter*). In some other languages, for example Latin, or Hungarian, the direct object takes a special form called the accusative case. In yet others, for example Avar (Nakh-Daghestanian), it is the subject of transitive clauses that takes a special form, called the ergative case. The questions that must be addressed in typological perspective are the limits of this variation, the cross-linguistic distribution of the attested patterns, and possible correlations between coding patterns of transitive clauses and other typological characteristics of languages.

- The language-internal variation in the formal characteristics of clauses projected by transitive verbs

There are several possible types of language-internal variation in the construction of transitive verbs. The transitive-passive alternation (or ‘active-passive’ alternation, in a more traditional terminology), already evoked above, is one of the possible types. It is commonly analyzed in terms of detransitivization. Spanish illustrates another possible type, known as ‘differential object marking’, characterized by the possible use of a preposition to introduce the direct object, depending on some of its characteristics (animacy and specificity), as in *El tren atropelló un tractor* ‘The train ran over a tractor’ vs. *El coche atropelló a un peatón* lit. ‘The car ran over TO a pedestrian’. Contrary to the transitive-passive alternation, this alternation is usually not analyzed as affecting the transitivity of the clause, and this will also be the position adopted in this book. An important issue in a typological approach to transitivity is the elaboration of a comprehensive typology of the possible language-internal variation in the construction of transitive verbs.

• The transitive-intransitive alignment

In English, with verbs denoting one-participant events (such as *run*, *cry*, or *die*) the noun phrase representing the sole essential participant shows coding characteristics identical to those assigned by typical transitive verbs to their agent (i.e., the coding characteristics that define the grammatical relation ‘subject’ as traditionally conceived in English grammar). In other languages, for example Avar (Nakh-Daghestanian), the coding of the sole essential participant in the events denoted by verbs such as *run*, *cry*, or *die* coincides with that of the PATIENT of typical transitive verbs. As illustrated in (1), in Avar, the noun phrase representing the sole essential participant of ‘come’ shows no mark of its role in the construction of the clause, and the verb agrees with it in gender and number. The same coding characteristics are also those of the noun phrase representing the patient of ‘plough’, whereas the noun phrase representing the agent of ‘plough’ is in a marked case form (the ergative case) and does not govern verb agreement.³

(1) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Pat'imat j-ač'ana.*

PRN(F) I_{SP}:SG.F-come.CPL

‘Patimat came.’

b *Aħmad w-ač'ana.*

PRN(M) I_{SP}:SG.M-come.CPL

‘Ahmad came.’

c *Aħmad-i-ca χur b-eļ'ana.*

PRN(M)-OF-ERG I_{SP}:SG.M-come.CPL I_{SP}:SG.N-plough.CPL

‘Ahmad ploughed the field.’

Some other languages attest more complex situations that cannot be analyzed in terms of a binary choice between the English type and the Avar type of alignment pattern. The typology of the possible patterns of alignment between the construction of verbs denoting one-participant states of affairs and that of typical transitive verbs, and the investigation of possible correlations with other typological characteristics of languages, are important aspects of the typology of transitivity.

• The transitive-ditransitive alignment

The construction of verbs denoting three-participant events, such as ‘send’ or ‘provide’, shows variation, both cross-linguistically and language-internally, and this variation can be described in terms of alignment with the construction of typical transitive verbs denoting two-participant events. For example, in the English sentence *We provided the candidate with all*

³ In this book, the examples for which no source is given are either based on my personal knowledge of the language (in the case of French and a few other languages I am particularly familiar with), or on my personal documentation. By ‘personal documentation’, I mean data I collected directly from native speakers, or data extracted from various types of sources other than language descriptions or scientific articles (newspapers, Internet, pedagogical grammars, etc.) and checked with the help of native speakers. On glossing conventions, see §5 of this chapter. As regards the identification of the languages, unless otherwise specified, language names must be understood as referring, either to the standard variety of the languages in question, or to the only variety for which some documentation is available.

the necessary documents, the participant that can be characterized as the recipient (the candidate) is encoded as the direct object, whereas in the French equivalent of this sentence (*Nous avons fourni tous les documents nécessaires au candidat*), the same participant is encoded as the indirect object. A systematic investigation of the possible constructions for verbs denoting three-participant events and their cross-linguistic distribution is another important aspect of the typological approach to transitivity.

1.1.2 Valency

VALENCY refers to the ability of verbs to combine with noun phrases or adpositional phrases referring to the participants in the events they denote or to their circumstances, and to determine the coding characteristics of those among the nominal terms of the clause that refer to the semantically essential participants (commonly referred to as ARGUMENTS, as opposed to ADJUNCTS, a notion encompassing non-essential participants and circumstances of the event). According to the number of nominal terms in the construction of the verb representing essential participants in the denoted event, a verb can be characterized as aivalent (*rain*), monovalent (*cry*), bivalent (*see*), or trivalent (*send*).

In other words, the notion of valency encompasses a formal characterization of the nominal terms of the clauses projected by a given verb, and a semantic characterization of their referents according to their respective roles in the event, with a particular attention to the essential participants, whose coding is a lexical property of individual verbs. For example, *see* refers to events involving two essential participants, a perceiver and a stimulus. Morphosyntactically, in a clause such as *The child saw a snake*, the perceiver phrase fulfils the grammatical role traditionally labeled ‘subject’ in English grammar, whereas the stimulus phrase fulfills the grammatical role traditionally labelled ‘direct object’.

‘Valency’ is not a traditional grammatical term. Its use in linguistics derives from its use in chemistry. According to Przepiórkowski (2018), the first attestation of the valency metaphor in linguistics can be found in Charles Sanders Pierce’s essay *The logic of relatives* in 1897. What is, however, sure, is that Lucien Tesnière can be credited with having popularized the valency concept in linguistics in the late 1940s and 1950s. Tesnière (1969) is the main reference on his theory of valency.

According to Tesnière, the traditional analysis of clauses as consisting of a subject phrase and a predicate phrase leads to overlooking some important aspects of clause structure that are best accounted for by abandoning the idea that the subject has a particularly privileged status, and classifying the noun phrases or adpositional phrases having a direct relationship to the verb as either ‘actants’ or ‘circonstants’. The ‘actants’ are further subdivided into ‘prime actant’, ‘second actant’ and ‘tiers actant’ corresponding to the traditional notions of subject, direct object, and indirect object. Although offering valuable insights on a number of aspects of clause structure, Tesnière’s approach to valency was basically flawed by the lack of a distinction between semantic and syntactic valency. Allerton (1982) can be credited with having insisted on the importance of this distinction in his study of the valency of the English verbs.

In recent literature, the term ARGUMENT STRUCTURE is commonly used with reference to the semantic aspects of valency, i.e., the set of SEMANTIC ROLES characterizing the participants in the event denoted by the verb. In this book, in order to avoid any confusion between syntactic and semantic aspects of valency, I will preferably use unambiguous terms

such as ESSENTIAL PARTICIPANTS at semantic level and CORE (SYNTACTIC) TERMS at syntactic level, rather than ‘arguments’. The term CODING FRAME will be used with reference to the constraints imposed by each individual verb on the coding characteristics of the essential participants in the event it denotes. The coding frames selected by verbs are basically a lexical property of individual verbs, but the analysis of possible regularities in the selection of coding frames is an essential aspect of valency studies. The term PARTICIPANT FRAME (rather than argument structure) will be occasionally used to refer unambiguously to the set of participant roles implied by the lexical meaning of a given verb.⁴

In the last decades, the division of verbs into VALENCY CLASSES has been the subject of a large number of studies. (Malchukov & Comrie 2015), to which I contributed with a chapter on valency classes in Mandinka (Creissels 2015b), deserves special mention for addressing the question of cross-linguistic variation and regularities in the systems of valency classes on the basis of a systematic comparison of 30 genetically and areally diverse languages.

In this book, the focus is not on the cross-linguistic variation in the division of verbs into valency classes, but rather on the typology of VALENCY ALTERNATIONS.

The term VALENCY ALTERNATION as used in this book refers to the possibility that two different constructions of the same verb, or of two formally related verbs, denote identical events, or events that differ at most on one of the following points:

- the assignment of participant roles to individual participants,
- the possible involvement of non-essential participants,
- the possible reshaping of one of the participant roles,
- the greater or lesser complexity of the causality chain.⁵

Note that the different constructions a polysemous verb may have in its different meanings are not considered instances of valency alternations. For example, the transitive use of *break* in a sentence such as *The child broke the glass* and the intransitive use of the same verb in *The glass broke* meet the definition of a valency alternation, but this is not the case for the transitive and intransitive uses of *stand* illustrated by *I cannot stand rudeness* and *I am delighted to stand before you today*.

The definition formulated above also excludes from the notion of valency alternation V > V derivations introducing a semantic role that cannot be viewed as a participant role in the event denoted by the base verb. This concerns for example the role of believer implied by derived verb forms projecting clauses glossable as ‘X believes that \bar{V} ’ (where \bar{V} represents a clause projected by the base verb), cf. chapter 8 §8.1.6, or the role of viewpoint holder implied by derived verb forms projecting clauses glossable as ‘X estimates that \bar{V} ’, cf. chapter 12 §12.6.6.

Example (2) illustrates a valency alternation where the two constructions have the same denotative meaning, and differ only in the mapping of participants (the builder and the thing being built) onto morphosyntactic slots: in (2a), the builder is encoded as the subject (in

⁴ Note that, throughout this book, whenever the term ‘participant’ is used without further specification, it must be understood as an abbreviation for ‘participant in the event denoted by the verb’. Participants in the speech act will be explicitly designated as ‘speech act participants’ (abbreviated as SAP).

⁵ Croft (1991, 1994, 2012) is the main proponent of the causal approach to event structure, crucial for a proper understanding of valency operations such as causativization and decausativization, as will be developed in the relevant chapters.

Russian grammar, the noun phrase in the nominative case that governs verb agreement), and the thing being built as the direct object (marked by the accusative case), whereas in (2b), the subject represents the thing being built, and the builder is encoded as an instrumental oblique.

(2) Russian (Slavic, Indo-European)

- a *My stro-im školu.*
 1PL build-PRS.I_{S/A}:1SG school.ACC
 ‘We are building a school.’
- b *Škola stro-it-sja nami.*
 school build-PRS.I_{S/A}:3SG- PASS 1PL.INS
 ‘The school is being built by us.’

In English, *My father built this house in 1990 / This house was built by my father in 1990* illustrates the same functional type of valency alternation, with the only difference being that the alternation is not marked by a verbal affix, but by the formation of a complex predicate in which the verb *be* acting as a valency operator combines with a non-finite form of the verb *build*.

Example (3) shows that the same functional type of valency alternation may be found without any specific morphological marking.

(3) Bambara (Central Mande, Mande)

- a *Sékù bènà bàtáki 'sébén.*
 PRN FUT letter write
 ‘Sékou will write the letter.’
- b *Bàtáki 'bènà sébén Sékù fɛ.*
 letter FUT write PRN by
 ‘The letter will be written by Sékou.’

Example (4) illustrates a different type of valency alternation, in which the two constructions denote events implying the same participant roles of kisser and kissee,⁶ but differing in that, in (4a), the two participant roles are assigned to one participant each, whereas (4b) denotes a reciprocal situation in which the same roles are shared by the two participants. In (4b), the alternation is morphologically marked by the addition of the verbal suffix *-s'*, phonologically conditioned variant of the suffix occurring as *-sja* in (2b) above.

(4) Russian (Slavic, Indo-European)

- a *Paren' celova-l-Ø devušku.*
 boy kiss-PST-I_{S/A}:SG.M girl.ACC
 ‘The boy kissed the girl.’
- b *Paren' i devuška celova-l-i-s'.*
 boy and girl kiss-PST-I_{S/A}:PL-RECP
 ‘The boy and the girl were kissing.’

⁶ In the literature on semantic roles, it has become common practice to generalize the use of the suffix *-ee* to designate the most patient-like argument of semantically bivalent verbs whose meaning implies a contrast in the agentivity of the protagonists. Such labels are occasionally used in this book too.

In example (5), the same verbal suffix marks another type of valency alternation where the two constructions denote events differing only in the assignment of participant roles to individual participants. In (5a), the roles of cutter and cuttee are assigned to two distinct participants, encoded as the subject and the direct object, respectively, whereas (5b) encodes a reflexive situation, in which a single participant cumulates both roles.

(5) Russian (Slavic, Indo-European)

- a *Ja poreza-l-Ø tort.*
 1SG PFV.cut-PST-I_{S/A}:SG.M cake.ACC
 ‘I cut the cake.’
- b *Ja poreza-l-Ø-sja.*
 1SG PFV.cut-PST-I_{S/A}:SG.M-REFL
 ‘I cut myself.’

Example (6) illustrates another type of valency alternation marked by the same verbal suffix. In (6), the two constructions denote events that are not identical, and do not involve the same set of participant roles, but can be analyzed as differing only in the greater or lesser complexity of the causality chain. In (6a), the breaking process affecting the referent of the direct object is presented as triggered by an agent, encoded as a nominative noun phrase governing verb agreement, whereas in (6b), nothing is implied about the causality chain resulting in the breaking process, and the nominative noun phrase governing verb agreement represents the thing undergoing the process.

(6) Russian (Slavic, Indo-European)

- a *Rebënok razbil-Ø čašu.*
 child break.PFV.PST-I_{S/A}:SG.M cup.ACC
 ‘The child broke the cup’
- b *Čaša razbil-a-s’.*
 cup break.PFV.PST-I_{S/A}:SG.F-DECAUS
 ‘The cup broke.’

The child broke the glass / The glass broke illustrates the same functional type of valency alternation, but in English, no morphological marking is involved in the alternation.

The typology of valency alternations is one of the major topics addressed in this book.

1.1.3 Coded and uncoded valency alternation, flexivalency and voice

As illustrated in §1.1.2, depending on language-specific rules, functionally similar valency alternations may involve specific morphological coding on verbs or not.

In comparison with other languages, English has a particularly rich system of UNCODED valency alternations. In addition to those already illustrated in §1.1.2, they include, among many others, the alternations illustrated by sentence pairs such as *John opened the door with a chisel / The chisel opened the door*, *John sprayed paint on the wall / John spread the wall with paint*, *John gave the book to Peter / John gave Peter the book*, etc.

A major reference on this topic is Levin and Rappaport Hovav’s (2005) systematic investigation of the relationship between the lexical semantics of English verbs and the

uncoded alternations to which they lend themselves. This is an extremely interesting question that would be worth being developed in a typological perspective. Unfortunately, detailed data on uncoded valency alternations are available for relatively few languages, and consequently, it is not feasible to address the question or the relationship between uncoded valency alternations and the lexical semantics of verbs in a broad cross-linguistic perspective.

In the typology of uncoded valency alternations that will be put forward in this book, the term FLEXIVALENCY, proposed by Martin Haspelmath (pers.com.), is used as a general term referring to the ability of verbs to lend themselves to uncoded valency alternations, without any additional condition on the precise nature of the valency alternations to which a flexivalent verb may lend itself without necessitating morphological marking. AMBITRANSITIVITY is used with reference to uncoded valency alternations involving a change in transitivity, as in *The child broke the glass* (transitive) / *The glass broke* (intransitive). The term ‘lability’ is widely used in the literature, but is avoided here as potentially confusing, since its etymology suggests a definition encompassing all possible types of flexivalency (and some authors have used it with this broad meaning), but most authors use it with the meaning unambiguously expressed by ‘ambitransitivity’, or even restrict it to the particular type of ambitransitivity that will be referred to in this book as P-ambitransitivity.

In this book, the term VOICE is used as a general term for morphological operations on verbs regulating the relationship between the syntactic role of noun phrases and the way their referents participate in the event denoted by the verb. In other words, ‘voice’ refers to the coding of valency alternations on verbs without any additional condition on the precise nature of the valency alternations considered as instances of voice.⁷ The typology of voice marking is consequently an important aspect of the typology of valency alternations.

In grammatical descriptions of the languages of Europe, ‘voice’ is used mainly (if not exclusively) with reference to the particular type of coded valency alternation illustrated in English by clause pairs such as *My father built this house in 1990* (active voice) / *This house was built by my father in 1990* (passive voice). Three other types of valency alternations that may involve specific coding on verbs have already been illustrated in §1.1.2: reciprocalization in example (4), reflexivization in example (5) and decausativization in example (6). Applicativization, illustrated in example (7), is still another cross-linguistically widespread type of verb-coded valency alternation. In (7b), the voice marker *-ɛl-* conditions the use of *-kwálá* ‘write’ in a double-object construction in which the first object represents the recipient to which the letter will be sent or a beneficiary. In (7c), the repetition of the voice marker conditions the possibility of mentioning both a recipient and a beneficiary in a triple-object construction in which none of the noun phrases in post-verbal position is morphologically marked, but the roles of the participants they denote are unambiguously encoded by the rigid linear order of constituents *beneficiary-recipient-theme*.

(7) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kítsó ʼó-tláà-kwál-á lò-kwá:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-FV SG-letter(c111)
 ‘Kitso will write a letter.’

⁷ The question whether the notion of verbal coding should be understood in a very strict sense, or rather as including auxiliaries and clitics, is a thorny issue that will be addressed in chapter 8 §§8.1.4-5, but whose discussion in this introductory chapter would be premature.

- b *Kítsó* 'ó-tláà-kwál-él-á *Mp^hó* lò-kwâ:lò.
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 'Kitso will write a letter to/for Mpho.'
- c *Kítsó* 'ó-tláà-kwál-él-él-à *Lòrátó* *Mp^hó* lò-kwâ:lò.
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-APPL-FV PRN(c11) PRN(c11) SG-letter(c111)
 'Kitso will write a letter to Mpho on behalf of Lorato.'

The study of morphological operations on verbs regulating the relationship between the syntactic status of noun phrases and the way their referents participate in the event denoted by the verb has a very old tradition in descriptive linguistics.

Since the works of Pāṇini (c. sixth-fourth century BCE), Sanskrit grammars describe the inflection of Sanskrit verbs as involving a contrast between *parasmai pada* (lit. 'word for other', translated in English as 'active voice'), whose basic meaning is that the action of the verb is directed at a person other than the subject, and *ātmane pada* (lit. 'word for self', translated in English as 'middle voice'), whose basic meaning is that the action is directed at the subject itself. Greek grammars, following a tradition whose origin is attributed to Dionysius Thrax (second century BCE), use the term *diáthesis* 'arrangement' or 'condition' with reference to a contrast in verb inflection between three possible sets of inflectional endings characterized as *enérgeia* 'activity', *páthos* 'suffering', and *mesótēs* 'intermediate' (rendered in English as 'active voice', 'passive voice', and 'middle voice', respectively).⁸

Latin grammarians used the terms *genus verbi* (lit. 'verb gender') or *vox* 'voice' for the contrast between two possible sets of inflectional endings of verbs designated as *vox activa* 'active voice' and *vox passiva* 'passive voice'.

'Voice' was subsequently used by grammarians as a descriptive label for morphosyntactic mechanisms that are delimited for each language on a language-internal basis, but show some functional affinities with Sanskrit *pada*, Greek *diáthesis*, or Latin *vox*. However, until very recently, the justification for identifying language-particular categories as manifestations of a cross-linguistic notion 'voice' was not discussed by linguists.

As discussed in detail by Zuñiga & Kittilä (2019: 7-10), different meanings have been given to the term 'voice' by different authors. When putting forward a definition of 'voice' as a cross-linguistic notion, one may hesitate between a narrower or broader conception of voice. For example, since this term was originally used for an inflectional category, one might decide to limit the use of the term 'voice' to languages that have an inflectional category functionally similar to Sanskrit, Greek or Latin voice. A major shortcoming of such a decision would be that, in the vast majority of the languages that have been described as having a voice system, the expression of voice does not involve verb inflection, but rather V > V derivation, or the formation of complex predicates in which a non-finite form of the verb acting as the predicative nucleus of the clause combines with another verb acting as a voice operator. One might also consider restricting 'voice' to valency alternations involving a change in the semantic role of the subject. On the other hand, 'voice' has been used by some authors, for example Givón (1984, 1994), as encompassing uncoded valency alternations, and even phenomena that cannot be analyzed in terms of valency alternations.

As mentioned at the beginning of this section, the definition of 'voice' adopted in this book encompasses all possible types of valency alternations involving verbal coding (including

⁸ For detailed analyses of voice and diathesis in the Graeco-Roman tradition, see Benedetti (2014, 2016, 2017) and references therein.

types, such as applicatives, that are not considered as voices by authors using a more restrictive notion of voice), but excludes uncoded valency alternations. This delimitation of the domain of voice was initially proposed by Mel'čuk & Xolodovič (1970) and has been illustrated, among others, by Mel'čuk (1993) and Kulikov (2011b). It has gained acceptance in recent investigations of valency alternations, and is in particular the definition adopted in Zúñiga & Kittilä's (2019) survey of grammatical voice.

Cross-linguistically, multifunctional voice markers are very common. For example, in Russian, the verbal suffix *-sja* ~ *-s'* may mark that the same participant cumulates the two participant roles expressed by the subject and the object in the transitive construction of the same verb (reflexivization), as in (8a), but also reciprocalization, as in (8b), passivization, as in (8c), or antipassivization (a valency operation converting a transitive clause into an intransitive clause whose subject expresses the same semantic role), as in (8d).

(8) Russian (Slavic, Indo-European)

a *Ivan mo-et-sja.*

PRN(M) wash.IPFV-PRS.I_{S/A}:3SG-REFL

'Ivan is washing (himself).'

b *Paren' i devuška celuj-ut-sja.*

boy(M) and girl(F) kiss.IPFV-PST-I_{S/A}:PL-RECP

'The boy and the girl are kissing (each other).'

c *Lekcija čita-et-sja professor-om.*

course(F) deliver.IPFV-PRS.I_{S/A}:3SG-PASS professor(M)-SG.INS

'The course is delivered by the professor.'

d *Sobaka kusa-et-sja.*

dog(F) bite.IPFV-PRS.I_{S/A}:3SG-ANTIP

'The dog bites (people).'

In this book, particular attention is devoted to the cross-linguistic investigation of the multifunctionality patterns in which voice markers may be involved.

1.2 Theoretical and terminological issues

§1.3 will be devoted to the presentation of the framework within which transitivity, valency and voice will be discussed in this book. In this section, I briefly discuss the position I take about some concepts generally considered basic for the analysis of clause structure and its semantic correlates, and the terms used to refer to them.

1.2.1 Semantic roles

The nominal terms of verbal clauses (i.e., the noun phrases or adpositional phrases that complete or modify the meaning of the verb acting as the predicative nucleus of the clause) typically refer to participants in the event encoded by the verb, but this is not their only possible function. In addition to PARTICIPANT roles (such as agent, patient, experiencer, instrument, beneficiary, etc.), noun phrases or adpositional phrases may also fulfill CIRCUMSTANTIAL roles, broadly defined as referring not only to circumstances of the event

stricto sensu (place, time, cause, purpose) but also to notions such as manner or comparison, ENUNCIATIVE roles (i.e., speech-act-related roles such as source of knowledge or viewpoint), and PREDICATIVE roles (in which they express secondary predications about participants).⁹

For example, the Hungarian clause in (9) includes five noun phrases (three of them case-marked and one of them flagged a postposition), but *a férjem* ‘my husband’ is the only one expressing a participant role, namely the role of sole essential participant in the event denoted by ‘work’ (worker). *Öt évig* ‘five years’ and *egy gyárban* ‘in a factory’ refer to circumstances of the event, *mérnöként* ‘as an ingeneer’ expresses the predicative role of functive,¹⁰ assigned to the worker, and *tudomásom szerint* lit. ‘according to my knowledge’ expresses the enunciative role of source of knowledge..

(9) Hungarian (Ugric, Uralic)

Tudomás-om szerint, a férj-e öt év-ig
 knowledge-I_{ADP}:1SG according.to D husband-I_{ADP}:3SG five year-TERM
mérnök-ként dolgozott egy gyár-ban.
 engineer-ESS work.PST.I_{S/A}:3SG one factory-INESS
 ‘As far as I know, her husband worked five years as an engineer in a factory.’

Example (10) illustrates the fact that the distinction between these three broad types of roles is not necessarily apparent in the coding characteristics of noun phrases. In (10a), the postposition *tí* flags a noun phrase in the predicative role of transformative, whereas in (10b), the same postposition flags a noun phrase in the circumstantial role of standard of comparison.

(10) Mandinka (Central Mande, Mande)

a *Jíyóo yèlèma-tá dólóo tí.*
 water.D change-CPL.ITR wine.D POSTP
 ‘The water changed into wine.’
 b *Sánòò lè kúliyàa-tá kòdòò tí.*
 gold.D FOC be.heavy-CPL.ITR silver.D POSTP
 ‘Gold is heavier than silver.’

Similarly, in (11a), the instrumental case flags a noun phrase in the participant role of instrument, whereas in (11b), the same morphological case flags a noun phrase in the predicative role of functive.

(11) Russian (Slavic, Indo-European)

a *On breet-sja èlektričesk-oj britv-oj.*
 3SG.M shave.PRS.I_{S/A}:3SG-REFL electric-SG.F.INS razor(F)-SG.INS
 ‘He shaves with an electric razor.’

⁹ Nouns may also combine with verbs into complex predicates of the type commonly termed light-verb constructions, in which they contribute to the elaboration of a type of event (see chapter 5 §5.8.3 and chapter 7 §7.3.2).

¹⁰ On the semantic role of functive, and the typology and diachrony of functive marking, see (Creissels 2016).

- b *On rabotaet inžener-om.*
 3SG.M work.PRS.I_{S/A}:3SG engineer(M)-SG.INS
 ‘He works as an engineer.’

Since Charles Fillmore’s (1968) seminal work, semantic roles have been defined and discussed in a number of ways depending on the authors’ theoretical orientation and the questions in the analysis of which they have used them. For a review of the voluminous literature on semantic roles, readers are referred to (Kittilä & Zúñiga 2016).

An important point is that, as will be commented in more detail in chapter 2 §2.1, participant roles can be defined at different degrees of granularity. For example, two verb-specific participant roles (or ‘micro-roles’) such as ‘hearer’ and ‘seer’ can be viewed as two varieties of a more abstract role of ‘perceiver’, and the role of perceiver can in its turn be considered as a particular variety of a more abstract role of ‘experiencer’ encompassing also the roles expressed by the subject of verbs such as *think* or *fear*. None of the lists of semantic roles that may have been proposed in the literature is intrinsically better than the others, and the choice of considering variously delimited and more or less abstract semantic roles must only be guided by their relevance to the specific questions at issue, and the possibility they offer of capturing generalizations in the morphosyntactic treatment of participants. For a discussion of the possible cross-linguistic tendencies in micro-role clustering, see (Hartmann & al. 2016), (Bickel & al. 2016).

In the perspective of a typological investigation of transitivity and voice, the crucial choice regarding semantic roles is between two types of approaches differing in the semantic roles taken as basic in the formulation of the key definitions.

The approach to transitivity and valency to which I adhere crucially relies on the notion of basic construction of prototypical transitive verbs, and consequently on the roles of PROTOTYPICAL AGENT (defined as a human participant consciously and willingly controlling an activity aiming at changing the state or position of another participant) and PROTOTYPICAL PATIENT (defined as a participant undergoing a change of state or position triggered by the activity of an agent), since prototypical transitive verbs are identified as such by their ability to denote events involving a prototypical agent and a prototypical patient.

In the other possible type of approach, most clearly advocated by Bickel (2010) and Witzlack-Makarevich (2011), the roles of prototypical agent and prototypical patient are not taken as basic, and key definitions rely on maximally abstract GENERALIZED SEMANTIC ROLES, such as ‘sole argument of a semantically monovalent verb’, ‘relatively agent-like argument of a semantically bivalent verb’ (abbreviated here as G-agent, where ‘G’ stands for ‘generalized’), ‘relatively patient-like argument of a semantically bivalent verb’ (or G-patient), etc. This type of approach crucially relies on the postulate that a single pair of generalized semantic roles accounts for the participant frame of all bivalent verbs.

For example, in the generalized semantic role approach as developed by Bickel (2010) and Witzlack-Makarevich (2011), perceivers and prototypical agents are viewed as particular instances of the same generalized semantic role of G-agent, whereas stimuli and prototypical patients are viewed as particular instances of the same generalized semantic role of G-patient.

As discussed in detail by Haspelmath (2011: 552-558), such generalized semantic roles are problematic in many respects. Their identification is based on a list of “entailments” largely taken from Dowty’s (1991) analysis of the valency properties of English verbs, whose relevance for capturing cross-linguistic regularities is consequently not guaranteed. Moreover,

the way entailments are formulated is not always devoid of ambiguity. For example, one may wonder why stimuli are categorized without any nuance as G-patients rather than G-agents, since their involvement in the causality chain may justify characterizing them as “causing an event”.

In fact, small changes in the formulation of the definition of generalized semantic roles (or in their understanding), or the addition of other possible criteria that might be suggested by the division of verbs into valency classes in languages other than English, could have important consequences for the identification of generalized semantic roles. Moreover, as observed by Haspelmath (2011: 554), on the basis of the definitions put forward by Bickel (2010) and Witzlack-Makarevich (2011), it is not difficult to find bivalent verbs referring to events whose participants cannot be unambiguously characterized as more agent-like or more patient-like (whereas in other frameworks, there would not be the slightest difficulty in classifying the verbs in question as transitive or intransitive and in characterizing the status of their arguments). For example, it is unclear how generalized semantic roles could be used to characterize as G-agents or G-patients the referents of the two nominal terms of clauses such as *The year 1988 witnessed two events which greatly affected European history* or *Two significant events marked the year 1988*.

I also find particularly problematic the inclusion of “possessing another participant” among the criteria for identifying G-agents, and the characterization of the subject and object of English *have* as a G-agent and a G-patient, respectively (Witzlack-Makarevich 2019: 8). This characterization of *have* may seem justified if one has in mind uses of *have* such as *John has a dog*, but what about *John has two uncles* or *The room has three windows*? This point could be clarified by replacing ‘possessing another participant’ by ‘controlling another participant’, but then it becomes impossible to characterize the two arguments of *have* in *John has two uncles* or *The room has three windows* in terms of generalized semantic roles, and in *John has a new supervisor*, it is the object rather than the subject that should be identified as relatively agent-like. My position on this point is that, given the specificity of the roles of possessor and possessee, attempts to analyze them as particular varieties of more abstract semantic roles are doomed to fail.

To summarize, in the analysis of questions related to valency and transitivity, the use of generalized semantic roles creates problems rather than helping to solve them, and this is why I decided to adopt an approach to transitivity and valency based on prototypical agent/patienthood, rather than an approach based on generalized semantic roles.

1.2.2 Arguments and adjuncts

The nominal terms of verbal clauses are commonly divided into two broad types designated in most recent works as *arguments* and *adjuncts*. Usually, noun phrases in predicative or enunciative roles are not taken into account in discussions of the argument vs. adjunct distinction, and noun phrases expressing circumstantial roles are viewed as typical adjuncts. In other words, the issue of distinguishing arguments from adjuncts arises primarily for noun phrases expressing participant roles.

There is a common understanding that the distinctive property of arguments is their relatively tight semantic relationship to the verb, as opposed to the looser type of semantic relationship to the verb that characterizes adjuncts. In other words, argumenthood refers to the degree to which participants are involved in the event, and two types of participants can be

viewed as showing a particularly high degree of involvement: those without which the event simply cannot be conceived (for example, the lexical meaning of ‘eat’ cannot be defined without mentioning an eater and an eatee), and those whose participation conditions that of other participants.

The notion of argumenthood has been discussed, and argumenthood tests have been proposed, in classical works such as (Jackendoff 1977), (Marantz 1984), (Pollard and Sag 1987), (Grimshaw 1990). Schütze (1995) provides both a detailed survey and an interesting discussion in which he argues in favor of a scalar conception of argumenthood. However, the detailed discussions of argumenthood one can find in the literature almost always deal exclusively with English (or other well-described languages such as French or German), and it is not difficult to find languages to which the argumenthood tests put forward in the literature (in particular, the famous *do so* test) can hardly be transposed. Conversely, it may happen that a systematic account of valency classes in languages that are rarely mentioned in general discussions of argumenthood is greatly facilitated by using language-specific tests that are not considered in the general literature on argumenthood, and quite obviously cannot be transposed to other languages, as for example the minimal headless relative clause test put forward by Bisang (2006) for Mandarin Chinese and used by Lu & al. (2015) in their analysis of valency classes in Mandarin.

Argumenthood as a semantic characterization of the relationship between verbs and the noun phrases that refer to the participants in the events denoted by verbs is certainly an important notion in the analysis of the relationship between the nominal terms of verbal clauses and the verb projecting the clause, but the idea of a straightforward correspondence with some aspects of the syntactic behavior of noun phrases cannot be maintained.

As argued among others by Forker (2014), the fact that the various argumenthood tests that have been discussed in the literature often give contradictory results supports a scalar view of the argument-adjunct distinction. For example, phrases representing beneficiaries or instruments, although commonly classified as adjuncts, are clearly less adjunct-like than for example phrases referring to the location of the event, since instruments facilitate the actions performed by agents, and events implying beneficiaries are typically motivated by the actor’s desire to act in favor of the beneficiary. And among agents, a semantic distinction can be made between those (for example, eaters) without which the process undergone by the patient is simply impossible to conceive, and those (for example, breakers) controlling processes that are also conceivable as occurring more or less spontaneously.

An important point is that there is no straightforward correspondence between essential participants in a given type of event and obligatory noun phrases in the clauses projected by the verb encoding the type of event in question.

A particularly clear case is that of the verbs of eating.¹¹ The act of eating cannot be defined without mentioning two essential participants, but quite a few languages have two ‘eat’ verbs, one of them transitive and the other intransitive, that cannot be analyzed as related to each other via some morphological operation, as illustrated in (12) by Akhvakh *q’am-* ‘eat (transitive)’ vs. *ũk-* ‘eat (intransitive)’. Crucially, in this example, sentence (d) cannot be used with the same meaning as (b), and is acceptable only if the unexpressed participant can be identified to a specific referent retrievable from the context or the situation.

¹¹ For a general discussion of the relationship between the syntactic properties of ‘eat’ and ‘drink’ and their semantic characterization as verbs denoting events involving an affected agent, readers are referred to (Næss 2007: Chapter 4).

(12) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Riǎ'i q'am-a!*
 meat(N) eat-IMP
 'Eat (tr.) some/the meat!'
- b *Ǫč'i ũk-a!*
 first eat-IMP
 'Eat (intr.) first!'
- c **Riǎ'i ũk-a!*
 meat(N) eat-IMP
- d *Ǫč'i q'am-a!*
 first eat-IMP
 'Eat it/that first!'

In the case of 'eat', it is absolutely uncontroversial that an eating event is a two-participant event, whatever the syntactic properties of the verbs used to encode it in individual languages. Things are not always so simple, and many verbs cannot be unambiguously characterized as semantically mono- or bivalents, or as bi- or trivalents. In this respect, an important advantage of the framework developed in this book, in comparison with others, is precisely that the analytical decisions it implies are not conditioned by decisions about the number of participants in the event denoted by a given verb that can/must be recognized as arguments. For example, as attractive as it may be in some respects, the theoretical framework outlined in (Bickel 2010) and further developed in (Witzlack-Makarevich 2011) is incompatible with a scalar conception of argumenthood, which in my view constitutes a major shortcoming, in addition to those already mentioned above.

To summarize, the notion of argument as commonly manipulated by linguists is problematic in many respects. However, this does not create difficulties for the framework developed in this book, since the crucial distinction in this framework is not the ARGUMENT vs. ADJUNCT distinction briefly commented in this section, but rather the distinction between CORE NOMINAL TERMS OF VERBAL CLAUSES (abbreviated as CORE TERMS) and OBLIQUES that will be introduced in §1.3.3.5.

1.2.3 Grammatical relations

The term GRAMMATICAL RELATIONS refers to contrasts in the morphosyntactic properties of the nominal terms of clauses.¹² Andrews (1985, 2007) and Farrell (2005: 44-111) can be viewed as basic references on this topic, since they provide typologically oriented overviews of the relevant issues in the identification of grammatical relations. Farrell (2005: 112-198) also discusses the way they are addressed in different theoretical frameworks.

Traditionally, subject and (direct) object are viewed as the two major types of grammatical relations. A third major grammatical relation labeled 'indirect object' is often considered, but there is more cross-theoretical variation about it.

¹² The term 'grammatical relations' was popularized by Relational Grammar, see for example (Perlmutter 1980). Other equivalent terms are 'syntactic functions' (Dik 1997), 'grammatical functions' (Bresnan 2001), or 'syntactic roles' (Croft 2001).

The traditional identification of subjects and objects relies on morphological criteria (case-marking, agreement) and/or constituent order, but traditional grammars also suggest that subjects typically represent either the sole argument of monovalent verbs (regardless of its precise semantic role) or the more agent-like argument of bi- or trivalent verbs, whereas direct objects typically represent the more patient-like argument of bi- or trivalent verbs.

The categories ‘subject’ and ‘object’ are often regarded, explicitly or implicitly, as universal. In particular, the universality of the grammatical relations subject, direct object and indirect object is the basic tenet of Relational Grammar, which was quite influential some decades ago and has inspired much typological work.¹³ For example, Keenan & Comrie (1977) analyzed the cross-linguistic variation in the accessibility of noun phrases to relativization with reference to a universal hierarchy of grammatical relations.

However, in the 1960s and 1970s, when more and more descriptions of languages with so-called ergative alignment became available, it became clear that there is a problem with the practice of extending the subject and object concepts indiscriminately to all languages, since in many languages, the coding characteristics of the nominal terms of clauses do not justify the recognition of grammatical relations lending themselves to the same semantic characterization as European subjects and objects.

At the same time, probably due to the influence of formal theories of syntax focusing on the description of syntactic mechanisms in which subjects and direct objects behave differently, the behavior of the nominal terms of clauses in syntactic operations came to be considered as providing tests for the identification of grammatical relations (see among others the contributions in Li 1976 and Plank 1979). The mechanisms in question include passivization, reflexivization, raising, control, equi-NP deletion, conjunction reduction, relativization, etc. However, defining grammatical relations on the basis of clusters of criteria referring to the behavioral properties of noun phrases raises other problems, since two noun phrases showing the same behavior in a particular mechanism may behave differently in another mechanism, and consequently, tests for the identification of grammatical relations based on the behavior of noun phrases in syntactic mechanisms may provide conflicting evidence.

In descriptive grammars, a widespread response to this problem is to arbitrarily pick out a subset of the possible criteria as providing the “correct” diagnostic. In such cases, as pointed out by Witzlack-Makarevich (2019: 3), one may suspect that the desire to identify grammatical relations as similar as possible to European subjects and objects is the main motivation for selecting some of the possible criteria and neglecting the others. Croft (2001: 30) criticized the ‘methodological opportunism’ consisting in picking “language-specific criteria when the general criteria do not exist in the language, or when the general criteria give the “wrong” result according to one’s theory”. In fact, there may be good reasons for taking such decisions within the frame of descriptions of individual languages, but the reuse of labels for grammatical relations from one language to another on the basis of ‘family resemblances’ creates serious problems for cross-linguistic comparison.

Lazard (1994: 100-128) argued that the cross-linguistic variation in the distribution of the syntactic properties that have been proposed as tests for identifying the grammatical relation ‘subject’ is hard to reconcile with the hypothesis of a universal notion of subject. Observations leading to the conclusion that grammatical relations as usually conceived are not

¹³ For a general presentation of Relational Grammar, readers are referred to (Blake 1990).

universal have also been discussed among others by Blake (1976), Schachter (1976), Foley & Van Valin (1977), Van Valin (1977, 1981), Durie (1987), Mithun (1991), Foley (1993), Dryer (1997), Kibrik (1997), and Croft (2001). As (Dryer 1997: 140) puts it, “the search for an understanding of the similarities and differences among grammatical relations in different languages will be impeded if we make the mistake of thinking of grammatical relations as crosslinguistic categories, and will be more successful if we bear in mind that grammatical relations are unique to every language”.

Some recent typological investigations of valency alternations and voice nevertheless maintain an optimistic stance about the possibility of developing a consistent typological approach on the basis of grammatical relations defined in terms of clustering of coding and behavioral properties. This is for example the position adopted by Zúñiga & Kittilä (2019: 6) in their survey of grammatical voice. My own position, which coincides with that already defended by Lazard and the other authors mentioned above, is that the extension of the traditional notions ‘subject’ and ‘object’ to the whole set of the world’s languages implies using heterogeneous criteria that vary from one language to another, with the consequence that such notions cannot provide a good foundation for a general typological approach to the relationship between verbs and the nominal terms of the clauses they project. Consequently, the notions used in this book to characterize the contrasts between nominal terms of verbal clauses in typological perspective are not grammatical relations conceived as encompassing various aspects of the behavior of the nominal terms of clauses, but rather the TRANSITIVITY-RELATED ROLES discussed in §1.3.3, whose definition entirely relies on contrasts in the coding characteristics of the nominal terms of verbal clauses on the one hand, and semantic prototypes on the other hand.

1.3 A framework for the study of questions related to transitivity and valency

1.3.1 Introductory remarks

The typological approach to transitivity and valency developed in this book does not presuppose a particular model of formal syntax, and its possible implications for a discussion of the treatments of transitivity and valency that may have been proposed in various formalist frameworks will not be discussed either. In its theoretical aspects, this study focuses on elaborating a logically consistent system of concepts allowing to capture regularities, not only in the cross-linguistic variation in the organization of the morphosyntactic phenomena commonly analyzed in terms of transitivity and valency, but also in the diachronic changes that may affect them.

Ideally, the definitions of the concepts used in this kind of investigation should not only meet the minimal requirement of logical consistency, but also be applicable to language data unambiguously (i.e, without necessitating arbitrary analytical decisions that make them problematic for the purpose of cross-linguistic comparison). I cannot pretend that I was always successful, but while elaborating the framework proposed in this book, avoiding the use of notions that do not fulfill this requirement was one of my major concerns. The choices I had to make between alternative approaches to the questions discussed in this book have been guided to a large extent by such considerations.

Most of the terms used in the framework proposed in this book are either terms inherited from traditional grammar, or terms that have already been used in other frameworks, but readers are invited to keep in mind that, as rightly observed by Haspelmath (2011: 563) in an article dealing specifically with notions that play a key role in the analyses put forward in this book, “linguistic terms have a tendency to undergo significant semantic change when they migrate from one scholar to another, or from one way of thinking to another”. Consequently, I have tried to formulate maximally precise and unambiguous definitions, at least for the notions that play a crucial role in the framework I am proposing, and readers are invited to keep in mind that the meaning given in this book to terms already familiar to them is not necessarily the meaning they are accustomed to.

1.3.2 Semantic transitivity and syntactic transitivity

The way semantic transitivity and syntactic transitivity are articulated is essential in the theoretical framework elaborated in this book. My approach to this question is basically that already advocated by Lazard (1994). It also coincides in most respects with that defended by Næss (2007), although her definition of a prototypical transitive clause as a clause “where the two participants are maximally semantically distinct in terms of their roles in the event described by the clause” is formulated differently.

1.3.2.1 Prototypical transitive verbs and syntactically transitive verbs

Once semantic transitivity has been defined as a scalar and multiparametric notion in the spirit of Hopper & Thompson (1980), PROTOTYPICAL TRANSITIVE VERBS (‘primary transitive verbs’ in Andrews’ (1985) terminology) can be defined as verbs that have the ability to project clauses encoding events characterized by a maximum degree of semantic transitivity and including two nominal terms representing the two protagonists of such events, i.e., a prototypical agent and a prototypical patient. SYNTACTICALLY TRANSITIVE VERBS are then defined as verbs that have the ability to combine with two nominal terms coded like the agent and the patient of prototypical transitive verbs, whatever their semantic roles. For example, the English verb *break* and its equivalents in other languages are prototypical transitive verbs. The English verb *see* is a syntactically transitive verb, since in its possible constructions, the perceiver phrase and the stimulus phrase consistently behave like the agent phrase and the patient phrase in the possible constructions of *break*, but this is not necessarily the case for its equivalent in other languages. Conversely, some verbs that are not syntactically transitive in English have syntactically transitive equivalents in other languages (as for example *look (at)*, whose French equivalent *regarder* is syntactically transitive).

1.3.2.2 The basic construction of transitive verbs

The key-notion in the approach to transitivity adopted in this book is the BASIC CONSTRUCTION OF TRANSITIVE VERBS (or simply TRANSITIVE CONSTRUCTION) discussed by Lazard under the name of ‘major biactantial construction’. This notion will be elaborated in more detail in chapter 3. To put it in a nutshell, the basic construction of transitive verbs is a construction that can be used to form clauses in which a prototypical transitive verb combines with two nominal terms representing the agent and the patient in the event denoted by the

verb. In case prototypical transitive verbs have two or more possible constructions meeting this condition, two types of criteria can be used to identify one of them as the basic construction of transitive verbs: in comparison with the other possible constructions of prototypical transitive verbs, the basic construction of transitive verbs must not imply a decrease in semantic transitivity, and it must not show evidence of syntactic demotion of one of the two nominal terms representing the essential protagonists of a transitive event.

The notions of A and P used in this book to characterize the nominal terms of the transitive construction will be discussed in §1.3.3.

1.3.2.3 Transitive vs. intransitive clauses

Once the notion of basic construction of transitive verbs has been established, TRANSITIVE CLAUSES can be defined as clauses in which a verb combines with two nominal terms in the same way as a prototypical transitive verb with the nominal terms representing its agent and patient in the basic transitive construction, whatever the semantic nature of the verb and the degree of semantic transitivity of the event denoted by the clause.

INTRANSITIVE CLAUSES can be defined simply as clauses that do not qualify as transitive clauses according to this definition. However, in chapter 3 §3.4, the possibility of a distinction between QUASITRANSITIVE clauses and intransitive clauses *stricto sensu* will be discussed. This distinction concerns languages having a type of clauses projected by semantically bivalent verbs that cannot be analyzed as transitive according to the definition of syntactic transitivity adopted in this book, but in which the essential participant that is not coded as S shows a specific type of coding, distinct from the coding of adjuncts in clauses projected by monovalent verbs.

In fact, in descriptions of individual languages, it may be tempting to group quasitransitive clauses with transitive clauses, rather than considering them as a variety of intransitive clauses. The reason why I decided not to explore this approach to quasitransitive clauses is that it would be difficult to pursue it consistently in a discussion of transitivity not limited to particular groups of languages having this type of construction.

1.3.3 Transitivity-related roles

1.3.3.1 Introductory remarks

In order to avoid the possibility of confusion with grammatical relations whose definition (or lack thereof) leaves open the possibility of using variable sets of syntactic tests, I use the term TRANSITIVITY-RELATED ROLE (abbreviated as TR-role) for the notions used in this book to capture the most basic contrasts between the nominal terms of verbal clauses in a comparative perspective. The terms A, P and S used in this book for the core TR-roles have been widely used by typologists since the early 1970s (some authors using O instead of P), and have also been used as descriptive concepts by some authors of grammars.

Haspelmath (2011) shows that there are significant differences in the way A, P/O and S are understood in different traditions, and distinguishes three main types of approaches. In the ‘Dixonian’ approach, the notions labeled A, P/O and S are conceived as universal grammatical relations, and are consequently subject to the same criticism as the universal

grammatical relations ‘subject’ and ‘object’ postulated in some other theories.¹⁴ The ‘Comrian’ approach is based on prototypical transitivity, and the ‘Bickelian’ approach is based on generalized semantic roles. There are also authors, such as Kibrik (1997), whose approach to A, P and S cannot be unambiguously related to one of these three main types, since it is based both on prototypical transitivity (like the ‘Comrian’ approach) and on generalized semantic roles (like the ‘Bickelian’ approach).¹⁵

Before discussing the definitions of A, S and P adopted in this book, I would like to draw the attention to the fact that many authors define and/or manipulate these terms in such a way that it is unclear whether they conceive them as referring primarily to LEXICAL properties of VERBS or to CONSTRUCTIONAL properties of CLAUSES. It should be clear from the definitions that will be formulated below that, in my understanding of A, P and S, these notions do not refer to the semantic role of participants in the event denoted by the verb, but to the syntactic properties of the noun phrases that express them in a given construction. Consequently, the characterization of the noun phrase referring to a given participant in a given event as A, P or S may vary across the various constructions in which the verb denoting the event in question can be found. For example, the English verb *see* inherently implies reference to a perceiver and a stimulus. In *The man saw the snake*, the perceiver phrase *the man* fulfills the role of A and the stimulus phrase *the snake* fulfills the role of P, since the clause is transitive, and *the man* and *the snake* are coded in the same way as the agent phrase and the patient phrase in a transitive clause projected by a prototypical transitive verb (as for example *The man killed the snake*). By contrast, in *The snake was seen by the man*, there is neither an A phrase nor a P phrase, for the simple reason that the clause is not transitive, and A and P refer to the coding of participants in transitive clauses. In *The snake was seen by the man*, *the man* and *the snake* fulfill the roles of X (oblique) and S respectively.

1.3.3.2 A and P

The way I use A, P and S falls into the tradition initiated by Comrie (1981: 105), also represented in the works of Andrews (1985, 2007) and Lazard (1994). Although he uses different symbols (X, Y and Z instead of A, P and S), Lazard (1994) gives a particularly explicit justification of the basic tenet of the Comrian approach, according to which A and P should be defined with respect to a prototypical action. For a detailed analysis (and criticism) of the Dixonian and Bickelian approaches to A, P and S, readers are referred to (Haspelmath 2011).

In this respect, I would like to emphasize the ambiguity of formulations commonly found in the literature and suggesting a false consensus, as for example when authors define A and P as ‘the more agentive and the less agentive participant of prototypical transitive clauses’ without clarifying their understanding of ‘prototypical transitive clause’. In fact, such

¹⁴ As noted by Lazard (1997) and further discussed by Haspelmath (2011), Dixon is not very clear about the status of his A, O and P and the criteria used to identify them, but the way he manipulates them in his works suggests that his approach is not really different from that of the authors that postulate the existence of universal notions of subject and object, apart from the fact that he splits the notion ‘subject’ into intransitive subject (S) and transitive subject (A).

¹⁵ Mithun & Chafe’s (1999) discussion of A, P/O and S is also often quoted in the literature about A, P/O and S, but in fact, this article does not really address the issue of A, P/O and S as concepts for a general typology of the relationships between verbs and the nominal terms clauses, and rather focuses on the question of the (mis)use of A, P/O and S in language description.

formulations blur the distinction between the approach based on the roles of prototypical agent and prototypical patient and the approach based on generalized semantic roles, resulting in confusion between the semantic notions of prototypical agent / patient and the syntactic notions of A and P.

According to the definitions of A, P and S adopted in this book, A and P are identified with reference to the semantic notions of prototypical agent / patient but must be carefully distinguished from them: A is the nominal term of a transitive clause which encodes the semantic role of agent if the verb projecting the clause is a prototypical transitive verb, whereas P is the nominal term of a transitive clause which encodes the semantic role of patient if the verb projecting the clause is a prototypical transitive verb. This definition leaves open the possibility that, in clauses projected by non-prototypical transitive verbs, depending on the participant frame of the verb, A and P express participant roles other than (prototypical) agent and (prototypical) patient. In other words, “A and P are syntactic terms whose prototypes are defined in semantic terms” (Comrie 1981: 105).

Note that this definition explicitly excludes the possibility of analyzing clauses as having the A role only, or the P role only. In other words, a nominal term showing agent-like coding can only be identified as A if the construction also includes (at least potentially) a term showing patient-like coding, and vice versa.

For example, according to this definition, an English clause such as *The man forgot my name* does not denote a prototypical transitive situation/event, but its two nominal terms nevertheless qualify as A and P, since their coding coincides with the coding of the agent and the patient in transitive clauses denoting prototypical transitive situations such as *The man repaired the bicycle*. By contrast, the Mandinka clause corresponding to *The man forgot my name* (13b) is not isomorphous with the equivalent of *The man repaired the bicycle* (13a), since in (13a), *fòlèesúwò* ‘a/the bicycle’ shows no flagging and obligatorily precedes the verb, whereas in (13b), *í tò* ‘my name’ is encoded as a noun phrase following the verb and flagged by a postposition.¹⁶ Consequently, in contrast to its English equivalent, (13b) cannot be analyzed as having the TR-roles A and P, but rather S and X (oblique).

(13) Mandinka (Central Mande, Mande)

a *Kèé yè fòlèesúwò dádâa.*

man.D CPL.TR bicycle.D repair

‘The man repaired the bicycle.’

b *Kèe ñíná-tá í tò lá.*

man.D forget-CPL.ITR 1SG name.D POSTP

‘The man forgot my name.’

1.3.3.3 *A/P-prominent vs. pivot-prominent transitive constructions*

In most languages, transitive constructions can be characterized as A/P-PROMINENT in the sense that the contrast between the A phrase and the P phrase is immediately apparent in their coding characteristics (constituent order, flagging and/or indexation).¹⁷ In such situations, as

¹⁶ As commented in more detail in chapter 2 §2.4, FLAGGING refers to the use of case inflection or adpositions to encode the semantic or syntactic roles fulfilled by noun phrases in the constructions in which they participate.

¹⁷ As commented in more detail in chapter 2 §2.3, INDEX refers to all types of forms whose relationship with a noun phrase actually or potentially present in the same construction (the CONOMINAL) shows the following two

discussed in §1.3.4.3 below, A and P may variously contrast in their accessibility to syntactic operations, and consequently variously align with S in their behavioral properties. There are, however, languages in which transitive coding is organized differently. In the languages in question:

- (a) the coding characteristics of one of the nominal terms of the transitive construction reflect its selection as the SYNTACTICALLY PRIVILEGED TERM (i.e. as the term having unique access to operations such as relativization, questioning, etc.),
- (b) the selection of the syntactically privileged term is independent of its possible characterization as A or P (i.e., as behaving like the agent phrase or the patient phrase in transitive clauses projected by prototypically transitive verbs).

Such situations are typically found in Western Austronesian languages. In the literature dealing with this kind of system, there is no consensus about the designation of the syntactically privileged term. Among the various terms used by different authors (subject, topic, focus, etc.), I have selected the term of PIVOT, used among others in Chen & McDonnell's (2019) survey of Western Austronesian voice systems, as the only one that is not potentially confusing because of its other uses in language description.

In some of the languages that have this kind of system, it may happen that the coding characteristics of the nominal terms of the transitive construction give no direct clue at all as to which one is the A phrase, and which one the P phrase, which means that the distinction between A and P can then only be established on the basis of other mechanisms.

For example, in Balinese, in clauses projected by a prototypical transitive verb such as 'take', the agent phrase and the patient phrase can equally precede or follow the verb, none of them is distinguished by a marked case form or the presence of an adposition, and no indexation mechanism distinguishes them either. As discussed in detail by Arka (2003), the noun phrase in preverbal position has a number of syntactic properties that distinguish it from the other nominal terms of transitive clauses, and can conveniently be designated as the syntactically privileged term (or pivot), but the preverbal position is not reserved to either the agent or the patient. Crucially, in clauses projected by prototypical transitive verbs, in contrast to what occurs in transitive-passive alternations involving a change in constituent order, in Balinese, the fact that the pivot in preverbal position represents the agent or the patient has no incidence on the coding of the noun phrase in postverbal position. In Balinese clauses projected by a prototypical transitive verb such as 'take', the contrast between the semantic roles of agent and patient of prototypical transitive verbs is not reflected in the coding characteristics of the corresponding phrases, but in verb morphology, with a contrast between an AGENT VOICE form (*nyemak*) implying that, if the verb is prototypically transitive, the pivot phrase in preverbal position represents the agent, and a PATIENT VOICE form (*jemak*) implying that the pivot phrase in preverbal position represents the patient.

characteristics: (i) the index encodes some grammatical features of the conominal, or some semantic features of its referent, and (ii) the index occupies a fixed position in the construction, distinct from that occupied by the conominal.

(14) Balinese (Malayo-Sumbawan, Austronesian)

- a *Cang nyemak baju ento.*
1SG AV.take shirt DEM
'I took the shirt.' (agent voice)
- b *Baju ento jemak cang.*
shirt DEM PV.take 1SG
'I took the shirt.' (patient voice)
(Udayana 2013: 15)

As regards the non-prototypical transitive verbs of Balinese, the comparison between (14) and (15) unambiguously shows that, for example, *tingalin* 'see' has a transitive construction with the perceiver phrase and the stimulus phrase as A and P.

(15) Balinese (Malayo-Sumbawan, Austronesian)

- a *Tiang ningalin Nyoman ibi.*
1SG AV.see PRN yesterday
'I saw Nyoman yesterday.'
- b *Nyoman tingalin tiang ibi.*
PRN PV.see 1SG yesterday
'I saw Nyoman yesterday.'
(Arka 2003: 28-29)

However, in the case of 'see' as in the case of 'take', the distinction between A and P is not apparent in the coding characteristics of the noun phrases, and can only be retrieved through voice marking:

- the unflagged NP in preverbal position is A if the verb is in the agent voice form, P if the verb is in the patient voice form;
- the unflagged NP in postverbal position is P if the verb is in the agent voice form, A if the verb is in the patient voice form.

In the remainder of this book, the term PIVOT-PROMINENT TRANSITIVE CONSTRUCTION will refer to transitive constructions in which either of the core nominal terms can equally be coded in a way that designates it as the syntactically privileged term (or pivot), and verb morphology marks the relationship between the role of pivot and the TR-roles A and P.

1.3.3.4 S

S is defined as a TR-role found in intransitive clauses, i.e., in clauses that do not include a pair of nominal terms meeting the definition of A and P. By definition, S is the nominal term of intransitive clauses whose coding coincides with that of the sole argument of (a major subclass of) monovalent verbs (if such a term is present). For example, in the intransitive clause (13b) above, *kèê* 'the man' can be identified as fulfilling the role of S, since its coding characteristics coincide with those of the sole argument of verbs such as *bòyí* 'fall', *kàsí* 'cry', *kùurâŋ* 'get sick', etc.

The reason why the definition I propose for S includes explicit reference both to the intransitive nature of the clause and to the monovalent nature of the verb (rather than simply defining S with reference to monovalent verbs) is the desire to avoid logical inconsistencies in the analysis of languages having an important class of monovalent predicates encoded as formally transitive light-verb constructions ('do running' for 'run', 'do tears' for 'cry' etc.).

Note that, as discussed in more detail in chapter 5, in some languages (commonly referred to as 'split-S languages'), the sole argument of monovalent verbs is treated differently in different verb classes (Donohue & Wichmann (eds.) 2008). Often, a subclass of monovalent verbs assigning A-like coding to their sole argument contrasts with another subclass assigning P-like coding. In other languages, the sole argument of a subclass of monovalent verbs is coded like the recipient of giving verbs. In such languages, the comparative concept of S conflates two (or possibly more) roles that must be considered as distinct in the languages in question.

1.3.3.5 *Core nominal terms vs. obliques, and the notion of nuclear participant*

In this book, CORE NOMINAL TERMS (or simply CORE TERMS) is the cover term encompassing the nominal terms of verbal clauses fulfilling one of the three TR-roles A, P, and S. OBLIQUE NOMINAL TERMS (or simply OBLIQUES), symbolized as X, are defined as nominal terms of verbal clauses that do not meet the definition of either A, P, or S. Readers are invited to keep in mind that this is a broad cross-linguistic definition of obliques that glosses over the fact that individual languages may have syntactic roles meeting this definition but showing properties that make them similar to core terms in some respects.

In the description of valency alternations, it is helpful to have a general term for the participants in the event denoted by the verb which, regardless of their status according to the argument vs. adjunct distinction, are encoded as core nominal terms in a given construction. They will be designated as NUCLEAR PARTICIPANTS.

In order to prevent confusions, it should be stressed that the status of nuclear participant as conceived in this book does not refer to an intrinsic property of participants that would be determined by the semantic nature of their relationship to the verb, but to TR-roles in a given construction. In other words, 'nuclear participant' does not equate with 'argument' (or essential participant). For example, in *This bed has been slept in*, the participant designated as *the bed* is a nuclear participant, since it is coded as the S of an intransitive clause, although it is not an argument / essential participant of *sleep*.

1.3.3.6 *Dative obliques*

In the languages in which recipients in the construction of trivalent verbs such as 'give' have coding properties different from those of patients in the transitive construction,¹⁸ the oblique noun phrases showing the same coding properties as the recipient phrase in the construction of trivalent verbs can be designated as DATIVE OBLIQUES, or simply DATIVES. In some languages, the behavior of dative obliques does not differ significantly from that of the other obliques, but it may also happen that dative obliques have properties suggesting to give them

¹⁸ The variation in the coding frames of trivalent verbs is discussed in detail in chapter 7 §7.2.

a special status, closer in some respects to that of core terms *stricto sensu* than to that of ordinary obliques.

The affinity between dative obliques and core terms is particularly apparent in indexation systems. Among the languages that have a mechanism of P indexation, many also have a mechanism of dative indexation, whereas the indexation of other types of obliques is very rare (although not totally unknown) in the world's languages. Moreover, in quite a few languages, dative obliques are flagged differently from patients, but are indexed by means of the same set of indexes. This is illustrated in example (16), where the same 2nd person singular index *n*-refers to a participant coded as an accusative noun phrase in (16c), and to a participant coded as a dative noun phrase in (16d). Note that, in Kanuri, indexation is limited to 1st and 2nd person participants.

(16) Kanuri (Western Saharan, Saharan)

- a *Shí-ga cíta*ko.
3SG-ACC PST.seize.I_{S/A}:1SG
'I seized him.'
- b *Agógó shí-ro có*ko.
watch 3SG-DAT PST.give.I_{S/A}:1SG
'I gave him a watch.'
- c *Nyí-ga n-jítá*ko.
2SG-ACC I_P:2SG-PST.seize.I_{S/A}:1SG
'I seized you.'
- d *Agógó nyí-ro n-jó*ko.
watch 2SG-DAT I_P:2SG-PST.give.I_A:1SG
'I gave you a watch.'
- (Cyffer 1991: 178-186)

Romance languages illustrate the same point, since in most of them, dative indexes and P indexes are distinct in the 3rd person, but identical in 1st and 2nd person.

However, readers are invited to keep in mind that:

- (a) languages without dative obliques in the sense of the definition formulated above are not exceptional;
- (b) according to the definition adopted in this book, dative obliques can only be recognized in the languages that code the recipients of trivalent verbs such as 'give' differently from monotransitive patients;
- (c) even in the languages in which a notion of dative oblique can be recognized, the behavior of dative obliques does not necessarily distinguish them from the other obliques; for example, in Latin, Russian, or Hungarian, it can be argued that dative obliques do not have properties justifying to classify them apart from the other obliques.¹⁹

¹⁹ This question is discussed for Kamaiurá (Tupian) by Farrell (2005: 19-21), who concludes that, in Kamaiurá, nothing in the grammar suggests analyzing the syntactic function of the noun phrases showing the coding characteristics typical of recipients as distinct from a more general oblique function.

In fact, the problem with the notion of dative, in a typological approach to the notions analyzed in this book, is similar to that raised by the notion of quasitransitive verbs/clauses introduced in §1.3.2.3. In descriptions of languages for which the notion of dative oblique is relevant, and in which the behavior of dative obliques is similar in some respects to that of P phrases, it may be tempting to treat dative phrases as an additional type of core syntactic role (as suggested by the traditional label ‘indirect object’), rather than treating them as a particular variety of obliques. The reason why this approach is not explored here, as in the case of quasitransitive verbs/clauses, is simply that it would be difficult to pursue it consistently in a discussion not limited to a particular group of languages having dative obliques whose behavior shows important similarities with that of P phrases.

1.3.3.7 Languages without obliques

The question discussed in this section is the existence of languages in which the nominal terms of clauses can only be coded as S, A or P. This is certainly not a common situation cross-linguistically, but some languages have been claimed to make a very marginal use of oblique NPs, or even to lack oblique NPs altogether. For example, Rhodes (2010: 439) evokes a “conspiracy to avoid nominal obliques in Algonquian”.

In fact, it is not difficult to imagine how a particularly systematic use of cross-linguistically common mechanisms such as serialization or P-applicativization may result in the total lack of syntactic roles for NPs other than the three TR-roles S, A or P.

In serial verb constructions, semantic roles in the event encoded by a given verb can be expressed as the P of another verb acting as a valency operator. For example, in (17), ‘their left hand’ is encoded as the P of a verb that has the ability to project monoverbal clauses denoting taking events (hence the gloss ‘take’). However, in (17), ‘their left hand’ is not interpreted as the patient in a taking event, but as the instrument in the eating event denoted by the other verb involved in the construction.

(17) Baule (Tano, Kwa, Niger-Congo)

Bé fá'à bé sá bê bé dí'à likě.

3PL take-NEG 3PL hand left 3PL eat-NEG thing

‘One does not eat with the left hand.’

lit. ‘They don’t take their left hand they don’t eat.’

Therefore, in the languages that make a systematic use of the serialization strategy, semantic roles that cannot be expressed as core nominal terms of a verb denoting a given event can nevertheless be encoded as the P of another verb in a multiverbal construction.²⁰

In P-applicative constructions (discussed in detail in chapter 14 §14.2), semantic roles other than those expressed as core terms in clauses projected by a verb in its base form are expressed as P terms of clauses projected by derived verbs. For example, in (18), ‘spoon’ is

²⁰ It is well known that verbs acting as valency operators in serial verb constructions often tend to lose their verbal characteristics, which may make it difficult to decide whether, at a given point in the evolution of a language, they should still be analyzed synchronically as verbs, or rather as adpositions flagging oblique NPs. This is a very complex question, but the only thing that matters here is that some languages at least attest the possibility of constructions involving two words that do not differ in their verbal characteristics, but in which the P of one of the verbs only serves to express a semantic role in the event denoted by the other verb.

encoded as one of the two P terms of a double-P construction licensed by the applicative suffix attached to the verb form.

- (18) Makhuwa (Bantu, Benue-Congo, Niger-Congo)
Amíná o-n-rúw-él' eshimá nkhóri.
 PRN(c11) I_{S/A}:c11-PRS.CJ-stir-APPL shima(c19) spoon(c13)
 ‘Amina prepares shima with a spoon.’
 (van der Wal 2009: 72)

Therefore, the systematic use of the applicativization strategy may make the recourse to oblique NPs superfluous. This question is specifically discussed in chapter 14 §14.2.1.4, to which readers are referred for concrete examples of languages making a particularly systematic use of the applicativization strategy.

1.3.4 Alignment and the Obligatory Coding Principle

1.3.4.1 *The notion of alignment*

The etymology of the term ALIGNMENT suggests to interpret it as referring to similarities between two different constructions, and in this book, it will be consistently used with this meaning. A general definition of the notion of alignment can be formulated as follows:²¹ a term T1 of a construction C1 and a term T2 of a construction C2 are aligned with respect to some parameter if they share the same value of the parameter in question.

This notion can be applied to various types of morphosyntactic constructions. For example, an important parameter in the typology of predicative possession is that the coding characteristics of the possessor phrase and the possessee phrase may be aligned with those of A and P in the transitive construction, as in (19), with those of the ground and the figure in locational predication, as in (20), or with those of the possessor and the possessee in adnominal possession, as in (21).

- (19) Mandinka (Central Mande, Mande)
a Fàatú yè kìnò tábí kèèlú yè.
 PRN CPL.TR meal.D cook man.D.PL for
 ‘Fatou cooked the meal for the men.’

²¹ Unfortunately, in the typological literature, one can find uses of the term ‘alignment’ referring to syntactic phenomena broadly related to the encoding of grammatical relations, but distinct from alignment in the precise sense of relationship between constructions. In particular, in ‘hierarchical alignment’ as introduced by Nichols (1992), ‘alignment’ does not refer to properties shared by terms belonging to different constructions, but to the mapping from the semantic roles of agent and patient onto morphosyntactic slots. The misnamed ‘hierarchical alignment’ is rather a TYPE OF A/P CODING in which the coding characteristics of A and P are determined by their relative ranking with respect to the indexability hierarchy. It is true that this type of A/P coding raises specific problems for alignment typology, since from a strictly logical point of view, it is difficult to compare the coding of the sole argument of monovalent verbs to that of A or P in languages in which it is impossible to define types of coding assigned to A and P independently from each other. It should, however, be clear that considering this situation as a particular type of ‘alignment’ makes no sense, if ‘alignment’ is understood as referring to similarities between constructions.

- b *Fàatú yè báadíyòlú sòtó ññy sàatêe tó.*
 PRN CPL.TR relative.D have DEM village.D LOC
 ‘Fatou has relatives in this village.’

(20) Finnish (Finnic, Uralic)

- a *Kadu-lla on auto.*
 street-ADESS be.PRS.I_{S/A}:3SG car
 ‘There is a car in the street.’
- b *Peka-lla on auto.*
 PRN-ADESS be.PRS.I_{S/A}:3SG car
 ‘Pekka has a car.’

(21) Turkish (Turkic, Altaic)

- a *Murat’ın otomobil-i*
 PRN-GEN car-CSTR
 ‘Murat’s car’
- b *Murat’ın otomobil-i var.*
 PRN-GEN car-CSTR there.is
 ‘Murat has a car’

Given the topic of this book, we will be mainly concerned by the alignment relationships between transitive and intransitive verbal clauses, and between the transitive construction and the coding frames of semantically trivalent verbs.

1.3.4.2 *A-alignment and P-alignment*

The central topic of so-called alignment typology is the alignment between the core terms of transitive and intransitive clauses, with respect to their coding characteristics and behavioral properties.

For example, in (22), the coding of the sole essential participant of *erori* ‘fall’ is aligned with that of the patient of *puskatu* ‘break’, whereas the coding of the sole essential participant of *irakin* ‘boil’ is aligned with that of the agent of *puskatu* ‘break’. In other words, the construction of *erori* ‘fall’ displays P-ALIGNMENT in its coding characteristics (in the sense that its sole core term is coded like the P of a transitive construction), whereas the construction of *irakin* ‘boil’ displays A-ALIGNMENT (in the sense that its sole core term is coded like the A of a transitive construction).

(22) Central Basque (Euskaran)

- a *Ispilu-a erori da.*
 mirror-SG fall.CPL be.PRS.I_{ZER}:3SG
 ‘The mirror has fallen down.’
- b *Ur-ak irakin du.*
 water-SG.ERG boil.CPL have.PRS.I_{ERG}:3SG
 ‘The water has boiled.’

- c *Haurr-ak ispilu-a puskatu du.*
 child-SG.ERG mirror-SG break.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘The child has broken the mirror.’

A-alignment illustrated in (22b) and P-alignment illustrated in (22a) are more commonly designated as ‘accusative’ alignment (or ‘nominative-accusative’ alignment) and ‘ergative’ alignment (or ‘absolutive-ergative’ alignment) respectively. The reason for which I prefer avoiding these traditional denominations is that it may be confusing to use the same labels for case inflections and types of alignment, since ‘accusative’ alignment does not necessarily go together with accusative-marked Ps in transitive clauses, and ‘ergative’ alignment does not necessarily go together with ergative-marked As in transitive clauses. The risk of confusion is particularly great in a split-S language such as Basque, whose noun inflection includes an ergative case but no accusative case. In such a language, one can hardly be satisfied with a terminological practice leading to characterize the construction of the intransitive verbs assigning ergative case to the sole core term in their construction (such as *irakin* ‘boil’) as an instance of ‘accusative’ alignment (and designating such verbs as ‘unergative’, as is commonly done, just adds to the confusion).

As regards the coding characteristics of transitive and intransitive clauses, A-alignment and P-alignment may coexist in the same language (as illustrated by example (22) above), but most languages have a clear preference for either A-alignment or P-alignment. A-alignment is the general rule for example in Russian, as illustrated by example (23), where the P term in a clause projected by ‘heal’ and the sole core term in clauses projected by ‘come’ are equally in the zero case and equally control verb agreement.²²

(23) Russian (Slavic, Indo-European)

- a *Devuška priš-l-a.*
 girl(F) come.PFV-PST-I_{S/A}:SG.F
 ‘The girl came.’
- b *Doktor priš-ël-∅.*
 doctor(M) come.PFV-PST-I_{S/A}:SG.M
 ‘The doctor came.’
- c *Doktor vyleči-l-∅ devušku.*
 doctor(M) heal.PFV-PST-I_{S/A}:SG.M girl(F).ACC
 ‘The doctor healed the girl.’

P-alignment is the general rule for example in Avar, as illustrated by example (24), where the P term in a clause projected by ‘plough’ and the sole core term in clauses projected by ‘come’ are equally in the zero case and equally control verb agreement.

(24) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Pat’imat j-ač’ana.*
 PRN(F) I_{S/P}:SG.F-come.CPL
 ‘Patimat came.’

²² The notion of zero case is defined and commented in chapter 2 §2.4.3.

- b *Aħmad w-ač'ana.*
 PRN(M) I_{SP}:SG.M-come.CPL
 'Ahmad came.'
- c *Aħmad-i-ca χur b-eļ'ana.*
 PRN(M)-OF-ERG field(N) I_{SP}:SG.N-plough.CPL
 'Ahmad ploughed the field.'

Note that S is not necessarily aligned with either A or P with respect to a given property. Taking 'alignment' in its strictest sense, if A and P behave in the same way with respect to the property in question, or if S behaves differently from both A and P, no alignment relationship can be recognized.²³

Note also that the notions of A-alignment and P-alignment as just defined are unproblematic for languages whose transitive construction is organized in such a way that the A vs. P contrast is immediately apparent in the coding characteristics of the nominal terms of transitive clauses, but whose extension to the languages having pivot-prominent transitive constructions raises problems that would require further elaboration.

1.3.4.3 Alignment in coding and behavioral properties of core syntactic terms, and the question of 'syntactic ergativity'

The notion of alignment between the core terms of transitive and intransitive clauses can be considered not only for their coding properties (flagging, indexation and linear order, see chapter 2 for more details), but also for their behavior in various syntactic mechanisms. Syntactic mechanisms in which S and A behave identically, and differently from P, can be characterized as displaying A-alignment, whereas those in which S and P behave identically, and differently from A, can be characterized as displaying P-alignment.

For example, in Mandinka, when verbal lexemes are used as event nouns (which in Mandinka does not necessitate the intervention of any derivational element), S and A are equally transposed as indirect genitives (i.e. genitival modifiers marked by the postposition *lá*), whereas P is transposed as a direct genitive (i.e., a genitival modifier directly juxtaposed to its head), as in example (25).

- (25) Mandinka (Central Mande, Mande)
- a *Mùsôo yè dínđínó nàatí kàràmbúñò tó.*
 woman.D CPL.TR child.D bring school.D LOC
 'The woman brought the child to school.'
- b *mùsôo lá dínđínó nàatoo kàràmbúñò tó*
 woman.D GEN child.D bring.D school.D LOC
 'the fact that the woman brought the child to school'

²³ In the literature on alignment typology, one commonly finds the terms NEUTRAL ALIGNMENT for situations in which A, P and S behave in the same way with respect to a given parameter, and TRIPARTITE ALIGNMENT for situations in which A, P and S behave in three different ways. Situations in which A and P behave in the same way but differently from S are exceptional (although not totally unattested, see chapter 2 §2.4.4 and chapter 4 §4.8.3), and there is no term in common usage for them.

- c *Sùlòo kàná-tá wùlòo má.*
 monkey.D escape-CPL.ITR dog.D POSTP
 ‘The monkey escaped the dog.’
- d *sùlòo lá kànóo wùlòo má*
 monkey.D GEN escape.D dog.D POSTP
 ‘the fact that the monkey escaped the dog’

Consequently, event nominalization in Mandinka displays A-alignment. By contrast, in the same language, the simulative incorporation construction, illustrated in (26), displays P-alignment.

- (26) Mandinka (Central Mande, Mande)
- a *Kàmbàanòo sólí-sáwùn-tá.*
 boy.D leopard-jump-CPL.ITR
 ‘The boy jumped like a leopard.’
- b *Mòò-lú yé sùḡóo wùlù-fâa.*
 person.D-PL CPL.TR thief.D dog-kill
 ‘The people killed the thief like a dog.’

In (26a), logically speaking, the similarity relationship is between *JUMP(the boy)* and *JUMP(leopards)*, whereas in (26b), it is between *KILL(the people, the thief)* and *KILL(X, dogs)* (‘The people killed the thief in the same way as one kills dogs’). Crucially, this construction is not available to express similarity between *KILL(the people, the thief)* and *KILL(dogs, Y)* (‘The people killed the thief in the same way as dogs kill’). In other words, in terms of semantic roles, the incorporated noun can be identified to S in a corresponding intransitive clause, or to P in a corresponding transitive clause, but not to A.

A-alignment in syntactic mechanisms is commonly termed ‘syntactic accusativity’, and P-alignment in syntactic mechanisms is commonly termed ‘syntactic ergativity’.

In the literature on alignment, I am aware of no mention of languages in which A-alignment would be predominant in the coding properties of the core terms of transitive and intransitive clauses, but not in the way they behave in syntactic mechanisms. By contrast, the converse is not the case: many languages have been reported to have consistent P-alignment in the coding properties of S, A, and P, but very few instances of P-alignment (or none at all) in syntax. In the recent typological literature, there is also consensus that the postulation of a global contrast between ‘syntactically accusative’ and ‘syntactically ergative’ languages must be discarded as too simplistic.

In fact, no significant generalization can be proposed about the various syntactic mechanisms that have been claimed to display P-alignment in some languages, and the only conclusion that emerges from detailed analyses of the relevant data in individual languages, such as those in (Coon & al. 2017) or (Witzlack-Makarevich & Bickel 2019), is that the situation may be much more complex than commonly assumed, even in apparently unproblematic ‘accusative’ languages.

Moreover, the most striking thing in the literature on ‘syntactic ergativity’ is the lack of consensus between different authors analyzing the same languages, partly because there is no consensus on the syntactic mechanisms whose conditioning can be analyzed in terms of alignment. Polinsky (2017a) argues that the notion of ‘syntactic ergativity’ as commonly

manipulated encompasses a set of heterogeneous phenomena, and that significant generalizations can only emerge on the basis of a narrow definition of syntactic ergativity. Her proposal is to restrict the concept of syntactic ergativity to alignment with respect to accessibility to A'-movement (i.e., alignment relationships in syntactic operations such as relativization, focalization, or *wh*-question formation).

The issue of alignment in the behavioral properties of the core terms of transitive and intransitive clauses will not be further addressed in this book.

1.3.4.4 *The Obligatory Coding Principle*

As regards alignment relationships in the coding properties of core terms of transitive and intransitive clauses (commonly referred to as morphological accusativity / ergativity), the traditional distinction between predominantly accusative and predominantly ergative languages is best understood with reference to a very general (although violable) constraint on the set of coding frames available to express the participant frame of verbs in a given language, for which I propose the term OBLIGATORY CODING PRINCIPLE. The difference with the traditional approach to the characterization of languages in terms of alignment is that, instead of considering the alignment properties of two particular sets of verbs (prototypical transitive verbs and semantically monovalent verbs), the Obligatory Coding Principle concerns the whole set of verbs in a given language.

In a language that fully complies with the Obligatory Coding Principle, there is a particular type of participant coding that must be assigned by every verb to one of its participants, and consequently can be viewed as the unmarked (or default) type of participant coding in the language in question. In fact, the proportion of languages allowing for no violation of the Obligatory Coding Principle at all is difficult to evaluate, since the mere fact that a grammar does not mention the marginal existence of verbs with exceptional coding frames does not ensure that such verbs do not exist at all in the language in question. For example, very few French grammars (if any) mention explicitly that the verb *falloir* 'be necessary' is the only French verb that cannot be found in a construction with a participant encoded as a noun phrase governing the agreement of the verb in person and number. What is, however, sure is that many languages (probably the vast majority of the languages of the world) can be analyzed as allowing only for limited exceptions to the Obligatory Coding Principle.

For example, the situation just evoked for French is also found in Mandinka, where the verb *tú* 'remain' is the only verb with a possible coding frame in which no participant is coded as a noun phrase showing the same coding characteristics as the A term of the transitive construction.

Avar, quoted in (24) above to illustrate P-alignment, is also a language in which the violations of the Obligatory Coding Principle are quite marginal. The difference with Mandinka is that, in Avar, the type of participant coding normally found in the coding frame of every verb (characterized by zero-flagging and control of verb agreement) coincides with the coding of the P term of the transitive construction.

In the languages that fully comply with the Obligatory Coding Principle or only allow for limited violations, there are only two logical possibilities: the type of participant coding obligatorily assigned by every verb to one of its participants can only coincide, either with A coding (in OBLIGATORY A-CODING LANGUAGES), or with P coding (in OBLIGATORY P-CODING LANGUAGES), and it is also the coding automatically assigned by monovalent verbs to their

sole essential participant. The notion of obligatory A-coding language is consequently a reformulation of the notion of language consistently accusative in the coding properties of nuclear participants, and the notion of obligatory P-coding language is a reformulation of the notion of language consistently ergative in the coding properties of nuclear participants.

As already mentioned, most languages have participant coding systems in which the violations of the Obligatory Coding Principle are either inexistent or marginal. This is however not the case in all languages. Basque is a case in point, with two classes of intransitive verbs differing in the coding they assign to their S, as illustrated in (22) above. Moreover, even in the languages in which all (or almost all) intransitive verbs are most commonly found in a construction that can be characterized straightforwardly as displaying A-alignment or P-alignment, it may happen that intransitive verbs also have a less frequent alternative construction expressing a change in the perspectivization of the event that has no equivalent with transitive verbs (such as the impersonal ‘presentational construction’ of French analyzed in chapter 6 §6.5.1.1).²⁴

1.4 The structure of this book

The present book consists of this introductory chapter, sixteen chapters dealing with particular aspects of transitivity, valency or voice, and a concluding chapter. The sixteen chapters dealing with particular topics can be grouped into two big parts, a first part consisting of chapters 2 to 7 and another consisting of chapters 8 to 16, plus an isolated chapter (chapter 17 on incorporation and valency) dealing with a specific question which cannot be considered as particularly related to the thematic focus of any of the two big parts.

The first part of the book (chapters 2 to 7) discusses various aspects of the typology of transitivity. The second part (chapters 8 to 16) discusses various aspects of the typology of valency alternations.

Chapter 2 is entitled ‘Participant roles and participant coding’. After some clarifications about participant roles, this chapter examines in general terms the three mechanisms that may ensure the existence of formal contrasts between noun phrases representing distinct participants in the event denoted by a given verb: constituent order, indexation, and flagging. However, this chapter does not include a detailed discussion of the aspects of participant coding that concern specifically the transitive construction, which are dealt with in chapter 4.

Chapter 3, entitled ‘Syntactic transitivity’, is mainly devoted to clarifications about the articulation between semantic transitivity and syntactic transitivity, and to the analysis of various types of alternations that can be observed in the coding of the agent and patient of prototypical transitive verbs as involving, either variants of the transitive construction, or intransitive alternatives to the transitive construction. The other questions addressed in this chapter are pivot-prominent transitive constructions, the characterization of the construction of semantically bivalent verbs that do not select the transitive construction as their coding

²⁴ The notion of perspectivization (Partee & Borschev 2004, Borschev & Partee 2002) accounts for alternating constructions that involve no difference in the denotative meaning, and cannot be entirely explained in terms of information structure either, such as the relationship between locational and existential predication, or the transitive-passive alternation. This notion, discussed in cognitive linguistics in terms of ‘viewpoint’ or ‘semantic starting point of predication’, is based on the idea that the first operation in the elaboration of a sentence consists in ‘scanning’ the situation to which the sentence refers, which implies taking one of its elements as the starting point.

frame, and the possibility of evolutions by which the transitive construction is replaced by a construction which was initially an intransitive alternative to the transitive construction.

Chapter 4 is entitled ‘The transitive construction’. It begins with a detailed examination of various phenomena that may complicate the coding of A and P: TAM-driven variation in A/P coding, A/P coding conditioned by the status of the clause, differential coding of A or P, scenario-driven A/P coding, and direct/inverse marking in transitive clauses. The cross-linguistic diversity in A/P coding is discussed in the second part of this chapter.

Chapter 5 is entitled ‘Transitive-intransitive alignment’. After a discussion of the relationship between types of A/P coding and types of alignment, it is mainly devoted to the discussion of participant coding systems involving non-marginal violations of the principle according to which, in a given language, the coding frame of every verb must include a particular type of participant coding. The last two sections of this chapter discuss the evolutions in participant coding systems that may result in violations of the Obligatory Coding Principle, either by creating intransitive verbs with coding frames that do not respect the dominant alignment pattern, or by creating new TAM forms whose construction is characterized by an alignment pattern different from that of the pre-existing TAM forms.

Chapter 6 is entitled ‘Impersonal and anti-impersonal constructions’. After defining impersonal constructions as constructions violating the Obligatory Coding Principle in languages in which A-alignment is strongly predominant but not without exceptions, this chapter discusses a possible typology of impersonal constructions, and examines the question of anti-impersonal constructions, defined as the mirror-image of impersonal constructions in the languages in which P-alignment is strongly predominant.

Chapter 7 is entitled ‘Transitive coding and valency’. After reminding that the transitive construction is universally the most common type of coding frame for bivalent verbs, this chapter discusses the cross-linguistic variation in transitivity prominence (i.e., the extension of the transitive construction to a greater or lesser proportion of the bivalent verbs that do not meet the definition of prototypical transitive verbs), the possible alignment patterns between the transitive construction and the coding frames available for trivalent verbs, and the possible use of the transitive construction with monovalent verbs.

Chapter 8 is entitled ‘Voice alternations’. Voice alternations are defined as valency alternations involving verbal coding. Morphologically oriented voice alternations are particularly common. They can be described as involving an initial construction and a derived construction. The basic notions for the analysis of morphologically oriented voice alternations are NUCLEATIVIZATION (a participant which is not encoded as a core term of the initial construction is encoded as a core term of the derived construction) and DENUCLEATIVIZATION (a participant which is encoded as a core term of the initial construction is not encoded as a core term of the derived construction).²⁵ Symmetrical voices and inflectional voices are also discussed in this chapter.

Chapter 9 is entitled ‘Passivization and S-denucleativization’. Passivization is defined as denucleativization of A without nucleativization of any other participant. In obligatory-coding languages, canonical passivization, in which the initial P acquires the coding characteristics of the S term in canonical intransitive constructions, must be distinguished from impersonal passivization (I-passivization), in which P converted into the sole core term of an intransitive construction maintains P-like coding characteristics. S-denucleativization is defined as

²⁵ The term ‘nucleativization’ is borrowed from Zúñiga & Kittilä (2019).

denucleativization of S without nucleativization of any other participant, a type of valency alternation whose specificity has been largely overlooked so far.

Chapter 10 is entitled ‘Antipassivization’. It is devoted to antipassivization, defined as denucleativization of P without nucleativization of any other participant.

Chapter 11 is entitled ‘Decausativization, reflexivization, reciprocalization, and middle voices’. After discussing decausativization (aka anticausativization), reflexivization and reciprocalization, this chapter focuses on the development of middle voices defined as multifunctional voices whose productive uses include the marking of decausativization.

Chapter 12 is entitled ‘Causativization’. The analysis of causativization is based on a broad definition according to which the characteristic feature of causativization is that the derived construction is a transitive construction in which the referent of the A term outranks the referent of the initial A or S in agentivity.

Chapter 13 is entitled ‘Non-causative S/A-nucleativization’. Like causativization, the voice alternations examined in this chapter involve the nucleativization of a participant taking over the A or S role in the derived construction. They differ from causativization in that the nucleativized participant cannot be characterized as a causer or instigator.

Chapter 14 is entitled ‘Applicativization’. The analysis of applicativization is based on a broad definition according to which the characteristic feature of applicativization is that, in the derived construction, a noun phrase in a syntactic role other than A or S (the APPLIED PHRASE) represents a participant that either can be expressed in the initial construction with a non-core coding different from its coding in the derived construction, or cannot be expressed at all in the initial construction.

Chapter 15 is entitled ‘Flexivalency alternations’. It discusses the typology of uncoded valency alternations, for which FLEXIVALENCY is used as a cover term. The uncoded valency alternations involving a change in transitivity are grouped under the term AMBITRANSITIVITY, with two main subtypes: A-ambitransitivity (in which the S of the intransitive construction corresponds to the A of the transitive construction) and P-ambitransitivity (in which the S of the intransitive construction corresponds to the P of the transitive construction).

Chapter 16 is entitled ‘The noncausal-causal alternation, the psych-alternation, and the undirected-directed alternation’. It deals with the cross-linguistic analysis of three functional types of valency alternations that, from one language to another, may variously involve suppletivism, ambitransitivity, equipollent derivation, transitivization, or detransitivization.

Chapter 17 is entitled ‘Noun incorporation, transitivity and valency’. Incorporation is defined as a morphological operation creating verbal lexemes by compounding a verbal lexeme and a lexeme belonging to another category. Noun incorporation can be subdivided into several subtypes that differ in the relationship between the valency properties of the compound verb and those of the verb from which it is formed.

1.5 Glossing principles and conventions

In the recent literature on morphosyntactic typology, when quoting examples taken from published sources in which examples are given with interlinear morphemic glosses, it is common practice to reproduce the glosses provided by the source without any modification, and my guess is that many authors are convinced that this is an absolute standard.

The advantages of such a practice are obvious, at least for the quoting author, since it prevents the risk of being accused of distorting data borrowed from other authors. From the point of view of readers, however, this practice has important shortcomings, since for ease of reading, it is desirable that the glosses in a given article or book be always consistent with the analyses they are supposed to illustrate and with the analytical and terminological choices of the quoting author. Moreover, the glosses provided by the original author may be obscured by a profusion of details that are irrelevant for the use of the examples by the quoting author, in which case simplifying the glosses may facilitate the understanding of the examples.

Another reason for taking the liberty of modifying the glosses provided by sources is that, in articles or books dealing with a single language, authors often decide to systematically use the same gloss for a given morpheme, regardless of possible variation in its functions. In the case of multifunctional morphemes, this implies selecting for each morpheme a gloss that reflects a particular use analyzed as central or prototypical, but not necessarily its function in a given example. This practice has some justification within the frame of a descriptive grammar, since the list of abbreviations may refer to the section of the grammar in which the possible uses of each morpheme are described. However, within the frame of a typologically oriented discussion that does not focus on a particular language, glosses that do not reflect the function of morphemes in the examples in which they occur can only be a source of confusion.

As rightly observed in the *Leipzig Glossing Rules* (Bickel & al. 2004: 2), “glosses are part of the analysis, not part of the data. When citing an example from a published source, the gloss may be changed by the author if they prefer different terminology, a different style or a different analysis.”

Similarly, in his *Interlinear morphemic glosses*, Lehmann (2004) observes that “Data are commonly quoted from sources in which they are already provided by an analysis. In linguistic publications, it has been widespread usage to quote data together with their interlinear morphemic gloss and their translation, even if their form or language is different from the one used in the quoting context. That is, such composite data representations have been treated as indecomposable blocks. Such scruples do not seem to be warranted. Primary data may be quoted and provided with the quoting author’s analysis and translation.”

In this book, I have decided to systematically use glosses as consistent as possible with my own approach to transitivity and voice and with the terminology I recommend, not only for the examples for which I assume full responsibility and for the examples borrowed from sources that do not provide interlinear morphemic glosses, but also for the examples borrowed from sources in which the examples are already glossed.

Given that participant coding is central for the analyses that will be discussed throughout this book, I would like to draw the attention of readers to the conventions used in this book for the glossing of flags and indexes. The decision taken with respect to the glossing of voice markers is also worth being commented on.

As regards flags, the main convention to keep in mind is that, in the languages in which nouns are analyzed as inflected for case, if no case is mentioned in the gloss of a noun form, this means that the noun is in the case form I analyze as the zero case (see chapter 2 §2.4). The gloss K is systematically used for the sole syntactically marked case form in binary case systems, whatever its precise distribution. The glosses NOM (for ‘nominative’) and ABS (for ‘absolute’) are systematically avoided. In most languages, the case forms of nouns commonly designated as nominative or absolute meet my definition of the zero case, and in

the languages for which other authors have used ‘nominative’ or ‘absolutive’ with a different value, I will use glosses such as S/A (case-marker or adposition flagging a noun phrase in A or S role), P/S (case-marker or adposition flagging a noun phrase in P or S role), or PIV (syntactically privileged term, or pivot).

As regards indexes, I systematically use I for ‘index’. Indexes belonging to distinct paradigms are specified, either with reference to the TR-role of the corresponding noun phrase (for example, I_{S/A} ‘index corresponding to noun phrases in S or A role’, I_P ‘index corresponding to noun phrases in P role’, etc.) or to the case of the corresponding noun phrases, in languages in which indexation is straightforwardly related to case marking (for example, I_{ERG} ‘index corresponding to a noun phrase in the ergative case’, I_{ZER} ‘index corresponding to a noun phrase in the zero case’, etc.). A colon introduces the features expressed by indexes (for example, I_{S/A}:1SG must be understood as ‘first person singular index corresponding to a noun phrase in S or A role’).

As regards the glossing of voice markers, in a cross-linguistic analysis of issues related to valency and voice, it is particularly important to consistently apply glossing conventions compatible with the multifunctionality of most voice markers. This means that the gloss used for a particular voice marker in a particular example must systematically reflect its function in the example under discussion, regardless of the label traditionally used to designate it in the literature on the language in question. This has already been illustrated in examples (2), (4), (5) and (6) above with the multifunctionality of the Russian voice marker *-sja ~ -s’*. Similarly, Tswana has a verbal suffix *-el*, designated as the applicative suffix in Tswana grammars, and mainly used to mark applicativization, as in (7b) above, reproduced here as (27a). However, even if applicativization is defined very broadly, *-el* also has uses that cannot fall under the definition of applicativization. In (27b), *-el* marks a voice alternation that will be designated as ‘A-nucleativization of obliques’ (see chapter 8 §8.3.4.1), whereas in (27c), the same suffix marks the focalization of a place adjunct. Consequently, in such uses, *-el* is not glossed APPL, but NuclA (as in 27b) or FocX (as in 27c).

(27) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kítsó* ¹*ó-tláà-kwál-él-á* *Mp^hó* *lò-kwá:lò*.
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 ‘Kitso will write a letter to/for Mpho.’

b *Nàmà* *i-fáb-él-à* *bò-χô:bè*.
 SG.flesh(c19) sI:c19-flavor-NuclA-FV SG-porridge(c114)
 ‘Meat is used to flavor the porridge.’

c *Mò-ńnà* *w-á-mí* *ó-nè* *à-sw-él-à* *kó* *mò-ráfô:-ńj*.
 SG-man(c11) c11-GEN-1SG sI:c11-AUX sI:c11-die-FocX-FV LOC SG-mine(c13)-LOC
 ‘My husband died IN THE MINE.’

Another convention to keep in mind is that, in the languages that have nominal gender and for which I have the relevant information, the lexical gloss of nouns may be immediately followed by an indication between parentheses referring, either to the gender of the lexeme, or to the agreement pattern governed by the noun form. For example, the Spanish form *casa-s* ‘houses’ will be glossed /house(F)-PL/, where (F) means that *casa* belongs to the feminine gender, and the Tswana form *mò-tsi* ‘village’ will be glossed /SG-village(3)/, where (3)

means that this noun form governs the agreement pattern traditionally labeled ‘class 3’ in Bantu linguistics.²⁶

Finally, I would like to mention two details of the glossing system I use that have no direct link to the questions discussed in this book, but nevertheless deserve a brief comment, since they depart from mainstream practice.

In the glossing system I use, the glosses PFV (‘perfective’) and IPFV (‘imperfective’) are restricted to markers of values belonging to the domain of actionality as opposed to aspect proper.²⁷ On the necessity of distinguishing actionality from aspect proper, I agree with the views expressed by Bertinetto & Delfitto (2000), and I share with them the idea that, contrary to a widespread opinion, the Slavic languages, for which the terms ‘perfective’ and ‘imperfective’ were originally used, do not provide the ideal prototype of an aspectual system. On the contrary, the way aspectual and actional values are intertwined in the Slavic languages represents “a quite peculiar case, rarely manifested outside that language family” (Bertinetto & Delfitto 2000: 189). French linguistic terminology traditionally makes a distinction between ‘perfectif / imperfectif’ (reserved to lexical contrasts manifested in the combinability of verbs with duration adjuncts, semantically comparable to the contrast between perfective and imperfective verbs found in Slavic languages) and ‘accompli / inaccompli’ (which refers to the aspectual distinction between the synthetic tenses and their analytic counterpart formed by means of the auxiliaries ‘be’ or ‘have’). For the authors that follow this distinction, ‘perfectif / imperfectif’ refers to actional values (crucially involving telicity) that are rarely grammaticalized to a degree comparable to that found in Slavic languages, whereas ‘accompli / inaccompli’ refers to a cross-linguistically widespread type of aspectual distinction in which telicity plays no role. In this book, markers expressing the aspectual distinction referred to as ‘accompli / inaccompli’ in French terminology are not glossed as PFV (‘perfective’) and IPFV (‘imperfective’), but as CPL (‘completive’) and ICPL (‘incompletive’). In fact, although departing from mainstream practice, this terminological decision is not unprecedented, since for example Mayanists traditionally use ‘completive / incompletive’ (or in Spanish ‘completivo / incompletivo’) for an aspectual distinction of the type referred to as ‘accompli / inaccompli’ in French.

Another point on which the glossing system I use departs from mainstream practice is the introduction of the gloss D encompassing definiteness markers (commonly glossed DEF) and markers I propose to characterize as ‘default determiners’. Default determiners are a cross-linguistically widespread type of nominal marker (found in languages as diverse as Basque, Mandinka, or Zulu) that mark distinctions related to specificity and/or referentiality in restricted contexts only (typically, in negative or interrogative contexts). In most contexts, they carry no particular specificity / referentiality value, and are just obligatory if the speaker

²⁶ Most Bantuists would rather use glosses such as /3-village/ or /cl3-village/, but such glosses reflect the traditional practice of conflating the number prefixes of nouns and the markers of gender-number agreement into a single category of ‘class markers’. The glosses I use for Bantu nouns are motivated by the alternative analysis I have adopted in my survey of noun class agreement in Niger-Congo languages (Creissels 2023b), according to which number as an inflectional category of nouns and gender as a lexical property of nominal lexemes should be distinguished from gender-number agreement as an inflectional category of adnominals, pronouns, and indexes. For example, in *mò-tsi ó-sìli* /SG-village(3)/cl3-other/ ‘another village’ *ó-* in *ó-sìli* ‘others’ is a gender-number agreement marker that can conveniently be glossed cl3, whereas *mò-* in *mò-tsi* is the singular marker selected by nouns of gender 3/4.

²⁷ The distinction between actionality and aspect is also sometimes referred to as lexical aspect vs. grammatical aspect, or situation aspect vs. viewpoint aspect.

does not feel it necessary to use a determiner specifying the status of the referent with respect to specificity or referentiality. The justification of the gloss D as used in this book is that definiteness markers *stricto sensu* and default determiners are in fact the two poles of a continuum reflecting a universal tendency for definiteness markers to spread progressively to contexts in which they do not fulfill their original function, becoming thus more and more similar to default determiners.

1.6 The genetic affiliation of languages

In this book, the genetic affiliation of languages as specified in the presentation of examples is provided along the lines of the classification of languages adopted in *WALS Online* (Dryer & Haspelmath 2013), with only some minor modifications concerning languages families for which I have reservations about the characterization provided in *WALS*.

Apart from pidgins and creoles (labeled here ‘P/C’), for which no genetic affiliation is proposed, the general principle of this classification is that, as a rule, it does not mention the intermediate groupings that appear in other classifications, restricting to only two levels, that of family, the highest level widely accepted by specialists, and genus, a notion explained in (Dryer 1989), and commented in *WALS Online* as follows:

“The notion genus is intended as a level of classification which is comparable across the world, so that a genus in one family is intended to be comparable in time depth to genera in other parts of the world. The choice of term is intended to match the general idea of genus in biological classification, where a genus is a set of species that are clearly closely related to each other (and where words in everyday language often correspond to genera rather than species). In the genealogical classification of languages, a genus is a group of languages whose relatedness is fairly obvious without systematic comparative analysis, and which even the most conservative “splitter” would accept. Genealogical groups deeper than a genus are often less obvious and in the absence of detailed comparative work are often not universally accepted. If there is evidence of time depth of groups, the genus would not have a time depth greater than 3500 or 4000 years. A genus may have a time depth much less than this, but if the time of the split of one group of languages from other languages in the family appears to be greater than 4000 years, then this constitutes a reason to say that this group of languages is a separate genus.”

Levels of classification lower than that of genus are not taken into account, and an intermediate level, that of subfamily, is only provided when the genetic affiliation of the language in question is more commonly characterized with reference to the subfamily than to the genus to which it belongs. For example, Baule is labeled here ‘Tano, Kwa, Niger-Congo’. The reason is that, in the literature, whatever may be the validity of the Kwa subfamily within the Niger-Congo family, ‘Kwa’, rather than ‘Tano’, is the label commonly used to characterize the position of Baule within the Niger-Congo family. More generally, reference to the following subfamilies of Niger-Congo and Afroasiatic has been systematically added, although they do not meet the definition of genera, and their validity as genetic groupings is sometimes questionable: Atlantic, Mel, Kwa, Gur, Benue-Congo and Adamawa for Niger-Congo, Chadic, Cushitic and Omotic for Afroasiatic.

This said, some particular cases must be considered. First, some groups of lects usually treated as constituting a single (macro-)language, like Armenian with its Eastern and Western varieties, are commonly considered as isolates within a family whose time depth exceeds that admitted for genera. In such cases, the name of the language is repeated as that of the genus

coinciding with the (macro-)language in question. For example, Eastern Armenian is labeled here as ‘Eastern Armenian (Armenian, Indo-European)’.

A second particular case is that of languages belonging to a genus whose inclusion into a higher-level family is problematic. In such cases, the name of the language is followed by a single label referring to the genus. For example, Koroboro Senni is labeled here as ‘Koroboro Senni (Songhay)’.

The third particular case concerns languages with no known relatives, such as Movima (Bolivia). In such cases, the name of the language or language variety is followed by a single label that simply reproduces the name of the language, for example ‘Movima (Movima)’.

The cases for which the genetic classification of languages retained here substantially differs from that provided in WALS are as follows:

- Romance languages (i.e. the languages that constitute modern forms of Latin) are labeled ‘Italic, Indo-European’ rather than ‘Romance, Indo-European’. The reason is that a strict application of the definitions put forward in WALS leads to the conclusion that the genus to which Latin and its Romance offsprings belong is in fact the Italic branch of Indo-European.
- Mande languages are classified with reference to the following genera: South Mande, East Mande, Soninke-Bozo, Bobo, Samogho, Central Mande, Soso-Jalonke and Southwestern Mande. The reason is that the West Mande subfamily to which WALS refers is problematic, and in any case does not meet the definition of a genus.
- The Katla-Tima and Talodi-Heiban genera are simply characterized as included in the Niger-Congo family, without reference to a hypothetical Kordofanian subfamily, whose validity as a genetic grouping is particularly problematic.
- Gbaya is simply characterized as belonging to the Gbaya-Manza-Gbaka genus; traditionally, Gbaya is considered as a member of the Ubangian branch of Niger-Congo, but there are very strong doubts about both the validity of Ubangian as a genetic unit and the Niger-Congo affiliation of the languages traditionally classified as Ubangian.
- The decision to label !Xun varieties as ‘!Xun, Kx’a’ rather than ‘Ju-Kung, Kx’a’ follows from the decision to use !Xun as a label for the whole dialect cluster that constitutes one of the two branches of the Kx’a family, rather than to restrict it to the Northwestern part of this dialect cluster, cf. (Heine & König 2015).
- Japanese, Korean and Basque are not presented as single languages with no known relatives, but as genera consisting of a small number of very closely related languages not included in a wider family: Japonic, whose members are Japanese proper and the Ryukyuan languages, Koreanic, whose members are Korean proper and Jeju, and Euskaran, whose members are Bizcayan Basque, Central Basque (encompassing the Guipuzcoan, Navarrese and Lapurdian varieties, as well as the standard Batua variety) and Souletin-Roncalese Basque.

Chapter 2

Participant roles and participant coding

The first section of this chapter is devoted to some clarifications about participant roles in the events denoted by verbs, with a particular attention to those which feature prominently in the discussion of the questions addressed in this book. The following sections examine in turn the three mechanisms that may ensure the existence of formal contrasts between noun phrases representing distinct participants in the event denoted by a given verb: constituent order (§2.2), indexation (§2.3), and flagging (§2.4). The aspects of participant coding concerning specifically the transitive construction are not dealt with in detail in this chapter, and will be discussed in chapter 3.

2.1 Participant roles

2.1.1 General remarks on the delimitation of participant roles

Participant roles can be defined at different degrees of granularity between verb-specific roles such as the roles of writer and writee assigned by the verb *write*, and the maximally abstract generalized semantic roles put forward by Bickel (2010), building on (Dowty 1991) and (Primus 1999). In fact, as rightly observed by Andrews (2007: 137), the only criterion to be considered in decisions about the definition of semantic roles (and in particular, about the degree of abstraction they imply) is the possibility they offer of capturing interesting generalizations in analyses of particular facts.

For example, depending on the question at issue, it may be useful to consider a relatively abstract role of experiencer defined as an animate participant undergoing a process in which no agent is involved, but it may also be useful to distinguish subtypes of experiencers depending on the nature of the process they undergo: perception (with verbs such as ‘see’ or ‘hear’), cognition (‘know’, ‘think’), physiological process/state (‘be/get hungry’), or psychological process/state (‘be/get ashamed’).

Generally speaking, for reasons already discussed in chapter 1 §1.2.1, I am skeptical about the validity and cross-linguistic relevance of notions relying on the recognition of maximally abstract semantic roles whose definition implies in particular that, in the events encoded by semantically bivalent verbs, one of the two participants could always be unambiguously characterized as more agent-like than the other.

For example, this hypothesis is hard to reconcile with the cross-linguistic variation in the construction of verbs expressing psychological or physiological states or processes. European languages commonly use the transitive verb ‘catch’ with the meaning ‘suffer from an illness’, the experiencer being encoded as if it were the agent of the same verb in its use as an action verb (as in *I caught a flu*), but in sub-Saharan languages, when a verb ‘catch’ is used with the meaning ‘suffer from an illness’ (which is relatively common in those languages too), it is always the illness that is encoded like the agent of ‘catch’ as an action verb, whereas the coding of the experiencer coincides with that of typical patients, as in example (1). If one the

two protagonists of a two-participant event were always intrinsically and unambiguously characterizable as more agent-like than the other, such a cross-linguistic variation should not be possible.

(1) Mandinka (Central Mande, Mande)

Kirikiròo yè í mùtá.

malaria.D CPL.TR 1SG catch

‘I have caught malaria.’ lit. ‘Malaria has caught me.’

Rather than trying to decide on a universal characterization of persons affected by an illness as more agent-like than the illness or the other way around, it is more interesting to explain this variation by analyzing the semantic role of experiencer as inherently ambiguous, in the sense that it shares features with both the role of agent and that of patient: on the one hand, animacy is an important characteristic shared by agents and experiencers, but on the other hand, in the state of affairs to which (1) refers, the involvement of the illness in the causality chain gives it an affinity with agents, whereas the experiencer shares with patients affectedness and lack of volitionality.

In §§2.1.2-4, I elaborate on some semantic roles that are of particular relevance for the analysis of the questions dealt with in this book, and for which, consequently, the lack of a clear and precise definition could be a source of confusion. As regards the other semantic roles that will be occasionally referred to in the remainder of this book, unless otherwise specified, they must be taken with the definitions commonly given in recent syntax textbooks.

2.1.2 The semantic roles of agent/actor and patient/undergoer/theme

Most of the lists of possible semantic roles that can be found in the literature include roles of agent/actor and patient/undergoer/theme broadly defined as the participant that intentionally carries out the action expressed by the verb and the participant directly affected by the action expressed by the verb. However, in order to deal with transitivity issues properly, it is crucial to consider a much narrower definition of the roles of (prototypical) agent and (prototypical) patient.

In this book, if not further specified, AGENT and PATIENT must be understood in their narrow sense of prototypical agent and prototypical patient, i.e. ‘human participant consciously and willingly controlling an activity aiming at changing the state or position of another participant’ for agent, and ‘participant undergoing a change of state or position triggered by the activity of an agent’ for patient. When it is useful to consider more loosely defined notions of agent and patient, ACTOR and UNDERGOER can be used as abbreviations for ‘relatively agent/patient-like participant’.

As regards ‘theme’, I simply avoid using this term with reference to a participant role, because of the ambiguities that may follow from its etymology and the important variation in its use. In some traditions, ‘theme’ is the term used for the DISCURSIVE role more commonly labeled ‘topic’, and in fact, given the etymology of ‘theme’, speech or thought verbs such as ‘speak ABOUT S.O./S.TH.’, ‘comment ON S.TH.’ or ‘wonder ABOUT S.TH.’ are the only verbs whose participant structure includes a role (designated in this book as TOPIC OF SPEECH / THOUGHT) for which it would be natural to use the label ‘theme’.

2.1.3 The semantic roles of transferee and goal

Most semantically trivalent verbs involve transfer, be it in a concrete spatial sense ('bring', 'send'), or in a relatively abstract sense ('give', 'provide', 'tell'). In the recent literature, the semantic roles implied by such verbs are commonly labeled 'agent', 'goal', and 'theme'. In this book, given the reservations I have already expressed about the use of 'theme' as a label for a participant role, I use the transparent and unambiguous term of TRANSFEREE, instead of 'theme', with reference to participants whose role can be characterized in terms of transfer, taking this term in a broad sense that includes change of possession and information sharing.

As regards the term 'goal', it must be emphasized that it will be used in a relatively broad sense, including not only the goal of motion, but also 'abstract goals' characterizable more precisely as recipients (with verbs such as 'give') or addressees (with verbs such as 'tell').

In the recent literature, the abbreviations T and G are commonly used for the macro-roles commonly labeled theme and goal. They can be retained here, since T can equally be understood as an abbreviation for transferee.

Most recent discussions of the valency properties or trivalent verbs treat T and G on a par with A and P, without really clarifying the conception of A and P to which they refer. Consequently, it is important to emphasize that putting T and G on a par with A and P only makes sense if A and P are taken as abbreviations for notions defined in purely semantic terms (either prototypical agents/patients, or more agent/patient-like participants of bivalent verbs). In the conceptual and terminological framework adopted in this book, the notions to which T and G refer are not of the same nature as those for which I use A and P, since T and G refer to semantic roles, whereas A and P do not refer to the semantic notions of agent and patient, but to "syntactic terms whose prototypes are defined in semantic terms" (Comrie 1981: 105). This implies in particular that the identification of a noun phrase as T or G, being based on purely semantic criteria, is not exclusive of its syntactic characterization as A or P. For example, in a sentence such as *He provided the candidates with the necessary information*, the noun phrase *the candidates* expresses the semantic role of G, but at the same time meets the definition of P, since its coding properties are those of the patient in the basic construction of prototypical transitive verbs, whereas in *He gave the information to all those that needed it*, the noun phrase fulfilling the syntactic role of P (*the information*) expresses the semantic role of T.

2.1.4 Beneficiary as a macro-role encompassing several subtypes

2.1.4.1 General remarks on the notion of beneficiary

For the discussion of the questions dealt with in this book, it is useful to consider a semantic role of BENEFICIARY broadly defined as the semantic role of referents which are ADVANTAGED OR DISADVANTAGED BY AN EVENT IN WHICH THEY DO NOT PLAY AN ESSENTIAL ROLE. The more restrictive definitions of 'beneficiary' that have been put forward in the literature delimit semantic roles that can be viewed as subtypes of beneficiaries in the sense of the broad definition retained here.

For example, the narrow definition of beneficiaries as "animate entities on whose behalf an activity is carried out" (Blake 1994:70) refers to a particular subtype of benefaction for which Zúñiga (2014) proposes the notion of SURROGATION, whose distinctive feature is that the

beneficiary “benefits from the fact that s/he does not have to perform a particular action thanks to the intervention of the surrogate”.

The definition of beneficiaries as entities “for whose benefit the action was performed” (Saeed : 150) is less restrictive but nevertheless restricts the notion of beneficiary to referents whose benefit in the event results from the decision of an agent, excluding for example *us* in *Clouds bring us rain* from the notion of beneficiary.

Note also that the notion of beneficiary in the sense of the broad definition formulated above encompasses participants disadvantaged by an event in which they are not directly involved. This terminological decision is consistent with the fact that, in most cases, the interpretation of a non-essential participant as advantaged or disadvantaged by the event does not follow from the use of specific forms or constructions, but from the lexical meaning of the verb or other contextual factors. However, when necessary, the label MALEFICIARY can be used to refer specifically to non-essential participants disadvantaged by the event.

(Zúñiga 2011) is a major reference on the notion of benefaction and its morphosyntactic manifestations in the world’s languages. The remainder of this section is not intended to list all possible subtypes of beneficiaries, but only to discuss a particular variety of beneficiaries that is rarely mentioned as such in general discussions of semantic roles, and whose acknowledgement as a particular subtype of beneficiary is crucial for a proper understanding of some of the questions discussed in this book.

2.1.4.2 *The semantic role of concerne*

The property that distinguishes CONCERNEES from other subtypes of beneficiaries is that their possible advantage or disadvantage in the event follows from some relationship they have with the referent of another term of the same clause (the CONCERN) independently of their involvement in the particular event denoted by the clause. In other words, concernees are beneficiaries whose interest in the event follows from the participation of a member of their personal sphere (the concern) in the event.

The notion of CONCERNEE-CONCERN CONSTRUCTION was proposed by Mark van de Velde (2020) to better capture the specificity of the constructions more commonly designated in the recent literature as ‘external possession constructions’, on which the main reference is (Payne & Barshi 1999).²⁸ However, the notion of concerne-concern construction as delimited in this book is broader than the notion of external possessor as commonly understood, in the sense that it is not restricted to constructions for which a paraphrase with the concerne encoded as an adnominal possessor is possible

Example (2) illustrates the kind of construction commonly dealt with in terms of external possession. The analysis adopted here is that the proclitic dative index *lui* ‘to him’ (commonly analyzed as an ‘external possessor’) and the noun phrase *la main* ‘the hand’ form a concerne-concern construction in which *lui* expresses the role of concerne, whereas *la main* cumulates the role of patient in the event denoted by the verb and the role of concern.²⁹

²⁸ The term ‘possessor-raising construction’, also found in the literature, refers to the transformational analysis according to which such constructions involve movement of phrase denoting a possessor from an NP-internal position to an argumental position.

²⁹ Traditionally, constructions such as those illustrated in (2) and (3) are analyzed in terms of ‘dative of interest’ or ‘ethical dative’. However, as illustrated by example (4), even in the languages in which the recognition of a grammatical relation ‘dative oblique’ is not problematic, concerne-concern constructions do not necessarily involve dative marking. Moreover, the traditional notion of ethical dative / dative of interest encompasses uses of

(2) French (Italic, Indo-European)

Je lui= ai pris la main.
 I_{S/A}:1SG I_{DAT}:3SG have.PRS.I_{S/A}:1SG take.PTCP D.SG.F hand (F)
 ‘I took his/her hand.’ lit. ‘I took him/her the hand.’

More generally, concernee-concern constructions are defined as involving two nominal terms (the concernee and the concern) showing the following characteristics:

- the concernee phrase (represented in (2) by the proclitic dative index *lui*) and the concern phrase (*la main*) have no direct syntactic relationship,
- the concern phrase is interpreted as expressing the semantic role that regularly corresponds to its syntactic role in the construction;
- the concernee is interpreted as having with the concern, independently of the particular event to which the clause refers (and in which the concern is involved), some not overtly specified semantic relationship by virtue of which it can be conceived as POTENTIALLY AFFECTED (either materially or psychologically) by whatever happens to the concern.

In example (2), the semantic relationship underlying the concernee-concern construction is a whole-part relationship. As discussed by Van de Velde (2020), concernee-concern constructions involving whole-part relationship between the concernee and the concern can be analyzed as prototypical. However, depending on language-specific rules, the use of concernee-concern constructions may be variously extended to other types of semantic relationships in which one of the two terms can be viewed as concerned by the events in which the other one is directly involved.

Example (3) illustrates a concernee-concern construction that is not an instance of external possession as commonly conceived, since no paraphrase by means of an adnominal possession construction is possible. However, a common interpretation of this sentence in French is that, by using the 1st person dative clitic, the speaker indicates that, for some reason, the place designated as *là* ‘there’ is an element of his/her personal sphere, and s/he may consider its use by another person as a breach of his/her rights.

(3) French (Italic, Indo-European)

Enlève-moi ta voiture de là!
 move-I_{DAT}:1SG your.F.SG car(F) from there
 lit. ‘Move me your car from there.’

The two sentences in example (4) illustrates two instances of a Russian construction analyzable as a concernee-concern construction in which the concernee phrase is flagged by the adessive preposition *у* ‘at’, also used to flag the possessor phrase in predicative possession. The notion of external possession applies without problem to (4a), paraphrasable as *Naša babuška umerla* lit. ‘Our grandmother died’. By contrast, a paraphrase of (4b) in which the concernee and the concern would be coded as the modifier and the head in an

the dative that do not fit the definition of concernee-concern construction, as for example the use of the dative in the constructions discussed in this book under the heading of affected-agent middles (chapter 11 §11.8).

adnominal possession construction is not possible, since both the concerne and the concern are SAPs. This, however, does not distract from recognizing that (4a) and (4b) equally meet the definition of concerne-concern construction formulated above.

(4) Russian (Slavic, Indo-European)

- a *U nas umerla babuška.*
 at 1PL.GEN die.PFV.PST.I_{S/A}:SG.F grandmother(F)
 ‘Our grandmother died’ lit. ‘At us the grandmother died.’
- b *Ty u nas umnica.*
 2SG at 1PL.GEN good.child(CG)
 ‘You are a good child (and we are glad, since you mean a lot to us).’
 lit. ‘You at us (are) a good child.’

In many languages, concernees are coded in the same way as other subtypes of beneficiaries. Example (5) illustrates the possibility that formally identical constructions lend themselves to concernative readings or to other subtypes of benefactive readings implying no pre-existing relationship between the beneficiary and the other participants in the event: syntactically, both (5a) and (5b) are applicative constructions with *Kítsó* in the role of applied P, but semantically, (5a) tends to be interpreted as involving an agent deliberately acting for the benefit of another participant encoded as the applied P, whereas in (5b), the referent of the applied P tends to be interpreted rather as indirectly affected by an action oriented towards an element of his/her personal sphere (the beans that had been cooked for him).

(5) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lòrátó ó-àpé-éts-í ¹Kítsó dí-nà:wá.*
 PRN(c11) I_{S/A}:c11-cook-APPL.PRF-FV PRN(c11) PL-beans(c110)
 Lorato cooked beans for Kitso.’
- b *Lòrátó ¹ó-dǝ-éts-í ¹Kítsó dí-nà:wá.*
 PRN(c11) I_{S/A}:c11-eat-APPL.PRF-FV PRN(c11) PL-beans(c110)
 ‘Lorato ate the beans that had been cooked for Kitso.’

In some languages, concerne-concern constructions are relatively exceptional, or not attested at all, whereas in some other languages, they are extremely frequent, sometimes virtually obligatory. As illustrated in (6), Romanian is remarkable in this respect.

(6) Romanian (Italic, Indo-European)

- a *Îi pleac trenul.*
 I_{DAT}:3SG leave.PRS.I_{S/A}:3SG train(M).D
 ‘His/her train is leaving.’ lit. ‘To him/her the train is leaving.’
- b *Măriți-vă memoria calculatorului!*
 increase.IMP.PL- I_{DAT}:2PL memory(F).D computer(M).D.GEN
 ‘Upgrade your computer!’ lit. ‘Increase to you the memory of the computer!’
 (Timoc-Bardy 1996: 242, 243)

Concernee-concern constructions are commonly (although not necessarily) in competition with constructions in which the concernee is coded as an adnominal possessor, as in examples (7) and (8).

(7) French (Italic, Indo-European)

- a *J'ai la jambe cassée.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG D.SG.F leg(F) break.PTCP.SG.F
 'My leg is broken.' lit. 'I have the leg broken.'
- b *Ma jambe est cassée.*
 my.SG.F leg(F) be.PRS.I_{S/A}:1SG break.PTCP.SG.F
 'My leg is broken.'

(8) Central Basque (Euskaran)

- a *Edurne-ri ama hil zaió.*
 PRN-DAT mother die.CPL be.PRS.I_{ZER}:3SG.I_{DAT}:3SG
 'Edurne's mother died.' lit. 'To Edurne the mother died.to.her.'
- b *Edurne-ren ama hil da.*
 PRN-GEN mother die.CPL be.PRS.I_{ZER}:3SG
 'Edurne's mother died.'

The general tendency in such alternations is that the concernee-concern construction evokes the possible consequences of the event for the referent of the concernee, whereas the adnominal possession construction has no implication in this respect. For example, in Spanish, *Le pinté la puerta al coche* (lit. 'I painted the door to the car') and *Pinté la puerta del coche* (lit. 'I painted the car's door') have the same denotative meaning, but the first formulation (with 'the door' profiled as a concernee) may suggest for example that the car looks better after its door has been painted, whereas the second formulation (with 'the door' profiled as a possessor) is absolutely neuter in this respect.

Example (9) illustrates the possibility that the choice is conditioned by the nature of the participant that can be coded as a concernee or as an adnominal possessor: in (9), the concernee-concern construction is preferred with a personal pronoun (9a), but dispreferred with a lexical NP (9b).

(9) French (Italic, Indo-European)

- a *Le bébé lui a attrapé la main.*
 D.SG.M baby(M) I_{DAT}:3SG have.PRS.I_{S/A}:3SG grab.PTCP D.SG.F hand(F)
 'The baby grabbed her hand.' lit. 'The baby grabbed the hand to her.'
- b *Le bébé a attrapé la main de l'infirmière*
 D.SG.M baby(M) have.PRS.I_{S/A}:3SG grab.PTCP D.SG.F hand(F) of D.SG.F-nurse(F)
 'The baby grabbed the hand of the nurse.'

Examples (10) and (11) illustrate the kind of ambiguity that may follow from the use of concernee-concern constructions. A possible interpretation is that the dative term of the construction refers to a recipient or beneficiary having no relationship with the participant encoded as S (in (9)) or P (in (10)) prior to the event. However, another interpretation is

possible, according to which the dative term refers to a participant concerned by the event by virtue of a pre-existing relationship with the participant encoded as S (in (10)) or P (in (11)).

(10) Central Basque (Euskaran)

Eskutitz-a iritsi zait

letter-SG arrive.CPL be.PRS.I_{ZER}:3SG.I_{DAT}:1SG

lit. ‘The letter is.to.me arrived.’, can be interpreted as, either ‘The letter [sent by another person] came to me.’, or ‘My letter (i.e. the letter I sent) has reached its destination.’

(11) Romanian (Italic, Indo-European)

V-am citit scrisoarea.

I_{DAT}:2PL-have.PRS.I_{SA}:1SG read.PTCP letter.D

lit. ‘I’ve read the letter to you.’, can be interpreted as, either ‘I read the letter [that you were not able to read] for you.’, or ‘I read your letter (i.e. the letter you sent).’

(Timoc-Bardy 1996: 244)

Concernee-concern constructions may involve no special verbal marking, or put into play voice morphology. For example, in Bantu languages, the use of applicative morphology in concerne-concern constructions may depend on the nature of the semantic relationship between the concerne and the concern. In Tswana, the rule is that concerne-concern constructions involving part-whole relationships do not require applicative marking, as in (12a), whereas concerne-concern constructions involving other types of relationships require applicative marking by means of the voice marker *-el-*, as in (12b). In both cases, the concerne is syntactically the primary P in a double-P construction. and passivization can convert it into the A term of a transitive construction, as in (12c-d).

(12) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *M-mótóròkára 'ó-tláá-χò-χát-á lì-tsô:χò.*

SG-car(cl3) I_{SA}:cl3-FUT-I_P:2SG-crush-FV SG-hand(cl5)

lit. ‘The car is going to crush you the hand.’

> ‘The car is going to crush your hand.’

b *Dw-àná 'ó-tláá-χò-dz-él-á dí-nà:wá.*

SG-child(cl1) I_{SA}:cl1-FUT-I_P:2SG-eat-APPL-FV PL-beans(cl10)

lit. ‘The child is going to eat.APPL you the beans.’

> ‘The child is going to eat your beans.’

c *Õ-tlàà-χát-w-á lì-tsô:χò.*

I_{SA}:2SG-FUT-crush-PASS-FV SG-hand(cl5)

lit. ‘You are going to be crushed the hand.’

> ‘Something is going to crush your hand.’

d *Õ-tlàà-dz-él-w-á dí-nà:wá.*

I_{SA}:2SG-FUT-eat-APPL-PASS-FV PL-beans(cl10)

lit. ‘You are going to be eaten.APPL the beans.’

> ‘Someone is going to eat your beans.’

2.2 Participant coding and constituent order

2.2.1 Rigid constituent order

In some languages, the linear order of the nominal terms of verbal clauses is determined rigidly by the semantic role of the participants they represent, and in the absence of other formal contrasts between the noun phrases representing distinct participants, it may happen that their linear ordering is the only clue to the semantic roles they express. In the transitive construction of English, this is the case with verbs in the past (i.e., with verb forms that never index any of the participants) and with noun phrases other than 1st or 3rd person pronouns (i.e., with nominals whose form does not vary according to their syntactic function), but in other languages (for example, !Xun), this situation is absolutely general.

(13) English (Germanic, Indo-European)

- a *John saw Mary.*
- b *Mary saw John.*

(14) !Xun (!Xun, Kx'a)

- a *Mī kú shē 'āà.*
1SG PROG see 2SG
'I see you.'
 - b *'Āà kú shē mī.*
2SG PROG see 1SG
'You see me.'
- (Heine & König 2015: 227)

To the best of my knowledge, the Mande languages illustrate the most extreme case of languages with an absolutely rigid constituent order. In Mande languages, the constituent order APVX (in transitive clauses) or SVX (in intransitive clauses) cannot be modified by any syntactic operation. Noun phrases can move to clause-initial position to express topicalization, but with the exception of obliques expressing the datation or location of the event, a resumptive pronoun or adverb must occupy the position corresponding to their semantic role in the APVX / SVX pattern.

2.2.2 Flexible constituent order

In other languages, the linear order of the nominal terms of the clause is totally flexible, in the sense that it allows a wide range of permutations without any change in the semantic roles they express and without necessitating any morphological readjustment, as in (15) to (17). In such languages, constituent order is not involved in participant coding, and its only possible function is to contribute to the expression of information structure.³⁰

³⁰ In generative linguistics, flexible constituent order is one of the components of the notion of non-configurationality. Flexible constituent order and non-configurationality should, however, not be equated, since non-configurationality also encompasses extensive use of null anaphora and of syntactically discontinuous expressions, and it is not clear to what extent those properties cluster together.

(15) Central Basque (Euskaran)

- a *Jon-ek Mikel-i dei-tu zion.*
 PRN-ERG PRN-DAT call-CPL have.PST.I_{ERG}:3SG.I_{DAT}:3SG
 ‘Jon called MIKEL.’
- b *Mikel-i Jon-ek dei-tu zion.*
 PRN-DAT PRN-ERG call-CPL have.PST.I_{ERG}:3SG.I_{DAT}:3SG
 ‘JON called Mikel.’

(16) Russian (Slavic, Indo-European)

- a *Koški edjat myšej.*
 cat.PL eat.IPFV.PRS.I_{S/A}:3PL mouse.PL.ACC
 ‘Cats eat mice.’
- b *Myšej edjat koški.*
 mouse.PL.ACC eat.IPFV.PRS.I_{S/A}:3PL cat.PL
 ‘CATS eat mice.’

(17) Hungarian (Uralic)

- a *Péter be-mutatta János-t Mari-nak.*
 PRN PREV-introduce.PST.I_{S/A}:3SG.I_p:3D PRN-ACC PRN-DAT
 ‘Péter introduced János to Mari.’
- b *János-t Péter mutatta be Mari-nak.*
 PRN-ACC PRN introduce.PST.I_{S/A}:3SG.I_p:3D PREV PRN-DAT
 ‘PÉTER introduced János to Mari.’
- c *Péter János-t mutatta be Mari-nak.*
 PRN PRN-ACC introduce.PST.I_{S/A}:3SG.I_p:3D PREV PRN-DAT
 ‘Péter introduced JÁNOS to Mari.’
- d *Mari-nak mutatta be Péter János-t.*
 PRN-DAT introduce.PST.I_{S/A}:3SG.I_p:3D PREV PRN PRN-ACC
 ‘Péter introduced János to MARI.’

2.2.3 TAM/polarity-driven variation in constituent order

Some languages have alternations in the linear order of the constituents of clauses that do not constitute instances of flexibility in constituent order, since they have nothing to do with information structure, and are automatically triggered by the TAM distinctions expressed by verb inflection, or by polarity. This phenomenon is particularly common in West Africa, where it is found in several languages belonging to the Gur, Kwa, and Kru families, and in Kisi (Mel). In the languages in question, the A term of transitive clauses and the S term of intransitive clauses invariably occur in clause initial position, whereas the P term of transitive clauses and some oblique terms may either follow or precede the verb, depending on TAM and polarity. The details differ from one language to another, and no obvious generalization emerges concerning the exact range of obliques involved in the alternation and the relevant TAM-polarity distinctions, but the general rule is that the pattern with P and some obliques inserted between S/A and the verb is found in clauses including some overt TAM-polarity

markers or auxiliaries immediately after the S/A term, whereas in all other cases, the constituent order is SVX / AVPX.

For example, according to Grah (1983), in Newole (Eastern Kru), the constituent order SXV / APXV, as in (18b), is triggered by six auxiliaries, but this pattern is not completely rigid, since at least some obliques may also precede P, as in (18c), or follow the verb, as in (18d).

(18) Newole (Kru, Niger-Congo)

a *Làlí yé siāyīlē nízō kó.*

PRN see small.snail road on

‘Lali found a small snail on the road.’ (AVPX)

b *Kóní ní sáká jàlé lī.*

PRN CPL.NEG rice kitchen.LOC eat

‘Koni has not eaten rice in the kitchen.’ (AAuxPXV)

c *Làlí yā mágītī kó līēplō yé.*

PRN CPL market at scarf see

‘Lali has seen a scarf at the market.’ (AAuxXPV)

d *Wōwā níkā jú mlā zīmlē.*

PRN FUT.NEG water drink today

‘Wowo will not drink water today.’ (AAuxPVX)

(Grah 1983: 70, 232, 259, 262)

2.2.4 Basic constituent order in languages with limited flexibility in constituent order

In most languages, the linear order of the nominal terms of verbal clauses is neither totally rigid nor totally flexible, and shows possibilities of variation that are variously regulated in the individual languages. Such situations can be analyzed as involving a basic (or default) constituent order that can be modified by variously conditioned syntactic operations.

For example, in Spanish, there can be little doubt about the status of AVPX / SVX as the basic constituent order, but intransitive verbs have a ‘presentational’ construction in which the noun phrase in S role simply moves to postverbal position, whereas with transitive verbs, the presentational construction with A in postverbal position requires fronting and indexation of P, cf. example (19).

(19) Spanish (Italic, Indo-European)

a *Juan llegó.* ~ *Llegó Juan.*

PRN arrive.CPL.I_{S/A}:3SG

‘Juan arrived.’

b *Juan trajo las bebidas.*

PRN bring.CPL.I_{S/A}:3SG D.PL.F drink(F).PL

‘Juan brought the drinks.’

~ *Las bebidas las trajo Juan.*

D.PL.F drink(F).PL I_p:3PL.F bring.CPL.I_{S/A}:3SG PRN

**Trajo Juan las bebidas.*

**Trajo las bebidas Juan.*

2.2.5 Focus positions in languages with flexible constituent order

In many languages with a more or less flexible constituent order (but not all!), the variation in constituent order crucially involves the placement of focalized noun phrases in a dedicated focus position, with four possibilities. Depending on the individual languages, the focus position may be the clause-initial position, the immediately-before-verb position, the immediately-after-verb position, or the clause-final position.

Among the languages quoted in §2.2.2, Basque and Hungarian have an immediately-before-verb focus position, whereas in Russian, focalized noun phrases tend to occur in clause-final position. Example (20) below illustrates the placement of focalized noun phrases in clause-initial position in Jóola Fóoñi, and example (21) illustrates the placement of focalized noun phrases in immediately-after-verb position in Makhuwa. Note that, in Makhuwa, the focalized term undergoes a tonal change identical to that marking nouns in predicate function, and the verb must be in a special form (the so-called ‘conjoint’ form, glossed CJ) signaling the presence of a focused noun phrase immediately after the verb

(20) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *Ko-ñiil-a-k* *ko-jok-ε* *si-be-e-s*.
 PL-child(BK)-D-clBK I_{S/A}:clBK-see-CPL PL-cow(S)-D-clS
 ‘The children saw the cows.’
- b *Si-be-e-s* *ko-ñiil-a-k* *ko-jok-ε*.
 PL-cow(S)-D-clS PL-child(BK)-D-clBK I_{S/A}:clBK-see-CPL
 ‘The children saw THE COWS.’

(21) Makhuwa (Bantu, Benue-Congo, Niger-Congo)

- a *Ni-m-váhá* *maatsí* *enúni*.
 I_{S/A}:1PL-PRS.CJ-give water(cl6).FOC PL.bird(cl10)
 ‘We give the birds WATER.’
- b *Ni-m-váhá* *enuni* *maátsi*.
 I_{S/A}:1PL-PRS.CJ-give PLbird(cl10).FOC water(cl6)
 ‘We give THE BIRDS water.’
 (Van der Wal 2009: 226)

2.2.6 Constituent order in verbal clauses and word order typology

Starting from Greenberg (1963), there is an important literature on the typology of constituent order in verbal clauses and its relationships with other aspects of word order typology, but in general, constituent order has been investigated in terms of subject, object and verb (or S, A, P and V) only. Within the Greenbergian framework, it has become accepted wisdom that, among the six possible orders, SOV (or SV/APV) and SVO (or SV/AVP) are particularly common as the basic order in the languages with relatively strong constraints on constituent order, whereas OSV (or SV/PAV) and OVS (or VS/PVA) are extremely rare.

If the position of obliques is taken into consideration, the obvious regularity is that oblique phrases tend to occur on the same side of the verb as P phrases, cf. among others (Dryer 1992). Moreover, if there is a strict ordering of P phrases and oblique phrases, P phrases tend

be adjacent to the verb. In other words, two types of constituent order are particularly common cross-linguistically: *SVX / AVPX* and *SXV / AXPV*.

There are, however, exceptions. For example, in some languages, obliques systematically occur in a position that contradicts the dominant tendency concerning the ordering of P phrases and oblique phrases: the *APVX* pattern (with preverbal P and postverbal obliques) is the only possible constituent order pattern in Mande languages, and its mirror-image *AXVP* pattern (with preverbal obliques and postverbal P) is found in Sinitic languages.

As regards the correlations with other aspects of word-order typology, it has been observed that the relative order of P and V in transitive clauses is particularly relevant typologically, in the sense that it is involved in a number of correlations with the ordering of the elements of other constructions. According to Dryer (1992), the VP order in transitive clauses correlates more or less strongly, not only with the placement of obliques in postverbal position, but also with a number of features such as:

- adpositions precede noun phrases,
- copulas precede nouns in predicate function,
- auxiliaries come before verbs,
- conjunctions precede clauses,
- etc.

whereas the languages in which P precedes the verb in transitive clauses show the opposite tendencies.

However, none of these correlations is without exceptions.

2.3 Indexation

2.3.1 Definition

In this book, the term *INDEX* encompasses all types of forms whose relationship with a noun phrase actually or potentially present with a given role in a given construction (the *CONOMINAL*) can be characterized as follows:

- the index encodes some grammatical features of the conominal, or some semantic features of its referent;
- the index occupies a fixed position in the construction, distinct from the position occupied by the conominal.

The notion of index encompasses, on the one hand, forms commonly designated as agreement markers, and on the other hand forms variously designated, depending on their morphosyntactic properties and on terminological traditions, as ‘clitic pronouns’, ‘bound pronouns’, ‘pronominal clitics’, or ‘pronominal affixes’. An important aspect of the terminology used in this book is that it makes a strict distinction between ‘pronouns’ and ‘indexes’: indexes may have discourse functions identical to those typical for pronouns (we will return to this point below), but the term ‘pronoun’ is reserved for free forms with a syntactic distribution identical to that of noun phrases projected by a nominal lexeme,

whereas indexes cannot be analyzed as occupying the same morphosyntactic slots as their conominals.

Example (22) shows that, in Wolof, when transitive verbs combine with two noun phrases in A and P role, the A phrase (*xale bi* ‘the child’) precedes the verb form (*du naan* ‘will not drink’), whereas the P phrase (*meew mi* ‘the milk’) follows it. However, as illustrated in (22b), the same participants may also be represented by indexes whose fixed position WITHIN THE VERB FORM is clearly distinct from those in which the corresponding noun phrases can be found, as shown by the unacceptability of (22c-d).

(22) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Xale b-i du naan meew m-i.*
 child(cIB) cIB-D NEG.I_{S/A}:3SG drink milk(cIM) cIM-D
 ‘The child will not drink the milk.’
- b *Du-ma ko naan.*
 NEG-I_{S/A}:1SG Ip:3SG drink
 ‘I will not drink it.’
- c **Ma du naan ko.*
 I_{S/A}:3SG NEG drink Ip:3SG
- d **Du xale b-i meew m-i naan*
 NEG.I_{S/A}:3SG child(cIB) cIB-D milk(cIM) cIM-D drink

In this book, we will be mainly concerned by PARTICIPANT INDEXATION, i.e., the use of indexes whose conominals are nominal terms of verbal clauses representing participants in the event denoted by the verb, but indexation is also found in the adnominal possession construction, and in adpositional phrases, for example in Finnish. In (23b), the 1st person plural index *-mme* suffixed to the head of the adnominal possession construction represents the adnominal possessor. In (23d), the same index suffixed to a postposition represents the complement of the postposition. In both cases, the conominal (i.e., the genitive form of the corresponding pronoun) is optional, and its presence is a matter of emphasis.

(23) Finnish (Finnic, Uralic)

- a *Peka-n talo*
 PRN-GEN house
 ‘Pekka’s house’
- b *(meidän) talo-mme*
 1PL.GEN house-I:1PL
 ‘our house(s)’
- c *Peka-n vieressä*
 PRN-GEN beside
 ‘next to Pekka’
- d *(meidän) vieressä-mme*
 1PL.GEN beside-I:1PL
 ‘next to us’

Siewierska’s (2004) typological survey of person marking is a major reference on the typology of indexation, although limited to the indexes that express person. See also

(Creissels 2005) for a typology of participant indexation in the languages of sub-Saharan Africa.

2.3.2 The syntactic relationship between indexes and their conominals

2.3.2.1 Introductory remarks

The notions of indexation and agreement overlap, but do not coincide. Obligatory indexes such as the S/A indexes that constitute the final element of finite verb forms in most European languages are commonly analyzed as expressing agreement of the verb with its subject, but the agreement in number, gender and case in noun-modifier constructions as found for example in Latin or Russian does not meet the definition of indexation, and optional indexes in complementary distribution with their conominal, such as the P index in the Wolof example (22b) above, are usually not analyzed in terms of agreement.

In fact, it is very difficult (if not impossible) to find a definition of agreement selecting exactly the heterogeneous set of co-variation phenomena commonly grouped under the label 'agreement'. However, in the perspective of the questions discussed in this book, this is not a problem, since the relevant notion for the analysis of the questions discussed in this chapter and the following ones is not agreement, but rather indexation as defined above, and more precisely, participant indexation in verbal clauses.

Three types of syntactic relationships are possible between participant indexes and their conominals:

- the index may be in complementary distribution with its conominal within the limits of the clause;
- the index may be syntactically obligatory, whereas the corresponding conominal is syntactically optional;
- both the index and its conominal may be syntactically obligatory.

2.3.2.2 Indexes in complementary distribution with their conominal within the limits of the clause

This configuration is illustrated by the P index in the Wolof example (22) above. The indexes of this type are typically used in situations where the speaker decides that the features expressed by the index are sufficient to identify its referent, so that a description in the form of a full noun phrase would be superfluous. Another possibility is that the conominal occurs in a peripheral position of topic (at the left margin of the clause), or of afterthought/antitopic (at the right margin of the clause). Such indexes can be characterized as functionally equivalent to free pronouns, in the sense that they play the same role in reference tracking.

For example, in Ganja, there is no indexation of nuclear participants encoded as noun phrases, but topical nuclear participants (S/A or P) can be encoded as indexes affixed to the verb. The indexes encode the person and number of the participant they refer to, plus, in the 3rd person, the gender of a noun phrase that could describe their referent (hence the gloss clX, where X refers to one of the gender-number agreement patterns in which the noun forms of Ganja are involved). In Ganja, the bound nature of indexes manifests itself in the fact that they undergo vowel harmony and other morphophonological processes, but also in their

distribution. For example, in (24f), the P index occurs between the prohibitive marker and the verb stem, whereas its conominal could only occur in postverbal position, as in (24e) (Creissels & Biaye 2016).

(24) Ganja (Balanta, Atlantic, Niger-Congo)

- a *F-lìmbírè mà góbù.*
 SG-orange(clF) D fall.CPL
 ‘The orange fell down.’
- b *F-góbù.*
 I_{S/A}:clF-fall.CPL
 ‘It fell down (the orange).’
- c *Ñ-jêd f-lìmbírè mà.*
 I_{S/A}:1SG-take.CPL SG-orange(clF) D
 ‘I took the orange.’
- d *Ñ-jêd-fì.*
 I_{S/A}:1SG-take.CPL-I_P:clF
 ‘I took it (the orange).’
- e *Mbági-jêd f-lìmbírè mà!*
 PROH-take SG-orange(clF) D
 ‘Don’t take it (the orange)!’
- f *Mbági-f-jêd!*
 PROH-I_P:clF-take
 ‘Don’t take it (the orange)!’

2.3.2.3 Obligatory indexes corresponding to a syntactically optional conominal

This configuration is illustrated by the S/A index in the Wolof example (22) above. Cross-linguistically, it is particularly common for noun phrases in S/A role. The indexes occurring in this configuration have the ability to fulfill either a pronominal function (in the absence of their conominal) or the agreement marker function (in the presence of their conominal).

Latin illustrates a particular widespread type of indexation system, in which indexation is limited to participants encoded as S or A (traditionally designated as subjects). The S/A indexes of Latin express person and number and are obligatory, whereas their conominal is syntactically optional.

(25) Latin (Italic, Indo European)

- a *Servus ad villam ambulav-it.*
 slave(M).SG to house(F).SG.ACC walk.CPL-I_{S/A}:3SG
 ‘The slave went to the house.’
- b *Ad villam ambulav-it.*
 to house(F).SG.ACC walk.CPL-I_{S/A}:3SG
 ‘S/he went to the house.’
- c *Servi ad villam ambulav-erunt.*
 slave(M).PL to house(F).SG.ACC walk.CPL-I_{S/A}:3PL
 ‘The slaves went to the house.’

- d *Ad villam ambulav-erunt.*
to house(F).SG.ACC walk.CPL-I_{S/A}:3PL
‘They went to the house.’
- e (*Ego*) *ad villam ambulav-i.*
1SG to house(F).SG.ACC walk.CPL-I_{S/A}:1SG
‘I went to the house.’
- f (*Tu*) *ad villam ambulav-isti.*
2SG to house(F).SG.ACC walk.CPL-I_{S/A}:2SG
‘You (sg.) went to the house.’
- g (*Nos*) *ad villam ambulav-imus.*
1PL to house(F).SG.ACC walk.CPL-I_{S/A}:1PL
‘We went to the house.’
- h (*Vos*) *ad villam ambulav-istis.*
2PL to house(F).SG.ACC walk.CPL-I_S:2PL
‘You (pl.) went to the house.’

In Nahuatl, as illustrated by example (26), transitive verb forms include two obligatory prefixes corresponding to the A and P terms of transitive clauses, even if the clause includes noun phrases that refer to the same participants.

(26) Classical Nahuatl (Aztecan, Uto-Aztecan)

- Ni-quim-itta in c̄c̄itlāltin*
I_{S/A}:1SG-IP:3PL-see D star.PL
‘I can see the stars.’
(Launey 1981: 36)

2.3.2.4 *Obligatory indexes corresponding to a syntactically obligatory conominal*

This configuration is quite uncommon cross-linguistically. However, it can be illustrated by the third person singular S/A index of English, as in **John** *drink-s* *tea at breakfast*. The indexes occurring in this configuration can be characterized as pure agreement markers.

A similar situation is found in Russian, where, however, noun phrases in S/A role are less strictly obligatory than in English, since they can be omitted in some particular contexts.

(27) Russian (Slavic, Indo-European)

- a *Ivan priglaš-a-et Mašu.*
PRN(M) invite.IPFV-PRS.I_{S/A}:3SG PRN(F).ACC
‘Ivan is inviting Maša.’
- b *Maša priglaš-a-et Ivana.*
PRN(F) invite.IPFV-PRS.I_{S/A}:3SG PRN(M).ACC
‘Maša is inviting Ivan.’

- c **(On) eë priglaš-a-et.*
 3SG.M 3SG.F.ACC invite.IPFV-PRS.I_{S/A}:3SG
 ‘He is inviting her.’³¹
- d **(Ja) tebja priglaš-a-ju.*
 1SG 2SG.ACC invite.IPFV-PRS.I_{S/A}:1SG
 ‘I am inviting you.’
- e *Ivan priglasi-l-Ø Mašu.*
 PRN(M) invite.PFV-PST-I_{S/A}:SG.M PRN(F).ACC
 ‘Ivan invited Maša.’
- f *Maša priglasi-l-a Ivana.*
 PRN(F) invite.PFV-PST-I_{S/A}:SG.F PRN(M).ACC
 ‘Maša invited Ivan.’
- g **(On) eë priglasi-l-Ø.*
 3SG.M 3SG.F.ACC invite.PFV-PST-I_{S/A}:SG.M
 ‘He invited her.’
- h **(Ja) tebja priglasi-l-Ø.*
 1SG 2SG.ACC invite.PFV-PST-I_{S/A}:SG.M
 ‘I invited you (man speaking).’
- i **(Ja) tebja priglasi-l-a.*
 1SG 2SG.ACC invite.PFV-PST-I_{S/A}:SG.F
 ‘I invited you (woman speaking).’

2.3.3 The categories expressed by indexes

The terms ‘index’ and ‘conominal’ are borrowed from Haspelmath (2013, 2019), but the notion of indexation as delimited in this book is broader than that proposed by Haspelmath. Indexation as defined by Haspelmath is limited to bound forms expressing the person feature, whereas the definition of indexation put forward here includes no condition on the categories expressed by indexes.

For example, in Russian, in the present, verbs express the person and number of the participant encoded as A or S, whereas in the past, they express the gender and number (but not the person) of the same participant, as already illustrated in (27) above with a transitive verb, and further illustrated in (28) with an intransitive verb,

- (28) Russian (Slavic, Indo-European)
- a *Ja / ty / on govori-l-Ø.*
 1SG / 2SG / 3SG.M speak.IPFV-PST-I_{S/A}:SG.M
 ‘I_M / you_{SG.M} / he spoke.’
- b *Ja / ty / ona govori-l-a.*
 1SG / 2SG / 3SG.F speak.IPFV-PST-I_{S/A}:SG.F
 ‘I_F / you_{SG.F} / she spoke.’

³¹ In Russian, constituent order is flexible, and determined by pragmatic factors. With nouns in P role, the default order in the transitive construction is AVP, but it is APV with pronouns, due to the inherent topicality of pronouns.

- c *My / vy / oni govori-l-i.*
 1SG / 2SG / 3SG.F speak.IPFV-PST-I_{S/A}:PL
 ‘We / you_{PL} / they spoke.’

I fail to see why the definition of indexation should be restricted in such a way that the person-number markers found in the present form of Russian verbs would be considered as indexes, but not the gender-number markers found in their past form. It is true that, originally, the past form of Russian verbs was an analytical verb form in which the verb ‘be’ acted as the auxiliary, and the lexical verb occurred in the form of a participle expressing agreement in number and gender like adjectives. However, due to the deletion of the auxiliary, the participle was reanalyzed as a finite verb form, resulting in a situation in which the participant encoded as S or A is indexed by person-number indexes in the present, and by gender-number indexes in the past.

Participant indexes expressing gender and number but not person are also common in the Nakh-Daghestanian language family.

Examples (27) and (28) also show that, semantically, indexes are not necessarily redundant with their conominal, since they may systematically encode features that are not uniquely implied by the conominal. In Russian, first and second person pronouns do not express gender, but in the past, first or second person singular pronouns in S/A role co-occur with an obligatory index encoding the sex of their referent.

2.3.4 Possible positions for participant indexes

Most of the time, participant indexes attach to the verb, as in most of the examples above, but they may also be found in other positions. In particular, with analytical verb forms, it is common that they do not attach to the lexical verb, but to the auxiliary, as in example (29b).

(29) Italian (Italic, Indo-European)

- a *Scriv-o una lettera.*
 write-PRS.I_{S/A}:1SG one.F letter(F)
 ‘I am writing a letter.’
- b *Ho scritto una lettera.*
 have.PRS.I_{S/A}:1SG write.PTCP one.F letter(F)
 ‘I have written a letter.’

Mande languages have a rigid constituent order APVX / SVX, and in those of them that have S/A indexes, they are found in the position immediately after A or S. In Mende, they can be analyzed as proclitic to the first word of the verb phrase, i.e., the verb in intransitive clauses, or the first word of the P phrase in transitive clauses, as in example (30). In Mende, the general rule is that S/A indexes are in complementary distribution with their conominal, but NPs in S/A role that are not focalized obligatorily co-occur with a 3rd person plural S/A index.

- (30) Mende (Southwestern Mande, Mande)
Nyǎpoisia tí= mbeí lo yíli-ma.
 girl.D.PL I_{S/A}:3PL= rice.D FOC cook-ICPL
 ‘The young women are cooking RICE.’
 (Innes 1971: 210)

In some Mande languages, the S/A indexes have fused with TAM and polarity markers into portmanteau morphemes that occupy the position immediately after the S/A noun phrase, as illustrated by example (31).

- (31) Dan (South Mande, Mande)
- a *Dēbà bā yà kǎǎ wú.*
 woman D CPL.I_{S/A}:3SG calabash break
 ‘The woman broke the calabash.’
- b *Bá kǎǎ wú.*
 CPL.I_{S/A}:1SG calabash break
 ‘I broke the calabash.’
- c *Gbätö yǎ kó dǎ.*
 PRN ICPL.I_{S/A}:3SG house build
 ‘Gbato builds houses.’
- d *Ā kó dǎ.*
 ICPL.I_{S/A}:1SG house build
 ‘I build houses.’
 (Vydrin 2017: 494,495,535)

Quite a few languages have participant indexes that can be characterized as second-position clitics. This is the case in Serbo-Croat, as illustrated in (32) by the P index =*ga* (3SG.M). Note that this example includes another second-position clitic: the inflected form of ‘be’ in auxiliary function.

- (32) Serbo-Croat (Slavic, Indo-European)
- a *Ivan =ga =je htjeo vidjeti juče.*
 PRN(M) I_p:3SG.M be.PRS.I_{S/A}:3SG want.PTCP.M see.INF yesterday
 ‘Ivan wanted to see him yesterday.’
- b *Htjeo =ga =je vidjeti juče.*
 want.PTCP.M I_p:3SG.M be.PRS.I_{S/A}:3SG see.INF yesterday
 ‘He wanted to see him yesterday.’
- c *Juče =ga =je htjeo vidjeti.*
 yesterday I_p:3SG.M be.PRS.I_{S/A}:3SG want.PTCP.M see.INF
 ‘He wanted to see him yesterday.’
- d *Moj =ga =je brat htjeo vidjeti.*
 my.SG.M I_p:3SG.M be.PRS.I_{S/A}:3SG brother(M) want.PTCP.M see.INF
 ‘My brother wanted to see him.’

2.3.5 Cross-linguistic tendencies in participant indexation

Cross-linguistically, the indexation of nuclear participants (i.e., participants encoded as core terms) is very common, especially the indexation of participants encoded as S or A.

Moreover, S = A alignment is particularly widespread in indexation (much more than in flagging). Numerous examples of languages with S = P alignment in flagging and S = A alignment in indexation have been quoted in the literature on alignment typology, whereas the reverse configuration does not seem to be attested. Among the languages that have indexation of S, A and P but no flagging contrast between core terms, S = P alignment in indexation, although attested (for example in Mayan languages), can be considered as exceptional.

In contrast to nuclear participants, the indexation of participants encoded as oblique noun phrases is rare, with the exception of dative obliques, whose indexation is common. French has an index *y* that can be used (among others) to index locative adjuncts, as in (33), and locative indexes can also be found for example in Wolof and in Jóola languages (Atlantic), but such indexation mechanisms are cross-linguistically uncommon.

(33) French (Italic, Indo-European)

a *Jean a travaillé deux ans à Paris.*

PRN has worked two years in PRN

‘Jean worked two years in Paris.’

b *Jean y= a travaillé deux ans.*

PRN there has worked two years

‘Jean worked two years there.’

As already observed in chapter 1 §1.3.3.6, in the languages in which a notion of dative oblique can be recognized, indexation is precisely a mechanism in which dative obliques tend to behave in the same way as P, and differently from the other obliques. For example, in most Basque varieties (including Standard Basque), the participants encoded as datives (be they essential participants or not) share with nuclear participants in the strictest sense of this term the property of being obligatorily indexed, whereas Basque has no indexation mechanism for the other types of obliques.

2.3.6 Participant indexation in diachrony

As regards the possible origin of participant indexes, a distinction must be made between those expressing person distinctions, and those that do not express person.

There is consensus that the indexes expressing person distinctions ultimately derive from personal pronouns representing topical referents. For a discussion of the details of the possible scenarios that have been proposed in the literature, readers are referred to (Siewierska 2004: 261-272). However, the immediate origin of the indexes found at a given moment in the history of a language may be the recycling of indexes already present in a form which is not a personal pronoun. For example, an auxiliary inflected for person may grammaticalize as a verbal affix expressing TAM and person agreement, as attested for example by Polish past tense and Romance future, two textbook cases that have been repeatedly commented in the grammaticalization literature, cf. (Hopper & Traugott 1993: 42-44, 52-53, 136-138) and

references therein. Another possibility is the reanalysis of possessive indexes as participant indexes when a deverbal noun is reanalyzed as a finite verb form.

Participant indexes expressing categories such as number or gender, but not person, are less common cross-linguistically, and require another type of historical explanation. Since gender-number agreement is a typical property of adjectives, one may imagine that they result from the reanalysis of participles as finite verb forms, and this is precisely the scenario attested in the history of East Slavic languages. As already mentioned in §2.3.3, in the past tense, Russian verbs are inflected for number and gender only, and the same situation is found in Ukrainian and Belarusian. Historically, this situation resulted from the elision of the verb ‘be’ acting as an auxiliary in combination with a participle (i.e., a non-finite verb form with adjectival characteristics). Originally, the past tense of East Slavic languages, synchronically a synthetic verb form inflected for gender and number, was an analytical form (originally, an analytic perfect) in which the auxiliary was inflected for person, as is still the case in West and South Slavic languages. In Polish, the auxiliary fused with the participle, giving rise to a synthetic past form whose person-number inflection is the reflex of the former auxiliary, whereas in East Slavic languages, the deletion of the auxiliary triggered the reanalysis of the participle inflected for gender and number as a finite verb form indexing gender and number of the S/A term.

2.4 Flagging

2.4.1 Definition

FLAGGING refers to the marking of the relationship between a dependent noun phrase and its head by morphological operations on the words that constitute the dependent noun phrase, or by the insertion of grammatical words located at the periphery of the dependent noun phrase. In other words, ‘flagging’ refers to the use of case inflection or adpositions to encode the semantic or syntactic roles fulfilled by noun phrases in the constructions in which they participate. This term was coined by Haspelmath, who defines ‘flag’ as “a bound form that occurs on a nominal and that indicates the semantic or syntactic role of the nominal with respect to a verb (in a clause) or with respect to a possessed noun (in a complex nominal)” (Haspelmath 2019: 96).

Example (34) illustrates the use of a flag traditionally described as a case marker to mark the contrast between the noun phrases representing the two essential participants of a bivalent verb. As illustrated by example (35), the same function can be fulfilled by adpositions. In these examples, one of the two nominal terms of the clause is overtly flagged, whereas the other one is left unflagged.

(34) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Mik'i-λa* *χ^we* *harig^wari*.

child(N)-DAT dog(N) see.CPL

‘The child saw the dog.’

b *χ^we-λa* *mik'e* *harig^wari*.

dog(N)-DAT child(N) see.CPL

‘The dog saw the child.’

- (35) Spanish (Italic, Indo-European)
- a *Juan invitó a María.*
 PRN invite.CPL.I_{S/A}:3SG ACC PRN
 ‘Juan invited María.’
- b *María invitó a Juan.*
 PRN invite.CPL.I_{S/A}:3SG ACC PRN
 ‘María invited Juan.’

Given the topic of this book, the discussion of flagging will be limited to the flagging of the nominal terms of verbal clauses, but the notion of flagging also applies to dependent noun phrases in the adnominal possession construction (genitival modifiers). GENITIVE MARKER is the term commonly used for the flags operating in the adnominal possession construction.³²

2.4.2 Case markers and adpositions

The introduction of the term ‘flagging’ is motivated by the impossibility of finding a cross-linguistically consistent way of distinguishing ‘case-markers’ from ‘adpositions’. Traditionally, case-markers are described as inflectional markers, and adpositions are described as words, but it is obvious that there is considerable arbitrariness in the way flags are categorized as case-markers or adpositions in descriptive grammars. As rightly observed by Blake (2004: 9-10), who uses ‘case marking’ with the meaning for which the term ‘flagging’ is used here:

“Although one can easily separate different layers of case marking in a particular language, as in Hindi for instance, it can be difficult to determine whether a single layer of case marking in a particular language is affixial or adpositional. Where the markers in question figure in concord, they are clearly affixes, but where they occur only once in a phrase, usually at the end, there can be some doubt about whether they are inflections or free forms.”

For example, there is no consensus about the exact number of case suffixes that should be recognized in Hungarian, but the inventories found in descriptive grammars include at least 17 case suffixes (and sometimes many more). However, as argued in (Creissels 2006), the accusative marker is the only one whose suffixal status is absolutely uncontroversial. The suffixal analysis can also be considered for the superessive marker, but for the other flags commonly considered as case suffixes in Hungarian grammars, the way they combine with pronouns is better accounted for by analyzing them as the clitic form of postpositions. A similar conclusion was reached by Spencer (2008).

Similarly, Nakh-Daghestanian languages are commonly described as having huge inventories of ‘cases’, but in the absence of phonological interaction between these alleged

³² Genitive markers should not be confused with CONSTRUCT MARKERS, which may also be found in the adnominal possession construction. In noun-modifier constructions, construct markers attach to the head noun and register the presence of a given type of modifier (adnominal possessor or other). For example, in Wolof, the suffix *-u* attached to *fas* ‘horse’ in *fas-u Sàmba* ‘Sàmba’s horse’ is a construct marker registering the presence of an adnominal possessor.

case suffixes and the so-called ‘oblique stem’ to which they attach, an alternative analysis can be considered, according to which the so-called ‘oblique stem’ of East Caucasian nouns is the sole integrative case in a binary case system, and the flags currently analyzed as case markers are postpositional clitics.

Conversely, it is well-known that many flags currently analyzed as prepositions (for example, *à* and *de* in French, or the monosyllabic prepositions of Russian) have in many respects affix-like properties.

In fact, there is nothing surprising in the fuzziness of the distinction between case affixes and postpositions. Historically, the agglutination of adpositions is a major source of case affixes, and the adpositions engaged in this evolution should not be expected to acquire all the properties that characterize bound forms at the same time.

For a general discussion of the criteria according to which flags that occur only once in a phrase and do not fuse with a word or stem to which they are adjacent can be analyzed as affixes or words, readers are referred to Blake (2004: 10-12). It is not necessary to enter into the details of this question here, since decisions about the precise morphological nature of flags have no impact on the analyses developed in this book. The presentation of the examples commented throughout this book simply reflects the distinction between case markers and adpositions as it is traditionally posited in the descriptions of the individual languages, since different decisions about the morphological status of the elements involved in flagging, whatever their possible motivations, would not change anything in the analyses.

It is, however, necessary to address an issue concerning specifically the languages that have flags analyzable as inflectional markers, namely the status of the case form used as the quotation form of nouns with respect to the notion of flagging, since the decision on this issue is crucial for the analysis of core term flagging systems. This will be the topic of §2.4.3.

2.4.3 Zero case and integrative cases³³

2.4.3.1 *Flagging and the quotation form of nouns*

An important difference between Haspelmath’s definition of flagging and the notion of flagging used in this book is that, contrary to Haspelmath, I do not consider morphological elements isolable in the quotation form of nouns as ‘flags’. In this book, a noun phrase is not considered as flagged if it coincides with the form used in isolation for quotation or labeling. In other words, the notion of flagging as I use it in this book implies either the addition of morphological material to the quotation form of noun phrases, or a morphological modification of the quotation form. For example, I do not analyze the ‘nominative’ form of the Latin noun *domin-us* ‘master’ as flagged, since the ending *-us* is obligatorily present in the quotation form of this noun.

This decision is consistent with the definition of flags as marking the relationship between DEPENDENT noun phrases and their head, since the ‘nominative’ form of Latin nouns was “the case used outside constructions, the case used in isolation, the case used in naming” (Blake 2004: 30).

³³ This section summarizes (Creissels 2009). Note, however, that, in my 2009 paper, I expressed hesitation about the choice of a term for the case form of nouns that has the ability to be used in a function of quotation or pure designation, and ‘zero case’ (which I consider now as the best possible choice) was not among the possibilities I considered.

2.4.3.2 *The notion of zero case*

The notion of ZERO CASE is crucial in the typology of transitive coding proposed in this book. In the languages in which nouns are (analyzed as) inflected for case, I designate as *zero case* (and I represent as ZER in the schematization of coding frames) the case form of nouns that coincides with the form used in isolation for quotation and labeling, whatever the distribution of this form in syntactic contexts (and whatever the term traditionally used to designate it in grammars of individual languages). To the best of my knowledge, this term of zero case was first suggested in Ernout & Thomas' (1951) Latin grammar as a possible gloss of the term 'nominative case' as traditionally used in Latin grammars.

In descriptive grammars, depending on the traditions, the zero case is variously designated, not only as 'nominative case', but also as 'absolutive case', 'direct case', 'free state', etc. The label 'accusative case' is even found in descriptions of some of the so-called marked-nominative languages, in which the P phrase in transitive clauses is in a form that coincides with the extra-syntactic form of nouns used for quotation and labeling, whereas the A phrase in transitive clauses and the S phrase in intransitive clauses share a special form distinct from the quotation form of nouns. Conversely, the label 'nominative case' is now widely used, not only in descriptions of the so-called 'marked-nominative languages', but also for example in descriptions of Japanese, Korean, or Tagalog, with reference to forms that do not meet the definition of the zero case put forward here.

The extra-syntactic use of nouns may involve two different functions: a calling function, for which some languages have a dedicated VOCATIVE form of nouns, and a function of quotation or designation. The extra-syntactic use of nouns in a quotation or designation function is particularly apparent when for instance a noun is written on a box to indicate the content of the box, or when the name of a person is written on their passport or identity card, or on the door of their office.

A possible objection to the notion of extra-syntactic use of nouns (and consequently to the notion of zero case as I define it) is that what I consider as an extra-syntactic use of nouns could be viewed as the realization of an equative clause. It is true that, in some languages, the distinction between nouns in extra-syntactic function and equative clauses is blurred by the fact that a noun in its extra-syntactic form can express by itself an equative predication '(This is an) N', and also in some languages an existential predication '(There is an) N'. However, phenomena such as the use of the instrumental case for nouns in predicate function in Slavic languages, or the flagging of nouns in predicate function by means of postpositions in Mande languages, can be viewed as evidence that nouns in the extra-syntactic function of pure designation should not be confused with nouns in predicate function.

2.4.3.3 *The zero case as a syntactically unmarked form of nouns*

In the languages in which nouns are analyzed as inflected for case, the ZERO CASE, i.e., the case form that can be uttered in isolation as a pure label evoking entities, without triggering the reconstruction of a syntactic construction whose other terms would not be expressed, can be characterized as SYNTACTICALLY UNMARKED. It shares this characterization with the vocative case, in the languages that have such a form. By contrast, the other case forms can be characterized as SYNTACTICALLY MARKED.

In general, the case forms that meet the definition of zero case also have syntactic uses: in Latin, the nominative case is not only the form of nouns available for the extra-syntactic function of quotation or designation, but also the form taken by nouns in S/A role and in predicate role. A possible analysis is that case forms such as Latin nominative are DEFAULT case forms used in contexts that are not specified in the grammar as requiring some syntactically marked case form. Modern grammatical theories tend to neglect the extra-syntactic use of nouns, but ancient grammarians implicitly acknowledged its theoretical significance when they chose to label one of the case forms of Greek nouns as ONOMASTIKĒ PTÔSIS, lit. ‘the case that names’, and to transpose this term into Latin as CASUS NOMINATIVUS.

This conception of the nominative case has subsequently been more or less blurred by the scholastic tradition of teaching Latin, which presents the nominative as being basically the subject case. It is nevertheless still present in many modern Latin grammars. For example, Collart (1966) defines the nominative case as “le cas-pancarte” (‘the placard case’), and explicitly argues that the use of the nominative case for subjects is not the basic function of this case, but rather a “natural” consequence of its more basic value of designation form. Similarly, Ernout & Thomas (1951) insist that the nominative is “le cas du nom considéré en lui-même ... une sorte de cas-zéro auquel se mettait tout substantif qui se trouvait isolé dans la phrase par rupture de construction” (‘the case of the noun considered in itself ... a kind of zero case used for every substantive isolated in the sentence by a break in the construction’).

Interestingly, the theory of case assignment developed by Bittner & Hale (1996) in a generative framework develops the same intuition. Crucially, they characterize the nominative (which in their terminology includes the form used for nouns in S/P function in case marking systems following the so-called ergative alignment) as “the UNMARKED structural Case”: “Case-binding also constrains the unmarked structural Case —i.e., the nominative—which we analyze as Case-less” (Bittner & Hale 1996:4).

In addition to its theoretical interest, the recognition of the contrast between syntactically marked and syntactically unmarked case forms as the most basic distinction in all case systems (whatever the distribution of the syntactically unmarked case in syntactically defined contexts) provides a simple solution to terminological problems that are an important source of misunderstandings and confusions in a typological approach to transitivity and related issues.

2.4.3.4 *Syntactic markedness and morphological markedness*

Most of the time, in languages in which nouns are analyzed as inflected for case, the zero case (i.e., the syntactically unmarked form of nouns available for an extra-syntactic function of quotation or designation) is also MORPHOLOGICALLY UNMARKED, in the sense that it can conveniently be taken as the input for the morphological operations (affixation or others) that yield the other case forms of the noun.

In the simplest cases, it is possible to describe case inflection as an affixation process in which the syntactically unmarked form of nouns used for quotation or designation is characterized by the absence of any overt case affix, and coincides with the stem to which the overt case affixes attach. However, the form of nouns used in the extra-syntactic function of quotation or designation does not always coincide with the stem to which case affixes attach. The zero case of Latin (traditionally called nominative) has a zero ending with some nouns (*puer* ‘child’), but an overt ending with some others (*domin-us* ‘master’). Similarly, the zero

case of Russian (aka nominative case) may include a non-void ending, and conversely, syntactically marked noun forms (i.e., forms existing only as elements of syntactic constructions) may have a zero ending: Russian nouns of the morphological type illustrated by *gor-a* ‘mountain’ have an ending *-a* in their quotation form and a zero ending in the genitive plural (*gor*). A similar situation is found in Icelandic, where *hatt-ur* ‘hat’ has an overt ending *-ur* in its quotation form (nominative singular), and a zero ending in the accusative singular (*hatt*).

Outside the Indo-European family, a similar situation is found in the South-West Bantu languages having so-called “tone cases”. In those languages, nouns occur with their lexical tone contour in certain syntactic roles only. Their quotation / designation form includes an additional high tone that must be analyzed as an inflectional mark, cf. among others (Maniacky 2002) on Ngangela.

To summarize, MORPHOLOGICAL markedness and SYNTACTIC markedness do not necessarily coincide. The zero case is by definition a syntactically unmarked form, but it does not necessarily coincide with the stem from which morphological operations derive the forms that constitute the case paradigm of nouns in a given language.

2.4.3.5 Terminological issues

The term zero case can be understood as a cover term for the case forms currently referred to as nominative or absolutive in the typological literature. In addition to theoretical considerations, there are two main reasons for preferring it.

On the one hand, the distinction between nominative and absolutive is not really useful, since a nominative case in an unproblematic ‘accusative’ language is simply a zero case contrasting with an accusative case, and an absolutive case in an unproblematic ‘ergative’ language is simply a zero case contrasting with an ergative case.

On the other hand (and this is indeed crucial), the usual definition of nominative and absolutive can only lead to inconsistencies in the description and typological analysis of languages with less common patterns of indexation and/or case marking. This is the case in ‘split-ergative’ languages like Georgian or Kurmanji Kurdish, in which the same morphological form of nouns meets the definition of ‘absolutive’ or ‘nominative’ depending on the tense value expressed by the verb projecting the clause, cf. examples in chapter 5 §5.4 & §5.6.

In case paradigms, the cases other than the zero case (and the vocative, in the languages having a vocative case) can be designated as INTEGRATIVE CASES, since the common feature that opposes them to the zero case (and to the vocative case) is the implication that the noun phrase they flag fulfills a function in some syntactic construction. In languages having two or more integrative cases, I will in principle refer to them individually by means of the traditional labels that evoke their possible functions, but in languages with binary case systems, ‘integrative case’ is the best possible label for the only case that implies the integration of the noun phrase in some syntactic construction, all the more so due to the important variation in the syntactic distribution of the two cases across languages having binary case systems.³⁴

³⁴ In several traditions, the syntactically marked case in binary case systems is designated as ‘oblique case’, but this term is better avoided because of the risk of confusion with ‘oblique’ as a type of syntactic role. The point is

As already indicated in chapter 1, in the glosses of the examples quoted in this book, for the languages whose nouns are analyzed as inflected for case, the convention is that, if no case is explicitly indicated, the noun must be understood as being in the zero case. In languages with binary case systems, the sole integrative case will be glossed K, whatever its distribution and the labels traditionally used in the descriptions of the languages in question.

2.4.4 Cross-linguistic tendencies in flagging

In the languages of the world, the general tendency is that obliques are overtly flagged by means of either integrative cases or adpositions. This is consistent with the fact that obliques typically represent adjuncts, whose semantic role is not closely related to the lexical meaning of the verb. Adjunct noun phrases can only be left unflagged if they fulfill a semantic role suggested by their inherent meaning (for example, in English, *two hours* used as a duration adjunct, or *the next day* expressing the date at which an event occurred).

In contrast to obliques, core terms often show no overt flagging, and this cross-linguistic tendency is particularly strong for the S term of intransitive clauses. In transitive clauses, A is less often flagged than P. In many languages, all core terms are invariably unflagged, and consistent flagging of core terms (i.e., situations in which a given core term invariably shows overt flagging) is less frequent, cross-linguistically, than variously conditioned alternations between overt flagging and zero flagging of core terms.

Some of the western Austronesian languages that have a Philippine-type voice system, such as Paiwan or Tagalog (see chapter 3 §3.3.2) also have systems of participant coding in which all nominal terms of clauses, whatever their role, are overtly flagged by prepositional clitics. Example (36) illustrates the possibility that one of the nominal terms is flagged as the syntactically privileged term, or pivot, whereas those that have not been selected for the role of pivot are flagged according to their semantic role (hence the glosses nPIV.A and nPIV.P).³⁵

(36) Paiwan (Paiwan, Austronesian)

- a *Q<m>alup a caucau tua vavuy i gadu tua vuluq.*
 <AV>hunt PIV man nPIV.P pig LOC mountain INS spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [agent voice]
- b *Qalup-en nua caucau a vavuy i gadu tua vuluq.*
 hunt-PV nPIV.A man PIV pig LOC mountain INS spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [patient voice]
- c *Qalup-an nua caucau tua vavuy a gadu tua vuluq.*
 hunt-LV nPIV.A man nPIV.P pig PIV mountain INS spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [locative voice]

that, according to language-specific rules, an ‘oblique case’ as this term is traditionally used may also flag core syntactic terms.

³⁵ In Paiwan, the preposition flagging A phrases that do not fulfill the role of pivot is also found in genitive function, and the preposition flagging patients that do not fulfill the role of pivot is also found in instrumental function. Tagalog (see chapter 3 §3.3.2) differs from Paiwan in that the genitive preposition is also used to flag P phrases that are not selected as the pivot.

- d *Si-qalup nua caucau tua vavuy i gadu a vuluq.*
 IV-hunt nPIV.A man nPIV.P pig LOC mountain PIV spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [instrumental voice]
 (Ferrell 1979: 202)

However, although relatively common among the western Austronesian languages that have a Philippine-type voice system, this situation is exceptional at global level. Outside western Austronesian, quite a few languages have a possibility of overt flagging for A, P, and S, but almost always within the frame of systems involving variously conditioned alternations between overt flagging and zero flagging.

In the languages other than western Austronesian that have a possibility of overt flagging for A, P, and S, the most common configurations are S/A vs. P (S/A case or adposition vs. accusative case or adposition), illustrated in (37) by Japanese, and A vs. S/P (ergative case or adposition vs. S/P case or adposition), illustrated in (37) by Tongan.

(37) Japanese (Japonic)

- a quotation forms: *isha* ‘doctor’, *hito* ‘person’, *shinbun* ‘newspaper’
 b *Isha-ga kita.*
 doctor-S/A come.PST
 ‘The doctor came.’
 c *Oozei-no hito-ga kono shinbun-o yomu.*
 many-GEN person-S/A DEM newspaper-ACC read.PRS
 ‘Many people read this newspaper.’

(38) Tongan (Oceanic, Austronesian)

- a quotation forms: *Tolu*, *Kōlaiate*, *Tēvita* (proper names)
 b *Na’e lea ‘a Tolu.*
 TAM speak S/P PRN
 ‘Tolu spoke.’
 c *Na’e tāmata’i ‘a Kōlaiate ‘e Tēvita.*
 TAM kill S/P PRN ERG PRN
 ‘David killed Goliath.’
 (Churchward 1953: 67, 68)

Languages with three distinct integrative cases or adpositions for A, P, and S are extremely rare. However, this configuration has been signaled in the Sahaptian language Nez Perce, in the Iranian language Yazgulyam, and in a few Australian languages.

The most common configurations in core term flagging, illustrated in examples (39) and (40), are those in which one of the two terms of the transitive construction is overtly flagged (either ergative-marked A, or accusative-marked P), whereas the other core term of the transitive construction and S are left unflagged. The frequency of these two configurations is sometimes explained in terms of a functional motivation of economy, in the sense that, among the configurations that ensure an unambiguous distinction between core terms, they are those that maximalize the use of zero-flagging as opposed to overt flagging.

- (39) Finnish (Finnic, Uralic)
- a quotation forms: *mies* ‘man’, *karhu* ‘bear’
 - b *Mies kuoli.*
man die.PST.I_{S/A}:3SG
‘The man died.’
 - c *Mies tappoi karhu-n.*
man kill.PST.I_{S/A}:3SG bear-ACC
‘The man killed the bear.’
(Kittilä 2002: 56)
- (40) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)
- a quotation forms: *milica* ‘policeman’, *aḱ’a* ‘woman’
 - b *Milica w-oq’ari.*
policeman(M) I_{S/P}:SG.M-come.CPL
‘The policeman came.’
 - c *Aḱ’a j-eq’ari.*
woman(F) I_{S/P}:SG.F-come.CPL
‘The woman came.’
 - d *Milica-ṣ^w-e aḱ’a j-eḷari.*
policeman(M)-OF-ERG woman(F) I_{S/P}:SG.F-lead.CPL
‘The policeman took the woman with him.’

In the so-called ‘marked-nominative’ configuration illustrated in (41), very common in some groups of African languages but very rare in other parts of the world, the same integrative case or adposition (glossed S/A) is used for A and S, whereas P is left unflagged.

- (41) Oromo (Lowland East Cushitic, Cushitic, Afroasiatic)
- a quotation form: *Tulluu* (proper name), *mana* ‘house’
 - b *Man-ni gurgur-am-e.*
house(M)-S/A see1-PASS-CPL.I_{S/A}:3SG.M
‘The house was sold.’
 - c *Tulluu-n gammada.*
PRN(M)-S/A be.glad.PRS.I_{S/A}:3SG.M
‘Tulluu is glad.’
 - d *Tulluu-n mana bite.*
PRN(M)-S/A car(M) buy.PFV.I_{S/A}:3SG.M
‘Tulluu bought a house.’
(Griefenow-Mewis & Bitima 1994: 117, 57, 37)

The mirror image of the ‘marked-nominative’ pattern, i.e. A left unflagged, whereas the same integrative case or adposition (glossed S/P) flags P and S, is extremely rare. Nias (42) and Roviana (43) provide, however, illustrations of this pattern.

- (42) Nias (Northwest Sumatra-Barrier Islands, Austronesian)
- a quotation forms: *ama* ‘father’, *si’ila* ‘village advisor’
- b *Mofanō n-ama-gu.*
 leave S/P-father-I_{ADP}:1SG
 ‘My father is leaving /left.’
- c *I-tolo zi’ila ama-gu.*
 I_A:3SG.REAL-help S/P.village.advisor father-I_{ADP}:1SG
 ‘My father is helping/helped a/the/some village advisor(s).’
- d *La-tolo n-ama-gu si’ila.*
 I_A:3PL.REAL-help S/P-father-I_{ADP}:1SG village.advisor
 ‘The village advisors are helping/helped my father.’
 (Brown 2003)

- (43) Roviana (Oceanic, Austronesian)
- a *Seke-i-a e Maepeza. s-e Zima*
 hit-TR-I_p:3SG PersART PRN S/P-PersART PRN
 ‘Maepeza hit Zima.’
- b *Taloa s-e Zima*
 hit-TR-I_p:3SG S/P-PersART PRN
 ‘Zima left.’
 (Corston-Oliver 2002: 491)

In the configuration sometimes called ‘double-oblique pattern’, extremely rare but attested in Rošani (aka Rushani) and a few other Iranian languages in the past tense (Payne 1980), A and P are flagged by the same integrative case, whereas S remains unflagged.

2.4.5 Flagging in diachrony

It is well known that the grammaticalization of nouns originally acting as the head in adnominal possession constructions, and of verbs in multiverbal constructions, are major sources of adpositions that may subsequently grammaticalize further as case markers. Both scenarios have been widely illustrated and discussed in the grammaticalization literature. For example, Ewe (Kwa) has often been quoted as a language having both prepositions resulting from the grammaticalization of verbs and postpositions resulting from the grammaticalization of nouns, which is consistent with the fact that, in Ewe, transitive verbs precede the P phrase, whereas in the adnominal possession construction, the head noun follows the genitival modifier.

As regards the grammaticalization of nouns into adpositions, the following grammaticalization paths are particularly common:

back > *behind*
face / eye / breast > *in front of*
buttocks > *under*
belly > *in*
mouth, side, house > *at*,
hand > *in the sphere of, under the control of*

waist > between
etc.

As regards the grammaticalization of verbs into adpositions, the following grammaticalization paths are particularly common:³⁶

go to > allative
follow / take > comitative
take > instrumental
give > benefactive
etc.

The grammaticalization of deictic spatial adverbs (i.e., words such as English *here* or *there*) as adpositions, discussed in (Creissels 2023c), is a less common source of adpositions and case markers.

In the history of flagging, the acquisition of additional functions by already grammaticalized flags (sometimes referred to as ‘transgrammaticalization’) is very common, as for example:

ablative / locative marker > standard-of-comparison marker
allative marker > purpose marker, dative marker
benefactive marker > dative marker
ablative marker > causal marker, mediative marker (‘by means of’)
comitative marker > instrumental marker, manner adjunct marker

Moreover, semantic bleaching resulting in the development of uses difficult to describe in semantic terms is a common phenomenon for the adpositions or case markers used to flag oblique noun phrases referring to essential participants.

As regards specifically core term flagging, transgrammaticalization of oblique markers is widely attested, in particular:

instrumental marker > ergative marker
allative / dative marker > accusative marker

Transgrammaticalization of an instrumental marker into an accusative marker is also attested in the Inuktitut varieties in which the transitive construction with ergative-marked A and zero-marked P has become obsolete, and the status of transitive construction has been taken over by the former antipassive construction, in which the referent of the initial P was expressed as an instrumental oblique (see chapter 3 §3.5.3).

Transgrammaticalization of genitive markers is another possible source of core term flagging, since in nominalizations, essential participants are commonly encoded as genitival

³⁶ The constructions involving adpositions that transparently result from the grammaticalization of verbs and still coincide with a form to the verb they originate from are often described as ‘serial verb constructions’. However, the notion of serial verb construction encompasses several subtypes that have very different syntactic properties, and one may have reservations about the recognition of ‘serial verb constructions’ in which one of the two verbs does nothing except flag a noun phrase referring to a participant in the event denoted by the other verb.

modifiers of the nominalized verb, and when nominalizations are reanalyzed as verb phrases or clauses (which constitutes a relatively common type of evolution), the genitival markers flagging the modifiers of nominalized verbs referring to the essential participants in the event denoted by the verb are automatically converted into markers of core syntactic relationships.

It is also possible that, in an originally biclausal construction in which ‘take’ and another transitive verb refer to successive events involving the same participants (for example, something like *John took the glass and filled (it)*), ‘take’ grammaticalizes directly into an accusative marker, without an intermediate stage in which it would act as an adjunct marker. This evolution is attested in Sinitic languages (Chappell 2015) and Kwa languages (Shluinsky 2017). We will return to it in chapter 4 §4.4.5.2.

Transgrammaticalization of discourse markers (either topicalization markers or focalization markers) has also been mentioned in the literature as a possible source of core term flagging.

Finally, core term flagging may result from the reanalysis of a definiteness contrast as a core case contrast. For example, comparison with other Bantu languages shows that the floating high tone that marks the integrative case in Ngangela (Maniacky 2002) and other Southwest Bantu languages is historically the reflex of a high-toned prefix (traditionally referred to as ‘augment’ in Bantu linguistics) that still fulfills the function of a definite article in Comorian and some other Bantu languages.

For an inventory of the grammaticalization paths resulting in the creation of flags, or in the acquisition of new functions by already grammaticalized flags, readers are referred to (Kuteva & al. 2019).

Chapter 3

Syntactic transitivity

The notions of transitive verb and transitive construction as defined in chapter 1 leave open the possibility that prototypical transitive verbs occur not only in the construction analyzed as the basic construction of transitive verbs, but also in alternative intransitive constructions, either in the same form as in their transitive use or in a different form, and this possibility is widely attested cross-linguistically.

After providing some clarifications regarding the articulation between semantic transitivity and syntactic transitivity (§3.1), the present chapter surveys various types of alternations that can be observed in the coding of agents and patients of prototypical transitive verbs, and discusses the criteria according to which they can be analyzed in terms of either VARIANTS OF THE TRANSITIVE CONSTRUCTION, or INTRANSITIVE ALTERNATIVES TO THE TRANSITIVE CONSTRUCTION (§3.2).

The other topics addressed in this chapter are as follows. §3.3 deals with the analysis of PIVOT-PROMINENT TRANSITIVE CONSTRUCTIONS, defined as transitive constructions in which one of the terms (the pivot) is explicitly marked as the syntactically privileged term, and the selection of the pivot is independent of its possible characterization as A or P (i.e. as having the same coding properties as the agent or the patient of prototypical semantic verbs). §3.4 is devoted to semantically bivalent verbs that do not select the transitive construction as their coding frame. Finally §3.5 discusses the possibility of evolutions by which a construction that was initially the basic construction of transitive verbs becomes obsolete, and the status of basic construction of transitive verbs is taken over by a construction that was initially an intransitive alternative to the transitive construction (either passive or antipassive).

3.1 Prototypical transitive verbs and syntactically transitive verbs

In chapter 1 §1.3.2.2, the basic construction of transitive verbs (abbreviated as ‘transitive construction’) has been defined as a construction that can be used to form clauses in which a prototypical transitive verb combines with two nominal terms representing the agent and the patient in the event denoted by the verb, with the following condition: in case prototypical transitive verbs have two or more possible constructions meeting this description, the basic construction of transitive verbs must not imply a decrease in semantic transitivity, and it must not show evidence of syntactic demotion of one of the two nominal terms representing the essential protagonists of a transitive event.

At this point it is important to recall that the notions of A, P and S as defined in this book do not apply to participants in events but to nominal terms of clauses, which means in particular that, when a transitive verb occurs in an intransitive construction, the participants encoded as A and P in the transitive construction cannot be characterized in terms of A and P. For example, in a passive construction, the phrase representing the agent of a prototypical transitive verb is not an A phrase, but an S phrase.

3.1.1 Semantic transitivity

As already briefly discussed in chapter 1, the notion of transitivity encompasses semantic transitivity and syntactic transitivity. The notion of semantic transitivity is logically anterior to the notion of syntactic transitivity, since the definition of semantic transitivity is completely independent from syntactic considerations, whereas syntactic transitivity can only be defined with reference to semantic transitivity. However, syntactic transitivity is distinct from semantic transitivity. Transitive constructions as defined in this book do not necessarily refer to transitive events: in English, *The child saw a dog* meets the definition of syntactic transitivity, although perceptions are not typical transitive events. Conversely, typical transitive events are not necessarily encoded by transitive constructions: in English, *The glass was broken by the child* is not a syntactically transitive clause, although it denotes a typical transitive event.

Semantic transitivity characterizes the interaction between participants in a particular type of two-participant events. As a semantic notion, it is gradient rather than categorical: two-participant events should not be characterized as semantically transitive *vs.* non-transitive, but rather as more or less transitive. Prototypical transitive events (or events characterized by the highest possible degree of transitivity) involve a change of state or position undergone by one of the two participants (the patient) and triggered by the action of the other participant (the agent); moreover, prototypical transitivity implies that the action of the agent is conscious and voluntary, and aims at changing the state of the patient or controlling its position.

At this point it is important to emphasize that not all two-participant events involving an active participant can be viewed as prototypical transitive events. For example, the lexical meaning of *break* is compatible with the highest possible degree of semantic transitivity, but this is not the case for *hit* or *eat*, although English *hit* and *eat* and their equivalents in many languages are syntactically transitive verbs. The reason why hitting events are not prototypically transitive is that the non-agentive participant in a hitting event does not necessarily undergo a change of state or position, and consequently is not a typical patient. As regards ingestive events, the reason why they are not prototypically transitive is that the primary motivation of the action performed by the active participant in an ingestive event is not to change the state of the other participant or control its position, but rather to satisfy a physiological need, and consequently, the active participant in an ingestive event is not a typical agent.

The investigation of semantic transitivity as a scalar and multiparameter notion was initiated by Hopper and Thompson (1980). Kittilä (2002) and Næss (2007) are also important references on this question. Given the issues addressed in this book, it is not necessary to discuss semantic transitivity in detail. For example, not all authors agree on every aspect of the transitivity scale, and the ranking of some verbs (for example, ‘have’ verbs) on the transitivity scale is quite obviously a thorny issue. However, the only thing that matters for the definition of syntactic transitivity adopted in this book is that there is consensus on the definition of prototypical transitive situations as involving two well-individuated participants characterizable as a prototypical agent and a prototypical patient as these notions have been defined in chapter 2 §2.1.2.

3.1.2 Prototypical transitive verbs

In this book, as already commented in chapter 1, verbs encoding events involving one, two, or three essential participants are designated as MONOVALENT, BIVALENT, and TRIVALENT. The characterization of verbs as TRANSITIVE does not refer to the number of essential participants in the events they denote, but to the fact that, in the language under consideration, they project clauses including two NPs whose coding characteristics are identical to those of the agent phrase and the patient phrase in clauses denoting prototypical transitive events. The delimitation of the set of transitive verbs is consequently language-specific, and relies on language-specific formal criteria, but the sets of transitive verbs that can be identified from one language to another according to this definition share the property of including a particular semantic class of verbs, the PROTOTYPICAL TRANSITIVE VERBS (or SEMANTICALLY TRANSITIVE VERBS) defined as bivalent verbs whose combination with two noun phrases representing an agent and a patient yields clauses that can denote events characterized by a maximum degree of semantic transitivity.

In English, *break* is a good example of a semantically transitive verb. Other prototypical transitive verbs (in the sense of bivalent verbs whose meaning implies an agent controlling a change of state or position undergone by a patient) include *tear, cut, take, kill, spoil, repair, cure, throw, tie, fill, wash*, etc.

By contrast, for the reasons already indicated in §3.1.1, ingestive verbs such as *eat* are not semantically transitive, which may explain why many languages have two totally different translational equivalents of English *eat*, one of them transitive and the other intransitive (see example (12) in chapter 1 §1.2.2), a situation that seems to never occur with semantically transitive verbs.

Hit is not semantically transitive either, and in many languages, hittees are coded differently from typical patients. For example, in the Chadic language Moloko, noun phrases representing the patient of semantically transitive verbs are unflagged, whereas *bay* ‘hit’ assigns dative flagging to the noun phrase representing the hittee, as in (1).

- (1) Moloko (Biu-Mandara, Chadic, Afroasiatic)

Mana a-b=aŋ ana kəra.
 PRN I_{S/A}:3SG-hit=I_{DAT}:3SG DAT dog
 ‘Mana hits a dog.’ (lit. ... hits to him to dog)
 (Friesen 2017: 275)

In Turkish (2), patients of semantically transitive verbs are characterized by a system of differential flagging involving alternation between accusative flagging and lack of flagging, whereas *hit* assigns dative flagging to the noun phrase representing the *hittee*.

- (2) Turkish (Turkic, Altaic)

On-a vurdum çüinkü o ban-a vurdu.
 DEM-DAT hit.CPL.I_{S/A}:1SG because DEM 1SG-DAT hit.CPL.I_{S/A}:3SG
 ‘I hit him/her because s/he hit me.’

Sinhala (3) illustrates the same configuration.

(3) Sinhala (Indic, Indo-European)

Ranjit balla-tə gaha-nawa

PRN dog-DAT hit-PRS

‘Ranjit is hitting the dog.’

(Chandralal 2010: 112)

The possibility of analyzing the verbs able to denote events characterized by a maximum degree of semantic transitivity as a prototype for the identification of syntactically transitive verbs crucially relies on the assumption that, in the languages of the world, the set of the verbs recognizable as semantically transitive verbs according to the restrictive definition posited above shows a very high degree of formal homogeneity, in the sense that, in each individual language, all semantically transitive verbs, or almost all of them, assign the same coding characteristics to their agents and patients. In spite of the doubts that may have been expressed by some authors, this assumption has in fact never been seriously challenged. By contrast, cross-linguistically, as discussed among others by Tsunoda (1985) and Lazard (1994) and confirmed by Hartmann & al. (2013), no other class of verbs defined in terms of semantic role assignment shows a comparable propensity to group together into the same valency class. This particularity of the set of the verbs that have the ability to denote events characterized by a maximum degree of semantic transitivity, for which an explanation in terms of cognitive prominence of this semantic class of verbs can be considered, justifies giving it a special status in a typology of participant coding.

The rule according to which, in a given language, all semantically transitive verbs have the same syntactic properties is not completely without exceptions, but the (rare) exceptions that can be observed are likely to have historical explanations. A possible scenario is that the semantic shifts that affect verbal lexemes may involve changes in the semantic role of the essential participants, so that a verb that initially does not qualify as a semantically transitive verb (and consequently may select a coding frame other than the transitive construction) may acquire a new meaning that falls under the notion of prototypical transitivity. For example, a verb whose initial meaning is ‘hit’ with the hittee coded differently from typical patients may acquire the meaning ‘kill’ (a semantic shift documented, among others, in the Nakh-Daghestanian language Akhvakh). In such cases, it can be expected that, in its new meaning, the verb in question will tend to adopt the transitive construction as its coding frame (and this is precisely what occurred in Akhvakh), but the readjustment is not necessarily immediate.

In fact, as discussed in more detail in chapter 5 §§5.8-9, more generally, in the evolutions affecting participant coding, it is often possible to observe a tendency toward readjustments under the pressure of a predominant pattern. The high degree of homogeneity that characterizes the sets of semantically transitive verbs cross-linguistically can be viewed as evidence that this tendency is particularly strong in the case of evolutions whose immediate result is the emergence of semantically transitive verbs with non-canonical coding frames.

3.1.3 Syntactically transitive verbs

In all languages, many verbs that are not semantically transitive according to the definition adopted in this book project clauses including two NPs whose coding characteristics are identical to those of the agent phrase and the patient phrase in clauses denoting prototypical transitive events. In this book, the term TRANSITIVE VERB without further specification refers

to verbs having this property, whatever their participant frame. For example, English *see* is not semantically transitive (since it denotes events whose participants cannot be characterized as an agent and a patient, but rather as a perceiver and a stimulus), but the coding properties of the perceiver phrase and the stimulus phrase in the clauses projected by *see* identify *see* as a transitive verb, since the agent phrase and the patient phrase in clauses projected by semantically transitive verbs such as *break* or *fix* show the same coding properties. For the same reasons, Basque *ikusi* ‘see’ is also a transitive verb, cf. example (4).

(4) Central Basque (Euskaran)

- a *Haurr-ak baso-a puskatu du.*
 child-SG.ERG glass-SG break.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘The child broke the glass.’
- b *Haurr-ak baso-a ikusi du.*
 child-SG.ERG glass-SG see.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘The child saw the glass.’

By contrast, Akhvakh *hariguruġa* ‘see’ is not transitive, since it assigns dative flagging to the perceiver phrase, whereas semantically transitive verbs such as *biq’oruġa* ‘break’ assign ergative flagging to the agent phrase, cf. example (5).

(5) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Mik’i-de istaka biq’wāri.*
 child(N)-ERG glass(N) I_{SP}:SG.N.break.CPL
 ‘The child broke the glass.’
- b **Mik’i-de istaka harig^wari.*
 child(N)-ERG glass(N) see.CPL
 intended: ‘The child saw the glass.’
- c *Mik’i-ġa istaka harig^wari.*
 child(N)-DAT glass(N) see.CPL
 ‘The child saw the glass.’

Similarly, in Koroboro Senni, *dii* ‘see’ is not transitive according to the definition adopted in this book, since the stimulus phrase obligatorily occurs in postverbal position, whereas the constituent order with semantically transitive verbs such as *wii* ‘kill’ is APV without any possibility of variation, cf. example (6).

(6) Koroboro Senni (Songhay)

- a *Woy-oo na ar-oo wii.*
 woman-D CPL.TR man-D kill
 ‘The woman killed the man.’
- b **Ay na boro foo dii.*
 1SG CPL.TR person one see
 Intended: ‘I saw a person.’

- c *Ay dii boro foo.*
 1SG see person one
 ‘I saw a person.’
 (Heath 1999: 121, 212)

Example (7) shows that, contrary to their English or French equivalents, the Mandinka verbs *làfi* ‘want’ (7b) and *ñiná* ‘forget’ (7c) are not transitive, since in their construction, one of the two essential participants is encoded as a postpositional phrase in postverbal position, whereas with semantically transitive verbs such as *dádâa* ‘repair’, as illustrated in (7a), both essential participants are encoded as unflagged noun phrases preceding the verb.

(7) Mandinka (Central Mande, Mande)

- a *Kèê yè fòolèsúwòo dádâa.*
 man.D CPL.TR bicycle.D repair
 ‘The man repaired the bicycle.’
- b *Kée làfi-tà kòd-òo lá.*
 man.D want-CPL.ITR money.D POSTP
 ‘The man wants money.’
- c *Kée ñiná-tá ǰ kòntóŋò lá.*
 man.D want-CPL.ITR 1SG surname.D POSTP
 ‘The man has forgotten my surname.’

Similarly, French *regarder* ‘look at’ is transitive, but its English equivalent *look (at)* is not transitive.

To summarize, there is substantial cross-linguistic variation in the extension of the set of bivalent verbs that do not qualify as syntactically transitive. However, I am aware of no true exception to the generalization according to which, in the languages of the world, the majority of semantically bivalent verbs are syntactically transitive.

The question of the cross-linguistic variation in the extension of transitive coding to verbs that are not semantically transitive will be resumed in chapter 7.

3.1.4 Transitivity in the lexicon

Languages greatly differ in the proportion of transitive and intransitive verbs among underived verbs, and also, as will be amply illustrated in chapters 8 to 14, in the use of various semantic types of derivational mechanisms that form transitive verbs from semantically related intransitive verbs, or intransitive verbs from semantically related transitive verbs.

An extreme case is that of languages whose situation in this respect can be characterized as **ACROSS-THE-BOARD TRANSITIVIZATION**. Such languages have a very low proportion of underived transitive verbs (or even no underived transitive verb at all), which means that almost all transitive verbs are derived from semantically related intransitive verbs by means of transitivizing derivation.

For example, in his description of the Oceanic language Fagauvea, Djoupa (2012: 246) mentions that he only came across ten underived transitive verbs, the vast majority of transitive verbs being derived by means of a transitivizing suffix, either alone (if the A of the

derived verb expresses the same semantic role as the S of the base verb, as in *mataku* ‘be afraid’ > *mataku-sia* ‘fear’) or combined with a prefix *faga-* (if the S of the base verb coincides semantically with the P of the derived verb, the A of the derived verb being characterizable as a causer, as in *ngaengae* ‘be tired’ > *faga-ngaengae-ina* ‘tire’). Such a situation is rare in the languages of the world, but relatively common among Oceanic languages.

Interestingly, the reverse situation (i.e. the case of languages in which all or almost all intransitive verbs would be derived from transitive verbs) does not seem to be attested.

3.2 Transitive and intransitive constructions of transitive verbs

The notions of transitive verb and transitive construction as defined in chapter 1 leave open the possibility that prototypical transitive verbs occur not only in the construction analyzed as the basic construction of transitive verbs, but also in intransitive constructions, either in the same form as in their transitive use or in a different form, and this possibility is widely attested cross-linguistically.

The possible types of variation in the coding of agents and patients WITHIN THE FRAME OF THE TRANSITIVE CONSTRUCTION will be discussed in more detail in chapter 4. This section focuses on the criteria on the basis of which some types of variation in the coding of agents and patients can be analyzed as occurring within the frame of the transitive construction, whereas others are best analyzed in terms of intransitive alternatives to the transitive construction. However, some overlap with the questions discussed in chapter 4 can hardly be avoided.

3.2.1 Intransitive alternatives to the transitive construction and variants of the transitive construction

The notion of BASIC CONSTRUCTION OF TRANSITIVE VERBS (or simply TRANSITIVE CONSTRUCTION) is central in the framework adopted in this book. The importance of this notion for a typological approach to transitivity and valency issues has been emphasized in a particularly clear and convincing way by Lazard (1994), who discusses it under the name of ‘construction biactancielle majeure’ (‘major biactantial construction’).

As a first approximation, the transitive construction can be defined as a construction consisting of a verb and two noun phrases and meeting the following condition: the transitive construction is a possible construction for prototypical transitive verbs, and when the verb in the transitive construction is a prototypical transitive verb, the two noun phrases represent the agent and the patient, respectively.

However, this provisional definition must be reformulated in more precise terms in order to be applicable to the languages in which prototypical transitive verbs have two or more possible constructions differing in the coding properties of the agent phrase and the patient phrase, since in such cases, it is commonly admitted that some types of alternations in the construction of transitive verbs involve a change in syntactic transitivity, whereas others don’t.

For example, it is commonly admitted (at least implicitly), that passive constructions of transitive verbs, such as (8b), are not syntactically transitive, contrary to their ‘active’

counterpart, whereas in alternations involving ‘differential object marking’, such as (9a-b), both constructions are equally transitive.

(8) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Lòráátó* ¹*ó-tláá-àpàj-à* *dì-dzó.*
 PRN(1) I_{S/A}:cl1-FUT-cook-FV PL-meal(cl10)
 ‘Lorato will cook the meal.’

b *Dì-dzó* ¹*dí-tláá-àpè-w-à* *kí Lòrá:tò.*
 PL-meal(cl10) I_{S/A}:cl10-FUT-cook-PASS-FV by PRN(1)
 ‘The meal will be cooked by Lorato.’

(9) Spanish (Italic, Indo-European)

a *Busco un médico.*
 look.for.PRS.I_{S/A}:1SG IDF.SG.M doctor(M)
 ‘I am looking for a doctor.’ (non-specific)

b *Busco a un médico.*
 look.for.PRS.I_{S/A}:1SG ACC IDF.SG.M doctor(M)
 ‘I am looking for a doctor.’ (specific or non-specific)

The languages in which no variation can be observed in the coding of the agents and patients of prototypical transitive verbs are the only ones for which the recognition of a particular construction formed by a verb and two nominal terms as being the transitive construction is absolutely unproblematic. When this is not the case (as in the languages commonly analyzed as having passive or antipassive constructions of transitive verbs, or in the languages commonly analyzed as having ‘differential object marking’), the question that arises is that of the criteria on the basis of which it is possible to decide that some types of variation in the coding of agents and patients should be analyzed in terms of INTRANSITIVE ALTERNATIVES TO THE TRANSITIVE CONSTRUCTION (as in the case of transitive-passive or transitive-antipassive alternations), whereas some others are best analyzed in terms of VARIANTS OF THE TRANSITIVE CONSTRUCTION (as in the case of ‘differential object marking’).

In general, there is little disagreement between linguists working on the same language about the analysis of a given construction of transitive verbs as (a variant of) the transitive construction or as an intransitive alternative to the transitive construction, at least as regards the cross-linguistically common types of variation in the construction of transitive verbs. However, the criteria according to which such decisions can be taken are rarely discussed explicitly, which constitutes a source of confusion for some controversial cases, such as the analysis of the constructions of transitive verbs in Western Austronesian languages or in Algonquian languages.

In the remainder of this section, after clarifying the notion of variation in the coding of agents and patients, the criteria on which such decisions may be based are examined in turn.

A first observation is that the definition of the basic transitive construction as consisting of a verb and TWO NOUN PHRASES that may refer to the agent and the patient of prototypical transitive verbs must be understood as implying that, in the basic transitive construction, each of the nouns representing one of the two essential participants projects a phrase showing the morphosyntactic behavior expected from a canonical term of the clause having the ability to refer to a well-individuated participant. This excludes analyzing as transitive a construction in

which one of the two essential participants cannot be expressed, or is expressed by a noun whose morphosyntactic behavior can be analyzed in terms of incorporation or pseudo-incorporation as these notions will be defined and discussed in chapter 17.

The general idea is that the decision to analyze an alternation in the construction of transitive verbs that does not involve incorporation or pseudo-incorporation as a choice between two variants of the transitive construction or between the transitive construction and an intransitive alternative must be consistent with the following principles:

- in case of automatic variation in the coding of agents and patients, there would be no point in trying to characterize one of the alternating constructions as being the transitive construction, and the other(s) as intransitive alternative(s);
- a construction of transitive verbs showing a particularly high discourse frequency cannot be analyzed as an intransitive alternative, but only as the transitive construction, or as one of the variants of the transitive construction;
- constructions showing evidence of biclausality are not possible candidates to the status of basic construction of transitive verbs;
- a construction analyzed as an intransitive alternative to the transitive construction must be formally similar to the construction formed by a semantically monovalent verb, its sole essential participant and an adjunct;
- a construction analyzed as a variant of the transitive construction should not imply a decrease in semantic transitivity, and a construction analyzed as an intransitive alternative to the transitive construction should not imply an increase in semantic transitivity.

3.2.2 Automatic vs. non-automatic variation in the coding of agents and patients

A first point to clarify in the analysis of variation in the coding of agents and patients is that questioning the syntactic transitivity of possible constructions of transitive verbs only makes sense if the variation is not automatically triggered by characteristics of the clause or its constituents that have an overt morphological expression, such as the TAM-polarity value of the clause, the integration of the clause in a complex construction, or grammatical characteristics of the noun phrases representing the agent and/or the patient. If the variation in the coding of agents and patients correlates with formal characteristics of the clause or its constituents, or in other words, if the possible constructions are in complementary distribution, the variation is best analyzed as resulting from a conditioned choice between equally transitive ALLOFORMS of a single construction.

3.2.2.1 Variation in the coding of agents and patients conditioned by TAM or polarity

It may happen that the TAM or polarity value of the clause, commonly (but not necessarily) expressed through verb morphology, conditions the coding of the core nominal terms of clauses. TAM-driven variation affecting specifically the coding of the core terms of transitive clauses is relatively common.³⁷

³⁷ Such systems are commonly designated as split-alignment systems.

For example, in Georgian, three morphological cases traditionally designated as nominative (= zero case), ergative and dative are involved in the flagging of agents and patients in clauses projected by prototypical transitive verbs, two series of indexes (designated here as series 1 and series 2) can be used to index agents and patients in the verb form, and the inflected forms of transitive verbs divide into three groups (I, II, and III) that differ in the coding characteristics assigned to agents and patients, as indicated in the following table:

	<i>Agent</i>	<i>Patient</i>
<i>TAM forms of group I</i>	zero case index of series 1	dative case index of series 2
<i>TAM forms of group II</i>	ergative case index of series 1	zero case index of series 2
<i>TAM forms of group III</i>	dative case index of series 2	zero case index of series 1

Table 1. Flagging and indexation of agents and patients in Georgian

For example with the verb ‘break’,

- the form *t'exs* ‘s/he breaks / is breaking’ (10a) belonging to group I can only combine with a zero-marked agent phrase and a dative-marked patient phrase;
- the form *gat'exa* ‘s/he broke / has broken’ (10b) belonging to group II can only combine with an ergative-marked agent phrase and a zero-marked patient phrase;
- the form *gaut'exia* ‘s/he apparently broke / has broken’ (10c) belonging to group III can only combine with a dative-marked agent phrase and a zero-marked patient phrase;

(10) Georgian (Kartvelian)

- a *Bič'-i t'exs žam-s.*
 boy-ZER break.PRES.I_{S/A}:3SG.I_P:3SG bowl-DAT
 ‘The boy breaks / is breaking the bowl.’
- b *Bič'-ma gat'exa žam-i.*
 boy-ERG break.CPL.I_{S/A}:3SG.I_P:3SG bowl-ZER
 ‘The boy has broken / broke the bowl.’
- c *Bič'-s gaut'exia žam-i.*
 boy-DAT break.PRF.I_A:3SG.I_{S/P}:3SG bowl-ZER
 ‘Apparently, the boy has broken / broke the bowl.’

Consequently, in Georgian, the lack of uniformity in the coding of the agents and patients does not justify positing three distinct constructions, and is best analyzed as involving a single construction with three alloforms conditioned by TAM. The automatic alternation in flagging and indexation that characterizes the transitive construction of Georgian can be schematized as follows:

$$A_{ZER} P_{DAT} V.I_{A(1)}.I_{P(2)} \sim A_{ERG} P_{ZER} V.I_{A(1)}.I_{P(2)} \sim A_{DAT} P_{ZER} V.I_{A(2)}.I_{P(1)}$$

A similar phenomenon occurs in the Kurmanji variety of Kurdish, a language with a binary case system. As illustrated in (11) with the verb ‘see’ (which is syntactically transitive in

Kurdish), when the verb in the incomplete aspect, A is in the zero case and P in the integrative case, traditionally called ‘oblique case’ (the syntactically marked case), whereas when the verb is in the completive aspect, P is in the zero case, and A in the integrative case; as regards indexation, the verb invariably indexes the participant encoded as a noun phrase in the zero case, i.e. A in the incomplete aspect, and P in the completive aspect.

(11) Kurmanji (Iranian, Indo-European)

- a *Ez Sînem-ê dibîn-im*
 1SG PRN-K see.ICPL-I_{ZER}:1SG
 ‘I see Sinem.’
- b *Sînem min dibîn-e*
 PRN 1SG.K see.ICPL-I_{ZER}:3SG
 ‘Sinem sees me.’
- c *Min Sînem dît-Ø.*
 1SG.K PRN see.CPL-I_{ZER}:3SG
 ‘I saw Sinem.’
- d *Sînem-ê ez dît-im.*
 PRN-K 1SG see.CPL-I_{ZER}:1SG
 ‘Sinem saw me.’
 (Blau and Barak 1999: 46-50, 65-68)

The debitive construction of Latvian analyzed by Seržant & Taperte (2016) provides another illustration. This construction, illustrated in (12b-c), imposes to transitive verbs a case frame <DAT, Ø/ACC>³⁸ different from the case frame <Ø, ACC> found with other TAM values.

(12) Latvian (Baltic, Indo-European)

- a *Kāpēc es šo filmu redzu?!*
 why 1SG DEM.ACC.SG film.ACC.SG see.PRS.I_{S/A}:1SG
 ‘Why do I watch this film?!’
- b *Kāpēc man šī filma ir jā-redz?!*
 why 1SG.DAT DEM.SG.F film.SG be.PRS.I_{S/A}:1SG DEB-see
 ‘Why do I have to watch this film?!’
- c *Kāpēc man tevi ir jā-redz?!*
 why 1SG.DAT 2SG.ACC be.PRS.I_{S/A}:1SG DEB-see
 ‘Why do I have to see you?!’
 (Seržant & Taperte 2010: 200-201)

Finnish illustrates automatic variation in the coding characteristics of P conditioned by polarity, with partitive-marked Ps in negative clauses corresponding to positive clauses in which P is in the accusative case, cf. example (13).

³⁸ In Standard Latvian, P in the debitive construction is in the zero case with all types of noun phrases except for 1st and 2nd person pronouns and the reflexive pronoun, which are marked by the accusative case.

(13) Finnish (Finnic, Uralic)

- a *Mies tappoi karhu-n.*
 man kill.PST.IS/A:3SG bear-ACC
 ‘The man killed a/the bear.’
- b *Mies ei tappanut karhu-a.*
 man NEG.IS/A:3SG kill.CONNEG bear-PRTV
 ‘The man didn’t kill a/the bear.’
 (Kittilä 2002: 122)

3.2.2.2 *Variation in the coding of agents and patients conditioned by the status of the clause*

In quite a few languages, some types of subordinate clauses require a coding of A and P distinct from that found in independent/main clauses.

For example, as illustrated in (14a), in the independent assertive clauses of Roviana (Oceanic), proper names, pronouns and quantified noun phrases in P role are obligatorily flagged by the preposition *s(i)* (also used with noun phrases in S role in intransitive clauses, hence the gloss S/P). By contrast, as illustrated in (14b), no core term flagging occurs in relative clauses.

(14) Roviana (Oceanic, Austronesian)

- a *Seke-i-a e Zima s-e Maepeza.*
 hit-TR-IP:3SG PERS.ART PRN S/P-PersART PRN
 ‘Zima hit Maepeza.’
- b *Hierana sa koreo sapu tupa-na e Zone.*
 DEM D boy REL punch-IP:3SG PersART PRN
 ‘This is the boy that punched John.’
 (Corston-Oliver 2002: 491, 480)

3.2.2.3 *Variation in the coding of agents and patients conditioned by grammatical features of the noun phrases that represent them*

The general question of the variations in the coding characteristics of A or P conditioned by properties of the noun phrase in A or P role or of its referent (differential coding of A or P) will be addressed in chapter 4 §4.2. For the moment I will confine myself to mentioning that some types of differential coding of A or P are automatically triggered by grammatical characteristics of the noun phrase, which is sufficient to conclude that they are instances of variation within the frame of the transitive construction.

For example, in some languages, the personal pronouns are the only nominals that have distinct forms in A and P role. English illustrates this situation: *I* vs. *me*, *he* vs. *him*, etc.

In Abruzzese (dialect of Arelli), the preposition *a* flags first and second person pronouns in P role, and would be ungrammatical with any other nominal.

(15) Abruzzese (Italic, Indo-European)

- a *So vistə a mme / a tte.*
 be.PRS.IS/AP:1SG see.PTCP ACC me / ACC you(sg)
 ‘I have seen myself / you(sg).’

- b *Semə* *vistə* *a* *nnu* / *a* *vvu*.
 be.PRS.IS/A_P:1PL see.PTCP ACC us / ACC you(pl)
 ‘We have seen us / you(pl).’
- c **So* *vistə* *a* *Marije* / *a* *jissə* / *a* *quillə*
 be.PRS.IS/A_P:1SG see.PTCP ACC PRN / ACC them / ACC them
 (D’Alessandro 2018: 8)

Georgian (Kartvelian), already mentioned above for its TAM-driven system of core term coding, also has person-conditioned variation in the coding of core nominal terms. In Georgian, first and second person pronouns lack distinct ergative and dative forms, and consequently, invariably occur in the zero case in contexts in which other nominals require ergative or dative marking.

Roviana (Oceanic), already mentioned above for a variation in S/P coding according to the status of the clause, also has a split in S/P flagging conditioned by the nature of the S/P phrase: as illustrated by example (16b), the preposition *s(i)* can only be used to flag S or P phrases consisting of a proper name or a pronoun, or including a quantifying modifier

(16) Roviana (Oceanic, Austronesian)

- a *Seke-i-a* *e* *Zima* *s-e* *Maepeza*.
 hit-TR-I_P:3SG PersART PRN S/P-PersART PRN
 ‘Zima hit Maepeza.’
- b *Seke-a* *karua* *tie* *sa* *siki*.
 hit-I_P:3SG two man D dog
 ‘Two men hit the dog.’
 (Corston-Oliver 2002: 491, 490)

3.2.2.4 *Variation in the coding of agents and patients conditioned by a combination of grammatical factors*

The Tangkic language Yukulta has been discussed in the literature as having an antipassive construction with some atypical properties, cf. in particular Denniss (2007). However, if one accepts the principle that the notion of antipassive construction implies a non-automatic alternation (or at least a partially non-automatic alternation) with the construction analyzed as the transitive construction, the antipassive analysis must be rejected, and the construction in question must be analyzed as a variant of the transitive construction, since, as acknowledged by Denniss (2007: 178), it is in “strict complementary distribution” with the construction commonly identified as the transitive construction. In Yukulta, two factors condition the choice between the two variants of the transitive construction: the TAM value expressed by verb inflection and the A-P relationship in terms of person.

It is true that the coding characteristics of A and P in the construction analyzed by Denniss as the transitive construction are those expected in an ‘ergative’ language, whereas the construction she analyzes as antipassive has the formal characteristics expected from an antipassive construction, and it may well be that it is the reflex of a former antipassive construction. However, in a synchronic description, the transitive-antipassive analysis is incompatible with the automaticity of the alternation, and Yukulta can only be described as having two variants of the transitive construction that differ in their alignment relationship

with the intransitive construction. The originality of Yukulta is that it combines TAM-driven and scenario-driven variation in the formal characteristics of the transitive construction and in its alignment with the intransitive construction.

3.2.3 Formal criteria in the analysis of non-automatic variation in the coding of agents and patients

The question discussed in this section is that of the formal criteria that may help decide whether a given instance of variation in the coding of agents and patients of semantically transitive verbs should be analyzed as a choice between two variants of the basic transitive construction, or between the transitive construction and an intransitive alternative.

It may be useful to begin by mentioning that the presence of a derivational element in the verb form in one of the two alternating constructions cannot be taken as a criterion in this analysis, since verbal derivations may equally mark transitivity and detransitivization, and in some languages, even the verbs expressing the most typical transitive events are formally derived from intransitive change-of-state verbs.

In case of non-automatic variation, two formal criteria are crucial in the discussion of the status of the possible constructions of prototypical transitive verbs: the monoclausality criterion (§3.2.3.1), and the criterion of alignment with the construction of monovalent verbs (§3.2.3.2). However, they work only in one direction. A construction of prototypical transitive verbs that does not meet the monoclausality criterion cannot be analyzed as (a variant of) the transitive construction, but a construction that meets it is not necessarily transitive. Likewise, a construction of prototypical transitive verbs that does not meet the criterion of alignment with the construction of monovalent verbs cannot be analyzed as an intransitive alternative to the transitive construction, but a construction that meets it must not necessarily be analyzed as intransitive. If the formal criteria discussed in this section are not decisive, the semantic criteria discussed in §3.2.4 may help take a decision.

3.2.3.1 *The monoclausality criterion*

By definition, the verb, the A phrase and the P phrase that form a transitive construction belong to the same clause. Consequently, a TAM-periphrasis analyzable as a syntactically biclausal construction in which the transitive verb is syntactically the nucleus of a subordinate clause and one of the essential participants is encoded as a term of the matrix clause cannot be the basic construction of transitive verbs or a variant thereof. However, this criterion is not always easy to apply, and constructions for which monoclausality tests give ambiguous results are not rare. The obvious explanation is that, historically, the loss of the properties characterizing biclausal constructions and the acquisition of properties characterizing monoclausal constructions is a gradual process, which does not necessarily affect at the same time all the relevant aspects of an originally biclausal construction.

For example, in Nakh-Daghestanian languages, there is consensus on the transitive nature of the construction of transitive verbs in which the agent and the patient of prototypical transitive verbs are encoded as a noun phrase in the ergative case and a noun phrase in the zero case, as in (17a). However, transitive verbs also have a construction called the binominative construction (or biabsolute construction), whose analysis illustrates the application of the monoclausality criterion. In the binominative construction of prototypical

transitive verbs, both the agent phrase and the patient phrase are in the zero case, as in (17b). Semantically, this construction implies progressive or incomplete aspect, and its typical function is to mark that, in the *topic-comment* articulation, the term that represents the agent of prototypical transitive verbs coincides with the topic, as evidenced by the fact that the use of the binominative construction is particularly natural in answer to the question ‘What is X doing?’.

(17) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Di-ga* *če čula* *m-ač-ene* *b-ik^w-ari* *di* *ila-ĭ-e*.
 ISG.OBL- ALL one thing(N) N-tell-PROG N-be-CPL 1SG.GEN mother(F)-OF-ERG
 ‘My mother was telling me something.’
- b *Di-ga* *če čula* *m-ač-ene* *j-ik^w-ari* *di* *ila*.
 ISG.OBL- ALL one thing(N) N-tell-PROG F-be-CPL 1SG.GEN mother(F)
 ‘My mother was telling me something.’

The question is whether (17b) should be analyzed as a mere variant of the transitive construction with just an alternative coding of the A term, or as something else.

In the binominative construction of Northern Akhvakh illustrated in (17b), both the agent and the patient of prototypical transitive verbs are encoded as noun phrases devoid of overt case marking, and both are indexed. This construction is only possible with the progressive forms of the verb, i.e., with analytical verb forms consisting of *bik^wuruža* ‘be’ (or the non-verbal copula *godī*) in auxiliary function, and the progressive converb of the lexical verb.

The crucial observation is that, in this construction, contrary to the construction illustrated in (17a), the participant coded like the agent of prototypical transitive verbs (in example (17b): *di ila* ‘my mother’) is indexed on the auxiliary, whereas the participant coded like the patient of prototypical transitive verbs (in example (17): *če čula* ‘one thing’) is indexed on the lexical verb. This suggests analyzing the binominative construction as a biclausal construction involving the syntactic phenomenon known as raising, with the following characteristics:

- the main verb is ‘be’,
- the transitive verb is the nucleus of a subordinate clause,
- the participant coded like the agent of prototypical transitive verbs is not encoded as a term of the subordinate transitive clause, but as the S term of the main clause (i.e., the clause projected by the intransitive verb ‘be’ acting syntactically as the main verb of the construction).

This analysis can be schematized as follows:

My mother_i was [∅_i telling me something]

Functionally, the binominative construction has obvious affinities with antipassive constructions. However, SYNTACTIC demotion of the patient of prototypical transitive verbs is an essential element of antipassive constructions as commonly defined, whereas in the binominative construction, the coding properties of the patient are not affected, and both the agent and the patient show coding characteristics typical for core terms (indexation and lack of overt flagging). In fact, within the frame of a monoclausal analysis of the binominative

construction, the only possible account would be in terms of split transitive coding conditioned by TAM.

In the case of Northern Akhvakh, I am aware of nothing, in the behavior of the binominative construction, that could be viewed as compelling evidence against the biclausal analysis. Consequently, in Northern Akhvakh, the construction illustrated in (17a) is in fact the only possible candidate to the status of transitive construction. However, the situation is not uniform across the Nakh-Daghestanian family. Gagliardi & al. (2014) argue that the cross-linguistic variation in the properties of binominative constructions is such that they must be analyzed differently in different languages. According to their analysis, the Tsez binominative construction, like that of Northern Akhvakh, is a biclausal construction (which consequently cannot be analyzed as a variant of the transitive construction), whereas the binominative construction of Lak is a monoclausal construction (which consequently must be analyzed as a variant of the transitive construction whose use is conditioned by TAM, since an antipassive analysis is ruled out for the reasons indicated above).

3.2.3.2 *The criterion of isomorphism with the construction formed by a monovalent verb, its sole essential participant and an adjunct*

A necessary condition for analyzing a construction in which both the agent and the patient of semantically transitive verbs can be overtly expressed as an intransitive alternative to the transitive construction is that, in the construction in question, ONE OF THE ESSENTIAL PARTICIPANTS IS CODED LIKE THE SOLE ESSENTIAL PARTICIPANT OF A MONOVALENT VERB AND THE OTHER LIKE ADJUNCTS IN CLAUSES PROJECTED BY SEMANTICALLY MONOVALENT VERBS. To put it somewhat differently, the idea is that, if a construction formed by a verb and two noun phrases is used exclusively with transitive verbs, it would make no sense to analyze it as an intransitive alternative to the transitive construction.

The application of this criterion can be illustrated by Casaretto & al.'s (2020) analysis of the variation in the coding of agents and patients in Tima, a Niger-Congo language spoken in Kordofan (Sudan) whose typological profile shows some areal features that sharply contrast with those found in the vast majority of Niger-Congo languages.

In Tima, the noun phrase representing the sole essential participant of monovalent verbs is invariably unflagged, and the sole essential participant of monovalent verbs is also obligatorily indexed by means of fused TAM-person prefixes, except in focus contexts. The coding of agents and patients of prototypical transitive verbs shows variation both in constituent order and in flagging: either the agent and patient phrases are equally unflagged, and then the order is *agent-verb-patient*, as in (18a), or the agent is flagged and the patient unflagged, as in (18b), and then the order may be *patient-verb-agent* or *agent-patient-verb*.

(18) Tima (Katla-Tima, Niger-Congo)

- a *Káwùh á-hàmbìr-ì Tíyà.*
 stone I_{S/A}:3.PRF-trip.up-TR PRN
 'The stone has tripped Tiya up.'
- b *Tíyá á-hàmbìr-ì ìj= káwùh.*
 PRN I_{S/A}:3.PRF-trip.up-TR ERG=stone
 'The stone has tripped Tiya up.'
- (Casaretto & al.: 122)

The question that arises is whether (18b) should be analyzed as a passive alternative to the transitive construction, with *tíyá* as the S term of an intransitive construction and *káwúh* in oblique role, or as a variant of the transitive construction involving differential A flagging correlated with a change in the linear order of constituents. The decisive argument in favor of the latter analysis is that, in the construction illustrated by (18b), it is the agent that is indexed on the verb. This is not apparent in example (18), where both participants are 3SG, but this rule is explicitly stated by Casaretto & al. (2020) on p. 127, and illustrated by an unambiguous example on p. 122. In a passive construction, the agent encoded as an oblique should not be indexed, and it is rather the patient that should be expected to be indexed.

Alternations between unflagged agents in preverbal position and flagged agents in postverbal position analyzable in terms of variants of the transitive construction (rather than valency alternations of the transitive-passive type) seem to be relatively widespread in the area where Tima is spoken, irrespective of the genetic affiliation of languages (Dimmendaal 2014). Uduk (Koman) is another case in point.

According to Killian (2015), Uduk has a system of participant coding involving a complex alternation between two variants of the transitive construction differing in the coding characteristics of both A and P.

In Uduk, as illustrated in (19a), the sole essential participant of monovalent verbs is invariably represented by an unflagged noun phrase in immediate preverbal position, and indexed on the verb. Obliques follow the verb, or precede the sole core term in case of topicalization.

Transitive verbs have two possible constructions, designated by Killian as ‘A-voice’ and ‘O-voice’. However, according to the terminology adopted in this book, these two constructions of Uduk transitive verbs do not qualify as ‘voices’, since the same verb forms are used in both constructions.

Although the choice between these two constructions may be functionally similar to the choice between the transitive construction and a passive construction in other languages, the position explicitly defended by Killian (2015) is that they do not show the formal characteristics that could justify to analyze the ‘A-voice’ as the transitive construction and the ‘O-voice’ as an intransitive construction, or the other way round.

In the construction designated by Killian as ‘A-voice’, illustrated in (19b), the agent of prototypical transitive verbs is represented by a noun phrase in immediate preverbal position, in the same zero case as the phrase representing the sole essential participant of monovalent verbs, whereas the patient phrase occurs in postverbal position and is marked for the accusative case if it belongs to the gender designated by Killian as ‘class 2’. Class 1 patients are in the zero case but trigger a change in the indexation of the agent: the agent is indexed for all persons with class 2 patients, whereas class 1 patients inhibit the indexation of the agent in all persons except for 1SG, 1PL, and INCL.

In the ‘O-voice’, illustrated in (19c), the agent phrase is case-marked with the ergative case, and is always in immediate postverbal position. There is no participant indexation on the verb. The patient phrase is usually found in immediate preverbal position, but its position is relatively flexible.

(19) Uduk (Koman)

- a *Á 'cí 'kút-úd.*
 cl2 child cough.ICPL-I_S:3SG
 'The child is coughing.'
- b *Wàthí? 'cìth-i'd ā yí'd.*
 man cut.CPL-I_A:3SG ACC.cl2 skin
 'The man cut the skin.'
- c *Tāshá wò'c mà 'ká.*
 snake bite.ICPL ERG.cl2 dog
 'The dog bit the snake.'
- (Killian 2015: 218)

The crucial observation is that neither the agent in the 'A-voice' nor the patient in the 'O-voice' has exactly the same coding properties as the sole essential participant of monovalent verbs, which precludes analyzing either of the two constructions as an intransitive alternative to the other.

The criterion according to which the notion of intransitive alternative to the transitive construction implies adjunct-like coding of one of the nuclear participants of transitive verbs is very often useful to clarify the situation of constructions whose transitivity may have been questioned in the literature.

For example, in Algonquian languages, the transitivity of the verb forms commonly designated as inverse (as opposed to direct, see chapter 4 §4.6) has sometimes been put into question. However, in Algonquian languages, agents and patients of prototypical transitive verbs are equally unflagged with direct and inverse verb forms, and direct and inverse verb forms equally index both the agent and the patient of prototypical transitive verbs, whereas monovalent verbs index one participant only. This lack of any coding asymmetry that would make more adjunct-like the coding of one of the nuclear participants with inverse verb forms is sufficient to conclude that the forms of Algonquian verbs commonly analyzed as inverse are SYNTACTICALLY transitive.

Tagalog and the other Western Indonesian languages that share with Tagalog a system of multiple symmetrical voices are another case in point. There is a discussion in the literature about the transitivity of the verb forms marked for agent voice, for which some authors have argued in favor of an antipassive analysis.³⁹ Example (20) illustrates the contrast between agent voice and patient voice in Tagalog.

(20) Tagalog (Greater Central Philippine, Austronesian)

- a *B<um>ili ng isda sa tindahan ang lalake*
 <AV>buy nPIV fish OBL store PIV man
 'The man bought fish in the store.' (agent voice)
- b *Bi~bilh-in ng lalake sa tindahan ang isda*
 IRR~buy-PV nPIV man OBL store PIV fish
 'The man will buy the fish in the store.' (patient voice)
- (Foley 2006: 23)

³⁹ 'Actor voice' and 'undergoer voice' are alternative names for the Tagalog voices designated here as 'agent voice' and 'patient voice'.

For some authors, the patient voice construction is the only one qualifying as transitive, and the agent voice construction is an antipassive alternative construction. However, as clearly stated among others by Hemmings (2021: 593-595), the agent voice of Tagalog must be analyzed as SYNTACTICALLY transitive, in spite of the fact that it shows the semantic correlates and discourse characteristics commonly associated with antipassive derivations. The reason is simply that the coding of the patient in the agent voice cannot be assimilated to that of an adjunct in the construction of a monovalent verb. In the agent voice, the patient is introduced by the preposition *ng*, glossed nPIV (non-pivot) when it flags a core term that is not selected as the pivot (i.e. the syntactically privileged term, glossed PIV). The preposition *ng* is also used to flag adnominal possessors (hence the gloss GEN also found in the literature), but the flagging of adjuncts in the construction of monovalent verbs is not among its possible functions (see §3.3.2 below for more details).

Similarly, many descriptions of Malagasy mention the existence of a passive voice, but the construction in question cannot be analyzed as an intransitive alternative to the transitive construction. It is rather a variant of the transitive construction comparable to the patient voice of Tagalog, since the agent is obligatorily adjacent to the verb and coded in the same way as an adnominal possessor, and a similar coding is never found in Malagasy for adjuncts of monovalent verbs.⁴⁰

(21) Malagasy (Barito, Austronesian)

a *Manasa ny lamba Raso.*

AV.PRS.wash D cloth PRN

‘Raso is washing the clothes.’

b *Sasan-dRaso ny lamba.*

PV.PRS.wash-nPIV.A.PRN D cloth

‘The clothes are washed by Raso.’

The construction of the transitive verbs of Umpithamu (Paman) designated as the ‘experienced action construction’ is also worth being mentioned here. Verstraete (2011) suggests that this construction is an intransitive alternative to the transitive construction, but according to the criteria put forward here, it is rather a variant of the transitive construction, since in the experienced action construction, none of the essential participants of transitive verbs shows flagging and indexation characteristics identical to those of the sole essential participant of monovalent verbs. As illustrated in (22a), in Umpithamu, the sole essential participant of monovalent verbs is encoded as an unflagged NP and can be indexed by means of a set of indexes also available to index A in the main variant of the transitive construction (22b). In the experienced action construction of transitive verbs (22c), A shows optional ergative flagging, as in the main variant of the transitive construction, but cannot be indexed, whereas P is indexed by means of a special set of indexes identical to personal pronouns in adnominal possessor role.

⁴⁰ Note however that the transitive construction of Malagasy differs from that of Tagalog in that (i) the pivot is not overtly flagged and is identifiable as such by its fixed clause-final position, and (ii) the lack of overt flagging also characterizes lexical NPs in the role of non-pivotal P (only personal pronouns have a special form in the role of non-pivotal P).

(22) Umpithamu (Northern Pama-Nyungan, Pama-Nyungan)

a *Ama nhunha yongki-ngka=iluwa*

person other come-PRS=I_{S/A}:3SG

‘Someone else is coming.’

b *Ama-mpal wama-n=ina-ingku apii.*

person-ERG grab-PST=I_{S/A}:3PL-I_P:3SG here

‘The people caught him here.’

(main variant of the transitive construction)

c *Ngoki-mpal ungka-n=athuna*

water-ERG wet-PST=1SG.GEN

‘The water made me wet.’

(experienced action construction)

(Verstraete 2011: 279, 280, 282)

To conclude this section, it must be emphasized that the criterion of similarity with the construction of monovalent verbs, like the monoclausality criterion, only works in one direction. Constructions of transitive verbs that are not isomorphous with the construction formed by a monovalent verb and two noun phrases representing the sole essential participant and an adjunct cannot be analyzed as intransitive alternatives to the transitive construction, but constructions in which the patient of prototypical transitive verbs is coded like the sole essential participant of monovalent verbs and the agent phrase shows adjunct-like coding must not necessarily be analyzed as passive, and constructions in which the agent is coded like the sole essential participant of monovalent verbs and the patient phrase shows adjunct-like coding must not necessarily be analyzed as antipassive. An obvious reason is that, in quite a few languages, the most frequent construction of transitive verbs (or even, in some languages, their only possible construction) is isomorphous with the construction formed by a monovalent verb and two noun phrases representing the sole essential participant and an adjunct. This is for example the case in Avar and some other Nakh-Daghestanian languages in which instrumental adjuncts show the same coding characteristics (ergative flagging and lack of indexation) as A in (the main variant of) the transitive construction.

Moreover, as will be discussed in §3.2.4.2, there may be cases of constructions that meet the formal conditions for being analyzable as intransitive alternatives to the transitive construction, but are best analyzed as variants of the transitive construction for semantic reasons.

3.2.4 Semantic criteria in the analysis of non-automatic variation in the coding of agents and patients

This section is devoted to a discussion of the semantic criteria that may support analyzing non-automatic variation in the coding of agents and patients as involving variants of the transitive construction, or intransitive alternatives to the transitive construction. §3.2.4.1 deals with constructions of transitive verbs showing semantic properties that support analyzing them as intransitive alternatives to the transitive construction rather than variants of the transitive construction. §3.2.4.2 examines constructions of transitive verbs whose semantic properties rather support an analysis in terms of variants of the transitive construction.

The general principle is that, although semantic transitivity and syntactic transitivity must be distinguished, some consistency must nevertheless be expected in the relationship between semantic transitivity and syntactic transitivity. This means that a construction of transitive verbs implying a decrease in semantic transitivity can hardly be analyzed as (a variant of) the transitive construction, and conversely, a construction of transitive verbs implying a relatively high degree of semantic transitivity can hardly be analyzed as an intransitive alternative.

3.2.4.1. *Constructions of transitive verbs affecting the role of agent*

Transitive verbs may have alternative constructions implying that the agent of prototypical transitive verbs is deleted from the set of essential participants, and can only be (re)introduced as an optional causal adjunct encoded like the causal adjuncts that can modify any verb irrespective of its meaning and valency properties. Such constructions cannot be analyzed as being the basic construction of transitive verbs or variants thereof, but only as distinct (although related) constructions. For example, irrespective of whether they involve morphological coding on the verb or not, decausative constructions, such as English *The glass broke*, or P-oriented resultatives, such as English *The glass is broken*, are clearly not candidates to the status of transitive construction.

The same can be said of so-called ‘involuntary agent constructions’, in which a special coding of a participant whose involvement in the action is otherwise similar to that of the agent expresses lack of volitionality. Involuntary agents are not prototypical agents (since volitionality is one of the features that define prototypical agenthood). Involuntary agent constructions imply a reduction in semantic transitivity, and consequently cannot be analyzed as mere variants of the basic construction of transitive verbs.

Clear evidence that involuntary agent constructions imply a change in participant roles (and consequently should not be analyzed as boiling down to an alternative coding of agents) is provided by languages like Akhvakh, where a verb like *biq'uruḷa* ‘break, intr.’ / *biq'ōruḷa* ‘break, tr.’ (causative form of *biq'uruḷa*) occurs in the causative form in combination with a typical agent in the ergative case, and in its underived form in combination with an ‘involuntary agent’ in the ablative case, cf. example (23).⁴¹

(23) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Mik'i-de istaka b-iq'wāri.*
 child(N)-ERG glass(N) I_{SP}:SG.N-break.CAUS.CPL
 ‘The child broke the glass.’
 lit. ‘The child made the glass break.’
- b *Mik'i-gune istaka b-iq'wāri.*
 child(N)-ABL glass(N) I_{SP}:SG.N-break.CPL
 ‘The child broke the glass unintentionally.’
 lit. ‘The glass broke from the child.’

The strategy used in Guugu Yimidhirr to code involuntary agents is basically the same, with the difference that, in Guugu Yimidhirr, an underived transitive verb is found in the transitive construction, and the verb found in the involuntary agent construction is its decausative

⁴¹ In (23a), as explained in Creissels (2017a), the length of the *a* in *b-iq'wāri* results from the fusion of the completive ending *-ari* with a causative marker whose underlying form is *-aj-*: *b-iq'w-aj-ari* > *b-iq'wāri*.

counterpart (formed by the addition of a suffixed voice marker). According to Fauconnier (2011), this is cross-linguistically the most widespread strategy for involuntary agent constructions.

(24) Guugu Yimidhirr (Northern Pama-Nyungan, Pama-Nyungan)

- a *Ngayu galga nhanu dumbi.*
 1SG spear 2SG.GEN break.PST
 ‘I broke your spear (on purpose).’
- b *Ngadhungal galga nhanu dumbi-idhi.*
 1SG.ADESS spear 2SG.GEN break-DECAUS.PST
 ‘I broke your spear (by accident).’
 lit. ‘By me your spear broke itself.’
 (Haviland 1979: 125)

The analysis of (25) is less obvious, since no voice marker is present, but Haspelmath (1993a: 292) discusses evidence that (25b) is not a transitive clause with an alternative case marking of A, and rather involves ambitransitivity of the noncausal-causal type.

(25) Lezgi (Lezgian, Nakh-Daghestanian)

- a *Zamira-di-Ø get'e xa-na.*
 PRN-OF-ERG pot break-CPL
 ‘Zamira broke the pot.’
- b *Zamira-di-waj get'e xa-na.*
 PRN-OF-ADEL pot break-CPL
 ‘Zamira broke the pot accidentally/unvoluntarily.’
 lit. ‘From Zamira the pot broke.’
 (Haspelmath 1993a: 292)

3.2.4.2 *Constructions of transitive verbs highlighting the individuation of the patient*

In the analysis of possible variation in the coding of agents and patients, an important criterion is that it would not make sense to analyze constructions highlighting the individuation of the patient, without any implication as to the status of the agent, as intransitive alternatives to the transitive construction, since a high degree of individuation of the protagonists is an important parameter of prototypical transitivity.

This principle is crucial to justify analyzing (26b) as an uncoded antipassive construction (i.e., as an intransitive alternative to the transitive construction (26a)), whereas in (27), (27a) and (27b) are analyzed as two variants of the transitive construction involving ‘differential object marking’.⁴²

⁴² The verbs in examples (25) and (26) are not prototypical transitive verbs, but this does not affect their illustrative value, since ‘see’ in Inuit and ‘look for’ in Spanish meet the definition of syntactically transitive verbs.

(26) Labrador Inuktitut (Eskimo, Eskimo-Aleut)

- a *Anguti-up annak taku-janga.*
 man-ERG woman see-PRS.I_A:3SG.I_P:3SG
 ‘The man sees the woman.’
- b *Angutik anna-mik taku-juk*
 man woman-INS see-PRS.I_S:3SG
 ‘The man sees a woman.’
 (Smith 1982: 164)

(27) Spanish (Italic, Indo-European)

- a *Busco un médico.*
 look.for.PRS.I_{S/A}:1SG IDF.SG.M doctor(M)
 ‘I am looking for a doctor.’ (non-specific)
- b *Busco a un médico.*
 look.for.PRS.I_{S/A}:1SG ACC IDF.SG.M doctor(M)
 ‘I am looking for a doctor.’ (specific or non-specific)

In both examples, on a strictly formal basis, the (a) construction can only be analyzed as transitive (since it is not isomorphous with the construction formed by a monovalent verb, its sole argument and an adjunct), whereas the (b) construction is a priori analyzable as an intransitive alternative to (a), since one of the two essential participants is coded like the sole essential participant of monovalent verbs, whereas the coding characteristics of the other one are identical or similar to those of adjuncts. However, in Inuit, as indicated by the translations, (26b) implies a relatively low degree of individuation of the referent of the instrumental-marked phrase, and consequently, there is nothing to prevent analyzing it as intransitive (or more precisely, as an uncoded antipassive construction). By contrast, in Spanish, (27b) encodes a higher degree of individuation of the participant encoded as a prepositional phrase, and this is sufficient to rule out the antipassive analysis, since it would not be consistent to analyze a construction compatible with an increase in semantic transitivity as an intransitive alternative to the transitive construction.

3.2.5 The discourse frequency criterion

In discussions about the transitivity status of competing constructions of transitive verbs, it is often claimed that the use of a construction analyzed as the basic construction of transitive verbs must not be bound to semantic or pragmatic restrictions, and consequently, the transitive construction must be more frequent in discourse than its intransitive alternatives. The discourse frequency criterion has been mentioned in §3.2.1 as one of the principles that must be respected in the analysis of a possible construction of transitive verbs as (a variant of) the transitive construction or as an intransitive alternative to the transitive construction.

What I would like to emphasize here is that the discourse frequency criterion, like the other criteria that can be invoked in the analysis of the status of the possible constructions of transitive verbs, only works in one direction. The discourse frequency criterion rules out analyzing a relatively frequent construction of transitive verbs as an intransitive alternative to a less frequent construction that would be analyzed as the sole transitive construction. However, it is perfectly possible to analyze a relatively infrequent construction as a variant of

the transitive construction, since there is no reason to impose that two or more constructions analyzed in a given language as variants of the transitive construction should be equivalent in terms of discourse frequency. The only requirement is that, TAKEN TOGETHER, the constructions analyzed as variants of the transitive construction must have a higher discourse frequency than those analyzed as intransitive alternatives.

As will be discussed in §3.3.2 below, the use (and misuse) of the discourse frequency criterion can be illustrated by the controversy about the analysis of the possible constructions of transitive verbs in Tagalog and the other Western Austronesian languages that have the particular type of voice system commonly referred to as the Philippine-type of voice system.

3.3 Pivot-prominent transitive constructions

3.3.1 Introductory remarks

In chapter 1 §1.3.3.3, PIVOT-PROMINENT TRANSITIVE CONSTRUCTIONS have been defined as transitive constructions in which the coding characteristics of one of the terms (the pivot) marks its selection as the syntactically privileged term but provides no information about its semantic role, and the selection of the pivot does not depend on its possible characterization as A or P.

From a strictly logical point of view, nothing ensures that the coding characteristics of the two core terms of transitive clauses should always straightforwardly identify one of them as A and the other one as P. One may imagine other ways of encoding the information about the semantic roles fulfilled by the referents of the core terms of transitive clauses, and this is indeed a situation that can be observed in some languages.

For example, in Tagalog (example (20), repeated here as (28)), the NPs representing the buyer and the thing being bought in clauses projected by the verb ‘buy’ can interchange their flagging and position in the clause, but verb morphology unambiguously indicates that the referent of the *ang*-phrase is the buyer in (a), but the thing being bought in (b).

(28) Tagalog (Greater Central Philippine, Austronesian)

a *B<um>ili ng isda sa tindahan ang lalake*

<AV>buy nPIV fish OBL store PIV man

‘The man bought fish in the store.’ (agent voice)

b *Bi~bilh-in ng lalake sa tindahan ang isda*

IRR~buy-PV nPIV man OBL store PIV fish

‘The man will buy the fish in the store.’ (patient voice)

(Foley 2006: 23)

In the remainder of this section, I briefly present three languages or groups of languages for which, within the theoretical framework proposed in this book, the available data are sufficient to conclude with certainty that they have two or more possible constructions of transitive verbs that should not be analyzed in terms of intransitive alternatives to the transitive construction, but rather as involving variants of the transitive constructions correlating with the selection of a pivot: Tagalog (and other languages having so-called

Philippine-type voice systems) in §3.3.2, Balinese in §3.3.3, and Movima (Amazonian isolate) in §3.3.4.

Since pivot-prominent transitive constructions imply a special type of voice system, this question will be resumed in chapter 8 on voice alternations (§8.5), where the possibility of analyzing some Western Nilotic languages as having this kind of system will also be evoked.

3.3.2 The transitive construction of Tagalog and other languages having a Philippine-type voice system

Without entering into the discussion of some points of disagreement among scholars that have been debated at length in the literature (an excellent review of which is provided by Chen & McDonnell 2019), the essential features of Tagalog verbal clauses, illustrated in (29), can be summarized as follows:

- The verb, characterized by an elaborate system of TAM marking and obligatory voice marking, occurs clause-initially in neutral simple assertive clauses.
- All nominal terms of verbal clauses are flagged by prepositions,⁴³ and none of them is distinguished from the others by obligatory indexation.
- Constituent order is flexible enough to exclude identifying A and P on the basis of constituent order.
- Simple assertive clauses obligatorily include a PIVOT marked by the preposition *ang* (*si* with personal names), glossed PIV,⁴⁴ and the pivot is the only term having access to relativization and related operations.
- There is no restriction on the semantic roles that can be expressed by *ang*-phrases, and consequently, the preposition *ang* provides no indication about the semantic role of the pivot, but this information is given by the voice form of the verb.
- Among the other prepositions, *ng* (*ni* with personal names) has a special status in that, in addition to its use to mark adnominal possessors, it is equally and (almost) invariably used to flag the agent and the patient of prototypical transitive verbs, as well as the sole essential participant of monovalent verbs, whenever they are not selected as the pivot (hence the gloss nPIV ‘non-pivot’).⁴⁵

(29) Tagalog (Greater Central Philippine, Austronesian)

a *B<um>ili ng isda sa tindahan ang lalake*
 <AV>buy nPIV fish OBL store PIV man
 ‘The man bought fish in the store.’ (agent voice)

⁴³ Note however that, as will be discussed below for *ang*, the designation of the markers that introduce the nominal terms of Tagalog clauses as prepositions reflects only part of their nature, since they have properties both of determiners and prepositions. See for example Himmelmann (2005) and Himmelmann (2016), who argues that *ang* and *ng* are determiners, whereas *sa* is a preposition.

⁴⁴ The preposition *ang* is commonly designated as ‘nominative preposition’, but the label ‘nominative’ is potentially misleading, since the Tagalog system is basically different both from those for the description of which the term ‘nominative’ is traditionally used (Latin, Greek, etc.) and from those to the description of which the use of the term ‘nominative’ has been extended in more recent times (for example, Japanese, or the ‘marked-nominative’ languages of East Africa).

⁴⁵ It is in fact possible to mark a patient in the agent voice with the locative marker *sa* rather than *ng*, but only when it is definite (Ross 2002: 26ff).

- b *Bi~bilh-in ng lalake sa tindahan ang isda*
 IRR~buy-PV nPIV man OBL store PIV fish
 ‘The man will buy the fish in the store.’ (patient voice)
- c *Bi~bilh-an ng lalake ng isda ang tindahan.*
 IRR~buy-LV nPIV man nPIV fish PIV store
 ‘The man will buy the fish in the store.’ (locative voice)
- d *I-bi-bili ng lalake ng isda ang bata.*
 CV-IRR~buy nPIV man nPIV fish PIV child
 ‘The man will buy fish for the child.’ (conveyance voice)
- e *Ipam-bi~bili ng lalake ng isda ang salapi.*
 IV-IRR~buy nPIV man nPIV fish PIV money
 ‘The man bought fish with the money.’ (instrumental voice)
 (Foley 2006: 23)

The Tagalog clauses in which a prototypical transitive verb combines with no other nominal term than the agent phrase and the patient phrase have two possible constructions, illustrated in (30a-b), whereas clauses in which a monovalent verb combines with no other nominal term than its sole essential participant have a single possible construction, illustrated in (30c).

(30) Tagalog (Greater Central Philippine, Austronesian)

- a *P<um>atay ang lalake ng aso.*
 kill<AV> PIV man nPIV dog
 ‘The man killed a dog.’
- b *P<in>atay-Ø ng lalake ang aso.*
 kill<REAL>-PV nPIV man PIV dog
 ‘The man killed the dog.’
- c *B<um>agsak ang baso.*
 fall<AV> PIV vase
 ‘The vase fell.’
 (Latrouite 2011: 44, Nagaya 2012: 50)

However, contrary to what example (30) might suggest, *ang*-flagging of one of the terms of the transitive construction cannot be analyzed in terms of alignment of the *ang*-marked term of the transitive construction with intransitive S. Crucially, in intransitive clauses, in the absence of any other nominal term, S is invariably *ang*-marked and the verb is in the agent voice form, but intransitive verbs can occur in other voice forms (with the exception of the patient voice). In that case, as illustrated in (31), another term fulfills the role of pivot, and S is marked by *ng*, exactly like the core terms of the transitive construction when they are not selected for the role of pivot.

(31) Tagalog (Greater Central Philippine, Austronesian)

- a *P<um>unta ang lalake (sa tindahan).*
 go<AV> PIV man OBL store
 ‘The man went (to the store).’ (agent voice)

- b *P<in>unta-han ng lalake ang tindahan.*
 go<REAL>-LV nPIV man PIV store
 ‘The man went to the store.’ (locative voice)
 (Nolasco & Saclot: 2005)

There is a long-standing controversy among specialists of Western Austronesian languages as to which of the following three analyses should be preferred:⁴⁶

- the transitive-passive analysis: the construction of transitive verbs in which the *ang*-marked phrase represents the agent of prototypical transitive verbs is the transitive construction, and the construction in which the *ang*-marked phrase represents the patient of prototypical transitive verbs is a passive construction;
- the transitive-antipassive analysis: the construction of transitive verbs in which the *ang*-marked phrase represents the patient of prototypical transitive verbs is the transitive construction, and the construction in which the *ang*-marked phrase represents the agent of prototypical transitive verbs is an antipassive construction;
- the symmetrical-voice analysis: both constructions are transitive, and the alternation involves a particular type of voice system, designated as a system of SYMMETRICAL VOICES.

Early treatments (in particular Bloomfield 1917) adopted the transitive-passive analysis. Starting from Payne (1982), several authors have argued in favor of the transitive-antipassive analysis. The transitive-passive analysis has been largely abandoned by now, and the controversy concerns the choice between the other two possible analyses, The symmetrical-voice analysis, initiated by Shibatani’s (1988) account of Tagalog and Cebuano, was supported among others by Kroeger (1993), Katagiri (2005), Foley (2008), and Riesberg (2014), and can be considered now as the mainstream model, at least for Tagalog. According to this analysis, Tagalog and other languages with similar systems of transitive coding do not have a uniquely determined transitive construction, but two variants of the transitive construction, the agent voice construction and the patient voice construction, that differ in the selection of the pivot, but are equally transitive.

For the proponents of the antipassive analysis of the construction with the agent of prototypical transitive verbs encoded as the *ang*-marked term, an essential argument is the high discourse frequency of the construction with the patient of prototypical transitive verbs encoded as the *ang*-marked term. However, this observation rules out the transitive-passive analysis, but is equally compatible with the transitive-antipassive and symmetrical-voice analyses. A crucial shortcoming of the antipassive analysis of the construction with an *ang*-marked agent phrase is that, in this construction, the coding of the patient phrase cannot be described as similar to that of an adjunct in a clause projected by a monovalent verb, since this is not a possible function of the preposition *ng*.

In fact, neither the patient phrase in the construction with an *ang*-marked agent phrase nor the agent phrase in the construction with an *ang*-marked patient phrase can be described as showing oblique coding, and consequently, analyzing them as two variants of the transitive construction is the only analysis that does not encounter serious objections.

⁴⁶ For a detailed presentation of the controversy about the analysis of transitivity in Western Austronesian languages, readers are referred to (Chen & McDonnell 2019) and (Zúñiga and Kittilä 2019: 120-134).

Moreover (and this will be the position adopted here), it can even be argued that the transitive construction of Tagalog should simply be schematized as follows, without any reference to the possibility of flagging one of the two core terms by means of *ang*, and without any reference to the A vs. P distinction:

V *ng*-N *ng*-N

This analysis is motivated by the fact that the syntactic constraint according to which one of the nominal terms of the clause must be selected as the pivot operates regardless of the transitivity of the clause and of the valency properties of the verb. *Ang*-flagging can be accounted for by means of a rule according to which the flagging of a noun phrase as the pivot supersedes the flagging reflecting the semantic role of its referent, and *ng*-flagging makes no distinction between agents and patients.

In this connection, I would like to emphasize that *ang* does not have the kind of distribution that characterizes case markers, but rather the kind of distribution that, in other languages, characterizes markers that express the information-structural status of noun phrases. Consequently, it would make no sense to analyze the substitution of *ang* to other prepositions as a valency-related alternation between two case markers. *Ang* does not really replace the other prepositions, but rather ‘hides’ them.

My proposal is that, in order to capture the specificities of the kind of participant coding system found in Tagalog, it is necessary to dissociate coding frames as a lexical property of verbs from the selection of a particular term as the pivot. The choice of a pivot is clearly not part of the valency properties of Tagalog verbs, and this justifies positing coding frames that abstract from the necessary choice of a pivot, and exclusively register the coding assigned to participants when the noun phrase that represents them is not selected as the pivot.

In other words, the apparent variation between V *ang*-A *ng*-P and V *ng*-A *ang*-P, as in (30a-b) above, does not really involve the choice between two different constructions of transitive verbs. It rather follows from the application of a general syntactic rule (the obligatory selection of a pivot) that has nothing to do with transitivity and valency. Voice marking on the verb is what makes it possible to retrieve the semantic roles of the referents of the nominal terms of the transitive construction, at least when one of them is selected as the pivot, since the selection of A as the pivot must be licensed by agent voice marking on the verb, whereas the selection of P as the pivot must be licensed by patient voice marking.

In the literature, the term of Philippine-type voice system is commonly used for voice systems sharing the following two properties: they encode the selection of a pivot among the participants in the event denoted by the verb without affecting the transitivity of the construction, and the choice of the pivot is not limited to the two core terms of transitive constructions. There is, however, cross-linguistic variation in the precise number of voices distinguished in such systems, in the flexibility / rigidity of the constituent order patterns, and in the details of the flagging patterns.

On this latter point, the use of a coding identical to that of adnominal possessors for agents that are not selected for the role of pivot is pervasive. By contrast, there is cross-linguistic variation in the coding of the pivot and in the coding of patients that are not selected for the role of pivot.

Paiwan (32) illustrates a system in which all terms are overtly flagged, as in Tagalog, but with two distinct flags for non-pivotal As and Ps, whereas in Malagasy (33), pivots are

unflagged, as well as lexical NPs in the role of non-pivotal P.⁴⁷ Moreover, the rigidity of constituent order in Malagasy (with non-pivotal As in immediate postverbal position and pivots consistently in clause-final position) sharply contrasts with the relative flexibility observed for example in Tagalog.

(32) Paiwan (Paiwan, Austronesian)

- a *Q<m>alup a caucau tua vavuy i gadu tua vuluq.*
 <AV>hunt PIV man nPIV.P pig LOC mountain INS spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [agent voice]
- b *Qalup-en nua caucau a vavuy i gadu tua vuluq.*
 hunt-PV nPIV.A man PIV pig LOC mountain INS spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [patient voice]
- c *Qalup-an nua caucau tua vavuy a gadu tua vuluq.*
 hunt-LV nPIV.A man nPIV.P pig PIV mountain INS spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [locative voice]
- d *Si-qalup nua caucau tua vavuy i gadu a vuluq.*
 IV-hunt nPIV.A man nPIV.P pig LOC mountain PIV spear
 ‘The man hunts wild pigs in the mountains with a spear.’ [instrumental voice]
 (Ferrell 1979: 202)

(33) Malagasy (Barito, Austronesian)

- a *Manasa lamba amin’ ny savony Raso.*
 AV.PRS.wash cloth with D soap PRN
 ‘Raso is washing clothes with the soap.’
- b *Sasan-dRaso ny lamba.*
 PV.PRS.wash-nPIV.A.PRN D cloth
 ‘The clothes are washed by Raso.’
- c *Anasan-dRaso lamba. ny savony*
 IV.PRS.wash-nPIV.A.PRN cloth D soap
 ‘The soap is used by Raso to wash clothes.’

As discussed in chapter 8 §8.5.5, although they are not mentioned in the general literature on valency and voice, some Western Nilotic languages can also be analyzed as having pivot-prominent transitive constructions involving Philippine-type voice systems.

3.3.3 The transitive construction of Balinese

Balinese is a typical example of a pivot-prominent system of transitive coding involving a voice system of the type commonly designated as Indonesian-type voice system.

Contrary to Tagalog, where core terms and obliques are equally flagged by prepositions, Balinese has a clear-cut distinction between unflagged core terms and preposition-flagged obliques.

⁴⁷ Note, however, that Malagasy personal pronouns in the role of non-pivotal P take a form distinct both from their form in the role of pivot and from their genitive form.

The transitive construction of Balinese can be schematized as follows, with two nominal terms that are not specified as having a particular relationship to the semantic roles of agent and patient:

$N_{PIV} V N_{nPIV}$

The core term in preverbal position (which is also the position occupied by the sole core term of intransitive clauses) is characterized by syntactic properties similar to those of *ang*-phrases in Tagalog (Arka 2003: 8-30), and can be analyzed as fulfilling the role of pivot. Crucially, only N_{PIV} can be relativized. However, the agent and the patient of prototypical transitive verbs can equally be encoded as the preverbal N_{PIV} or the postverbal N_{nPIV} , depending on voice marking on the verb. Transitive verbs have a morphological contrast between agent voice and patient voice, and, as illustrated in (34), the participant encoded as the preverbal N_{PIV} is the agent of prototypical transitive verbs if the verb is in the agent voice, the patient if the verb is in the patient voice. Morphologically, the agent voice form can be analyzed as deriving from a stem identical to the patient voice form via the addition of a nasal prefix that fuses with the initial of the stem.

(34) Balinese (Malayo-Sumbawan, Austronesian)

- a *Cang nyemak baju ento.*
 1SG AV.take shirt DEM
 ‘I took the shirt.’ (agent voice)
- b *Baju ento jemak cang.*
 shirt DEM PV.take 1SG
 ‘I took the shirt.’ (patient voice)
 (Udayana 2013: 15)

The crucial observation is that, in spite of the fact that the relationship between agent and patient voice is morphologically oriented, the agent voice construction cannot be analyzed as a derived intransitive construction, since the term in postverbal position shows no evidence of oblique status. Moreover, Balinese also has a bona fide passive voice yielding intransitive constructions in which the agent of prototypical transitive verbs is encoded as an oblique flagged by the preposition *teken* ‘by’, as in (35).

(35) Balinese (Malayo-Sumbawan, Austronesian)

- Yeh ento ka-inum teken I Made.*
 water DEM PASS-drink by PersART PRN
 ‘The water was (unintentionally) drunk by Made.’
 (Udayana 2013: 21)

In Balinese, contrary to the languages having a Philippine-type voice system, the selection of the pivot is limited to core syntactic terms, and obliques can only have access to the role of pivot via applicativization. For example, in (36b), the beneficiary encoded as an oblique in (36a) is encoded as an applied (non-pivotal) P in the applicative construction, which makes it possible to select it as the pivot by putting the applicative verb in the patient voice form.

- (36) Balinese (Malayo-Sumbawan, Austronesian)
- a *I meme meli nasi sig anak-e ento.*
 PersART mother AV.buy rice at person-D DEM
 ‘Mother bought rice from that person.’
- b *I meme meli-in anak-e ento nasi.*
 PersART mother AV.buy-APPL person-D DEM rice
 ‘Mother bought rice from that person.’
 (Udayana 2013: 3)

3.3.4 The transitive construction of Movima

Movima (an Amazonian isolate) has been described by Katharina Haude in a number of publications, including a reference grammar (Haude 2006). The participant coding system of Movima is characterized by a clear-cut distinction between unflagged core terms and flagged obliques. There is also a clear formal contrast between the two core terms of the transitive construction, but this contrast does not reflect the A vs. P contrast, since each of the two morphosyntactic behaviors that distinguish the core terms of the transitive construction from each other may equally be assigned to agents and patients of prototypical transitive verbs, depending on the position of their referents in a saliency hierarchy involving person, animacy, and topicality.

In her first publications on Movima, Katharina Haude used the non-committal terms ARG₁ and ARG₂ for the two morphosyntactic slots available for the coding of the nuclear participants of transitive verbs, but in (Haude 2010) and subsequent works, she refers to them as PROX (proximate) and OBV (obviative), which reflects the properties of the participants that condition their mapping onto one of the two available slots.⁴⁸ The coding characteristics of OBV are identical to those of the single core term of intransitive clauses, whereas the coding of PROX coincides with that of the possessor in the adnominal possession construction. This suggests that the structure of Movima verbal clauses may have arisen from a reanalysis of constructions with deverbal nouns in predicate function, as argued in (Haude 2010: 304). Moreover, OBV and the single core term of intransitive clause share behavioral properties that justify analyzing OBV as the syntactically privileged term in transitive clauses (Haude 2010: 295-297).

The basic constituent order in the transitive construction is V PROX OBV, as in (33).

- (37) Movima (Movima)
- Man<a>ye =is pa:ko os rulrul.*
 meet<DIR> D.PL dog D.N.PST jaguar
 ‘The dogs (PROX) found a jaguar (OBV).’
 (Haude 2010: 289)

⁴⁸ The terms proximate and obviative are taken from the terminology of Algonquian linguistics, where they refer to an inflectional category of nouns. Given the relationship between proximate/obviative marking on nouns and direct/inverse marking on transitive verbs in Algonquian languages, the use of the terms proximate and obviative for the two grammatical roles that structure the transitive construction of Movima can be viewed as a generalization of the meaning they have in Algonquian linguistics according to the following definition: in a transitive clause involving direct-inverse marking, ‘proximate’ refers to the core term that ranks higher in the hierarchy that determines direct/inverse marking, whereas ‘obviative’ refers to the core term that ranks lower.

Apart from linear order, several other factors distinguish the two terms of transitive clauses. PROX is obligatorily expressed (the absence of any overt expression of PROX being interpreted as implying 1st person singular PROX) and phonologically closely attached to the verb through ‘internal cliticization’, whereas OBV, like the single core term of intransitive clauses, is not syntactically obligatory and has a freer position in the clause; moreover, when represented by a pronominal enclitic, it is attached through ‘external cliticization’. See (Haude 2010: 289-291) for more details on the formal contrast between PROX and OBV.

The encoding of the nuclear participants in the events denoted by transitive verbs as either PROX or OBV is constrained by a saliency hierarchy conflating deictic (a), semantic (b), and pragmatic (c) factors:

- a. person: 1 > 2 > 3
- b. animacy: human > non-human animate > inanimate
- c. topicality: topic (given) > nontopic (new)

Participant roles intervene only in the (obligatory) marking of the verb form as direct or inverse: direct marking on the verb form implies that the PROX term coincides with A (i.e., refers to the agent if the verb is a prototypical transitive verb), whereas inverse marking implies that PROX coincides with P (i.e., refers to the patient if the verb is a prototypical transitive verb).

As regards the three sub-scales that determine the coding of participants as PROX or OBV, person ranks over animacy and topicality: whenever an SAP interacts with a non-SAP, the SAP is encoded as PROX and the non-SAP as OBV. The interaction of animacy and topicality is more complex.

In the configurations that impose direct marking (and in which consequently the syntactically privileged term coincides with P), it is possible to promote A to the status of syntactically privileged term by means of a voice operation yielding an intransitive (antipassive) alternative to the transitive construction whose sole core term coincides with the A of the transitive construction, the referent of the P of the transitive construction being encoded as an oblique.

Example (38) illustrates the contrast between direct- and inverse-marked transitive verb forms and the detransitivization of direct-marked forms: in (38a), where a person acts on an animal, direct marking indicates that PROX coincides with A and OBV with P, whereas in (38b), where an inanimate entity acts on a human, inverse marking indicates that PROX coincides with P and OBV with A. In (38c), a person acts on an inanimate, and consequently direct marking is required; since relativization is only possible on the OBV term of the transitive construction, ‘the lady that looks after my house’ can only be expressed by detransitivizing the direct-marked verb form, so that relativization operates on the S term of an intransitive construction.

(38) Movima (Movima)

- a *Yok-na = 'ne as jokme.*
 catch-DIR 3F D.N chicken
 ‘She (PROX) caught the chicken (OBV).’

- b *Ew-kay-a* = 'ne os alamre.
 hold-INV-LKV 3F D.N.PST wire
 'A wire (OBV) held her (PROX) back.'
- c *i'nes senyo:ra [di' kwey vel-na no-kos asna =Ø]*
 D.F lady REL ANTIP look.after-DIR OBL-D.N.AB home 1SG
 'the lady that looks after my house'
 (Haude 2010: 293, 298)

As observed by Haude & Zúñiga (2016), the Movima system is in crucial respects similar to the Western Austronesian systems analyzed in terms of symmetrical voices. In fact, it is even possible to argue that, as proposed by Zúñiga & Kittilä (2019: 149), an alternative analysis of Movima is possible in terms of symmetrical voices similar to a large extent to the Balinese agent and patient voices presented in §3.3.3, since in Movima, the OBV term can equally be characterized as the syntactically privileged term (or pivot). The direct marker can also be analyzed as a patient voice marker, since it implies that the syntactically privileged term (OBV) is P, as in (31a), whereas the inverse marker can also be analyzed as an agent voice marker, since it implies that the syntactically privileged term (OBV) is A, as in (31b).

There is, however, an important difference between the symmetrical agent/patient voices as attested in Balinese and the Movima system. If one accepts reanalyzing the Movima system in terms of symmetrical voices, it must be added that, in Movima (in contrast to Balinese), the choice between agent voice and patient voice is only possible in 3→3 scenarios. If at least one of the participants is an SAP, the selection of the agent or patient voice is determined by the relative position of the participants on the 1>2>3 hierarchy: patient voice in 'direct' scenarios (1→2, 1→3, 2→3), agent voice in 'inverse' scenarios (2→1, 3→1, 3→2).

Haude & Zúñiga (2016) propose interesting remarks on the way the notions of symmetrical voices and direct-inverse marking may overlap, and on their possible use in the analysis of systems of pivot-prominent transitive coding. However, this is a question that would certainly require further investigation on the basis of (i) clearly defined criteria for distinguishing variants of the transitive construction from intransitive alternatives to the transitive construction, and (ii) a precise characterization of systems of pivot-prominent transitive coding, whose specificity cannot be captured by just referring to the vague notion of 'languages with two transitive constructions'.

3.4 Intransitive clauses *stricto sensu* and quasitransitive constructions

Most of the time, in intransitive clauses projected by semantically bivalent verbs, one of the two essential participants is encoded like the sole essential participant of (a major class of) monovalent verbs, whereas the other is coded like adjuncts in clauses projected by semantically monovalent verbs (§3.4.1). However, although this is much less common, some languages attest the possibility of intransitive clauses projected by bivalent verbs in which one of the essential participants is coded as S whereas the other is assigned a specific type of coding (§3.4.2). The possibility of impersonal or anti-impersonal coding frames for bivalent verbs, in which none of the essential participants is coded like the sole essential participant of (a major class of) monovalent verbs, will be discussed in chapter 6.

3.4.1 Constructions with adjunct-like coding of one of the two essential participants of bivalent verbs

By far the commonest situation for the semantically bivalent verbs that do not meet the definition of syntactically transitive verbs is that they select coding frames with one of the essential participants encoded like the sole essential participant of (a major class of) monovalent verbs, and the other coded as if it were an adjunct in a clause projected by a semantically monovalent verb. The term ‘extended-intransitive construction’ coined by Dixon (1994: 123) is sometimes found in the literature with reference to this type of construction.

Example (39) illustrates this kind of construction with the Mandinka verbs *làfi* ‘want’ (39b) and *ñiná* ‘forget’ (39c). Their coding frame, schematizable as N₁ V N₂ Postp, is different from the transitive coding frame N₁ N₂ V illustrated in (39a) with the prototypical transitive verb *dádâa* ‘repair’, but is isomorphous with the construction illustrated in (39d), in which a monovalent verb combines with a phrase referring to the sole essential participant and an adjunct phrase.

(39) Mandinka (Central Mande, Mande)

- a *Kêê yè fòolèsúwòo dádâa.*
 man.D CPL.TR bicycle.D repair
 ‘The man repaired the bicycle.’
- b *Kêe làfi-tà kòd-òo lá.*
 man.D want-CPL.ITR money.D POSTP
 ‘The man wants money.’
- c *Kêe ñiná-tá í kòntóòo lá.*
 man.D want-CPL.ITR 1SG surname.D POSTP
 ‘The man has forgotten my surname.’
- d *À kèemáa bãn-tá àlàhádoò lá.*
 3SG husband die-CPL.ITR Sunday.D POSTP
 ‘Her husband died on Sunday.’

Similarly, in Chechen, the coding frames selected by the verbs ‘meet’ and ‘love’ (40b-c) are distinct from the transitive construction illustrated in (40a), but similar to constructions involving the sole core term of a monovalent verb and an adjunct, since one of the two essential participants is coded as a noun phrase in the zero case governing the agreement of the verbs that have a prefixal slot for gender-number agreement (like the sole essential participant of most monovalent verbs or the patient of prototypical transitive verbs), whereas the other one is coded as a noun phrase in a case other than the ergative case that flags the A term of the transitive construction.

(40) Chechen (Nakh, Nakh-Daghestanian)

- a *As wazh b-u'-u.*
 1SG.ERG apple(cIB) I_{SP}:cIB-eat-PRS
 ‘I eat apples.’

- b *So hwo-x taxan qiet-a.*
 1SG 2SG-LAT today meet-PRS
 ‘I am meeting you today.’
- c *Suuna Zaara j-iez-a.*
 1SG.DAT PRN(cIJ) I_{SP}:cIJ-love-PRS
 ‘I love Zara.’
 (Witzlack-Makarevich 2011: 101)

3.4.2 Quasitransitive constructions

As common as they may be cross-linguistically, coding frames with adjunct-like coding of one of the two essential participants are not the only possible type of coding frame for the bivalent verbs that do not select the transitive construction. At least some languages have bivalent verbs selecting coding frames distinct from the transitive construction but in which none of the two essential participants is assigned adjunct-like coding. Such coding frames are designated in this book as QUASITRANSITIVE CONSTRUCTIONS. What motivates the choice of this term is that, by definition, this type of construction is found exclusively with bivalent verbs, and bears no resemblance with the constructions in which monovalent verbs may be involved.

Quasitransitive constructions are not common cross-linguistically, but Eastern Songhay languages (§3.4.2.1), the Western Nilotic language Mabaan (§3.4.2.2), Algonquian languages (§3.4.2.3) and vernacular Arabic varieties (§3.4.2.4) are examples of languages that can be analyzed as having bivalent verbs selecting a coding frame different from the transitive construction, without, however, being analyzable as involving adjunct-like coding of one of the two essential participants. The possibility of analyzing some passive constructions as quasitransitive constructions will be evoked in chapter 9 §9.2.1.2, and a quasitransitive analysis of the constructions designated as inversion constructions in descriptions of Bantu languages will be proposed in chapter 15 §15.10.1.

3.4.2.1 Quasitransitive constructions in Eastern Songhay languages

In Koroboro Senni (Eastern Songhay), prototypical transitive verbs invariably occur in a coding frame Agent-Patient-Verb(-Adjuncts), with a rigid constituent order, and no flagging or indexation of either the agent or the patient. Consequently, the transitive construction of Koroboro Senni can be schematized as APVX. There is, however, a class of 20 bivalent verbs or so whose coding frame can be schematized as N₁-V-N₂-X, with one of the two essential participants obligatorily encoded as an unflagged noun phrase in postverbal position. In (41), *keyri* ‘break’ illustrates the behavior of prototypical transitive verbs, whereas *dii* ‘see’ illustrates the case of bivalent verbs selecting the coding frame N₁-V-N₂-X. Note that the TAM value ‘completive positive’ is marked in the transitive construction by *na* inserted between the two noun phrases in preverbal position, otherwise it is zero-marked.

- (41) Koroboro Senni (Songhay)
- a *A na taasaa keyri.*
 3SG CPL plate.D break
 ‘S/he broke the plate.’

- b *A *keyri taasaa*.
 3SG break plate.D
- c Ay *dii ni wandoo*.
 1SG see 2SG wife.D
 ‘I saw your wife.’
- d *Ay *na ni wandoo dii*.
 1SG CPL 2SG wife.D see

The unflagged noun phrase following verbs such as *dii* ‘see’ shows morphosyntactic properties that distinguish it from adjuncts, the most obvious one being that, like preverbal patients, it is obligatorily unflagged, in spite of the fact that (contrary to the situation with unflagged spatial or temporal adjuncts) its intrinsic meaning ‘your wife’ has no particular affinity with the semantic role it expresses in this clause (stimulus of visual perception). This is the reason why Heath (1999) analyzes it as a ‘postverbal object’ and designates the bivalent verbs selecting this coding frame as ‘VO verbs’ or ‘noncanonical transitive verbs’.

However, the term ‘noncanonical transitive’ has no place in the conceptual and terminological framework adopted in this book. In this framework, the class of Koroboro Senni verbs illustrated above by *dii* ‘see’ cannot be analyzed as a class of transitive verbs, since, as rightly observed by Heath (1999: 162), none of its members is a prototypical transitive verb. According to the definition put forward at the beginning of this section, Koroboro Senni is best characterized as having a morphosyntactic class of QUASITRANSITIVE verbs selecting a coding frame that cannot be analyzed as similar to the construction of monovalent verbs combined with their sole essential participant plus an adjunct phrase, but nevertheless differs from the transitive construction.

Interestingly, the same two classes of transitive and quasitransitive verbs can be found in closely related Zarma, with, however, a different manifestation of the distinction. The prototypical transitive verbs of Zarma have two possible constructions differing in constituent order, ‘Agent-Patient-Verb(-Adjuncts)’ (i.e., a construction identical to the only possible construction of the prototypical transitive verbs in Koroboro Senni) or ‘Agent-Verb-Patient(-Adjuncts)’ (i.e. a construction identical to that characterizing the quasitransitive verbs in Koroboro Senni).

(42) Zarma (Songhay)

- a *À nà gòrɲòò wí*.
 3SG CPL chicken.D kill
 ‘S/he killed the chicken.’
- b *À wíi gòrɲò*.
 3SG kill chicken.D
 same meaning as (a)
 (Oumarou Yaro 1993: 125)

This alternation in constituent order cannot be analyzed as a particular case of a general phenomenon of flexibility in constituent order, since apart from phrases representing the more patient-like participant of a subclass of bivalent verbs that include prototypical transitive verbs, the linear order of the nominal terms of Zarma clauses is absolutely rigid. There is no obvious asymmetry between the two constructions. No semantic distinction is mentioned in

the available descriptions of Zarma either, and nothing is known about the use of the two constructions in discourse. A precise analysis of this alternation would require further investigation, but according to the criteria put forward above, this can only be analyzed as an alternation between two variants of the transitive construction.

As regards the Zarma equivalent of the Koroboro Senni verbs that select a quasitransitive construction, as illustrated by example (43), they behave in the same way as their Koroboro Senni equivalents.

(43) Zarma (Songhay)

- a *À dīi sòrkà.*
 3SG see fisherman.D
 ‘S/he saw the fisherman.’
- b **À nà sòrkàa dī.*
 3SG CPL fisherman.D see
 (Oumarou Yaro 1993: 122)

Consequently, Zarma has a distinction between transitive and quasitransitive verbs corresponding to that found in Koroboro Senni, but manifested differently. In Zarma, transitive verbs are characterized by an alternation between two variants of the transitive construction, and the distinctive property of quasitransitive verbs such as *dīi* ‘see’ is that their only possible construction is one of the two variants of the transitive construction.

3.4.2.2 *Quasitransitive constructions in Mabaan*

In Mabaan (Western Nilotic), the P term of transitive clauses is characterized by its obligatory indexation by means of portmanteau A/P indexes and by the fact that noun phrases in P role occupy a fixed position immediately before the verb (Andersen Forthcoming). As illustrated in (44), noun phrases in A role can occur either before the P phrase or after the verb.

(44) Mabaan (Western Nilotic, Nilotic, East Sudanic)

- a *Càan Kòòrà júuar-η-é.*
 PRN PRN find-PST-I_A:3SG.I_P:3
 ‘Caan found Koora.’
- b *Kòòrà júuar-η-é Càan.*
 PRN find-PST-I_A:3SG.I_P:3 PRN
 same denotative meaning as (a)
 (Andersen Forthcoming)

However, some semantically bivalent verbs among those that are not prototypically transitive, as for example ‘love’ or ‘fear’, have a coding frame distinct from the transitive construction, in which the verb indexes only one of the two essential participants. As illustrated in (45), the participant indexed in the verb form can only be expressed as a noun phrase in preverbal position, whereas the noun phrase representing the other essential participant follows the verb.

(45) Mabaan (Western Nilotic, Nilotic, East Sudanic)

Mén=gà búuaj-é ʔèkké?

person-some fear-1s:3 2PL

‘Does anybody fear you?’

(Andersen Forthcoming)

As regards indexation and constituent order, the construction illustrated in (45) is similar to an intransitive construction, with the S phrase in preverbal position and indexation limited to S. However, the lack of flagging of the NP in immediate postverbal position precludes analyzing it as coded as if it were an adjunct, which means that, according to the definition posited above, the bivalent verbs selecting such a coding frame can be analyzed as quasitransitive.

3.4.2.3 *Quasitransitive constructions in Algonquian languages*

In descriptions of Algonquian languages, the term ‘object’ conflates two distinct grammatical relations labeled O_1 and O_2 by Lockwood and Macaulay (2024). The grammatical relation O_1 encompasses the patients of prototypical transitive verbs, and thus corresponds to the typological notion of P. It also encompasses the goal of transfer verbs (including the recipient of giving verbs). The grammatical relation O_2 encompasses one of the two essential participants of a class of bivalent verbs whose coding frame is different that of the prototypical transitive verbs, and also the transferee of transfer verbs.⁴⁹ The bivalent verbs whose coding frame can be described as consisting of a subject and an ‘object’ of the O_2 type are commonly designated as ‘AI+O’ verbs in the literature on Algonquian languages. In some of the languages they are inflected exactly like AI verbs (i.e. intransitive verbs that select an animate subject), and in other languages their inflection is that of AI verbs with the addition of special inflection reflecting the non-subject participant, but in both cases, the coding of the non-subject term of ‘AI+O’ verbs cannot be assimilated to that of an adjunct in clauses projected by monovalent verbs. Consequently, the coding frame of the verbs designated as ‘AI+O’ verbs’ in the literature on Algonquian languages meet the definition of quasitransitive constructions formulated above.

3.4.2.4 *‘Have’ as a quasitransitive verb in vernacular Arabic varieties*

In vernacular Arabic varieties, predicative possession is commonly expressed by means of clauses whose nucleus belongs to a class of words that did not exist in Classical Arabic, referred to as ‘pseudo-verbs’ in descriptions of Arabic dialects.

Diachronically, the pseudo-verbs are words that originally belonged to other categories, but have acquired verbal properties. Some of them are former prepositions, which most of the time still subsist as prepositions, but are also found in constructions in which they cannot be analyzed as prepositions anymore, and can only be analyzed as belonging to a particular morphosyntactic class of verb-like words differing from ‘real’ verbs both in their morphology and in some details of their construction.

Many Arabic dialects have a possessive pseudo-verb ‘have’ (Maltese *ghand*, Moroccan Arabic *ʕand*, Levantine Arabic *ʕind*, etc.) originating from an adessive preposition found in

⁴⁹ On the notions of goal and transferee, see chapter 2 §2.1.3, and for more details chapter 7 §7.2.2.

Classical Arabic as *ʕinda* ‘beside’. When Moroccan Arabic *ʕand* is immediately followed by a noun phrase (i.e., acts as a preposition), as in (46a-b), the noun phrase in question can only be interpreted as referring to the ground in a spatial relationship. The possessive reading illustrated in (46c-d) is only possible when *ʕand* combines with a suffixed index cross-referencing the noun phrase referring to the possessor, and the possessor noun phrase can only precede *ʕand*. Note that, in Moroccan Arabic, the negation is different for verbs and non-verbal predicates, and possessive *ʕand* is negated like verbs (46d), with the discontinuous negative marker *ma ... š*, whereas locational clauses in which *ʕand* acts as a preposition flagging the ground phrase are negated by means of the negative marker *ma ši*, typically used in non-verbal predications (46b).

(46) Moroccan Arabic (Semitic, Afroasiatic)

- a *ʕl-ktāb ʕand Ḥmād.*
 D-book at PRN
 ‘The book is at Ahmed’s place.’
- b *ʕl-ktāb ma ši ʕand Ḥmād.*
 D-book NEG at PRN
 ‘The book is not at Ahmed’s place.’
- c *Ḥmād ʕand-u ʕl-ktāb.*
 PRN have-3SG.M book
 ‘Ahmed has the book.’
- d *Ḥmād ma ʕand-u š ʕl-ktāb.*
 PRN NEG have -3SG.M NEG book
 ‘Ahmed doesn’t have the book.’
 (Caubet 1993: 51-52)

In Classical Arabic and Modern Standard Arabic, as illustrated in (47), the coding of the possessor and the possessee in predicative possession (47c) is fully aligned with that of the ground and the figure in the ‘existential’ variant of locational predication (47b), i.e., in the variant of locational predication expressing the ground>figure perspectivization. The pattern shared by the possessive construction and the existential variant of locational predication can be schematized as follows:

(COP) PREP-N_{GROUND/POSSESSOR} N_{FIGURE/POSSESSEE}

(47) Modern Standard Arabic (Semitic, Afroasiatic)

- a *Ar-raġulu fī-l-maktab-i.*
 D-man in-D-office-GEN
 ‘The man is in the office.’
- b *Fī-l-maktab-i raġulu-n.*
 in-D-office-GEN man-IDF
 ‘There is a man in the office.’
- c *ʕinda l-muʕallim-i sayyāratu-n.*
 at D-teacher-GEN car-IDF
 ‘The teacher has a car.’ lit. ‘At the teacher a car.’
 (Aziz 1995; Ambros 1969: 89)

In the possessive clauses of Classical Arabic and Modern Standard Arabic, the preposition flagging the possessor phrase may be *ʕinda* ‘beside’, as in (47c), or *li* ‘to, for’. As illustrated in (48), in the past, the presence of an overt copula (the copular verb *kāna* ‘be’) expressing agreement with the possessee unambiguously shows that the possessee phrase has the same syntactic status as the figure phrase in locational predication.

- (48) Modern Standard Arabic (Semitic, Afroasiatic)
Kānat li zaydin ḥubzatu-n.
 be.PST.I_{S/A}:3SG:F to Zayd(M).GEN loaf(F)-IDF
 ‘Zayd had a loaf.’ lit. ‘Was to Zayd a loaf.’
 (Comrie 1989: 223-224)

However, this construction has a variant in which the possessor is topicalized, as in (49), where the topicalized possessor phrase moves to the left periphery of the clause and is resumed by an index suffixed to the preposition.

- (49) Modern Standard Arabic (Semitic, Afroasiatic)
Zaydun kānat la-hu ḥubzatun.
 PRN(M) be.PST.I_{S/A}:3SG:F to-I:3.SG.M loaf(F).IDF
 ‘Zayd had a loaf.’ lit. ‘Zayd, was to him a loaf.’
 (Comrie 1989: 223-224)

What occurred in the history of vernacular Arabic varieties is that the construction that was originally the basic form of predicative possession (illustrated in (47c) and (48)) has ceased to be used, and the construction illustrated in (49), initially a topicalizing construction, has become the usual way of expressing predicative possession, without any implication for information structure. This evolution resulted in a change in the categorial status of a former preposition, whose behavior in the possessive construction is not that of a preposition anymore, and justifies treating it as a member of the subclass of verb-like words designated as ‘pseudo-verbs’ in the literature on vernacular Arabic varieties. This possessive pseudo-verb occurs in constructions such as that illustrated in (46c-d) above, in which the possessor noun phrase is invariably unflagged, invariably occurs in initial position, and is obligatorily indexed on the possessive pseudo-verb:

(N_{POSSESSOR}) HAVE-I_{POSSESSOR} N_{POSSESSEE}

In this construction, the coding of the possessor and the possessee is aligned with that of A and P in transitive clauses as regards the linear order of constituents, the total lack of flagging of core nominal terms and the obligatory presence of a possessor index corresponding to a syntactically optional conominal. However, indexation in the possessive construction is not fully aligned with indexation in transitive clauses: in possessive predication, the possessee cannot be indexed at all, contrary to the P term of transitive clauses, and the obligatory possessor indexes attached to ‘have’ differ from those expressing the agreement of verbs with their S/A term, the obvious explanation being that they originate from the paradigm of suffixes used to index the complement of prepositions. Consequently, the possessive

construction cannot be analyzed as transitive. However, the lack of flagging of the possessee phrase precludes analyzing it as a construction with adjunct-like coding of one of the two essential participants. According to the definition put forward at the beginning of this section, this is a quasitransitive construction.

For a more detailed analysis of possessive predication across Arabic varieties, readers are referred to (Creissels 2022a).

3.5 Passive and antipassive alternatives to the transitive construction and their possible reanalysis

In this section, after defining passive and antipassive constructions as particular types of intransitive alternatives to the transitive construction, I briefly discuss possible evolutions by which a construction that is initially the basic construction of transitive verbs is gradually becoming obsolete, whereas a construction that is initially a passive or antipassive alternative to the transitive construction tends to become less marked and more frequent, to the point where it is reanalyzed as the basic construction of transitive verbs.

In other words, the question addressed in this section is the possibility of a GLOBAL replacement of the transitive construction by a former passive or antipassive construction.

This kind of evolution must be distinguished from the possible involvement of passive(-like) or antipassive(-like) constructions in the creation of new TAM forms, possibly leading to situations involving TAM-driven variation in transitive coding and alignment with intransitive constructions.

The question of the possible involvement of passive(-like) constructions in the creation of new TAM-forms and in the emergence of so-called split-ergative systems of participant coding will be addressed in chapter 5 §5.9. It has been widely discussed in the literature (references will be given in the relevant section), in contrast to the possibility of a global decay of the transitive construction, replaced regardless of the TAM value of the clause by a former passive construction. The possibility of such an evolution has often been evoked, but rarely really discussed, with the notable exception of (Queixalós 2013).

3.5.1 Passive and antipassive constructions

In many languages, in addition to the construction analyzed as the transitive construction, transitive verbs have constructions analyzable as intransitive alternatives to the transitive construction which, however, imply the same participant roles as the transitive construction. In such constructions, one of the two participants encoded as a core term in the transitive construction is encoded like the sole essential participant of a monovalent verb, while the other participant encoded as a core term in the transitive construction is either left unexpressed, or encoded like an adjunct in the construction of a monovalent verb, with the following two possibilities:

- in the PASSIVE construction of a transitive verb, the participant treated as P in the transitive construction is encoded as S, whereas the participant treated as A in the transitive construction is either left unexpressed or coded as an oblique;

- in the ANTIPASSIVE construction of a transitive verb, the participant treated as A in the transitive construction is encoded as S, whereas the participant treated as P in the transitive construction is either left unexpressed or coded as an oblique.

Passive and antipassive constructions may involve morphological coding on the verb, but the definition above leaves open the possibility of recognizing uncoded passive or antipassive constructions.

For example, in Tswana, (50a) and (50b) illustrate two possible constructions of the prototypical transitive verb ‘cook’. In (50a), both the agent phrase and the patient phrase are unflagged. In (50b), the patient is coded like the sole essential participant of a monovalent verb such as ‘burn’ (50c), whereas the agent is coded as a prepositional oblique. This suggests analyzing (50a) as the transitive construction, and (50b) as its passive alternative. Moreover, the verb form in (50b) includes the additional suffix *-w-*, analyzable as a voice marker.

(50) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lòràtò 'ó-tláá-àpàj-à dì:-džó.*
 PRN(1) I_{S/A}:cl1-FUT-cook-FV PL-meal(cl10)
 ‘Lorato will cook the meal.’
- b *Dì-džó 'dí-tláá-àpè-w-à kí Lòrà:tò.*
 PL-meal(cl10) I_{S/A}:cl10-FUT-cook-PASS-FV by PRN
 ‘The meal will be cooked by Lorato.’
- c *(Èlá tʰɔ:kò,) dì-džó 'dí-tláà:-f-á.*
 PL-meal(cl10) I_{S/A}:cl10-FUT-burn-FV
 ‘(Be careful,) the meal is going to burn.’

In K’ichee’, the construction of prototypical transitive verbs illustrated in (51a) includes obligatory indexation of both the agent and the patient, whereas in the construction illustrated in (51b), marked by the addition of the verbal suffix *-on*, analyzable as a voice marker, the patient is the only participant that can be indexed, like the sole essential participant of monovalent verbs. Consequently, (51a) and (51b) can be analyzed as the transitive construction and an antipassive alternative, respectively.

(51) K’ichee’ (Mayan)

- a *K-eeb'-u-loq' ri wi'č ri w-ikaaq'.*
 ICPL-I_{S/P}:3PL-I_A:3SG-buy D chick D I_{ADP}:1SG-nephew
 ‘My nephew buys the chicks.’
- b *K-Ø-loq'-on ri w-ikaaq'.*
 ICPL-I_{S/P}:3SG-buy-ANTIP D I_{ADP}:1SG-nephew
 ‘My nephew buys [unspecified things].’
 (Campbell 2000: 265, 269)

Examples (52) and (53) illustrate a transitive-passive alternation (52) and a transitive-antipassive alternation (53) involving no verbal coding. In the languages in question, the construction of monovalent verbs is characterized by a rigid constituent order with the noun phrase representing the sole essential participant in pre-verbal position, and the adjuncts in post-verbal position, whereas prototypical transitive verbs have two possible constructions: a

construction with both the agent phrase and the patient phrase in preverbal position, and a construction with a single term in preverbal position representing either the patient (in the Bambara example) or the agent (in the Supyire example). Since in both examples, the (b) construction differs from the (a) construction by being fully aligned with the construction of monovalent verbs, it can be analyzed as a detransitivized alternative to the transitive construction (a), either passive (in the Bambara example) or antipassive (in the Supyire example).

(52) Bambara (Central Mande, Mande)

- a *Sékù má nègèsô dílán.*
 PRN CPL.NEG bicycle repair
 ‘Sékou did not repair the bicycle.’
- b *Nègèsô má dílán Sékù fê.*
 bicycle CPL.NEG repair PRN by
 ‘The bicycle was not repaired by Sékou.’

(53) Supyire (Senufo, Gur, Niger-Congo)

- a *U à lwɔhé bya.*
 I_{S/A}:3SG CPL water.D drink
 ‘S/he drank the water.’
- b *U à bya lwɔhé è.*
 I_{S/A}:3SG CPL drink water.D in
 ‘S/he drank some of the water.’ lit. ‘S/he drank in the water.’
 Carlson 1994: 411)

Example (54) illustrates uncoded antipassive (54b) and passive (54c) constructions in another language having a rigid constituent order APVX / SVX.

(54) Minyanka (Senufo, Gur, Niger-Congo)

- a *Nù yà yɔ́fɔ́yí gá.*
 cow.D(cIW) CPL water.D(cIK) drink
 ‘The cow drank the water.’
- b *Nù yà gá (yɔ́fɔ́yí ní).*
 cow.D(cIW) CPL drink water.D(cIK) in
 ‘The cow drank (some water).’
- c *Yɔ́fɔ́yí yá gá (nù mà).*
 water.D(cIK) CPL drink cow.D(cIW) by
 ‘The water was drunk (by the cow).’
 (Coulibaly 2020: 269)

3.5.2 Reanalysis of a former passive construction as the basic construction of transitive verbs

It has long been observed that participant coding systems with S in intransitive clauses encoded like P in transitive clauses are typically found in languages in which A is flagged and P unflagged, i.e., in languages in which the transitive construction resembles the pattern

typically found in passive alternatives to the transitive construction in languages that have S = A alignment and unflagged noun phrases in A role (a pattern particularly widespread cross-linguistically).

It is therefore tempting to imagine that, in the languages that have relatively consistent S = P alignment, the transitive construction might be the reflex of a former passive construction that has completely replaced the former transitive construction, and has acquired the status of transitive construction as the result of this replacement. One may imagine an evolution by which a passive construction gradually loses its marked character and becomes more and more frequent, so far as to eliminate the former transitive construction, or to relegate it to the level of a mere variant whose use is bound to more or less restrictive conditions.

This is undoubtedly a plausible scenario, since among the languages with S = A alignment that have a passive alternative to the transitive construction, there are important differences in the frequency of passive constructions in texts, and there may even be conditions in which the transitive construction cannot be used, and the passive construction is obligatory. Queixalós (2013) provides a well-informed discussion, with some new elements, of the factors that may motivate the routinization of agent backgrounding, resulting in the obsolescence of the former transitive construction and the reanalysis of the former passive construction as the transitive construction.

The problem is, however, that no absolutely uncontroversial case of a GLOBAL shift from S = A alignment to S = P alignment resulting from the decay of the former transitive construction and the reanalysis of a former passive construction has been documented so far. For example, no concrete evidence supports the widely accepted assumption of the passive origin of Basque ergativity. As already mentioned above, passive or passive-like constructions are often mentioned in the literature as plausible sources of new TAM forms whose grammaticalization results in TAM-driven variation in transitive coding and alignment splits, and historical attestations of this type of change are not difficult to find, but this is another question, which will be addressed in chapter 5.

3.5.3 Reanalysis of a former antipassive construction as the basic construction of transitive verbs

Antipassive constructions in languages displaying S = P alignment typically involve unflagged agents and flagged patients (since the agent in an antipassive construction is encoded like the sole essential participant of a monovalent verb, and the patient like an adjunct), and consequently resemble the pattern typically found in the transitive construction of languages with S = A alignment. Consequently, it is not unreasonable to think that, historically, the transitive construction of at least some languages displaying S = A alignment might result from the global replacement of the former transitive construction by a construction which was initially an antipassive alternative to the former transitive construction.

Interestingly, contrary to the global replacement of a transitive construction by a construction that was initially a passive alternative to the transitive construction, discussed in §3.5.2, this is not only a speculation supported by more or less convincing indirect evidence. As already discussed by several authors, the markedness reversal leading to the obsolescence of the former transitive construction and the reanalysis of a former antipassive construction as

the transitive construction is indeed documented in the Inuktitut dialect of Inuit, cf. (Carrier 2012, 2017) and references therein.

In the Eskimo languages (Yupik and Inuit), transitive verbs have three possible constructions. In the construction considered basic (55a), P is in the zero case, whereas A is in a case form traditionally called ‘relative case’, also used to flag adnominal possessors, but glossed ERG in (55a) to reflect its function of A flag in the transitive construction. In the transitive construction, the verb agrees with both A and P by means of portmanteau suffixes, whereas in the passive and antipassive constructions, it agrees with one term only, like monovalent verbs. In the passive construction, the participant corresponding to the P of the transitive construction is in the zero case, as in the transitive construction, but the participant corresponding to the A of the transitive construction is in a case form (the ablative) distinct from that found in the transitive construction, and the verb indexes only the participant corresponding to the P of the transitive construction, as in (55b). In the antipassive construction, the term in the zero case corresponds to the A of the transitive construction; the term corresponding to the P of the transitive construction is in the instrumental case (traditionally called ‘modalis’ in descriptions of Eskimo languages), and the verb indexes only the participant corresponding to the A of the transitive construction, as in (55c).

(55) Baffin Island Inuktitut (Eskimo, Eskimo-Aleut)

- a *Anguti-up arnaq kunik-taa.*
 man-ERG.SG woman kiss-*I_A*:3SG.*I_P*:3SG
 ‘The man kissed the woman.’
- b *Arnaq kunik-tau-juq anguti-mut*
 woman kiss-*PASS-I_S*:3SG man-*ABL*.SG
 ‘The woman was kissed by the man.’
- c *Anguti kunik-si-vuq arna-mik.*
 man kiss-*ANTIP-I_S*:3SG woman-*INS*.SG
 ‘The man is kissing a woman.’
 (Spreng, 2005: 216, 217)

Example (55) illustrates the case of a transitive verb for which the transitive-antipassive alternation is morphologically coded, but there are also transitive verbs that can be found in the antipassive construction without overt antipassive marking, for example ‘eat’ in example (56).

(56) Baffin Island Inuktitut (Eskimo, Eskimo-Aleut)

- Anguti niri-vuq niqu-mik*
 man eat-*I_S*:3SG meat-*INS*.SG
 ‘The man is eating meat.’
 (Spreng, 2005: 216)

However, it has been observed that some varieties of the Inuktitut dialect of Inuit (the dialect spoken in the North Eastern part of Canada) tend to reanalyze the former antipassive alternative to the transitive construction as the transitive construction: the conditions that limit the use of the antipassive construction in Yupik and in more conservative Inuit varieties are not active anymore, whereas severe restrictions have been introduced in the use of the former

transitive construction. The former transitive construction, illustrated in (55a) above, tends to be used only when the A term is expressed through indexation only, which may lead to the disappearance of ergative flagging.

According to Spreng (2005), in some Inuktitut varieties, the verbs that are overtly marked in the antipassive construction cannot occur in the transitive construction with 3rd person As, but only in the antipassive construction. For example, in those varieties, ‘S/he is touching me’ can only be rendered as (57). Contrary to what can be observed in more conservative varieties, it is impossible to use a verb form indexing both participants (as in (55a)). The person or thing being touched can only be expressed as a personal pronoun in the instrumental case, and if the toucher were expressed as an NP, it could only be in the zero case.

(57) Inuktitut, South Baffin/Iglulik variety (Eskimo, Eskimo-Aleut)

Aqtuq-si-juq *uvan-nit*

touch-ANTIP- I_S:3SG 1SG-INS

‘S/he touched me.’

(Spreng, 2005: 219)

The fact that, in the Inuktitut varieties in question, the former transitive construction is more limited in the scenarios it can express than the former antipassive construction, leads to reconsider their status. The only logically consistent account of the situation described by Spreng (2005) in the South Baffin/Iglulik variety of Inuktitut is that for a subset of verbs, with 3rd person As, due to the obsolescence of the former transitive construction, the former antipassive construction has taken over the status of transitive construction. This implies that the instrumental case has taken over the function of an accusative case, and also that the former antipassive marker is not involved in a valency-changing mechanism anymore, and has been reanalyzed as an element of the system of A indexation in the transitive construction).

The decay of the former transitive construction and its replacement by the former antipassive construction as the basic construction of transitive verbs is documented by Carrier (2012) in the Itivimiut variety of Inuktitut. In a narrative Itivimiut text he analyzed, he found only 12 occurrences of the former transitive construction, all with A expressed through indexation only, against 18 occurrences of the passive construction and 117 occurrences of the former antipassive construction, which confirms the reanalysis of the former antipassive construction as the basic transitive construction.

Chapter 4

The transitive construction

Participant coding has been discussed in general terms in chapter 2, and chapter 3 has focused on the distinction between transitive and intransitive constructions. The present chapter deals specifically with the coding of the core terms of the transitive construction. The following questions are examined successively: language-internal variation in transitive coding, direct/inverse marking, transitivity marking and the cross-linguistic variation in the formal characteristics of the transitive construction.

4.1 Introductory remarks on variation in transitive coding.

As already discussed in chapter 3, not all languages have a transitive construction in which the coding characteristics of the two core nominal terms straightforwardly reflects the A vs. P contrast. Moreover, the languages in which the coding characteristics of the two core terms of the transitive construction are straightforwardly related to the A vs. P contrast do not necessarily have a uniquely determined transitive construction. Many languages have two or more variants of the transitive construction differing in the coding characteristics of A and/or P. However, variation within the limits of the transitive construction must be carefully distinguished from the existence of intransitive alternatives to the transitive construction. A particular attention to this distinction is what characterizes the analysis of the variation in the coding of A and P put forward in this chapter, in comparison with other surveys of the variation in participant coding such as Seržant & Witzlack-Makarevich (2018), Chappell and Verstraete (2019), or Haspelmath (2021b).

Several parameters of variation can be observed in the coding characteristics of A or P within the limits of the transitive construction:

- variation conditioned by TAM/polarity,
- variation conditioned by the status of the clause,
- variation conditioned by properties of the term showing variation in its coding (differential coding of A or P),
- variation resulting from a mechanism of scenario-driven A/P coding.

§§4.2-5 examine in turn these four types of variation in the coding of A and P.

4.2 TAM/polarity-driven variation in transitive coding

TAM/polarity-driven variation in transitive coding has already been discussed in chapter 3 as a type of variation in the coding of agents and patients of prototypical transitive verbs that does not affect the recognition of the construction as being transitive. The debitive construction of Latvian illustrated in (1), which imposes to transitive verbs a case frame

<DAT, Ø/ACC> different from the case frame <Ø, ACC> found with other TAM values, is one of the examples that have been presented in chapter 3 §3.2.2.1.

(1) Latvian (Baltic, Indo-European)

- a *Kāpēc es šo filmu redzu?!*
 why 1SG DEM.ACC.SG film.ACC.SG see.PRS.I_{S/A}:1SG
 ‘Why do I watch this film?!’
- b *Kāpēc man šī filma ir jā-redz?!*
 why 1SG.DAT DEM.SG.F film.SG be.PRS.I_{S/A}:1SG DEB-see
 ‘Why do I have to watch this film?!’
- c *Kāpēc man tevi ir jā-redz?!*
 why 1SG.DAT 2SG.ACC be.PRS.I_{S/A}:1SG DEB-see
 ‘Why do I have to see you?!’
 (Seržant & Taperte 2010: 200-201)

Example (2) illustrates an automatic variation in constituent order triggered by negation in Tenneset (Surmic), a language in which independent positive clauses are consistently V-initial, whereas in negative clauses, A in transitive clauses (as well as S in intransitive clauses) is inserted between the negation marker in clause-initial position and the verb.

(2) Tenneset (South Surmic, Surmic, East Sudanic)

- a *K-i-cína anná Lokúli balwáz.*
 I_{S/A}:1SG-CPL-see 1SG PRN yesterday
 ‘I saw Lokuli yesterday.’
- b *Nganní anná k-i-cín Lokúli balwáz.*
 NEG.CPL 1SG I_{S/A}:1SG-CPL-see PRN yesterday
 ‘I didn’t see Lokuli yesterday.’
 (Randall 1998: 248)

The reanalysis of biclausal TAM periphrases as monoclausal constructions involving analytical verb forms is a major source of automatic variation in the coding of A and P. The case of the so-called binominative (or biabsolute) construction in Nakh-Daghestanian languages has already been evoked in chapter 3 §3.2.3.1. The binominative construction is originally a biclausal construction expressing progressive aspect, with the verb ‘be’ as the main verb, which explains the zero flagging of the agent of prototypical transitive verbs (as opposed to the ergative flagging of agents that predominates in the participant coding systems of Nakh-Daghestanian languages), and its reanalysis as a monoclausal construction may result in an automatic alternation between zero-flagged A in progressive tenses and ergative-flagged A in the other tenses.

Depending on the coding of core terms in other constructions, it may happen that the coding characteristics assigned to agents and patients of prototypical transitive verbs by TAM forms resulting from the grammaticalization of TAM-periphrases do not respect the alignment patterns found with the pre-existing TAM-forms. Consequently, the grammaticalization of TAM periphrases is a major source, not only of TAM-driven variation in transitive coding, but also of TAM-driven splits in alignment. This question will be dealt with in more detail in chapter 5 §5.9.

4.3 Variation in transitive coding conditioned by the status of the clause

Coding variation in transitive clauses conditioned by the status of the clause, illustrated by example (3), has also been discussed in chapter 3 as a type of variation in the coding of agents and patients that does not affect the recognition of the construction as being transitive. The Roviana verb ‘hit’ is syntactically transitive, and (3a) shows that, in independent assertive clauses, proper names, pronouns and quantified noun phrases in P role are obligatorily flagged by the preposition *s(i)* (also used with noun phrases in S role in intransitive clauses, hence the gloss S/P), whereas (3b) shows that no core term flagging occurs in relative clauses.

(3) Roviana (Oceanic, Austronesian)

a *Seke-i-a e Zima s-e Maepeza.*

hit-TR-IP:3SG PERS.ART PRN S/P-PersART PRN

‘Zima hit Maepeza.’

b *Hierana sa koreo sapu tupa-na e Zone.*

DEM D boy REL punch-IP:3SG PersART PRN

‘This is the boy that punched John.’

(Corston-Oliver 2002: 491, 480)

At least two types of evolutions may be responsible for this kind of variation. On the one hand, some types of change in participant coding (in particular, those resulting from the reanalysis of constructions whose original function is the expression of variation in information structure) may affect participant coding in independent / main clauses, but not in subordinate clauses. On the other hand, subordinate clauses may result from the reanalysis of former nominalizations. Since in event nominalization, essential participants may be encoded like adnominal possessors, this latter type of evolution may result in participant coding systems involving genitive flagging of core terms in (some types of) subordinate clauses, but not in independent / main clauses.

As in the case of TAM/polarity-driven variation in participant coding, the way such evolutions affect core term coding in transitive and intransitive clauses may result in alignment splits conditioned by the status of the clause. For example, in Cariban languages, according to Gildea (1998, chapters 7 and 8), all subordinate clauses are either adverbialized or nominalized, and this explains why, in Caribbean languages, overt flagging of A and S = P alignment are more widespread in subordinate clauses than in independent/main clauses.

4.4 Differential coding of A or P

4.4.1 Introductory remarks

4.4.1.1 Differential coding vs. other types of variation in the coding of A or P

In this book, DIFFERENTIAL CODING OF A OR P encompasses all the types of variation in the coding of A or P meeting the following two conditions: they do not involve detransitivization,

and they are conditioned exclusively by properties of the A or P phrase showing variation in its coding, or of its referent. According to this definition, the following types of coding variation are excluded from the notion of differential coding of A or P:

- automatic variation in the coding of A or P triggered by TAM/polarity or by the status of the clause,
- variation following from a mechanism of scenario-driven coding (see §4.5),
- variation following from the choice of an intransitive alternative to the transitive construction;
- variation resulting from the use of a biclausal TAM-periphrasis.

Moreover, differential coding as this notion is commonly understood excludes variations in flagging related to the division of nouns into inflectional classes, although a historical relationship with former mechanisms of differential flagging is possible. For example, the fact that the Russian nouns whose zero-case form in the singular has an *-a* ending (such as *dorog-a* ‘road’) have a distinct accusative singular form ending with *-u*, whereas those whose zero-case form ends with *-o* in the singular (such as *molok-o* ‘milk’) have the same ending *-o* in the accusative singular is not considered as an instance of differential flagging.

4.4.1.2 *Subtypes of differential coding*

Differential coding of A or P may manifest itself in flagging, indexation, or (although rarely) constituent order.

The conditioning of differential coding may involve:

- the grammatical nature of the term concerned (already mentioned and illustrated in chapter 3 §3.2.2.3),
- intrinsic semantic features of the referent (such as humanness or animacy),
- the referential status of the referent (specific vs. non-specific),
- the degree of involvement of the referent in the event denoted by the verb (degree of agentivity in the case of differential A coding, degree of affectedness in the case of differential P coding);
- the status of the referent from the point of view of information structure.

Differential coding may be automatic or non-automatic. By AUTOMATIC differential coding, I mean differential coding rigidly conditioned by inherent grammatical or semantic features of noun phrases (such as pronoun vs. noun, animate vs. inanimate), as opposed to NON-AUTOMATIC differential coding conditioned by referentiality, participant involvement, or information structure. In non-automatic differential coding, the choice between different coding options is solely determined by the choice of the speaker between possible ways of construing a given participant.

However, many languages have PARTIALLY AUTOMATIC differential coding mechanisms involving both features triggering automatic choice, and others for which the decision lies with the speaker. For example, in Sinhala, animate Ps have a non-automatic alternation between zero flagging and accusative flagging, whereas inanimate Ps are obligatorily unflagged.

(4) Sinhala (Indic, Indo-European)

a *Ranjit balla(-wə) bandi-nəwa.*

PRN dog(-ACC) tie-PRS

‘Ranjit is tying the dog.’

b *Chitra gāṭee liha-nəwa.*

PRN knot untie-PRS

‘Chitra is untying the knot.’

(Chandralal 2010: 110)

Hindi illustrates another combination of automaticity and flexibility in P flagging, with animate Ps obligatorily flagged, and inanimate Ps showing a non-automatic alternation between zero flagging and accusative flagging, depending on whether they are definite or indefinite.

(5) Hindi (Indic, Indo-European)

a *Ilā-ne bacce-ko uṭāyā.*

PRN-ERG child-ACC lift.CPL

‘Ila lifted a/the child.’

b *Ilā-ne hār uṭāyā.*

PRN-ERG necklace lift.CPL

‘Ila lifted a necklace.’

c *Ilā-ne hār-ko uṭāyā.*

PRN-ERG necklace-ACC lift.CPL

‘Ila lifted the necklace.’

(Mohanani 1990: 104)

Example (6) illustrates a partially automatic mechanism of differential A flagging in Umpithamu, with obligatory overt flagging of inanimate As contrasting with flagging of animate As conditioned by information structure. In (6b), the presence of the ergative marker puts focus on the referent.

(6) Umpithamu (Northern Pama-Nyungan, Pama-Nyungan)

a *Aykirri*(-mpal) umpa-n=ilu-ungku yuku.*

wind*(-ERG) break-PST=I_{S/A}:3SG-I_P:3SG tree

‘The wind knocked down the tree.’

b *Ama(-mpal) umpa-n=ilu-ungku yuku.*

man(-ERG) break-PST=I_{S/A}:3SG-I_P:3SG tree

‘The man knocked down the tree.’

(Chappell & Verstraete 2019: 10)

In addition to the distinctions mentioned above, an important parameter in the characterization of particular instances of differential flagging is the distinction between ASYMMETRIC differential flagging, i.e., differential flagging involving a contrast between overt flagging and zero flagging, and SYMMETRIC differential flagging, i.e., differential flagging involving a contrast between two distinct markers. Cross-linguistically, the former

type is much more widespread than the latter one. The term ‘optional case marking / flagging’ is sometimes used to refer specifically to mechanisms of differential flagging that are at the same time asymmetric and non-automatic. However, I prefer to avoid using this term, since ‘optional’ may misleadingly suggest that, in the situations referred to in the literature as ‘optional case marking / flagging’, the presence or absence of the flag is a matter of free variation.

One may wonder whether it would be possible to posit a similar distinction between symmetric and asymmetric indexation. However, it would make little sense to seek to define symmetric differential indexation as a subtype of indexation, since as a rule, indexes express variable properties of their conominal or its referent. In the domain of indexation, the only distinction that makes sense is that between indexation and lack thereof.

4.4.1.3 *Functional motivation of differential coding*

Early studies of asymmetric differential coding suggested that the functional motivation for the implementation of asymmetric differential A and P coding is to avoid ambiguity as to what is A and what is P in transitive clauses. Recent studies rather develop the idea that, regardless of considerations about role recoverability, relatively unusual associations of roles and features are more likely to trigger overt coding than usual ones. For example, since ‘agent acts on patient’ is the semantic prototype on the basis of which the roles of A and P are established, the referent of A phrases can be expected to be animate rather than inanimate, which may explain why some languages have a total ban on inanimate As, and others have obligatory overt flagging for inanimate As only, as illustrated by example (6) above.

For a recent and detailed elaboration of this hypothesis, see Haspelmath (2021b).

4.4.1.4 *Mechanisms of differential coding concerning also the S term of intransitive constructions*

Differential coding of A is mainly found in languages in which the coding of A is distinct from the coding of S, and differential coding of P is mainly found in languages in which the coding of P is distinct from the coding of S. However, mechanisms of differential A/S coding in languages can be found in some languages that have A = S alignment, as well as mechanisms of differential P/S coding in languages in some languages that have P = S alignment.

4.4.2 **Differential flagging of P or P/S**

Differential P flagging is commonly designated as ‘differential object marking’, a term coined by Bossong (1985). The asymmetric variety of differential P flagging, illustrated by example (7), is particularly widespread cross-linguistically.

(7) Turkish (Turkic, Altaic)

a (Ben) bir kitap oku-du-m.

1SG IDF book read-CPL-1_{S/A}:1SG

‘I read a book.’ (transitive construction with unflagged P)

- b *(Ben) bir kitab-ı oku-du-m.*
 1SG IDF book-ACC read-CPL-I_{S/A}:1SG
 ‘I read a certain book.’ (transitive construction with flagged P)
 (von Heusinger & Kornfilt 2005: 8)

4.4.2.1 Asymmetric differential P flagging

On the basis of data from 744 languages, Sinnemäki (2014) argues that asymmetric differential P flagging is universally preferred over consistent P flagging. In other words, independently of genealogical or areal factors, P flagging tends to be restricted in some way rather than be generalized across all P phrases.

Example (8) illustrates the asymmetric variety of differential P flagging. In this example, the P term in the construction of Spanish *atropellar* ‘run over’ is flagged by the preposition *a* (which in most of its uses corresponds to English *to*) in sentences (a) and (c), but is left unflagged in sentences (b) and (d).

(8) Spanish (Italic, Indo-European)

- a *El coche atropelló a un peatón.*
 D.SG.M car(M) run.over.CPL.I_{S/A}:3SG ACC IDF.SG.M pedestrian(M)
 ‘The car ran over a pedestrian.’
- b *El tren atropelló un tractor.*
 D.SG.M train(M) run.over.CPL.I_{S/A}:3SG IDF.SG.M tractor(M)
 ‘The train ran over a tractor.’
- c *Busco a un médico.*
 look.for.PRS.I_{S/A}:1SG ACC IDF.SG.M doctor(M)
 ‘I am looking for a doctor.’ (specific or non-specific)
- d *Busco un médico.*
 look.for.PRS.I_{S/A}:1SG IDF.SG.M doctor(M)
 ‘I am looking for a doctor.’ (non-specific)

In Spanish, as illustrated by (8a-b), animacy is the most important factor in the conditioning of the use of the preposition *a* with noun phrases in P role. However, as illustrated by (8c-d), specificity is also one of the relevant factors. According to Leonetti (2004), “The correlation between the object marker and specificity is not systematic, basically because animacy—and not specificity—is the dominant trigger for DOM in Spanish, but a number of facts still indicate that the presence of *a* tends to be associated with specific readings.” For example, in (8d) ‘a doctor’ can only be interpreted as non-specific, whereas (8c) is ambiguous between a specific and non-specific reading of ‘a doctor’.

Cross-linguistically, formally similar contrasts between flagged and unflagged noun phrases in P role may variously involve animacy, specificity, topicality, the distinction between personal pronouns and all other nominals, or the distinction between 1st/2nd person pronouns and all other nominals. It has long been recognized that, in general, the cross-linguistic variation in asymmetric differential P flagging respects the following hierarchies:

- person: 1st/2nd person > 3rd person
- animacy: human > non-human animate > inanimate

- uniqueness: proper noun > common noun
- definiteness: definite > specific indefinite > non-specific indefinite
- topicality: topical > non-topical

The general trend is that, the lower P is on the scale, the more it tends to remain unflagged. However, the cut-off points are not the same in all the languages that have asymmetric differential P flagging. Moreover, some systems of P flagging may show idiosyncracies that depart from the prevailing tendencies. For example in Hungarian, the only nominals in P role for which accusative marking is not obligatory are nouns ending with a 1st or 2nd person singular possessive suffix, and the personal pronouns of 1st and 2nd person singular, which can hardly be viewed as a particular instance of a general cross-linguistic trend.

Most of the possible types of differential P-flagging have long been amply discussed and illustrated in the literature (see Witzlack-Makarevich & Seržant 2018 for a recent overview), with the exception of differential P flagging conditioned by topicality, whose importance passed unnoticed until Iemmolo's (2010, 2011) and Dalrymple & Nikolaeva's (2011) works.

4.4.2.2 *Symmetric differential P flagging*

Example (9) illustrates the symmetric variety of differential P flagging (also known as 'alternating accusative marking'). In Finnish and its close relatives (Estonian, etc.), the choice between these two options is commonly explained in terms of a 'total vs. partial object' opposition involving the aspectual notion of telicity/resultativity. According to Ogren (2015: 281), the 'partial object construction' (in which the P phrase is in the case traditionally designated as 'partitive') expresses "vagueness or imprecision with regard to the duration, volume, and/or result of an action".

(9) Finnish (Finnic, Uralic)

- a *Hän jo-i maido-n.*
 3SG drink-PST.I_{S/A}:3SG milk-ACC
 'S/he drank (all) the milk.'
- b *Hän jo-i maito-a.*
 3SG drink-PST.I_{S/A}:3SG milk-PRTV
 'S/he drank (some of) the milk.'
- (Kittilä 2002: 114)

Example (10) illustrates the alternation between two accusative markers in Evenki, described by Nedjalkov (1997) as expressing definiteness vs. indefiniteness or total vs. partial affectedness of the referent of the P phrase.

(10) Evenki (Tungusic, Altaic)

- a *Oron-mo java-kal.*
 reindeer-D.ACC take-PRS.IMP.I_{S/A}:2SG
 'Catch that reindeer.'

- b *Min-du ulle-ye kolobo-yo by:-kel.*
 1SG-DAT meat-IDF.ACC bread-IDF.ACC give-PRS.IMP.I_{S/A}:2SG
 ‘Give me (some) meat and (some) bread.’
 (Nedjalkov 1997, quoted by Iemmolo 2013: 385)

That said, many of the cases of variation in flagging that have been described in the literature in terms of symmetric differential P flagging are not instances of differential P flagging, and have to do rather with the fact that transitive coding is not the only available type of coding for bivalent verbs. For example, Sinhala has sometimes been mentioned in the literature for having two mechanisms of differential P flagging, involving alternation between zero flagging and accusative flagging on the one hand, and alternation between accusative flagging and dative flagging on the other hand. However, the alternation between zero flagging and accusative flagging is the only one that really qualifies as an instance of differential P flagging, since in Sinhala, dative flagging is not a possible option for noun phrases representing patients of prototypical transitive verbs. In Sinhala, dative flagging is assigned, without any possible variation, to the non-agentive participant of a subclass bivalent verbs such as ‘hit’, ‘call’, ‘treat well’, ‘praise’, or ‘teach’ (Chandralal 2010: 110-112). According to the definitions adopted in this book, the verbs in question are simply not transitive, since their coding frame is distinct from that of the verbs whose meaning implies physically affected patients.

4.4.2.3 Differential P/S flagging

Roviana (Oceanic) has a mechanism of differential flagging for P and S involving the same marker and the same conditioning. In the independent assertive clauses of Roviana, as illustrated by example (3) above (reproduced here as (11)), proper names, pronouns and quantified noun phrases in P role are obligatorily flagged by the preposition *s(i)*, whereas no flagging occurs with other types of nominals in P role. Example (12) shows that the S term of intransitive clauses is flagged by *s(i)* under the same conditions.

- (11) Roviana (Oceanic, Austronesian)
 a *Seke-i-a e Zima s-e Maepeza.*
 hit-TR-I_P:3SG PERS.ART PRN S/P-PersART PRN
 ‘Zima hit Maepeza.’
 b *Hierana sa koreo sapu tupa-na e Zone.*
 DEM D boy REL punch-I_P:3SG PersART PRN
 ‘This is the boy that punched John.’
 (Corston-Oliver 2002: 491, 480)

- (12) Roviana (Oceanic, Austronesian)
 a *Taloa s-e Zima.*
 leave S/P-PersART PRN
 ‘Zima left.’

- b *Talo-a sa siki.*
 leave-IP:3SG D dog
 ‘The dog left.’
 (Corston-Oliver 1996: 11, 17)

However, such a configuration is very rare cross-linguistically.

4.4.3 Differential flagging of A or A/S

Early studies of differential flagging assumed that differential A flagging and differential P flagging are each other’s mirror image, but as argued by Fauconnier and Verstraete (2014), this hypothesis is contradicted by a number of observations.

4.4.3.1 Asymmetric differential A flagging

In quite a few languages having S = P alignment in their core term coding system, the lack of overt flagging of noun phrases in A role ranking relatively high on (some variant of) the saliency hierarchy (aka animacy hierarchy or indexability hierarchy) contrasts with the overt flagging of the other noun phrases in A role. For example, in Tsez, the 1st and 2nd person pronouns do not have an ergative case distinct from the zero case, whereas all other nominals are overtly flagged in A role. The same lack of distinction between zero case and ergative case for 1st and 2nd person pronouns (and only for 1st and 2nd person pronouns) is also observed in Godoberi and some other Nakh-Daghestanian languages. Interestingly, in Akhvakh (a language belonging to the Andic group of languages included in the Avan-Andic(-Tsezic) branch of the Nakh-Daghestanian family), 1st and 2nd person pronouns have distinct ergative forms, but there is clear morphological evidence that this is a recent development in the history of the language.

Among the languages in which an alternation between flagged and unflagged A phrases is not automatically conditioned by such features, the following two configurations are particularly common: either overt A flagging implies that the referent is “somehow prominent or unexpected (information structure)”, or that it is “especially potent, or agentive (participant involvement)” (Chappell & Verstraete 2019: 5).

Tibetan illustrates overt A flagging conditioned by information structure. In Lhasa Tibetan, noun phrases in A role can either be flagged by the ergative marker *-ki*’ or unflagged. When A is a topic (the most common discursive role for A phrases), it is normally unflagged, but when it is contrasted, it is flagged by the ergative marker.

(13) Lhasa Tibetan (Bodic, Sino-Tibetan)

- a *Khōng khāla’ sq-kiyo:re’.*
 3SG food make-ICPL.GNOM
 ‘S/he makes food.’ Context: what does he do?
 b *Khōng-ki’ khāla’ sq-kiyo:re’.*
 3SG-ERG food make-ICPL.GNOM
 ‘S/HE makes food.’ Context: not someone else
 (Tournadre 1995: 264)

Example (14) illustrates overt A flagging conditioned by participant involvement in Mongsen Ao. Coupe’s comment on this example is that (14b) “is an assertion that reports on a neutral situation in which the chickens were fed paddy and are eating it”, whereas in (14a), ergative marking “not only encodes that the chickens are the agents performing the activity of eating the paddy, but additionally insinuates that they are willfully stealing it. The presence of the agentive case marker in this sentence is accordingly understood to add a nuance of increased agentivity on the part of its referent”.

- (14) Mongsen Ao (Central Naga, Sino-Tibetan)
- a *Ahən nə atfak tʃä.ù?*
 chicken ERG paddy consume.PRS.DECL
 ‘The chicken are eating paddy.’ (implying that they are stealing it)
- b *Ahən atfak tʃä.ù?*
 chicken paddy consume.PRS.DECL
 ‘The chicken are eating paddy.’
 (Coupe 2007: 157)

As regards its distribution in the languages of the world, non-automatic alternation between flagged and unflagged A phrases is not equally widespread in all the areas or families in which overt A flagging can be found. According to Chappell & Verstrate (2019: 16), it is particularly common in the Australia-New Guinea region, and in the Tibeto-Burman language family.

McGregor & Verstraete (2010) is an important reference on the question of non-automatic alternation between flagged and unflagged A phrases (often referred to as ‘optional ergative marking’).

4.4.3.2 *Symmetric differential A flagging*

A choice between two distinct ergative markers conditioned by information structure has been described by McGregor (2006) in Warrwa (Nyulnyulan), and a choice between two distinct ergative markers automatically determined by the animate vs. inanimate nature of the referent of the A phrase is mentioned by Brill (1997) in Nêlêmwa (Oceanic).

However, in general, as rightly observed by Chappell & Verstraete (2019: 8), real instances of symmetric differential A flagging are very rare cross-linguistically. Most of the cases of symmetric differential A flagging that have been mentioned in the literature involve in fact involuntary agent constructions, and consequently, as already discussed in chapter 3 §3.2.4.1, should be analyzed in terms of intransitive alternatives to the transitive construction, rather than variants of the transitive construction.

Similarly, systems of A/P coding in which inanimate participants cannot be coded as the A term in the construction of transitive verbs, sometimes mentioned as instances of differential A flagging, do not fall under the strict definition of differential flagging adopted here. The languages that have a ban on the selection of inanimate participants as the A term of transitive clauses use various types of constructions to express the equivalent of English sentences such as *The wind broke the branch*, for example formulations like *The branch broke because of the wind*, with a causal adjunct coding the inanimate force that triggers the event. Here again, such constructions are best analyzed as intransitive constructions expressing a distinct

participant frame, rather than instances of differential A flagging within the transitive construction, since inanimates cannot be typical agents.

4.4.3.3 Differential A/S flagging

Differential A/S flagging in languages in which A and S have the same coding characteristics is much less common cross-linguistically than differential A flagging in languages in which A and S are coded differently. However, variation between flagged and unflagged A/S phrases is attested in Japanese (Yanagida 2018) and Korean (Zribi-Hertz & Kwon 2008), and the Mande language Soninke provides another illustration.

Soninke is an obligatory A-coding language with a mechanism of differential flagging for A and S conditioned by focality. Interestingly, the same type of conditioning is well-attested among the obligatory P-coding languages that have differential A coding (see §4.4.3.1).

Examples (15) and (16) show that, in Soninke, an enclitic *-n* analyzable as an S/A flag obligatorily attaches to interrogative words or focalized noun phrases in A role (15b) or in S role (16b), but never occurs with interrogative words or focalized noun phrases in other syntactic roles (15c, 16c), or with noun phrases other than interrogative words or focalized noun phrases in A or S role (15a, 16a).⁵⁰

(15) Soninke (Soninke-Bozo, Mande)

- a *Múusá dà Hàatú qíri.*
 PRN CPL.TR PRN call
 ‘Moussa called Fatou.’
- b *Múusá yà-n dà Hàatú qíri.*
 PRN FOC-S/A CPL.TR PRN call^L
 ‘MOUSSA called Fatou.’
- c *Múusá dà Hàatú yà qíri.*
 PRN CPL.TR PRN FOC call^L
 ‘Moussa called FATOU.’

(16) Soninke (Soninke-Bozo, Mande)

- a *Múusá dàgá dò qálísí-múndúyè-n ñá.*
 PRN go with money-seeking-D POSTP
 ‘Moussa left to find his fortune.’
- b *Múusá yà-n dàgá dò qálísí-múndúyè-n ñá.*
 PRN FOC-S/A go with money-seeking-D POSTP
 ‘MOUSSA left to find his fortune.’
- c *Múusá dàgá dò qálísímúndúyè-n ñá. yì.*
 PRN go with money-seeking-D FOC POSTP
 ‘Moussa left TO FIND HIS FORTUNE.’

⁵⁰ Note that *ñá* in (16c) is a phonologically conditioned variant of the focus maker occurring as *yà* in (15b-c) and (16b).

4.4.4 Differential indexation

4.4.4.1 *General remarks on differential indexation*

It remains a matter of debate whether differential flagging and differential indexing of A or P are part of the same phenomenon or not. Some have argued that differential flagging and differential indexation should be treated as the same phenomenon on the basis that they share some functional similarities. Others have argued that they are different, pointing to differences in their functions, motivations, and historical development.

Two types of differential indexation can be distinguished: differential indexation involving indexes in complementary distribution with their conominal (the use of indexes being conditioned by topicality and by the possibility of retrieving the identity of the participant referred to from the context), and differential indexation involving indexes compatible with the presence of their conominal within the clause.

4.4.4.2 *Differential indexation involving indexes in complementary distribution with their conominal*

As already mentioned in chapter 2 §2.3.2.2, indexation systems involving indexes in complementary distribution with their conominal are quite common cross-linguistically, in particular (but not only) for noun phrases in P role. In such systems, indexes fulfill a pronominal function, in the sense that, like personal pronouns, they act as an instruction to identify the participant they index to a referent provided by the prior discourse and/or the context of utterance.

In this connection, it should be remembered that focality rather than topicality is the relevant factor for information structure-driven differential A or S flagging (see §4.4.3), which constitutes a clear contrast in the possible functions of differential indexation and differential flagging. And even topicality-driven differential P indexation does not fulfill exactly the same function as differential P flagging: as argued by Iemmolo (2010, 2011), topicality-driven differential P flagging marks topic discontinuities, whereas topicality-driven differential P indexation marks continuity of the P referent.

4.4.4.3 *Differential indexation involving indexes compatible with the presence of their conominal within the clause*

In this case too, the factors that may be relevant in differential P indexation mechanisms are at least to some extent similar to those that may condition asymmetric differential P flagging, but the trends observed in the differential indexation of A (and S) are rather the opposite of those observed in the asymmetric flagging of A (and S).

For example, in Swahili, definite noun phrases in P role are indexed by means of a verbal prefix expressing the gender and number ('class') of P, whereas indefinite noun phrases in P role are not indexed, cf. example (17).

(17) Swahili (Bantu, Benue-Congo, Niger-Congo)

- a *Hamisi a-li-soma ki-tabu.*
 PRN(c11) I_{S/A}:c11-CPL-read SG-book(c17)
 ‘Hamisi read a book.’
- b *Hamisi a-li-ki-soma ki-tabu.*
 PRN(c11) I_{S/A}:c11-CPL-IP:c17-read SG-book(c17)
 ‘Hamisi read the book.’

In some other Bantu languages, for example Cuwabo (Guérois 2015), P indexation is obligatory for SAPs and for noun phrases belonging to gender 1/2, impossible for nouns belonging to the other genders. The rationale behind this distribution is that gender 1/2 is the one that typically includes human nouns.

By contrast, in A (and S) differential indexation, the nominals that tend to be obligatorily indexed are precisely those that, cross-linguistically, tend to remain unflagged in the languages that have mechanisms of differential A flagging. For example, in French, as illustrated in (18), the A/S indexes of 1st and 2nd person singular are the only ones that are absolutely obligatory, even when a free pronominal form of 1st or 2nd person singular is also present

(18) French (Italic, Indo-European)

- a *Moi aussi *(j’)ai écrit une lettre.*
 1SG too I_{S/A}:1SG-have.PRS-I_{S/A}:1SG write.PTCP IDF.F.SG letter(F)
 ‘I too wrote a letter.’
- b *Toi aussi *(tu=) as écrit une lettre.*
 2SG too I_{S/A}:2SG have.PRS-I_{S/A}:2SG write.PTCP IDF.F.SG letter(F)
 ‘You(sg.) too wrote a letter.’
- c *Lui aussi (il=) a écrit une lettre.*
 3SG.M too I_{S/A}:3SG.M have.PRS-I_{S/A}:3SG write.PTCP IDF.F.SG letter(F)
 ‘He too wrote a letter.’

4.4.5 Differential coding involving constituent order alternation

4.4.5.1 Differential coding manifested in constituent order only

Logically, the possibility of differential coding manifested in constituent order can be considered for languages with rigid constituent order patterns, in which the linear ordering of constituents is crucial for the identification of syntactic roles. The A/P coding system of Zarma (Songhay) can be viewed as an instance of differential P coding manifested in constituent order only. The prototypical transitive verbs of Zarma can be found in two different constructions in which A and P are equally unflagged, but the constituent order is different: APVX, as in (19a), or AVPX, as in (19b). Crucially, this cannot be viewed as a particular case of a general phenomenon of flexibility in constituent order, since in Zarma, no such alternation can be observed with A/S phrases or obliques.

(19) Zarma (Songhay)

- a *À nà gòrṅòò wii yàwǒo sè.*
 3SG CPL chicken.D kill guest.D for
 ‘S/he killed the chicken for the guest.’
- b *À wii gòrṅòò yàwǒo sè.*
 3SG kill chicken.D guest.D for
 same meaning as (a)
 (Oumarou Yaro 1993: 125)

Unfortunately, nothing can be said about the conditioning of this alternation, since no semantic distinction can be postulated on the basis of the examples provided by the available descriptions of Zarma, and the analysis of the use of the two constructions in discourse remains to be done.

Mabaan (Western Nilotic) illustrates differential A coding manifested in constituent order only. In the intransitive clauses of Mabaan, S can only be found in preverbal position, and the same applies to P in transitive clauses, whereas A can either precede P or follow the verb, hence an alternation APV ~ PVA. No flagging of either S, P or A occurs. Intransitive Ss are indexed on the verb, whereas in the transitive construction, both A and P are obligatorily indexed by means of indexed treated by Andersen (Forthcoming) as portmanteau morphs. VA order is obligatory if P is not encoded as a noun phrase and manifests itself only through indexation. Example (20) illustrates the APV ~ PVA alternation, which according to Andersen (Forthcoming) reflects information structural functions: *Wêekà* (proper name) in (20a) is topical, while *kûunl* ‘thorn’ in (20b) is focal, introducing a new referent.

(20) Mabaan (Western Nilotic, Nilotic, East Sudanic)

- a *Wêekà jòmṅè ʔékè dâl-n-é ʔínò.*
 PRN fishing.spear.CSTR 3SG leave.CF-PST- I_A:3SG.I_p:3 down
 ‘Weeka left his fishing-spear on the ground.’
- b *ʔékè gùar-ṅ-ē kûunl.*
 3SG catch.with.hook-PST-I_A:3SG.I_p:3 thorn
 ‘A thorn caught him.’
 (Andersen Forthcoming)

4.4.5.2 *Differential flagging of P correlated with variation in constituent order*

As discussed in detail by Chappell (2015), Sinitic languages have alternations between unflagged P phrases in postverbal position and flagged P phrases in preverbal position in which the APV variant with flagged P, illustrated in (21) for Mandarin Chinese, results from the grammaticalization of a serial verb construction.

(21) Mandarin (Sinitic, Sino-Tibetan)

- Tā bǎ wǒ xiě-de zì cājiào-le*
 3SG ACC 1SG write-LK character erase-CPL
 ‘S/he erased the characters I wrote.’
 (Chappell & Shi 2016: 451)

In this construction, according to Chappell & Shi (2016: 452), “the information represented by the *bǎ*-flagged NP is typically given or old, namely, known or shared by the speaker and the hearer. It can refer to an entity that has been mentioned in the previous discourse or is known as a consequence of contextual or pragmatic factors”. Moreover, typically, in the *bǎ* construction, the patient “is understood as being highly affected by the event so undergoing an observable change of state”. According to Lu & al. (2015), the use of the *bǎ*-construction “depends on transitivity increasing factors like the identifiability and the affectedness of the noun phrase it marks and the presence of perfective marking”. The *bǎ* noun phrase “must be definite/generic or at least specific. If the noun phrase marked by *bǎ* is not specific enough ... the sentence is ungrammatical”.

Originally, *bǎ* was a verb ‘take’ combining with another transitive verb in a construction referring to two successive events sharing an essential participant, such as *He took the stick (and) broke (it)*. In this construction, ‘take’ underwent semantic bleaching, and the construction was reanalyzed as a monoclausal construction referring to a single event, although the etymology of *bǎ* is still relevant for explaining the restrictions on the use of the *bǎ* construction.

An alternation similar to the *bǎ* alternation of Mandarin Chinese is found in a number of West-African languages belonging to the Kwa language family. There are, however, interesting differences with Sinitic languages in the degree of grammaticalization of the accusative flag.

A first difference is that, in Kwa languages, as illustrated in (22), the accusative marker in the APV variant of the transitive construction is still attested as a transitive verb ‘take’ able to project independent transitive clauses, as in (22a). Moreover, in Kwa languages, even in its use as an accusative marker, ‘take’ acts as a support for TAM-polarity markers and/or A/S indexes that attach to the verb in the AVP construction, hence the traditional description of the construction illustrated in (22c) as a particular type of ‘serial verb construction’.⁵¹

(22) Fon (Gbe, Kwa, Niger-Congo)

a *Hàlà sọ gbǎ.*

hyena take sheep

‘A hyena took a sheep.’

b *É tá lánpù ó.*

I_{S/A}:3SG light lamp D

‘S/he lit the lamp.’

c *É sọ lánpù ó tá.*

I_{S/A}:3SG take>ACC lamp D light

‘S/he lit the lamp.’

(Lambert-Brétière 2005: 137, 212)

In Kwa languages, the use of the *take*-variant of the transitive construction is limited by constraints that vary from one language to another, but are always transparently related to the etymology of the accusative marker, which confirms the relatively low degree of

⁵¹ Note, however, that the attachment of TAM markers and/or S/A indexes to ‘take’ does not necessarily be viewed as undermining the analysis according to which, in this construction, ‘take’ acts as a preposition, since it is possible to analyze the S/A indexes and TAM markers in question as clitics whose host is the first word of the verb phrase.

grammaticalization of ‘take’ as an accusative marker in Kwa languages. In some languages, the *take*-construction has been described as implying physical manipulation. For example, the contrast between the acceptability of the *take*-construction in (23a) and its unacceptability in (23b) is due to the fact that one normally holds a chicken in one’s hands while killing it, which is not the case with a snake, and the same kind of explanation applies to (24).⁵²

(23) Baule (Tano, Kwa, Niger-Congo)

a *B'à kùn ákó'n. = B'à fà ákó'n b'à kùn í.*
 3PL-PRF kill chicken-D 3PL-PRF take>ACC chicken-D 3PL-PRF kill 3SG
 ‘They have killed the chicken.’

b *B'à kùn wǒ'n. / *B'à fà wǒ'n b'à kùn í.*
 3PL-PRF kill snake-D 3PL-PRF take>ACC snake-D 3PL-PRF kill 3SG
 ‘They have killed the snake.’

(Creissels & Kouadio 2010: 171, 172)

(24) Baule (Tano, Kwa, Niger-Congo)

a *B'à kà síkǎ'n. = B'à fà síkǎ'n. b'à ká.*
 3PL-PRF count money-D 3PL-PRF take>ACC money-D 3PL-PRF count
 ‘They have counted the money.’

b *B'à kà srân mún / *B'à fà srân mún b'à ká.*
 3PL-PRF count person PL 3PL-PRF take>ACC person PL 3PL-PRF count
 ‘They have counted the people.’

(Creissels & Kouadio 2010: 171, 172)

Creissels & Kouadio (2010) also observe restrictions on the use of the *take*-construction that reveal its relation to information structure. In particular, the *take*-construction is impossible with interrogative or negative words in P role, which can be viewed as evidence that it marks the referent of the P phrase as topical.

In other languages, the *take*-variant of the transitive construction has been described as implying independent existence of the referent of the P phrase, or volitionality, etc. In this respect, as analyzed by Shluinsky (2017: 365-372), there is important variation across the Kwa language family, Gbe languages (Fon, Gen, etc.) being particularly ‘liberal’ about the availability of the *take*-construction.

An interesting observation also made by Shluinsky (2017: 365-372) is that, throughout the Kwa language family, the grammaticalization of the *take*-variant of the transitive construction is more advanced with trivalent verbs than with bivalent ones (including prototypical transitive verbs).

Northern Mao (Omoti) also has differential P flagging correlated with variation in constituent order, but the details are very different. Mao is a verb-final language with relatively flexible ordering of the nominal terms of clauses, and the rule is that P flagging is optional if the P phrase immediately precedes the verb, as in (25), but obligatory if the P phrase and the verb are not in immediate contact.

⁵² The fact that the fronted P phrase is resumed by a third person pronoun in (23), but not in (24), is conditioned by animacy of the referent.

(25) Northern Mao (Mao, Omotic, Afroasiatic)

Íf kan-ìf p'ìf(-nà) ha-tás-¹á.

D dog-S/A child(-ACC) AFF-bite-DECL

‘The dog bit a child.’

(Ahland 2012: 316)

4.4.5.3 Differential flagging of A (or A/S) correlated with variation in constituent order

Several Eastern Sudanic languages belonging to the Nilotic and Surmic groups have systems of core term coding in which A may occur in either pre- or postverbal position and is consistently flagged in postverbal position, but unflagged in preverbal position. In some of them, this variation involves voice alternations, and the question that arises is how to analyze the voice alternations in question (see chapter 8 §8.5.5). In some others, the alternation involves no verbal marking, and recent analyses (among others Dimmendaal 2014: 12) concord in that the variation in A coding does not affect the transitivity of the construction.

In the languages in question, P is consistently unflagged. In some of them, S follows exactly the same pattern as A (hence a system of core term coding characterized by A-alignment and overt flagging of postverbal A/S phrases), whereas in others, S contrasts with A by its obligatory preverbal position and lack of flagging (hence a system of core term coding characterized by P-alignment and overt flagging of postverbal A phrases).

The Nilotic and Surmic languages in which this alternation is found do not have a uniform pattern of constituent order (some of them are strictly verb-initial, others are strictly AVP / SV, yet others allow for variation in constituent order), but a general rule is that A or S noun phrases are consistently unflagged in preverbal position and overtly flagged in postverbal position, which gives rise to various patterns of differential A or A/S flagging correlated with variation in constituent order, depending on the constituent order patterns of the individual languages. Tenneset even has a pattern of differential flagging for S but not for A, due to the fact that, in Tenneset, independent clauses are consistently V-initial (with, consequently, consistently flagged A and S phrases), whereas in some types of subordinate clauses, S (and only S) precedes the verb (and is consequently unflagged). In other words, as reflected in the glosses of example (26), the same case suffix *-i* has the distribution of an S/A case marker in independent clauses, but of an ergative case marker in some types of subordinate clauses.

(26) Tenneset (South Surmic, Surmic, Eastern Sudanic)

a Órông Lowór-i kákát Lohám-i áríza.

want PRN-S/A spear.SBJV PRN-ERG bull

‘Lowor wants Loham to spear the bull.’

b Órông Lowór-i Lohám kíkíyà.

want PRN-S/A PRN come.SBJV

‘Lowor wants Loham to come.’

(Dimmendaal 2014: 9)

Dimmendaal (2014) argues that, within Eastern Sudanic, the Nilotic and Surmic systems of core term coding characterized by a correlation between constituent order and A or A/S flagging constitute an innovation with respect to a type of system found in the remainder of

Eastern Sudanic (and in other languages families for which a Nilo-Saharan affiliation has been claimed), characterized by verb-final constituent order and case-marking systems including an accusative case and a variety of oblique cases.

4.5 Scenario-driven A/P coding and constraints on the expression of A and P as NPs

The term SCENARIO-DRIVEN A/P CODING is used in this book to characterize A/P coding systems in which the coding characteristics of A and P cannot be described separately, because some properties of one of the core terms of the transitive construction condition the coding of the other. In the literature, this phenomenon is also referred to as CO-ARGUMENT SENSITIVITY, or SCENARIO-BASED CODING.

As regards the distribution of scenario-driven coding in the world's languages, there is a sharp contrast between flagging and indexation: scenario-driven A/P flagging is much less frequent cross-linguistically than scenario-driven A/P indexation.

The tendency to avoid the simultaneous presence of an A phrase and a P phrase in the transitive clauses of some languages can be viewed as an extreme case of co-argument sensitivity.

4.5.1 Scenario-driven A/P flagging

Typically, in scenario-driven A/P flagging, one of the two core terms of the transitive construction (either A or P) is invariably unflagged, whereas the other shows a scenario-based alternation between zero coding and overt coding.

A particularly straightforward pattern of scenario-driven A/P flagging is found in Aleut. As illustrated in (27), in Aleut transitive clauses, the A phrase is flagged by the ergative-marker *-m* in the absence of a P phrase (i.e. if P is expressed as an index attached to the verb), whereas in the presence of a P phrase, the A phrase remains unflagged, and in case of potential ambiguity, is identified by its position before the P phrase. Note that, in Aleut, P indexes are in complementary distribution with their conominal, whereas A/S indexation is obligatory.

- (27) Aleut (Aleut, Eskimo-Aleut)
- a *Hlam kidukuu.*
 boy.ERG.SG help.PRS.I_A:3SG.Ip:3SG.
 'The boy is helping him/her.'
 - b *Hla^h asxinu^h kiduu^h.*
 boy.SG girl.SG help.PRS.I_A:3SG
 'The boy is helping the girl.'
- (Bergsland 1997: 138)

The language most often quoted for having a pattern of scenario-driven A/P flagging is Sahaptin, cf. (Rude 1997), (Jansen 2010). In the transitive construction of Yakima Sahaptin, according to Jansen (2010), the A phrase may be unflagged, flagged by the ergative marker *-nim*, or flagged by the ergative marker *-in*, with the following distribution:

- the ergative marker *-nim* is used when a 3rd person singular A acts on a 1st or 2nd person P;
- the ergative marker *-in* is used when a 3rd person singular obviative A acts on a 3rd person proximate P;
- in all other possible scenarios, A remains unflagged.

Ik (28) has a pattern of scenario-driven A/P flagging with an accusative marker used if and only if A is not an SAP.

(28) Ik (Kuliak, Eastern Sudanic)

- a *Wet-u-o ima cɛmɛri-k.*
 drink-I_{S/A}:3SG-SEQ child herb-ACC
 ‘...and the child drank the medicine.’
- b *Ńt-á ŋka wet-i-íí idw^a.*
 NEG-REAL 1SG drink-PLAC-I_{S/A}:1SG milk
 ‘I don’t usually drink milk.’
 (Schrock 2014: 255, 283)

Scenario-driven A/P flagging with an accusative marker used if and only if both A and P are 3rd person, is found in Teop (29).

(29) Teop (Oceanic, Austronesian)

- a *Enaa paa dee ma=u e guu.*
 1SG TAM carry DIR=IM D pig
 ‘I have brought a pig.’
- b *A beiko tenaa paa asun=u ben-e guu.*
 D child my TAM kill=IM ACC-D pig
 ‘My child has killed the pig.’
 (Mosel 2007: 10)

In the scenario-driven A/P flagging of Kashmiri (Indic), P is overtly flagged in all scenarios involving a 3rd person A, and in the 2→1 scenario (Wali & Koul 1997).

Scenario-driven A/P flagging is also found in Chukchi, cf. chapter 10 §10.8.4. Readers are referred to (Haspelmath 2021b: 18) for additional examples of languages having scenario-driven A/P flagging.

Interestingly, Tippets & Schwenter (2007) suggest that P flagging in Spanish, commonly analyzed as an instance of differential P flagging, might be best analyzed as including elements of scenario-driven A/P flagging. They argue that, in Spanish, the strongest factor favoring overt flagging of P is the RELATIVE animacy of A and P: when P exceeds A on the animacy scale, overt P flagging is more systematic than when A is more animate than P.

4.5.2 Scenario-driven A/P indexation

In systems in which both A and P are indexed, separate indexation of A and P means that there is a dedicated slot for A indexes, another dedicated slot for P indexes, and they are filled

independently from each other. Quite obviously, many indexation systems do not meet this characterization, for one of the following reasons:

- participant indexation may involve portmanteau indexes that encode a given scenario without lending themselves to a decomposition into an A index and a P index,
- the indexation of one of the two nuclear participants may depend on some properties of the other,
- the indexation of the nuclear participants may depend on their relative ranking with respect to some hierarchy (hierarchical indexation).

4.5.2.1 *Portmanteau indexes*

As illustrated in (30), Hungarian has a mechanism of A/P indexation involving portmanteau suffixes. In the Hungarian system of A/P indexation, special verb endings that cannot be decomposed morphologically (the so-called objective conjugation) encode person-number of A and definiteness of 3rd person Ps. Special verb endings are also used to encode the 1SG→2 scenario. In all the other cases, the transitive verb forms provide no overt indication about P, and their endings are identical to those indexing person-number of S in intransitive clauses.

(30) Hungarian (Ugric, Uralic)

- | | | | | | | |
|---|---|------------|-------------|--|------------|-----------------|
| a | <i>Az</i> | <i>ágy</i> | <i>alól</i> | <i>kihúz-ott-Ø</i> | <i>egy</i> | <i>macskát.</i> |
| | D | bed | under.ABL | take.from-PST-I _{S/A} :3SG | one | cat.ACC |
| | ‘S/he took a cat from under the bed.’ | | | | | |
| b | <i>Az</i> | <i>ágy</i> | <i>alól</i> | <i>kihúz-t-a</i> | <i>a</i> | <i>macskát.</i> |
| | D | bed | under.ABL | take.from-PST-I _A :3SG.I _P :3D | D | cat.ACC |
| | ‘S/he took the cat from under the bed.’ | | | | | |
| c | <i>Az</i> | <i>ágy</i> | <i>alól</i> | <i>kihúz-t-unk</i> | <i>egy</i> | <i>macskát.</i> |
| | D | bed | under.ABL | take.from-PST-I _{S/A} :1PL | one | cat.ACC |
| | ‘We took a cat from under the bed.’ | | | | | |
| d | <i>Az</i> | <i>ágy</i> | <i>alól</i> | <i>kihúz-t-uk</i> | <i>a</i> | <i>macskát.</i> |
| | D | bed | under.ABL | take.from-PST-I _A :1PL.I _P :3D | D | cat.ACC |
| | ‘We took the cat from under the bed.’ | | | | | |

For an in-depth analysis of the objective conjugation in Hungarian, readers are referred to Coppock & Wechsler (2012).

4.5.2.2 *Hierarchical indexation*

In hierarchical A/P indexation systems, transitive verb forms include a slot for participant indexation hosting a single index that may refer to A or P, depending on the relative ranking of A and P on some hierarchy. The details of the relevant hierarchy may vary from one language to another, and some systems combine hierarchical indexation with the use of portmanteau indexes for some scenarios, but a constant element in hierarchical indexation systems is that SAPs have precedence over non-SAPs.

Guaraní is a classical example of hierarchical indexation. Guaraní has two sets of participant indexes. One of them indexes the A term of transitive clauses and the S term of

intransitive clauses projected by verbs assigning a relatively agentive role to the referent of S, the other indexes the P term of transitive clauses and the S term of intransitive clauses projected by verbs assigning a relatively patientive role to the referent of S. However, transitive verbs have a single slot for participant indexation, and the choice of the index filling this slot is determined by the following rules:

- in all ‘mixed scenarios’ (i.e., scenarios involving an SAP and a non-SAP), the verb indexes the SAP, whatever its status as A or P, cf. example (31a-b);
- in 2→1 scenarios (2nd person A + 1st person P), the verb indexes the 1st person P, resulting in ambiguity with 3→1 combinations, cf. example (31c);
- in 1→2 scenarios (1st person A + 2nd person P), special portmanteau prefixes are used, cf. example (31d),⁵³
- in 3→3 scenarios, the verb bears the 3rd person prefix of the agentive series.

(31) Guaraní (Maweti-Guarani, Tupian)

a *A-hecha Juan.*

I_A:1SG-see PRN

‘I see Juan.’

b *Che-hecha Juan.*

I_P:1SG-see PRN

‘Juan sees me.’

c *Che-su’u-ta.*

I_P:1SG-bite-FUT

‘You will bite me.’ or ‘He/she/it/they will bite me.’

d *Roi-su’u-ta.*

I_A:1.I_P:2SG-bite-FUT

‘I will bite you.’

(Tonhauser 2006: 132-3)

Icari Dargwa (Nakh-Daghestanian) has a system of hierarchical person indexation of nuclear participants limited to SAPs, with two enclitics =*di* (2SG) and =*da* (1SG, 1PL or 2PL). These two enclitics may refer indiscriminately to participants encoded as S, A or P, but in the transitive construction, one participant only can be indexed, and the choice is determined by the 2>1 hierarchy:

- whenever a 2nd person referent is involved, irrespective of its role, it is indexed;
- whenever a 1st person referent is involved and no 2nd person, the 1st person referent is indexed, irrespective of its role.

(32) Icari Dargwa (Dargwic, Nakh-Daghestanian)

a *U-l du uc-ib=di.*

2SG-ERG 1SG catch.PF-CPL=2SG

‘You_{SG} caught me.’

⁵³ Interestingly, the portmanteau prefix *ro(i)*- ‘1>2SG’ has the same form as the 1EXCL prefix of the agentive series.

- b *Du-l u uc-ib=di.*
 1SG-ERG 2SG catch.PF-CPL=2SG
 ‘I caught you_{SG}.’
 (Sumbatova & Mutalov 2003: 78:79)

Muklom Tangsa (Tibeto-Burman) has a particularly simple system of hierarchical indexation, with a single slot for indexation in transitive verb forms, a single set of indexes for S, A and P, and a rule according to which, in all scenarios including a 1st or 2nd person A, the transitive verb forms index A, whereas in scenarios combining a 3rd person A and a 1st or 2nd person P, the transitive verb forms index P (Mulder 2018). In 3→3 scenarios, transitive verb forms include a single 3rd person index, and it is impossible to decide whether it should be analyzed as referring to A or P. Note that, in Muklom Tangsa, hierarchical indexation combines with a particular type of direct-inverse marking, with the effect of resolving some of the ambiguities resulting from the rule of hierarchical indexation (but not all), cf. §4.6.2.

4.5.3 Constraints on the simultaneous expression of A and P as NPs

A more or less strict tendency to avoid transitive clauses in which both A and P are expressed as noun phrases can be observed in some languages. Salish languages are a case in point. As discussed in detail by Gerdts & Hukari (2008), in Halkomelem texts, transitive clauses with A and P both expressed as nouns phrases are rare, and a similar observation has been made on other Salish languages, cf. (Gerdts & Hukari 2008) for detailed references. In most Salish languages, this is a soft constraint, but at least in Lushootseed, this has been described as a hard constraint. Moreover, in Salish transitive clauses, P is more commonly expressed as a noun phrase than A. The explanation elaborated by Gerdts & Hukari (2008) is that, in Salish languages, topic core NPs tend to have zero expression, and As are more commonly topics than Ps.

The ban on transitive constructions with both A and P expressed as noun phrases may favor the use of passive constructions with oblique agents and/or antipassive constructions with oblique patients as avoidance strategies.

4.6 Direct/inverse marking in the transitive construction

4.6.1 Definitional issues

The term DIRECT/INVERSE MARKING is understood in this book as referring to situations where the morphological structure of the verb forms projecting transitive clauses includes a slot dedicated to the coding of the relative ranking of A and P according to a hierarchy in which SAPs outrank non-SAPs.

According to this definition, the conditioning of direct/inverse marking minimally involves the 1/2 > 3 hierarchy. However, depending on the individual languages, the hierarchy conditioning direct/inverse marking may extend to interactions between 3rd persons and/or between 1st and 2nd persons. The extension of direct/inverse marking to interaction between 3rd persons implies that the relevant hierarchy integrates distinctions other than person, such

as animacy, or the distinction between 3rd person proximate referents (salient within a given stretch of discourse) and 3rd person obviative (non-salient) referents.

For example, the hierarchy accounting for direct/inverse marking in Zbu Rgyalrong (Na-Qiangic, Sino-Tibetan) is as follows (Jacques & Antonov 2014: 306):

1 > 2 > 3 animate proximate > 3 animate obviative > 3 inanimate

In the literature, there is much confusion about the notion of ‘direct-inverse’, due not only to a frequent confusion between hierarchical coding and direct/inverse marking (see §4.6.2), but also to the fact that ‘direct-inverse’ is often indiscriminately used, in the description of languages that do not have a MORPHOLOGICAL category of direct/inverse marking, with reference to functional notions more or less related to those that condition the use of direct and inverse forms of verbs in the languages that have the morphological category of direct/inverse marking as defined above.

Part of the problem comes from the fact that the Algonquian systems, commonly viewed as providing a prototype of direct/inverse systems, have complex indexation systems whose analysis is much less obvious than commonly suggested in textbook accounts.

In the structure of Algonquian transitive verbs, several slots contribute to A and P indexation, but the only one that ensures the distinction between A and P is the suffixal slot called ‘theme sign’ in the traditional terminology of Algonquianists.

Example (33) illustrates the contrast between two pairs of theme signs traditionally analyzed as direction markers in Plains Cree, in scenarios involving an SAP and a non-SAP (33a-b), in which case the inverse theme sign marks that non-SAP A acts on SAP P, and in scenarios involving non-SAPs only (33c-d), in which case the inverse theme sign marks that obviative A acts on proximate P.

(33) Plains Cree (Algonquian, Algic)

- a *Ni-sêkih-â-nân* *atim.*
 I:1-scare.TA-DIR-I:1PL.EXCL dog
 ‘We scare the dog.’
- b *Ni-sêkih-iko-nân* *atim.*
 I:1-scare.TA-INV-I:1PL.EXCL dog
 ‘The dog scares us.’
- c *Sêkih-ê-w nâpêw atim-wa.*
 scare.TA-DIR-I:3 man dog-OBV
 ‘The man (salient) scares the dog (non-salient).’
- d *Sêkih-ikw-w nâpêw atim-wa.*
 scare.TA-INV-I:3 man dog-OBV
 ‘The dog (non-salient) scares the man (salient).’
 (Haude & Zúñiga 2016 quoting Wolfart 1996: 410)

Direct vs. inverse contrasts may involve equipollent marking, as in (33) above, with a direct marker implying that A outranks P on the relevant hierarchy and an inverse marker implying that P outranks A, or privative marking with just an inverse marker whose presence implies that P outranks A, or is at least as prominent as A.

Example (33) also illustrates that, in transitive verb forms involving direct/inverse marking as defined above, if both A and P are indexed in other morphological slots, it is common that the indexes do not distinguish A and P.⁵⁴ In such cases, it may happen that the identification of the roles fulfilled by the participants entirely relies on direct/inverse marking. However, this is not necessarily the case. For example, in (34), independently from the presence of the inverse marker *-wə-*, ergative flagging is sufficient to unambiguously identify ‘stone’ as A, and ‘Bkrashis’ as P.

(34) Zbu Rgyalrong (Na-Qiangic, Sino-Tibetan)

Tʃəɛi skutsêʔ kə tə-wə-xsêv ki.

PRN stone ERG CPL-INV-hit EVID

‘A stone hit Bkrashis.’

(Jacques & Antonov 2014:30)

Another point worth making is that there is no necessary relationship between direct/inverse marking and the grammaticalization of the proximate vs. obviative distinction. The existence of a system of direct/inverse marking as defined above does not necessarily imply the involvement of obviation in the relevant hierarchy, and conversely, obviation effects such as those analyzed by Aissen (1997) can be found in the syntax of various languages that, in contrast to Algonquian, have neither morphological marking of obviation on nouns nor direct/inverse marking.

At this point it is also worth emphasizing that the morphological complexity of some indexation systems may make it difficult to evaluate the validity of the decision to isolate formatives analyzable as direct/inverse markers. This applies in the first place to Algonquian languages, which depart to a considerable extent from the ideal situation in which the direct vs. inverse contrast is coded by means of the same (pair of) marker(s) across the various types of scenarios that are analyzed as having this contrast, so that alternative analyses can be imagined. In fact, Algonquianists differ on which pairs of theme signs should be treated as direct and inverse, and many analyses treat some or even all of the theme signs as P indexes or portmanteau A/P indexes, e.g. Pentland 1999, Oxford 2019.

4.6.2 Direct/inverse marking and hierarchical indexation

Direct/inverse marking and hierarchical indexation have in common that both phenomena are conditioned by the relative ranking of A and P according to some hierarchy. Moreover, quite a few indexation systems combine direct/inverse marking and hierarchical indexation in a more or less intricate way, which may create confusion. However, logically, the notions of direct/inverse marking and hierarchical indexation are independent from each other, and languages may have direct/inverse marking without hierarchical indexation, or hierarchical indexation without direct/inverse marking. As Zúñiga (2006: 29) puts it, hierarchical coding and direct/inverse marking are “two intimately related but logically independent responses to indexability hierarchies found in the grammar of some natural languages”.

Muklom Tangsa (Brahmaputran, Sino-Tibetan) illustrates a straightforward combination of direct/inverse marking and hierarchical indexation. In Muklom Tangsa, an inverse marker *-p^h-*

⁵⁴ Note that, in the canonical approach to the typology of direct/inverse systems put forward by Jacques & Antonov (2014), this constitutes one of the defining features of the canonical direct/inverse system.

is present in transitive verb forms if and only if P is an SAP, i.e., if A does not outrank P according to the SAP > non-SPA hierarchy, and direct/inverse marking combines with a rule of hierarchical indexation according to which, in all scenarios including a 1st or 2nd person A, the transitive verb forms index A, whereas in scenarios combining a 3rd person A and a 1st or 2nd person P, the transitive verb forms index P, resulting in the paradigm schematized in Table 1, where Σ stands for ‘stem’.

P	1SG	1PL	2SG	2PL	3
A					
1SG			$\Sigma-p^h-\lambda\eta^2$	$\Sigma-p^h-\lambda\eta^2$	$\Sigma-\lambda\eta^2$
1PL			$\Sigma-p^h-i$	$\Sigma-p^h-i$	$\Sigma-i$
2SG	$\Sigma-p^h-u$	$\Sigma-p^h-u$			$\Sigma-u$
2PL	$\Sigma-p^h-in$	$\Sigma-p^h-in$			$\Sigma-in$
3	$\Sigma-p^h-\lambda\eta^2$	$\Sigma-p^h-i$	$\Sigma-p^h-u$	$\Sigma-p^h-in$	$\Sigma-a$

Table 1. Direct/inverse marking and hierarchical indexation in the present tense in Muklom Tangsa (Mulder 2018)

Note that, in the Muklom Tangsa system, many forms are ambiguous. For example, in $\Sigma-p^h-u$, $-p^h-$ indicates that P is an SAP, and $-u$ indicates that one of the protagonists is the addressee, which leaves open three possible readings: 2SG \rightarrow 1SG, 2SG \rightarrow 1PL, and 3 > 2SG.

4.6.3 The domains of direct/inverse marking

In the analysis of direct/inverse marking systems, three types of configurations (or ‘domains’) must be distinguished:

- the LOCAL domain, grouping the scenarios in which both A and P are SAPs;
- the MIXED domain, grouping the scenarios in which one of the protagonists is an SAP, and the other is 3rd person;
- the NON-LOCAL domain, grouping the scenarios in which neither A nor P is an SAP.

According to the definition adopted in this book, analyzing a language as having direct/inverse marking implies that direct/inverse marking operates minimally in mixed scenarios.

To the best of my knowledge, no language has been analyzed as having direct/inverse marking in local scenarios only. Moreover, the coding of local scenarios in the languages that have straightforward direct/inverse marking in the mixed domain commonly shows various types of idiosyncrasies and irregularities. In some languages, 2 \rightarrow 1 is marked as inverse, in others, both 2 \rightarrow 1 and 1 \rightarrow 2 are marked as inverse, in some others, the coding of local scenarios involves special forms unrelated to the system of direct/inverse marking. According to Jacques & Antonov (2014: 10), in the local domain, the only possibility that is not attested is marking 1 \rightarrow 2 as inverse and 2 \rightarrow 1 as direct.

As regards the non-local domain, many discussions of direct/inverse marking are based on a definition less restrictive than the one adopted here, making it possible to recognize systems of direct/inverse marking operating in non-local scenarios only. The term ‘direct/inverse’ can thus be found in the literature with reference to distinctions between 3rd person obviative and

3rd person proximate morphologically marked on verbs in languages that do not have direct/inverse marking in the mixed domain. Such a situation is found for example in Athabaskan languages. However, there is no strong reason for analyzing such situations in terms of direct/inverse, since they can be satisfactorily described by positing a distinction between 3rd person proximate and 3rd person obviative indexes. This position, which is in fact the position suggested by the descriptions of Athabaskan languages, is also the position adopted by Aissen (2000) in her analysis of the *bi* vs. *yi* contrast in Navajo.

Consequently, the distinction between the following two types of systems can be viewed as the basic distinction in a typology of direct/inverse marking systems:

- systems with direct/inverse marking in mixed scenarios, but not in non-local scenarios;
- systems with direct/inverse marking both in mixed and non-local scenarios.

Moreover, the only uncontroversial cases of extension of the direct/inverse contrast to local scenarios are those in which the morphological marking of the contrast is identical in mixed and non-local scenarios, which in particular is not the case in Algonquian languages, cf. (Zúñiga 2006, chapter 3) for a detailed discussion

As regards the difficulties that commonly arise in the analysis of local scenarios in languages that have an unproblematic system of direct/inverse marking at least in mixed scenarios, it is worth remembering that Heath (1998: 84), concluded his analysis of the morphological coding of local scenarios in languages of the Americas by stating that “the correct cross-linguistic generalization is a negative one, namely, that transparent 1↔2 combinations are avoided”.

4.6.4 Rigid vs. flexible systems of direct/inverse marking, and the relationship between direct/inverse marking and voice

Systems in which direct/inverse marking does not concern non-local scenarios may be morphologically complex, but in other respects they are quite straightforward, since in such systems, the choice between direct and inverse marking automatically follows from a hierarchy of person.

By contrast, in systems where a morphological device straightforwardly analyzable as direct/inverse marking in mixed scenarios (and possibly in local scenarios) extends to the encoding of non-local scenarios, the criteria determining the relative ranking of non-SAPs in the hierarchy governing the choice between direct and inverse marking may involve a complex interplay of grammatical, semantic, and discursive factors. In particular, the degree of flexibility of such systems depends on the importance of grammatical or semantic criteria, and the place left to discourse factors in the definition of the hierarchy.

In rigid systems of direct/inverse marking, the total automaticity of the alternation precludes analyzing direct/inverse marking as a kind of voice. The question, however, may arise for flexible systems of direct/inverse marking, which have some functional affinities with voice marking.

4.6.4.1 *Inverse and passive*

The literature on direct/inverse marking may give the impression that the question of distinguishing inverse marking from passivization is a very difficult issue, but in fact, in most cases, this question can be decided quite straightforwardly on the basis of the criteria discussed in chapter 3. For example, it is not difficult to convince oneself that, as argued by Zúñiga (2006: chapter 3), the inverse clauses of Algonquian languages cannot be analyzed as passive, since there is no asymmetry between direct and inverse clauses in core term flagging or participant indexation, and the mere fact that both A and P are obligatorily indexed in inverse clauses, whereas monovalent verbs index a single participant, is sufficient to exclude a passive analysis of inverse clauses.

What creates some confusion in the literature is that this question has sometimes been confused with the question of grammatical relations in languages with direct/inverse marking. As discussed by Zúñiga (2006: 110-128), the question of grammatical relations in Algonquian is indeed a complex question. However, this does not necessarily have an impact on the analysis of a morphological contrast in verb forms as marking a direct/inverse or transitive/passive alternation. Based on the application of several morphosyntactic tests, Dahlstrom (1985) argues that, in Plains Cree (Algonquian), inverse marking has no consequence for grammatical relations. This is an interesting point, but even if this were not the case, the identification of inverse clauses as syntactically transitive would not be undermined, since the coding properties of A and P in the inverse clauses of Plains Cree rule out a passive analysis.

However, the choice between a direct/inverse analysis and a transitive/passive analysis may be problematic in languages having a morphological contrast between two sets of verb forms whose distribution is typically that found in direct/inverse systems, but in which at the same time the morphosyntactic properties of the clauses in which one of these two sets of forms are found leave open the possibility of a transitive/passive analysis.

For example, the Kiowa-Tanoan language Picuris (Zaharlick 1982, Zúñiga 2006: 178-179) has a verbal suffix *-mia* that occurs obligatorily in 3→1/2 scenarios and optionally in non-local scenarios, but cannot occur in 1/2→3 scenarios or in local scenarios. This distribution suggests analyzing *-mia* as an inverse marker. However, the clauses in which it occurs have structural characteristics suggesting a passive analysis. In Picuris, ‘see’ is a syntactically transitive verb with the perceiver and the stimulus treated like the agent and the patient of prototypical transitive verbs, and, as illustrated in (35), the stimulus in *mia*-clauses projected by the verb ‘see’ (35c, 35e) is indexed by the same person indexes as the sole core term in the construction of monovalent verbs, whereas the phrase representing the perceiver is flagged by the oblique marker *-pa*.

(35) Picuris (Kiowa-Tanoan)

a *Ta-me-’qn.*

I_S:1SG-go-PST

‘I went.’

b *Sənene ti-mḡn-’qn.*

man I_A:1SG-see-PST

‘I saw the man.’

- c *Ta-mɔn-mia-ʻq̄n sənene-pa.*
 I_S:1SG-see-MIA-PST man-OBL
 ‘The man saw me.’
- d *Sənene Ø-liw-mɔn-ʻq̄n.*
 man I_A:3SG-lady-see-PST
 ‘The man saw the lady.’
- e *Liwene Ø-mɔn-mia-ʻq̄n sənene-pa.*
 lady I_S:3SG-see-MIA-PST man-OBL
 ‘The lady was seen by the man.’
 (Zaharlick 1982: 35, 37, 41)

However, a passive analysis can only be considered for pairs of sentences such as (36d-e), i.e. for non-local scenarios. In mixed scenarios, *-mia* is either obligatory, as in (36d), or impossible, as in (36c). Consequently, in mixed scenarios, in spite of its coding characteristics, the *mia*-construction cannot be analyzed as a passive construction, but only as a variant of the transitive construction whose choice is automatic in 3 → 1/2 scenarios. In this variant of the transitive construction, superficially similar to the passive construction available in non-local scenarios, P is unflagged and indexed on the verb, and A is flagged by *-pa* acting as an ergative marker. In fact, the only analysis that does not raise serious difficulties is that *-mia* has two possible functions that are probably related historically, but must be analyzed as synchronically distinct: in non-local scenarios, it acts as a passive marker (and this was presumably its original function), whereas in mixed scenarios, it acts as an inverse marker correlating with the choice of a variant of the transitive construction superficially similar to a passive construction.

Similar constraints on the use of constructions that seem at first sight analyzable as passive constructions have also been described and discussed in Salishan languages, cf. in particular (Jelinek & Demers 1983) on Lummi.

Aissen (1999) puts forward an analysis of such situations within the frame of Optimality Theory.

4.6.4.2 *Direct/inverse marking and symmetrical voices*

Zúñiga & Kittilä (2019: 148-149) discuss the possibility of an analysis of direct/inverse marking in terms of symmetrical voices, and conclude their review of the available data by expressing some skepticism about the analysis of inverse clauses as involving a voice mechanism similar to the contrast between agent voice and patient voice as found in Western Austronesian languages.

However, as already discussed in chapter 3 §3.3.4, this possibility deserves to be considered at least for Movima, since the pair of markers analyzable as expressing a direct/inverse contrast in Movima regulates the access of A and P to the role of syntactically privileged term. In Movima, a transitive/passive or transitive/antipassive analysis of direct/inverse marking in non-local scenarios is ruled out by the mere fact that both direct and inverse clauses are unquestionably syntactically transitive, but, if the definition of voice is formulated in such a way as not to include a necessary condition on the availability of voice contrasts in all kinds of scenarios, it is certainly possible to analyze Movima in terms of symmetrical voices.

4.6.5 Distribution and historical origin of direct/inverse systems

Direct/inverse systems are mainly found among the languages of the Americas and of the Greater Himalayan Region.

As regards their historical origin, cislocative markers (aka ven(i)tive markers) are a well-attested source of inverse markers, which is fully consistent with the deictic nature of direct/inverse marking. For example, in Sizang (Tibeto-Burman), “the function of the cislocative element *hong* ‘hither’ has been extended to encompass action proceeding toward a 1st or 2nd person” (Gildea & Zúñiga 2016: 493). The grammaticalization of cislocative into inverse markers implies a grammaticalization scenario in which the crucial move is the routinization and semantic bleaching of a source construction whose original meaning is ‘A comes to act on P’, which eventually becomes the usual way of expressing ‘A acts on P’ in (some of the) scenarios where P is an SAP.

Some Dravidian languages illustrate a variant of the reanalysis of cislocative markers as a possible source of inverse markers. The languages in question “show a so-called transition particle (TP) that occurs in tense-marked non-reflexive verbs if the object is 1st or 2nd person”, and this marker “can be traced back to a verb **tā/tara* ‘give/bring to me or you’” (Gildea & Zúñiga 2016: 494).

The possibility of direct/inverse marking resulting from the reanalysis of a transitive-passive alternation has been widely discussed in the literature. For a recent discussion and further references, readers are referred to Gildea & Zúñiga (2016). To put it in a nutshell, the idea is that the use of the passive forms of transitive verbs may evolve in such a way that non-passive verb forms become obligatory in 1/2→3 scenarios, whereas passive verb forms become obligatory in 3→1/2 scenarios (as was probably the case in Picuris, cf. §4.6.4.1), converting thus a former passive marker into an inverse marker.

Another possible scenario, according to which direct/inverse marking might result from the evolution and reanalysis of cleft constructions, has been elaborated by Gildea & Haude (2011) for Movima.

Finally, Konnerth (2021) discusses a possible connection between antipassive marking and direct/inverse marking, cf. chapter 10 §10.8.4.

4.7 Transitivity marking

In some languages, in addition to the coding properties that characterize the noun phrases in A and P role, the transitive construction involves specific morphological marking. For example, in Mandinka (36), the TAM value ‘completive, positive’ is marked differently in transitive and intransitive verbal clauses: in transitive clauses, the completive positive marker is inserted between the noun phrases in A and P role, whereas in intransitive clauses, the same TAM-polarity value is expressed by a verbal suffix that bears no resemblance to the marker found in transitive clauses.

- (36) Mandinka (Central Mande, Mande)
- a *Kèê yè fòolèesúwòò dádâa.*
 man.D CPL.TR bicycle.D repair
 ‘The man repaired the bike.’
- b *Kèê kúmà-tá.*
 3SG speak-CPL.ITR
 ‘The man spoke.’

Mayan languages have similar but much more complex systems, with different sets of verbal inflectional suffixes for transitive and intransitive verbs, to the point that Paulian (2017) does not hesitate to evoke a “Mayan obsession for distinguishing transitivity in verbs morphologically”.

Systematic transitivity marking is also a salient characteristic of Algonquian verb morphology. Algonquian languages have four inflectional classes of verbs commonly designated as AI (‘animate intransitive’, i.e. intransitive with animate S), II (‘inanimate intransitive’, i.e. intransitive with inanimate S), TA (‘transitive animate’, i.e. transitive with animate P) and TI (‘transitive inanimate’, i.e. transitive with inanimate P).⁵⁵

Some languages have markers whose analysis as inflectional transitivity markers (rather than derivational transitivization markers) is controversial, which crucially conditions the analysis of the transitive/intransitive alternations in the languages in question. For example, Gerdtts & Hukari (2006a) discuss the status of a transitive suffix found in Salish languages. The viewpoint they defend is that the transitive suffix is “a verbal inflection that appears on bases that are already semantically transitive”, as opposed to the analysis put forward by some other Salish scholars, according to which “all verb roots in Salish languages are intransitive and require the addition of transitive morphology in order to serve as transitive stems”.

Some Oceanic languages have a verbal suffix, commonly designated as ‘transitive suffix’, exclusively found in transitive constructions. However, as illustrated in (37), at least in some of those languages, the transitive suffix may be absent without any change in the coding of participants, and transitive verbs are used without the transitive suffix “to refer to a generic of habitual event, or with an object low in individuation” (Næss & Hovdhaugen 2011: 205 on Vaeakau-Taumako).

- (37) Vaeakau-Taumako (Oceanic, Austronesian)
- a *Tuhi~tuhi-a a pokoula.*
 PLAC~pick-TR COLL rubbish
 ‘Pick up the rubbish.’
- b *Lha=ko ō ki mouku o tuhi talie ai.*
 3DU=INCP go.PL to bush to pick talie there
 ‘They went into the bush and picked talie nuts there.’
 (Næss & Hovdhaugen 2011: 205)

⁵⁵ Note that (i) in descriptions of Algonquian languages, *animate* vs. *inanimate* refers to a grammatical gender system in which the assignment of many nominal lexemes to the animate or inanimate gender has no obvious link to semantic animacy, and (ii) in Algonquian languages, the A role in the transitive construction can only be fulfilled by NPs belonging to the animate gender.

In other words, in such systems, compatibility with the transitive suffix characterizes syntactically transitive verbs, but its absence in clauses otherwise analyzable as transitive marks a low degree of semantic transitivity. In the literature on Oceanic languages, the constructions in which the absence of the transitive suffix does not trigger any change in participant coding have been discussed as ‘semi-transitive constructions’ or ‘transitivity discord constructions’, see in particular (Margetts 2008).

To conclude on this topic, I would like to mention that, in the analytical verb forms of many languages, auxiliary selection is sensitive to transitivity. However, in all the cases I am aware of, the coincidence between auxiliary choice and syntactic transitivity of the clause as defined in this book is not absolute. For example, in Basque, the selection of ‘have’ in the role of auxiliary correlates with the presence of an ergative-marked term, which is not the same thing as transitivity, since Basque has a class of intransitive verbs (including monovalent ones) whose sole core term is in the ergative case.

4.8 The cross-linguistic diversity in A/P coding

4.8.1 Introductory remarks

The most basic distinction in a typology of A/P coding is the distinction between constructions in which the contrasts in the coding characteristics of the core nominal terms are straightforwardly related to semantic role contrasts, and those in which they mark the selection of a pivot, cf. chapter 1 §1.3.3.4, and chapter 3 §3.3.

A typology of participant coding in pivot-prominent transitive constructions would necessitate a systematic investigation of the possible manifestations of the tripartite contrast between pivots, non-pivotal As and non-pivotal Ps in the languages in which such constructions can be found. Some indications in this respect have been given in chapter 3 §§3.3.2-3, but further investigation would be necessary before trying to put forward generalizations about the variation in A/P coding in pivot-prominent transitive constructions.

In this section, I limit myself to putting forward a typology of A/P coding in transitive clauses whose formal organization straightforwardly reflects the A vs. P contrast. This is a typology of possible layouts of a verb form and two noun phrases referring to participants, and consequently, it should not be expected that the transitive clauses of a given language invariably belong to a single type. Quite on the contrary, A/P coding in a given language generally involves variously conditioned alternations between two or more of the types enumerated in the following sections.

For example, English has four possible configurations in A/P coding depending on the TAM value expressed by the verb on the one hand (since A indexation is found with present verb forms only), and on the nature of the A and P phrases on the other hand (since a flagging contrast between A and P phrases is found only with some pronouns).

The case of Dyrirbal is also worth being mentioned here. As ‘ergative’ as Dyrirbal may be in its syntax, its A/P coding pattern diverges significantly from what could be expected in an ‘ergative’ languages according to textbook accounts of ergativity, since it involves an alternation between four different types. The only constant thing in the A/P coding system of Dyrirbal is the absence of indexation. As regards flagging, Dyrirbal can be described as having two core cases in addition to the zero case, ergative (not available for 1st and 2nd person

pronouns) and accusative (available for 1st and 2nd person pronouns only), and a system of differential coding of A and P conditioned by the contrast between pronouns referring to SAPs and all other nominals: in A role, 1st and 2nd person pronouns show zero flagging and all the other nominals ergative flagging, whereas in P role, 1st and 2nd person pronouns show accusative flagging and all the other nominals zero flagging. Consequently, four configurations are possible depending on the nature of A and P:

- A flagged / P unflagged, as in (38a),
- A unflagged / P flagged, as in (38b),
- A and P unflagged, as in (38c),
- A and P flagged, as in (38d).

(38) Dyirbal (Northern Pama-Nyungan, Pama-Nyungan)

- a *Duma yabu-ŋgu bura-n.*
 father mother-ERG see-NFUT
 ‘Mother saw father.’
- b *Dana jurra-na bura-n.*
 1PL 2PL-ACC see-NFUT
 ‘We saw you all.’
- c *Dana ŋuma bura-n.*
 1PL father see-NFUT
 ‘We saw father.’
- d *Dana-na ŋuma-ŋgu bura-n.*
 1PL-ACC father-ERG see-NFUT
 ‘Father saw us.’
 Dixon (1994:161, 1979:112)

Alternatively, Dyirbal can be analyzed as having the same case inventory for all nominals, with both the ergative and the accusative case partially homonymous with the zero case. According to this analysis, the ergative case has the allomorphs zero and *-ŋgu*, and the accusative case has the allomorphs *-na* and zero. Interestingly, this analysis preserves the unity of A/P coding, although in a somewhat artificial way, but leads to the conclusion that the participant coding system of Dyirbal departs from the ‘ergative’ canon even more radically than commonly assumed, with both A and P flagged in transitive clauses, and ‘tripartite’ alignment (A consistently in the ergative case, P consistently in the accusative case, and S in the zero case).

4.8.2 Symmetry vs. asymmetry in the coding characteristics of A and P

4.8.2.1 The notion of balance in A/P coding

Transitive constructions may involve a greater or lesser degree of symmetry between the coding characteristics of A and P, and I propose to relate this variation to the tendencies observed cross-linguistically in the encoding of core terms and obliques:

- indexation is not a universal phenomenon, but it is very common for core syntactic terms to be indexed, whereas the indexation of obliques, although found to a limited extent in some languages, is relatively exceptional;
- conversely, flagging by means of integrative case forms or adpositions is the general rule for obliques, but not for core syntactic terms.

No similar generalization can be proposed for constituent order, which consequently will play no role in this typology.

The combination of four binary features (\pm A flagging, \pm A indexation, \pm P flagging, \pm P indexation) gives sixteen logically possible configurations for transitive clauses. They are not evenly distributed in the languages of the world, and some of them seem to be found only in languages whose A/P coding system involves variously conditioned alternations with other types. On the whole, it is obvious that A is more often indexed than P, P is more often flagged than A, and the indexation of both A and P in the same construction is much more common than the simultaneous flagging of both A and P. However, I have not done the kind of investigation that would allow me to give a precise quantitative evaluation of these tendencies, and I will just propose a classification of the possible types with some illustrations.

I first propose to characterize as *BALANCED* the transitive constructions in which A and P do not differ in the extent to which they display core-like or oblique-like coding characteristics.

4.8.2.2 *A-prominent vs. P-prominent A/P coding*

The transitive constructions that do not meet the definition of balanced transitive constructions divide into two broad types: the *A-PROMINENT* type, in which A displays more core-like coding characteristics than P, and the *P-PROMINENT* type, in which the term displaying more core-like coding characteristics is P.

The possible subtypes of transitive constructions are enumerated in §§4.8.3-4, with the indication of some languages in which they can be found, either alone or in alternation with other subtypes. The configurations that are not attested in the documentation I have been able to consult are explicitly indicated.

4.8.3 Subtypes of balanced transitive constructions

There are four logical possibilities for balanced transitive constructions:

- (a) neither A nor P is flagged or indexed;

- (39) !Xun (!Xun, Kx'a)
!Hòàn kú gǎm g!ú.
man PROG drink water
'The man is drinking water.'
(Heine & König 2015: 227)

- (40) Mandinka (Central Mande, Mande)

Kèè máŋ fòolèesúwòò dádâa.
 man.D CPL.NEG bicycle.D repair
 ‘The man hasn’t repaired the bicycle.’

(b) both A and P are indexed, neither A nor P is flagged;

- (41) K’ichee’ (Mayan)

X-ee-ki-q’aluu-j ri ak’al-aab’ ri tijonel-aab’.
 CPL-I_{SP}:3PL-I_A:3PL-hug-TR D child-PL D teacher-PL
 ‘The teachers hugged the children.’
 (Campbell 2000: 246)

- (42) Classical Nahuatl (Aztecan, Uto-aztecan;

Àmo ni-c-cua in tetl.
 NEG I_{S/A}:1SG-I_P:3SG-eat D stone
 ‘I don’t eat the stones.’
 (Launey 1980: 376)

- (43) Spanish (Italic, Indo-European)

Las bebidas las= trajo Juan.
 D.PL.F drink(F).PL I_P:3PL.F bring.CPL.I_{S/A}:3SG PRN
 ‘JUAN brought the drinks.’

(c) both A and P are flagged, neither A nor P is indexed

- (44) Japanese (Japonic)

Oozei-no hito-ga kono shinbun-o yomu.
 many-GEN person-S/A DEM newspaper-ACC read.PRS
 ‘Many people read this newspaper.’

- (45) Tongan (Oceanic, Austronesian)

Na’e tāmāte’i ‘a Kōlaiate ‘e Tēvita.
 TAM kill S/P PRN ERG PRN
 ‘David killed Goliath.’
 (Churchward 1953: 67)

Rošani (Iranian), a language with a binary case system, illustrates a rare variant of this configuration, with A and P flagged with the same integrative case, contrasting with S in the zero case. In Rošani, this configuration is found in the past tense, whereas the present tense has the more common pattern ‘A in the zero case, P in the integrative case’.

- (46) Rošani (Iranian, Indo-European)

a Duf xawrič-ēn um kitōb ĵeyt.
 these.K boy-PL that.K book read.PST
 ‘These boys read_{PST} that book.’

- b *Dāδ xawrič-ēn=an tar Xaray sat.*
 these boy-PL=I_S:3PL to PRN go.I_S:PL.PST
 ‘These boys went to Xorog.’
 (Payne 1980: 155)

(d) both A and P are flagged and indexed

- (47) Western Basque (Euskaran)⁵⁶
Jon-ek Edurne-ri ikusi dio.
 PRN-ERG PRN-DAT see.CPL have.PRS.I_{ERG}:3SG.I_{DAT}:3SG
 ‘Jon saw Edurne.’

4.8.4 Subtypes of unbalanced transitive constructions

4.8.4.1 Fully unbalanced transitive constructions

In fully unbalanced transitive constructions, the asymmetry is found in both flagging and indexation, with two logical possibilities:

- (a) fully A-prominent transitive constructions: A is not flagged whereas P is flagged, A is indexed whereas P is not indexed;
- (48) Finnish (Finnic, Uralic)
Mies tappoi karhu-n.
 man kill.PST.I_{S/A}:3SG bear-ACC
 ‘The man killed the bear.’
 (Kittilä 2002: 56)
- (49) Latin (Italic)
Serv-us vidi-t domin-um.
 servant(M)-ZER see.PRF-I_{S/A}:3SG master(M)-ACC
 ‘The servant saw the master.’
- (50) Kurmanji Kurdish (Iranian, Indo-European)
Ez meriv-an dibîn-im
 1SG man-PL.K see.ICPL-I_{ZER}:1SG
 ‘I see the men.’
 (Blau & Barak 1999: 50)

⁵⁶ The Western Basque varieties illustrating the type of transitive construction with both A and P flagged and indexed have a system of differential P coding with an alternation between zero case and dative case (and the corresponding indexes) in the coding of P.

- (51) Nias (Northern Sumatra-Barrier Islands, Austronesian)

La-tolo n-ama-gu si'ila.

I_A:3PL.REAL-help S/P-father-I_{ADP}:1SG village.advisor

‘The village advisors are helping/helped my father.’

(Brown 2003)

- (b) fully P-prominent transitive constructions: P is not flagged whereas A is flagged, P is indexed whereas A is not indexed.

- (52) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)

Aħmad-i-ca ħur b-eļ'ana.

PRN(M)-OF-ERG field(N) I_{SP}:SG.N-plough.CPL

‘Ahmad ploughed the field.’

- (53) Kurmanji Kurdish (Iranian, Indo-European)

Min meriv dît-Ø.

1SG.K man see.CPL-I_{zer}:3SG

‘I saw the man.’

(Blau & Barak 1999: 66)

4.8.4.2 *Partially unbalanced transitive constructions*

In partially unbalanced transitive constructions, the asymmetry is found in one coding characteristic only, which gives eight logical possibilities. Four of them can be grouped together as partially A-prominent, while the other four can be grouped as partially P-prominent.

The following four configurations can be characterized as partially A-prominent:

- (a) neither A nor P is flagged, only A is indexed;

- (54) French (Italic, Indo-European)

Jean répar-er-a le vélo.

PRN fix-FUT-I_{S/A}:3SG D.SG.M bicycle(M)

‘Jean will fix the bicycle.’

- (55) Tswana (Bantu, Benue-Congo, Niger-Congo)

Ḑàkà í-àláf-ílé mò-sá:dì.

doctor(c19) I_{S/A}:c19-heal-PRF SG-woman(c11)

‘The doctor healed the woman.’

- (b) both A and P are flagged, only A is indexed;

- (56) Kanuri (Western Saharan, Saharan)
Wú-ga kənâ-ye cíta.
 1SG-ACC hunger-S/A seized.I_{S/A}:3SG
 ‘I am hungry.’ lit. ‘Hunger seized me.’
 (Cyffer 1991: 98)

(c) neither A nor P is indexed, only P is flagged.

- (57) Yaqui (Cahita, Uto-aztecan)
Joan bentaana-ta eta-k.
 PRN window-ACC close-CPL
 ‘Juan closed the window.’
 (Álvarez González 2007: 16)

- (58) Dyirbal (Northern Pama-Nyungan, Pama-Nyungan)
Ɖana jurra-na bura-n.
 1PL 2PL-ACC see-NFUT
 ‘We saw you all.’
 (Dixon 1994:161)

(d) both A and P are indexed, only P is flagged.

- (59) Hungarian (Ugric, Uralic)
János meghívt-a BÉla-t.
 PRN invite.PST-I_{S/A}:3SG.I_p:3D PRN-ACC
 ‘János invited Béla.’

- (60) Spanish (Italic, Indo-European)
A mí me= invit-ó María.
 ACC 1SG I_p:1SG invite-CPL.I_{S/A}:3SG PRN
 ‘MARÍA invited me.’

The following four configurations can be characterized as partially P-prominent:

(a) neither A nor P is flagged, only P is indexed;

- (61) !Xoon (Tuu)
Ń sí n|ā-è nǎhrè !xā-ē †'ú-ē.
 1SG ICPL see-I_p:cl3 sheep.SG(cl3) big.SG-cl3 one-cl3
 ‘I see a big sheep.’
 (Kießling 2008: 226)

- (62) Roviana (Oceanic, Austronesian)
Seke-a karua tie sa siki.
 hit-I_p:3SG two man D dog
 ‘Two men hit the dog.’

(Corston-Oliver 2002: 490)

- (63) Teiwa (Alor-Pantar, Greater West Bomberai)

Na n-ogai ga-uyan.
1SG I_{ADP}:1SG-child I_P:3SG-search
'I'm looking for my child.'
(Klamer & Kratochvil 2018: 80)

(b) both A and P are flagged, only P is indexed;

This type is not attested within the limits of the documentation I have been able to consult.

(c) neither A nor P is indexed, only A is flagged

- (64) Tenneset (South Surmic, Surmic, East Sudanic)

Á-dáh doléc áhát.
ICPL-eat child.S/A asida
'The child is eating asida.'
(Randall 1998: 245)

- (65) Dyirbal (Northern Pama-Nyungan, Pama-Nyungan)

Duma yabu-ŋgu bura-n.
father mother-ERG see-NFUT
'Mother saw father.'
(Dixon 1994:161)

- (66) Lezgi (Lezagic, Nakh-Daghestanian)

Waxa stxa k'wali-z raqur-na.
sister.ERG brother house-DAT send-CPL
'The sister sent the brother home.'
(Haspelmath 1993a: 6)

(d) both A and P are indexed, only A is flagged.

- (67) Central Basque (Euskaran)

Jon-ek Edurne ikusi du.
PRN-ERG PRN see.CPL PRS.I_{ERG}:3SG.I_{ZER}:3SG
'Jon saw Edurne.'

- (68) Georgian (Kartvelian)

Bič'-ma gat'exa žam-i.
boy-ERG break.CPL.I_{S/A}:3SG.I_P:3SG bowl-ZER
'The boy has broken / broke the bowl.'

4.8.4.3 *Transitive constructions with conflicting asymmetries in the coding of A and P*

Two logically possible types of transitive constructions involve asymmetries in flagging and indexation that do not converge in characterizing one of the essential participants as more core-like or more oblique-like than the other in its coding characteristics:

(a) A is both flagged and indexed, whereas P is neither flagged nor indexed;

(69) Kabyle (Berber, Afroasiatic)

Yeldi weqic tawwurt

I_{S/A}:3SG.M.open.CPL K.boy(M) door(F)

‘The boy opened the door.’

(70) Oromo (Lowland East Cushitic, Cushitic, Afroasiatic)

Tulluu-n mana bite.

PRN(M)-S/A house(M) buy.CPL.I_{S/A}:3SG.M

‘Tulluu bought a house.’

(Griefenow-Mewis & Bitima 1994: 37)

(b) A is neither flagged nor indexed, whereas P is both flagged and indexed.

This type is not attested within the limits of the documentation I have been able to consult.

4.8.5 **Variation in A/P coding and the characterization of the A/P coding system of individual languages as A- or P-prominent**

In many languages, the transitive construction has variously conditioned variants that differ with respect to at least one of the four features on which the typological grid put forward in the previous sections is based (\pm A flagging, \pm A indexation, \pm P flagging, \pm P indexation). However, in a broad typological perspective, the crucial distinction is between systems of A/P coding in which the variants of the basic transitive construction do not instantiate two opposite values of the A-prominent vs. P-prominent parameter, and systems of A/P coding that, taken as a whole, cannot be unambiguously characterized as A- or P-prominent.

4.8.5.1 *Variation in A/P coding that does not affect the possibility of characterizing the A/P coding system as a whole as A- or P-prominent*

This situation can be illustrated by the Romance A/P coding systems. Across Romance languages, the details of A indexation vary, since not all Romance varieties have fully preserved the personal endings of the verb, and some of them have variously developed paradigms of subject indexes (Miller & Monachesi 2010). There is also important variation in the obligatoriness / optionality of P indexation, depending on the nature of the P term or of its referent. Moreover, some Romance varieties have innovated differential P flagging, and the details vary from one variety to another (Mardale 2008). However, across Romance, A is uniformly unflagged and obligatorily indexed, and consequently, in spite of the variation they

show in some respects, the Romance systems of A/P coding can be unambiguously characterized as A-prominent.

4.8.5.2 *Variation in A/P coding making impossible a characterization of the A/P coding system as a whole as A- or P-prominent*

Kurmanji Kurdish and Georgian are typical examples of languages in which A/P coding is conditioned by TAM in such a way that a global characterization of A/P coding as A-prominent or P-prominent is impossible.

In Kurmanji Kurdish, the basic transitive construction shows a TAM-driven alternation between a fully A-prominent variant (71a-b) and a fully P-prominent variant (71c-d).

(71) Kurmanji (Iranian, Indo-European)

- a *Ez Sînem-ê dibîn-im.*
1SG PRN-K see.ICPL-I_{ZER}:1SG
'I see Sinem.'
 - b *Sînem min dibîn-e.*
PRN 1SG.K see.ICPL-I_{ZER}:3SG
'Sinem sees me.'
 - c *Min Sînem dît-Ø.*
1SG.K PRN see.CPL-I_{ZER}:3SG
'I saw Sinem.'
 - d *Sînem-ê ez dît-im.*
PRN-K 1SG see.CPL-I_{ZER}:1SG
'Sinem saw me.'
- (Blau and Barak 1999: 46-50, 65-68)

In Georgian, A and P are invariably indexed, but as regards flagging, an A-prominent variant of the transitive construction (72a) alternates with two distinct P-prominent variants (72b-c).

(72) Georgian (Kartvelian)

- a *Bič'-i t'exs žam-s.*
boy-ZER break.PRES.I_{S/A}:3SG.I_P:3SG bowl-DAT
'The boy breaks / is breaking the bowl.'
- b *Bič'-ma gat'exa žam-i.*
boy-ERG break.CPL.I_{S/A}:3SG.I_P:3SG bowl-ZER
'The boy has broken / broke the bowl.'
- c *Bič'-s gaut'exia žam-i.*
boy-DAT break.PRF.I_A:3SG.I_{S/P}:3SG bowl-ZER
'Apparently, the boy has broken / broke the bowl.'

Dyirbal illustrates the possibility of variation conditioned by the nature of the A and P phrases. As already mentioned above, in the basic transitive construction of Dyirbal as it is commonly analyzed, four configurations can be distinguished, depending on the nature of A and P (SAPs vs. non-SAPs). The one illustrated in (73a) belongs to the P-prominent type,

whereas the one in (73b) belongs to the A-prominent type, and those in (73c) and (73c) are neutral in this respect.

(73) Dyirbal (Northern Pama-Nyungan, Pama-Nyungan)

a *Duma yabu-ŋgu bura-n.*

father mother-ERG see-NFUT

‘Mother saw father.’

b *Dana jurra-na bura-n.*

1PL 2PL-ACC see-NFUT

‘We saw you all.’

c *Dana ŋuma bura-n.*

1PL father see-NFUT

‘We saw father.’

d *Dana-na ŋuma-ŋgu bura-n.*

1PL-ACC father-ERG see-NFUT

‘Father saw us.’

Dixon (1994:161, 1979:112)

Chapter 5

Transitive-intransitive alignment

The term transitive-intransitive alignment refers to the fact that, in a given language, the properties of the sole core nominal term of intransitive clauses may coincide with those of either A or P. In principle, the notion of alignment may be applied to any coding or behavioral property of the core nominal terms of transitive and intransitive clauses. However, in this chapter, for the reasons briefly commented in chapter 1 §1.3.4.3, the discussion will be limited to alignment in the coding properties of core nominal terms.

After discussing the relationship between the types of transitive coding as defined in the last section of chapter 4 and types of alignment in the coding characteristics of the core nominal terms of transitive and intransitive clauses, this chapter addresses the issue of participant coding systems involving violations of the Obligatory Coding Principle according to which, in a given language, there is a particular type of participant coding that must be assigned by every verb to one of its participants.

As regards the diachrony of transitive-intransitive alignment, the possibility of GLOBAL changes converting obligatory A-coding systems into obligatory P-coding systems, or obligatory P-coding systems into obligatory A-coding systems, has been discussed in chapter 3 §3.5. The last two sections of this chapter are devoted to various types of LOCAL changes that may have an incidence on core term coding, and consequently may result in violations of the Obligatory Coding Principle.

5.1 Types of transitive coding and types of alignment

5.1.1 Possible and preferred associations between types of transitive coding and types of alignment

5.1.1.1 *Variation in the association between types of transitive coding and types of alignment*

In the last section of the previous chapter, sixteen logically possible types of transitive coding reflecting the A vs. P contrast have been defined in terms of possible combinations of the four binary features \pm A flagging, \pm P flagging, \pm A indexation, and \pm P indexation, and illustrations have been provided for fourteen of them. At least some of these configurations are not limited to languages having a given type of transitive-intransitive alignment:

- the configuration ‘both A and P indexed and unflagged’ can be found in obligatory A-coding languages (Nahuatl), in obligatory P-coding languages (K’ichee’), and in split-intransitive languages (Lakota);
- the configuration ‘both A and P flagged and not indexed’ can be found in obligatory A-coding languages (Japanese) and in obligatory P-coding languages (Tongan);

- the configuration ‘A indexed and unflagged, P flagged and not indexed’ it typically found in obligatory A-coding languages (Finnish, Russian) and split-intransitive languages (Kurmanji), but it is also found in at least one obligatory P-coding language (Nias);
- the configuration ‘A flagged and not indexed, P neither flagged nor indexed’ can be found in obligatory A-coding languages (Tennet) and in obligatory P-coding languages (Lezgi).

5.1.1.2 *Predominant tendencies in the association between types of transitive coding and types of alignment*

In §5.1.1.1, I have shown that at least some of the possible configurations of the features that define types of transitive coding are not uniquely associated with a particular type of alignment. It is, however, obvious that, statistically speaking, the configurations meeting the definition of A-prominent transitive coding (i.e., in which A shows more coding characteristics typical for core terms than P) strongly correlate with obligatory A-coding (or, in other words, with the ‘accusative’ alignment $A = S \neq P$), whereas those meeting the definition of P-prominent transitive coding (i.e., in which P shows more coding characteristics typical for core terms than A) strongly correlate with obligatory P-coding (or, in other words, with the ‘ergative’ alignment $A \neq S = P$). For example, Russian and Avar illustrate not only $A = S \neq P$ alignment (Russian) and $A \neq S = P$ alignment (Avar), but also the typical association between $A = S \neq P$ alignment and A-prominent transitive coding (Russian), and between $A \neq S = P$ alignment and P-prominent transitive coding (Avar).

(1) Russian (Slavic, Indo-European)

- a *Devuška priš-l-a.*
 girl(F) come.PFV-PST- $I_{S/A}$:SG.F
 ‘The girl came.’
- b *Doktor priš-ël-Ø.*
 doctor(M) come.PFV-PST- $I_{S/A}$:SG.M
 ‘The doctor came.’
- c *Doktor vyleči-l-Ø devušku.*
 doctor(M) heal.PFV-PST- $I_{S/A}$:SG.M girl(F).ACC
 ‘The doctor healed the girl.’

(2) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Pat'imat j-ač'ana.*
 PRN(F) $I_{S/P}$:SG.F-come.CPL
 ‘Patimat came.’
- b *Aħmad w-ač'ana.*
 PRN(M) $I_{S/P}$:SG.M-come.CPL
 ‘Ahmad came.’
- c *Aħmad-i-ca χur b-eļ'ana.*
 PRN(M)-OF-ERG field(N) $I_{S/P}$:SG.N-plough.CPL
 ‘Ahmad ploughed the field.’

Interestingly, the languages with balanced transitive coding do not show a clear preference for A-coding or P-coding as the obligatory type of participant coding. Among languages with balanced transitive coding it is equally easy to find examples of languages with obligatory A-coding (in which S consistently aligns with A), such as Nahuatl, and of languages with obligatory P-coding (in which S consistently aligns with P), such as K'iche'. It is also among such languages that it is possible to find the most typical cases of split-S languages with a class of intransitive verbs with S coded like A and a class of intransitive verbs with S coded like P roughly equal in size (for example, Lakota).

5.1.2 Global typology of core term coding systems

The combination of A-prominent transitive coding with obligatory A-coding and the combination of P-prominent transitive coding with obligatory P-coding define prototypes corresponding to what seems to be the most widespread (although generally implicit) conception of what is commonly referred to as 'typical accusative language' and 'typical ergative language' respectively.

This correlation is, however, very far from being absolute, hence the terminological and conceptual problems raised by the indiscriminate use of 'ergative' with reference to a type of transitive coding and a type of alignment (not to mention its use with reference to a type of morphological case). In order to avoid the misunderstandings that may result from this terminological practice, I propose to call A-CENTERED SYSTEMS OF CORE TERM CODING the systems of core term coding that combine A-prominent transitive coding with obligatory A-coding (i.e., the systems found in 'typically accusative' languages), and P-CENTERED SYSTEMS OF CORE TERM CODING those combining P-prominent transitive coding with obligatory P-coding (i.e., the systems found in 'typically ergative' languages).

5.1.3 Atypical systems of core term coding

Atypical systems of core term coding depart from the prototypes defined in the preceding section in one of the following ways:

- systems involving a pivot-prominent pattern of transitive coding in which the coding characteristics of the core nominal terms of transitive clauses do not straightforwardly reflect the A vs. P contrast (see chapter 3 §3.3);
- systems involving a type of transitive coding that cannot be unambiguously characterized as balanced, A-prominent, or P-prominent (see chapter 4 §4.8);
- systems that cannot be unambiguously characterized as obligatory A-coding or obligatory P-coding systems;
- systems contradicting the tendency to associate A-prominent transitive coding with obligatory A-coding, and P-prominent transitive coding with obligatory P-coding.

Exceptions to the tendency to associate P-prominent transitive coding with obligatory P-coding are common among so-called 'marked-nominative' languages (i.e., languages in which the same integrative case or adposition is used to flag A and S, whereas P shows no flagging). For example, as illustrated in (3), in the absence of any indexation mechanism, the flagging of A contrasting with the lack of flagging for P characterizes the transitive

construction of Maale as P-centered, but the single core term in the intransitive constructions of Maale is in the same integrative case form as A in the transitive construction.

(3) Maale (Ta-Ne Omotic, Omotic, Afroasiatic)

- a *Naʔʔ-á dalk'ó ʔúʃk-é-ne.*
 child-S/A soup drink-CPL-AFF.DECL
 'The child ate the soup.'
- b *ʔizá naʔʔó mask-é-ne.*
 3SG.F.S/A child wash-CPL-AFF.DECL
 'She washed the child.'
- c *Naʔʔ-á yeekk-á-ne*
 child-S/A cry-ICPL-AFF.DECL
 'The child is crying.'
 (Amha 2001: 97, 103, 160)

Exceptions to the tendency to associate A-prominent transitive coding with obligatory A-coding are less easy to find, but Nias is a case in point. As illustrated in (4), the transitive construction of Nias is A-prominent (with A unflagged and indexed contrasting with P flagged and not indexed), but the coding characteristics of the single core term of intransitive clauses are identical to those of P.

(4) Nias (Northern Sumatra-Barrier Islands, Austronesian)

- a quotation forms: *ama* 'father', *si'ila* 'village advisor'
- b *Mofanō n-ama-gu.*
 leave S/P-father-I_{ADP}:1SG
 'My father is leaving /left.'
- c *I-tolo zi'ila ama-gu.*
 I_A:3SG-REALIS S/P.village.advisor father-I_{ADP}:1SG
 'My father is helping/helped a/the/some village advisor(s).'
- d *La-tolo n-ama-gu si'ila.*
 I_A:3PL-REAL-help S/P-father-I_{ADP}:1SG village.advisor
 'The village advisors are helping/helped my father.'
 (Brown 2003)

Among the possible deviations from the prototypes of A- or P-centered systems of core term coding, the remainder of this chapter is devoted to the typology and diachrony of the possible violations of the Obligatory Coding Principle.

5.2 General observations on the violations of the Obligatory Coding Principle

In the languages that have coding systems of participant coding fully consistent with the Obligatory Coding Principle as formulated in chapter 1 §1.3.4.4, there is a particular type of participant coding (defined in terms of flagging, indexation and/or constituent order) that every verb must assign to one of its participants. This particular type of participant coding,

which may coincide with either A-coding or P-coding, depending on the individual languages, can be viewed as the unmarked (or default) participant coding in a given language.⁵⁷

Most languages have coding frame inventories in which either A-alignment or P-alignment is strongly predominant, if not exceptionless, but there are also languages that, for a variety of reasons, cannot be characterized as either predominantly A-coding or predominantly P-coding languages.

A simple case is that of languages in which the coding properties of A, P and S are uniquely determined, but the coding characteristics of S are distinct from those of both A and P. For example, in the transitive construction of Chamorro (Malayo-Polynesian), A is unflagged and indexed, whereas P is neither flagged nor indexed. S is unflagged and indexed, like A, but the paradigm of S indexes in the inflection of intransitive verbs is distinct from the paradigm of A indexes in the transitive construction (Cooreman 1987, Chung 2020).

The violations of the Obligatory Coding Principle may also result from variation in core term coding that affect differently transitive and intransitive constructions. Three types can be distinguished. They may combine in individual languages, but they nevertheless must be distinguished carefully.

A first possibility is that intransitive verbs (in the broad sense of verbs selecting coding frames other than the transitive construction) divide into two or more subclasses differing in the alignment of their construction with the transitive construction. Such languages can be designated as SPLIT-S LANGUAGES. In the simple cases, intransitive verbs divide into a subclass of S_A verbs that assign A-like coding to the sole core term of the clauses they project, and S_P verbs that assign it P-like coding, but this is not the only possibility.⁵⁸ Split-S systems are discussed in more detail in §5.3

A second possibility is that the violation of the Obligatory Coding Principle results from automatic alternations occurring in the coding of A and P, but not of S (or, more rarely, in the coding of S, but not of A and P).

For example, in Tennes (Surmic), P is invariably unflagged; in independent clauses, A and S phrases consistently occur in postverbal position and are consistently flagged, whereas in some types of subordinate clauses, S (and only S) precedes the verb and is unflagged), cf. example (5). The same case suffix has the distribution of an S/A case marker in independent clauses, but of an ergative case marker in some types of subordinate clauses. In other words, independent clauses display A-alignment, whereas some types of subordinate clauses display P-alignment, with the consequence that, taken globally, the coding of S coincides neither with that of A, nor with that of P.

⁵⁷ A formal elaboration of the Obligatory Coding Principle is found in the generative literature under the name of Obligatory Case Parameter (Bobaljik 1993, Laka 1993, 2000, Rezac 2008a, 2008b). The idea is that the difference between obligatory A-coding and obligatory P-coding depends on whether a high head, T°, or a lower head, v°, is active for obligatory case assignment (T° active → obligatory A-coding, v° active → obligatory P-coding). A question that has been particularly discussed, mainly with reference to Basque, is the explanation of the violations of the Obligatory Case Parameter in ‘ergative’ languages. The solutions that have been proposed draw on the insight that some superficially intransitive verbs may be underlyingly transitive.

⁵⁸ Hittite is a case in point. In Hittite, S is always indexed by verbal endings identical to those indexing A in transitive verb forms, but in the absence of a 3rd person S NP, a subset of intransitive verbs requires an additional S index in the form of a second position clitic (Garrett 1996).

- (5) Tennet (South Surmic, Surmic, Eastern Sudanic)
- a *Órông Lowór-i kákát Lohám-i áríza.*
 want PRN-S/A spear.SBJV PRN-ERG bull
 ‘Lowor wants Loham to spear the bull.’
- b *Órông Lowór-i Lohám kíkíyà.*
 want PRN-S/A PRN come.SBJV
 ‘Lowor wants Loham to come.’
 (Dimmendaal 2014: 9)

Violations of the Obligatory Coding Principle resulting from TAM-DRIVEN VARIATION IN PARTICIPANT CODING are particularly common. In some languages, the coding frames of intransitive verbs (or of the verbs belonging to a particular subclass of intransitive verbs) simply cannot be characterized as displaying A-alignment or P-alignment, because the transitive construction is characterized by a TAM-driven variation in the coding of A and P that has no equivalent with intransitive verbs (or with the verbs belonging to a particular subclass of intransitive verbs). A straightforward and typical example of TAM-driven alignment variation is presented in §5.4.

Finally, there may also be violations of the Obligatory Coding Principle due to the existence of ALTERNATIVE CONSTRUCTIONS OF INTRANSITIVE VERBS that have no equivalent for transitive verbs. Some examples will be presented in §5.5.

A complex system of participant coding involving both TAM-driven alignment variation and the division of intransitive verbs into subclasses differing in their alignment properties is presented in §5.6.

The impersonal and anti-impersonal constructions discussed in chapter 6 are also defined as constructions violating the Obligatory Coding Principle, but they do not involve a particular type of violation. Their specificity is simply that they can be viewed as relatively marginal violations of the Obligatory Coding Principle in languages in which either A-alignment or P-alignment is strongly predominant in core term coding.

5.3 Languages with two subclasses of intransitive verbs characterizable as S_A and S_P verbs (split-S systems)

5.3.1 Introductory remarks

Basque illustrates a simple case of split-S system with two subclasses of intransitive verbs. *Etorri* ‘come’ belongs to the subclass of intransitive verbs that select a coding frame including a term case-marked and indexed like P in the transitive construction, whereas *irakin* ‘boil’ belongs to the subclass of intransitive verbs that select a coding frame including a term case-marked and indexed like A in the transitive construction.

- (6) Central Basque (Euskaran)
- a *Gizon-ak ur-a edan du.*
 man-SG.ERG water-SG drink.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘The man drank the water.’

- b *Gizon-a etorri da.*
 man-SG come.CPL be.PRS.I_{ZER}:3SG
 ‘The man came.’
- c *Ur-ak irakin du.*
 water-SG.ERG boil.CPL have.PRS.I_{ERG}:3SG
 ‘The water boiled.’

Terms such as ‘agentive alignment’ or ‘active-stative’ alignment are often presented as more or less synonymous with the term SPLIT-S SYSTEM as used in this book. However, such terms rather evoke the possible semantic correlates of the division of intransitive verbs into two subclasses differing in their alignment properties, and therefore have the disadvantage that they imply an a priori decision with respect to what constitutes in fact a controversial question in the study of split-S systems, cf. §5.3.5. Even the term ‘semantic alignment’ proposed in (Donohue & Wichmann (eds.) 2008) can be criticized from this point of view, since it excludes the very possibility of purely lexical (i.e., semantically arbitrary) splits, cf. §5.3.5.2.

5.3.2 The formal contrast between S_A and S_P verbs

5.3.2.1 Contrast in S indexation

Most of the languages in which a division of intransitive verbs into S_A and S_P verbs has been reported are predominantly head-marking languages showing variation in the indexation of the sole core term of intransitive clauses.

The Papuan language Galela provides a typical illustration. In Galela, transitive verbs have two distinct sets of prefixes indexing A and P respectively (7a-b), whereas intransitive verbs divide into a subclass whose sole nuclear participant is indexed by means of A indexes (7c), and a subclass whose sole nuclear participant is indexed by means of P indexes (7d).

(7) Galela (North Halmaheran)

- a *No-wi-doto.*
 I_A:2SG-I_P:3SG.M-teach
 ‘You teach him.’
- b *Wo-ni-doto.*
 I_A:3SG.M-I_P:2SG-teach
 ‘He teaches you.’
- c *No-tagì.*
 I_A:2SG-go
 ‘You are going.’ (S = A)
- d *Ni-kiolo.*
 I_P:2SG-be.asleep
 ‘You are asleep.’ (S = P)
 (Holton 2008: 261)

Boas’ (1909) description of the Iroquoian language Oneida is among the first language descriptions in which an indexation system of this kind was clearly identified. Dakota (Van

Valin 1977) and Guaraní (Gregores & Suarez 1967) are among the best-known examples of split-S systems involving a binary contrast in indexation.

More complex indexation patterns, with three indexation possibilities for S and variations in the indexation of A and P that complicate the identification of alignment patterns, have also been reported. See among others (Heath 1977) on Choctaw, (Donohue 2001) on Saweru.

5.3.2.2 *Contrast in S flagging*

Basque provides a simple illustration of a split-S system involving alignment variation not only in indexation, but also in flagging, since the intransitive verbs of Basque divide into those that assign zero case (and P-like indexation) to the sole core term of their construction, for example *erori* ‘fall’, and those that assign it ergative case (and A-like indexation), such as *dimititu* ‘resign’. In most Basque varieties (including Standard Basque), there is no mismatch between the indexing and case-assigning properties of verbs. In example (8), the verb illustrating the assignment of zero case and P-like indexation to S (*dimititu* ‘resign’) is semantically bivalent, but it is not transitive, since it selects the coding frame <ERG, ABL>, and consequently its construction must be analyzed as including a single core term in the ergative case. The same distinction has been illustrated in example (1) above with *etorri* ‘come’ and *irakin* ‘boil’.

(8) Central Basque (Euskaran)

- a *Mediku-ak haurr-a sendatu du.*
 doctor-SG.ERG child-SG heal.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘The doctor healed the child.’
- b *Haurr-a erori da.*
 child-SG fall.CPL be.PRS.I_{ZER}:3SG
 ‘The child fell down.’
- c *Mediku-ak (bere kargu-tik) dimititu du.*
 doctor-SG.ERG own post-ABL resign.CPL have.PRS.I_{ERG}:3SG
 ‘The doctor resigned (his post).’

5.3.2.3 *Contrast in constituent order*

Among the languages with a rigid AVP constituent order in the basic transitive construction, Ambonese Malay has been claimed by Donohue (2008) to have a division of intransitive verbs into a subclass whose sole nuclear participant is encoded as a noun phrase in preverbal position, like A in the transitive construction, and a subclass whose sole nuclear participant is encoded as a noun phrase in postverbal position, like P in the transitive construction, cf. example (9).

(9) Ambonese Malay (Malayo-Sumbawan, Austronesian)

- a *Dorang cari betang konco.*
 3PL search.for my friend
 ‘They are looking for my friend.’

- b *Betang konco su-bajaang.*
 my friend CPL-walk
 ‘My friend walked away.’
- c *Su-jato betang konco.*
 CPL-fall my friend
 ‘My friend has fallen over.’
 (Donohue 2008: 38)

Note, however, that SV ~ VS alternations, although cross-linguistically common, are rarely rigidly determined by the choice of individual intransitive verbs, and more commonly involve variation conditioned by information structure (as for example in Spanish).

5.3.3 The typological significance of split-S systems

Some decades ago, Klimov (1977) put forward the hypothesis of an ‘active’ language type, on a par with the ‘accusative’ and the ‘ergative’ types, defined by a bundle of correlations between split-S systems and other typological features such as head marking, or the expression of alienability. This idea has been severely criticized, and is now considered unfounded, but typologists have never ceased gathering data on split-S systems, their possible correlations with another syntactic phenomena, and their semantic basis, see in particular (Donohue & Wichmann (eds.) 2008). The question of the diachrony of split-S systems will be dealt with in §5.9 of this chapter.

5.3.4 The relative size of the S_A and S_P subclasses of intransitive verbs

As discussed among others by Merlan (1985), in the languages with a subclass of intransitive verbs that assign A-like coding to the unique core term of their construction, and another subclass that assign it P-like coding, the relative size of the two subclasses shows important variation.

Some of the languages that have this kind of split in the alignment properties of intransitive verbs (for example, Old Basque, or among the modern varieties of Basque, Souletin) have a relatively small class of a few tens of S_A verbs and a large class of S_P verbs. Others (for example, the Saharan language Beria, cf. Jakobi & Crass 2004) have a small class of a few tens of S_P verbs and a large class of S_A verbs. In still other languages (for example, Lakota, cf. Van Valin 1977) both classes are numerically important.

In fact, even among the languages that are not commonly mentioned in the typological literature as split-S languages, it is often possible to find minor subclasses of intransitive verbs that could be characterized either as S_P verbs in languages where A-alignment is strongly predominant, or as S_A verbs in languages where P-alignment is strongly predominant. The problem is that it is difficult to fix a threshold below which such situations should be described in terms of impersonality or anti-impersonality (i.e., as marginal exceptions to a strongly predominant pattern), and above which the languages in question would deserve being analyzed as split-S languages. In particular, a thorough examination of the valency patterns found in languages such as Latin, German or Russian leads to the conclusion that they have minor classes of intransitive verbs violating the rule of S = A

alignment, which must therefore be viewed as exceptions to the general rule of obligatory A-coding.

For example, Russian has a class of verbs occurring in a construction that includes an accusative noun phrase representing an experiencer, but in which no participant can be encoded as a noun phrase in the zero case governing verb agreement, and the verb shows default 3rd singular or neuter singular agreement. Some of these verbs have no other possible construction, for example *tošnit* ‘feel nauseous’, cf. ex. (10).

(10) Russian (Slavic, Indo-European)

Menja tošnit.
 1SG.ACC feel.nauseous.PRS.I_{S/A}:3SG_{EXPL}
 ‘I feel nauseous.’

In Romance languages too, some intransitive verbs show exceptional valency patterns including no participant encoded as a noun phrase aligned with A, and must therefore be analyzed as instances of alignment variation, since A-alignment is the general rule in Romance languages.

For example, in Modern French, *falloir* ‘need’ does not inflect for person (although its endings have the appearance of 3rd person singular endings), and cannot occur in a canonical construction in which a participant would be encoded as a noun phrase showing the same coding properties as A in the transitive construction (11b). The third person singular masculine clitic that obligatorily accompanies it is non-referential. Interestingly, contrary to French verbs occasionally occurring in an impersonal ‘presentational inversion’ construction, *falloir* combines with P indexes without any restriction, as in (11c).

(11) French (Italic, Indo-European)

- a *Il me faut ces livres.*
 I_{S/A}:3SG_{EXPL} I_{DAT}:1SG need.PRS.I_{S/A}:3SG_{EXPL} DEM.PL book.PL
 ‘I need these books.’, lit. ‘It needs me these books.’
- b **Ces livres me fallent.*
 DEM.PL book.PL I_{DAT}:1SG need.PRS.I_{S/A}:3PL
- c *Ces livres, il me les faut.*
 DEM.PL book.PL I_{S/A}:3SG_{EXPL} I_{DAT}:1SG I_P:3PL need.PRS.I_{S/A}:3SG_{EXPL}
 ‘These books, I need them.’

Historically, the behavior of this verb was initially identical to that of *manquer* ‘lack’, illustrated in (12), with a discourse-driven choice between two alternative constructions, the canonical intransitive construction and the impersonal ‘presentational’ construction. What occurred in the case of *falloir* is that the optional impersonal construction has become its only possible construction, with the result that *falloir* constitutes in Modern French the sole member of a particular valency class characterized by a P-aligned coding frame violating the general constraints that regulate participant coding in French.

(12) French (Italic, Indo-European)

- a *Ces livres me manquent.*
 DEM.PL book.PL I_{DAT}:1SG lack.PRS.I_{S/A}:3PL
 ‘I lack these books.’, lit. ‘These books lack to me.’
- b *Il me manque ces livres.*
 I_{S/A}:3SG.M_{EXPL} I_{DAT}:1SG manquer.PRS.I_{S/A}:3SG_{EXPL} DEM.PL book.PL
 ‘I lack these books.’, lit. ‘It lacks me these books.’

Occitan *caler* ‘need’ (cognate with Old French *chaloir*) shows the same behavior: it cannot express person-number variation, and its only possible construction includes a nominal term fully aligned with the P term of the transitive construction and a dative term. The difference with French is that the impersonal constructions of Occitan do not involve expletive proclitics, cf. example (13).

(13) Occitan (Italic, Indo-European)

- Li cal de bonas cambas per pujar tan naut.*
 I_{DAT}:3SG need.PRS.I_{S/A}:3SG_{EXPL} PRTV good.PL.F leg(F).PL to climb.INF so high
 ‘S/he needs good legs to climb so high.’ lit. ‘It needs him/her good legs...’

In formal syntax, constructions characterized by default verb agreement are often analyzed as involving invisible dummies having some of the syntactic properties that characterize noun phrases in S or A role in canonical constructions. However, analyzing such constructions as involving invisible dummies in S/A role at some abstract level does not alter the fact that they cannot include a noun phrase showing A-like coding properties but include a noun phrase with P-like coding, which makes them similar to the constructions involving an S term aligned with P in languages in which a division of intransitive verbs into a subclass of S_A verbs and a subclass of S_P verbs is commonly recognized.

5.3.5 The semantic correlates of the division of intransitive verbs into S_A and S_P verbs

It has long been observed that individual verb meanings may be treated differently across the languages having two classes of intransitive verbs. For example, Rosen (1984) observed that the S term in the coding frame of ‘sweat’ shows P-like marking in some languages and A-like marking in some others. Such observations raise the question of the semantic consistency of split-S systems.

5.3.5.1 Semantically motivated subclasses of S_A and S_P verbs

Verbal lexical semantics has been hypothesized to condition the division of intransitive verbs into S_A and S_P verbs in two possible ways: either by the [±agentive] distinction in semantic roles, or by the [±stative] distinction in lexical aspect.

Agentivity is a complex notion, and languages in which it is relevant to the distinction between S_A and S_P verbs may be sensitive to various aspects of this notion. For example, verbs expressing non-volitional bodily processes allowing for some degree of control (such as

‘cry’, as opposed for example to ‘sweat’)⁵⁹ belong to the S_A class in some languages, and to the S_P class in some others.

Mithun (1991, 2008) analyzes the semantic basis of the split-S systems of Guaraní, Lakota, Central Pomo, Caddo, Mohawk and other Northern Amerindian languages.⁶⁰ Concerning Guaraní, she concludes that S_A verbs denote events (in the sense of activities, accomplishments, or achievements), whereas S_P verbs denote states, and that consequently this system, “based primarily on a distinction of lexical aspect, could thus be accurately identified as active-stative”. In the case of Lakota, she argues that the [\pm stative] distinction plays no role in the split-S pattern, and that the referents of S noun phrases aligned with A typically perform, effect, instigate and control events, while the referents of S noun phrases aligned with P are typically affected. Central Pomo and Caddo are similar, with however differences in the particular aspects of agentivity (volitionality, control, affectedness, ...) relevant to the classification of intransitive verbs into S_A verbs and S_P verbs. Mohawk can also be described as having a split-S system whose semantic correlate is agentivity, but in which this original motivation has been somewhat blurred by lexicalization.

An important aspect of Mithun’s study is that she shows how the semantic parameters underlying split-S patterns may evolve, giving rise to apparent exceptions to the predominant regularities.

Recent studies have considerably enlarged the documentation on split-S systems (in particular among the languages of the Pacific). They have revealed additional cases of split-S systems conditioned by the [\pm stative] feature, for example, the Papuan language Galela, cf. (Holton 2008), but, on the whole, they suggest a preponderance of agentivity in the semantic conditioning of split-S patterns. For example, (Klamer 2008b) provides an overview of the split-S systems of ten languages from Indonesia, from which it follows that semantic features of the participants are relevant in all the languages of the sample, whereas verbal aspect plays a role in two of them only.

More or less complex cases of interaction of agentivity and actionality (lexical aspect) have been reported too. For example, Li (2007) argues that the split-S pattern of Nepali involves interaction of agentivity and telicity.

5.3.5.2 *Semantically arbitrary subclasses of S_A and S_P verbs*

The semantic motivation of split-S systems is not always as transparent as it has been argued for the cases mentioned in the preceding section. Some languages have been described as having a relatively homogeneous small class contrasting with a large class semantically heterogeneous, cf. for example (Michailovsky 1997) on Limbu (Kiranti, Sino-Tibetan).

On the question of the relationship between the relative size of the subclasses of intransitive verbs involved in a split-S pattern and the possible semantic correlates of the split, Pustet (2002: 383) observes that “this aspect of the structure of split-S systems has been widely neglected”, and argues that this parameter is crucial in the semantic analysis of split-S

⁵⁹ The ambiguous status of such verbs from the point of view of agentivity is apparent in the fact that, out of context, their imperative positive (e.g., *Cry!*) sounds somewhat strange, whereas their imperative negative (e.g., *Don’t cry!* or *Stop crying!*) sounds perfectly normal. By contrast, *Sweat!* and *Stop sweating!* are equally anomalous. Another possible criterion is that *feign to be crying* is semantically perfectly normal, whereas for example *feign to be sweating* is semantically problematic.

⁶⁰ On the semantic basis of split-S systems in Northern Amerindian languages, see also (Hardy & Davis 1993) on the Muskogean language Alabama.

systems. She shows that the two related languages Lakota and Osage (Siouan), in spite of having split-S systems based on the same semantic feature of agentivity, greatly differ in the relative size of the two subclasses of intransitive verbs: Osage has much more S_A verbs and much less S_P verbs than Lakota, and many cognate verb stems are categorized as S_P verbs in Lakota, but as S_A verbs in Osage, for example Lakota *cacá* vs. Osage *çøçó* ‘tremble’. The explanation she proposes is that “multifactor concepts like agency are per se scalar concepts”, and that consequently, vacillations in the categorization of participants as [+agentive] are normal. One of the two subclasses of S_A verbs and S_P verbs can therefore behave as a default class tending to group all intransitive verbs referring to events in which the participant encoded as S is not characterizable unambiguously as agent-like or patient-like.

The possibility of purely lexical splits (i.e., split-S systems devoid of any semantic consistency) should be considered, at least in cases of splits involving two subsets of intransitive verbs of a very unequal size. In particular, Trask (1997: 111) explicitly argued that the subclass of Basque verbs that were already S_A verbs in Old Basque is “semantically arbitrary”, and constitutes nothing more than a collection of isolated historical accidents without any connection between themselves.⁶¹ Doubts about the possibility of analyzing a split-S system as involving a semantic motivation have also been expressed for Kali’na, a Cariban language of French Guyana (Renault-Lescure 2001-2002).

Semantically arbitrary splits involving a minor subclass of intransitive verbs with an exceptional alignment pattern may result from the decay of previously semantically motivated splits, with a limited subclass of intransitive verbs constituting vestiges of a type of behavior formerly productive, but that the evolution tends to eliminate. An alternative explanation is the emergence of a split-S pattern due to the accumulation of isolated evolutions affecting individual intransitive verbs, which only have in common that they create exceptions to the predominant alignment pattern. For example, it is clear that the exceptional alignment pattern of the French verb *falloir* ‘need’ discussed above is not a vestige of a formerly productive split-S pattern, since it emerged during the documented history of French as the result of an evolution (the loss of the canonical construction of a verb originally involved in a productive alternation) that affected no other French verb.

5.3.6 Fluid intransitivity splits

In FLUID-S SYSTEMS as defined by Dixon (1994: 78-83), the alignment of S with A or P shows some flexibility.

Acehnese, a western Austronesian language from Sumatra, is one of the most-cited cases of fluid intransitivity split, in which many intransitive verbs allow for variation in the coding of S, and this variation is correlated to the degree to which the referent of S controls the activity in the particular event referred to.

In Acehnese transitive clauses, A is indexed by a verbal proclitic, and P by an optional enclitic, as in (14a), whereas S in intransitive clauses may align with A, as in (14b), or with P, as in (14c).

⁶¹ Note however that, in present-day Basque, massive borrowing from Spanish and French tends rather to give some semantic consistency to the split-S pattern, at least as regards the class of S_P verbs, since the rule is that the Romance *se*-verbs are systematically borrowed as S_P verbs, and the Romance verbs that do not include *se* as S_A verbs (Creissels & Mounole 2017).

(14) Acehnese (Malayo-Sumbawan, Austronesian)

a *Gopnyan ka lon=ngieng(=geuh).*

3SG INCH I_A:1SG=see=I_P:3SG

‘I saw him/her.’

b *Geu=jak gopnyan.*

I_A:3SG=go 3SG

‘S/he goes.’

c *Gopnyan rhët(=geuh).*

3SG fall=I_P:3SG

‘S/he falls.’

(Durie 1987: 369)

According to Durie (1985, 1987), ‘go’ (14b) belongs to a subclass of intransitive verbs whose S can only be aligned with A. This subclass includes verbs of motion and posture whose S has an animate referent, verbs of bodily activity, verbs of speech and thought or mental activity, and some emotion verbs (Durie 1985: 63-64). ‘Fall’ (14c) belongs to a subclass of intransitive verbs whose S can only be aligned with P. This subclass includes verbs denoting events and states that do not necessarily concern animate beings, many emotion verbs, personal attributes and bodily and mental states concerning animates (Durie 1985: 64-66). However, Acehnese has a third subclass of intransitive verbs whose S is aligned with A if it refers to a “wanting participant”, and with P if it refers to the “ultimately affected participant” of an event. This subclass contains many emotion verbs, verbs of thought or mental activity, modal verbs, aspectual verbs, verbs referring to personal attributes or attitudes, and the verbs ‘live’ and ‘die’ (Durie 1985: 55-56, 66-67). It is illustrated in example (15) with the verb ‘die’.

(15) Acehnese (Malayo-Sumbawan, Austronesian)

a *Rila ji=matê.*

ready I_A:3SG(familiar)=die

‘He was ready to go to his death.’

b ... *matê(=jih).*

die= I_P:3SG(familiar)

‘... he died.’

(Durie 1985: 57, 1987: 376)

In fact, fluid intransitivity is a gradient rather than categorical notion, since even the most rigid split-S languages commonly have at least some intransitive verbs whose behavior shows fluctuation, and in general, the languages in which fluidity in the coding or behavioral properties of S concerns an important part of the verbal lexicon (such as Acehnese) also have verbs rigidly classified as S_A or S_P verbs. According to Klamer (2008a), Kedang illustrates an extreme case of fluid intransitivity split, in which no intransitive verb is rigidly classified as an S_A or S_P verb.

5.4 TAM-driven variation in participant coding and the Obligatory Coding Principle

In some languages, the coding frames of intransitive verbs (or of the verbs belonging to a particular subclass of intransitive verbs) simply cannot be characterized as displaying consistent A-alignment or P-alignment, because participant coding in the basic transitive construction is characterized by TAM-driven variation that has no equivalent with intransitive verbs (or with the verbs belonging to a particular subclass of intransitive verbs).

For example, the construction of the transitive verbs of Standard Kurmanji Kurdish is characterized by the TAM-driven alternation in core term coding illustrated in example (16).

(16) Kurmanji (Iranian, Indo-European)

a *Ez Sînem-ê dibîn-im.*
 1SG PRN-K see.ICPL-I_{ZER}:1SG
 ‘I see Sinem.’

b *Sînem min dibîn-e.*
 PRN 1SG.K see.ICPL-I_{ZER}:3SG
 ‘Sinem sees me.’

(Blau and Barak 1999)

c *Min Sînem dît-Ø.*
 1SG.K PRN see.CPL-I_{ZER}:3SG
 ‘I saw Sinem.’

d *Sînem-ê ez dît-im.*
 PRN-K 1SG see.CPL-I_{ZER}:1SG
 ‘Sinem saw me.’

(Blau and Barak 1999: 46-50, 65-68)

As illustrated in example (17) by the intransitive verb *hatin* ‘come’, no such alternation occurs in the coding of the nuclear participant of most intransitive verbs.⁶²

(17) Kurmanji (Iranian, Indo-European)

a *Ez tê-m.*
 1SG come.ICPL-I_{ZER}:1SG
 ‘I am coming.’

b *Sînem tê-Ø.*
 PRN come.ICPL-I_{ZER}:3SG
 ‘Sinem is coming.’

c *Ez hat-im.*
 1SG come.CPL-I_{ZER}:1SG
 ‘I came.’

⁶² Kurmanji Kurdish also has a minor class of intransitive verbs assigning to the sole core term of their construction a coding identical to that of A in the transitive construction.

d *Sînem hat-Ø.*

PRN come.CPL-I_{ZER}:3SG

‘Sinem came.’

(Blau and Barak 1999: 46-50, 65-68)

Consequently, in Standard Kurmanji Kurdish, for most intransitive verbs, the alignment relationship is $A = S \neq P$ in the tenses that trigger the coding of A and P illustrated in (14a-b) and (15a-b), $P = S \neq A$ in those that trigger the coding of A and P illustrated in (14c-d) and (15c-d). In other words, in Kurmanji Kurdish, in the clauses projected by the major class of intransitive verbs, the coding of the core term AS A WHOLE cannot be identified with that of either A or P in transitive clauses.

5.5 Violations of the Obligatory Coding Principle involving the existence of alternative constructions for intransitive verbs

In some languages, intransitive verbs (or part of them) have variously conditioned alternative constructions which do not have equivalent with transitive verbs, and in which the coding of S differs from that observed in their most common construction.

For example, there can be no doubt that French is basically an obligatory A-coding language. However, a large subclass of French intransitive verbs can be found in the alternative construction illustrated in (18c), commonly designated as ‘presentational’, in which the participant coded like A in the A-aligned intransitive construction shows P-like coding characteristics.

(18) French (Italic, Indo-European)

a *Deux femmes ont acheté ce livre.*
two woman(F).PL have.PRS.I_{S/A}:3PL buy.PTCP DEM.SG.M book(M)

‘Two women bought this book.’ (transitive construction)

b *Deux femmes sont venues.*
two woman(F).PL be.PRS.I_{S/A}:3PL come.PTCP.PL.F

‘Two women came.’ (A-aligned intransitive construction)

c *Il est venu deux femmes.*
I_{S/A}:3SG.M_{EXPL} be.PRS.I_S:3SG_{EXPL} come.PTCP.SG.M two woman(F).PL

‘Two women came.’, lit. ‘It came two women.’

(‘presentational’ variant of the intransitive construction)

This type of construction will be discussed in more detail in chapter 6 §6.5.1.

5.6 A case study: alignment variation in the coding properties of core terms in Georgian

Georgian displays a particularly complex system of alignment variation in the coding characteristics of core terms.

In Georgian, transitive coding is characterized by a TAM-driven alternation in A/P coding, with three groups of tenses that differ in the coding characteristics assigned to A and P (cf. chapter 3 §3.2.2.1). Moreover, the monovalent verbs of Georgian, and more generally, the verbs of Georgian whose coding frame does not include two terms with the coding characteristics of A and P, divide into three classes:⁶³

- a class of verbs whose unique core term varies in its coding characteristics exactly like the A term of the transitive construction (S_A verbs),
- two classes of verbs whose unique core term shows the same coding characteristics in all tenses, and consequently varies in its alignment with A or P.

The verb ‘cry’ illustrates the behavior of the intransitive verbs that assign to S the same TAM-dependent coding as that assigned by transitive verbs to A, cf. example (19).

(19) Georgian (Kartvelian)

- a *Bič’-i t’iris.*
 boy-ZER cry.PRES.I_{S/A}:3SG
 ‘The boy is crying.’
 cf. *Bič’-i t’exs žam-s* ‘The boy is breaking the bowl.’
- b *Bič’-ma it’ira.*
 boy-ERG cry.CPL.I_{S/A}:3SG
 ‘The boy cried.’
 cf. *Bič’-ma gat’exa žam-i* ‘The boy broke the bowl.’
- c *Bič’-s ut’irnia.*
 boy-DAT cry.PRF.I_{S/P}:3SG
 ‘Apparently, the boy has cried.’
 cf. *Bič’-s gaut’exia žam-i* ‘Apparently, the boy has broken the bowl.’

With the intransitive verbs that assign uniform coding characteristics to S, the coding characteristics of S may variously coincide with those of either A or P, depending on the TAM value expressed by the verb.

The verb ‘hide (intr.)’ illustrates the behavior of a class of intransitive verbs whose S is invariably in the zero case and indexed by an index of series 1 (like A in the first group of tenses, but differently from A in the other two groups of tenses), cf. example (20).

(20) Georgian (Kartvelian)

- a *Bič’-i imaleba.*
 boy-ZER hide.PRES.I_{S/A}:3SG
 ‘The boy is hiding.’

⁶³ In Georgian grammars, these three classes of verbs are traditionally designated as ‘middle verbs’, ‘passive verbs’, and ‘indirect verbs’, but these labels are somewhat misleading, given the way the same labels are used in other traditions.

- b *Bič'-i daimala.*
 boy-ZER hide.CPL.I_{S/A}:3SG
 'The boy hid.'
- c *Bič'-i damalula.*
 boy-ZER hide.PRF.I_{S/P}:3SG
 'Apparently, the boy has hidden.'

Finally, 'sleep' illustrates the behavior of another class of intransitive verbs selecting a coding frame in which S is invariably in the dative case and indexed by an index of series 2 (like A in the 3rd group of tenses, but differently from A in the other two groups), cf. example (21).

(21) Georgian (Kartvelian)

- a *Bič'-s sdzinavs.*
 boy-DAT sleep.PRES.I_{S/P}:3SG
 'The boy is sleeping.'
- b *Bič'-s edzina.*
 boy-DAT sleep.CPL I_{S/P}:3SG
 'The boy slept.'
- c *Bič'-s sdzinebia.*
 boy-DAT sleep.PRF.I_{S/P}:3SG
 'Apparently, the boy has slept.'

Consequently, the alignment of S with intransitive verbs whose coding frame is uniform across TAM inflection varies as indicated in the following charts. The important conclusion is that, taken globally, the coding characteristics of the core term in the construction of these two classes of intransitive verbs do not coincide with those of either A or P.

	<i>coding characteristics of A and P</i>	<i>coding characteristics of S in the construction of 'hide (intr.)'</i>
<i>TAM forms of group I</i>	A : zero case index of series 1 P : dative case, index of series 2	zero case (= A), index of series 1 (= A) → A-alignment
<i>TAM forms of group II</i>	A : ergative case index of series 1 P : zero case index of series 2	zero case (= P), index of series 1 (= A) → ambiguous alignment
<i>TAM forms of group III</i>	A : dative case index of series 2 P : zero case index of series 1	zero case (= P), index of series 1 (= P) → P-alignment

Table 1. Transitive-intransitive alignment in the coding frame of the Georgian verbs of the type illustrated by 'hide (intr.)'

	<i>coding characteristics of A and P</i>	<i>coding characteristics of S in the construction of 'sleep'</i>
<i>TAM forms of group I</i>	A : zero case index of series 1 P : dative case, index of series 2	dative case (= P), index of series 2 (= P) → P-alignment
<i>TAM forms of group II</i>	A : ergative case index of series 1 P : zero case index of series 2	dative case, index of series 2 (= P) → partial P-alignment
<i>TAM forms of group III</i>	A : dative case index of series 2 P : zero case index of series 1	dative case (= A), index of series 2 (= A) → A-alignment

Table 2. Transitive-intransitive alignment in the coding frame of the Georgian verbs of the type illustrated by 'sleep'

The question of whether Georgian should be analyzed as a predominantly 'ergative' language or not has been widely debated in the literature. Unsurprisingly, no consensus emerges from the discussion. The only absolutely clear point in the alignment system of Georgian is that Georgian is not a canonical split-S language, since in contrast to the situation implicitly presented as the norm in the literature on split-S languages, Georgian has a subclass of intransitive verbs characterizable as S_A verbs, but no subclass of intransitive verbs that could be characterized as a subclass of S_P verbs.

5.7 A note on split intransitivity and unaccusativity

SPLIT INTRANSITIVITY is often used as a general term referring to all possible kinds of variation in the morphosyntactic properties of intransitive verbs. In this broad use, split intransitivity encompasses not only alignment variation in the coding characteristics of the core term of intransitive clauses, but also alignment variation in its behavioral properties, and even phenomena, such as variation in auxiliary selection, that have no obvious relationship with a contrast in alignment as this notion has been defined in chapter 1 §1.3.4.⁶⁴

Split-intransitivity manifested in the behavioral properties of S can be illustrated by noun phrase splitting in German. According to Grewendorf (1989), in German, noun phrases where the dependents are separated from their head are allowed in P role, as in (22a), and also in S role with a subclass of intransitive verbs, as in (20d), but they are not allowed, either in A role (22b), or in S role with another subclass of intransitive verbs (22c). This contrast in the behavior of S in clauses projected by *telefonieren* and *unterlaufen* is not correlated to any contrast in coding.

⁶⁴ (Merlan 1985) is chronologically the first reference of the term 'split intransitivity' I am aware of.

(22) German (Germanic, Indo-European)

- a *Kleider hat er immer dreckige an.*
 cloth.PL have.PRS.I_{S/A}:3SG 3SG.M always dirty.PL on
 ‘As for clothes, he always wear dirty ones.’
- b **Studenten haben fleißige das Seminar besucht.*
 student.PL have.PRS.I_{S/A}:3PL hard.working D.SG.N seminar(N).SG visit.PTCP
- c **Studenten haben fleißige telefoniert.*
 student.PL have.PRS.I_{S/A}:3PL hard.working call.PTCP
- d *Fehler sind dem Hans vermeidbare unterlaufen.*
 mistake.PL be.PRS.I_{S/A}:3PL D.SG.M.DAT Hans avoidable.PL occur.PTCP
 ‘As for mistakes, some avoidable ones have occurred to Hans.’
 (Grewendorf 1989, quoted by Alexiadou & al. 2004: 7)

Grewendorf (1989) also shows that, in German, the ‘what-for’ construction is possible with nouns in P role, as in (23a), and also in S role with a subclass of intransitive verbs, as in (23d), but not with nouns in A role, cf. (23b), or in S role with another subclass of intransitive verbs, cf. (21c). Here again, this difference in behavior is not correlated to any difference in coding.

(23) German (Germanic, Indo-European)

- a *Was hast du für Bücher gekauft?*
 what have.PRS.I_{S/A}:2SG 2SG for book.PL buy.PTCP
 ‘What kind of books have you bought?’
- b **Was haben für Studenten Bücher gelesen?*
 what have.PRS.I_{S/A}:3PL for student.PL book.PL read.PTCP
- c **Was haben für Leute getanzt?*
 what have.PRS.I_{S/A}:3PL for people.PL dance.PTCP
- d *Was sind für Bücher erschienen?*
 what be.PRS.I_{S/A}:3PL for book.PL appear.PTCP
 ‘What kind of books appeared?’
 (Grewendorf 1989)

UNACCUSATIVITY / UNERGATIVITY originally referred to a possible syntactic explanation of such contrasts in the behavior of the core nominal term of intransitive clauses within the frame of multistratal theories of syntax. According to this hypothesis “the single argument of unaccusative verbs is an underlying object, and thus displays many syntactic properties of direct objects of transitive verbs”, whereas “the single argument of unergative verbs is a subject at all levels of representation, and thus displays the same syntactic behavior as the subject of transitive verbs” (Sorace 2004: 243).

The generative analysis of split intransitivity, initiated by Perlmutter (1978) within the framework of relational grammar and Burzio (1986) within the Government and Binding paradigm, started by investigating cases of variation in the behavior of S in languages in which the coding characteristics of S consistently follow accusative alignment (S = A ≠ P). At its beginning, it was mainly concerned with the discussion of the UNACCUSATIVE HYPOTHESIS according to which noun phrases in S role that have the same coding characteristics as A but align with P in some aspects of their behavior are “objects” at some level of representation.

However, discussions of the Unaccusative Hypothesis have integrated phenomena (such as auxiliary selection in Romance and Germanic languages) that involve a division of the class of intransitive verbs into two subclasses, but have no obvious link with the alignment of S with either A or P. Not surprisingly, a thorough examination of alleged ‘unaccusativity mismatches’ has resulted in that a growing proportion of the studies devoted to phenomena considered as possible manifestations of unaccusativity have started expressing doubts about the possibility of a unitary syntactic treatment of this rather heterogeneous set of variable properties of intransitive verbs within the frame of the Unaccusative Hypothesis as it was initially formulated.

In fact, the use of the terms ‘unaccusative verb’ and ‘unergative verb’ has evolved in such a way that many authors use them now, without any reference to a particular theoretical framework, as mere abbreviations for ‘intransitive verb whose S represents a relatively agent-like participant’ and ‘intransitive verb whose S represents a relatively patient-like participant’, respectively.

5.8 Emergence and development of split-S systems

Two particularly plausible scenarios that may be responsible for the emergence and development of split-S systems have been identified in a number of languages each: the reanalysis of transitive constructions with a missing core term interpreted as non-specific (§§5.8.1-2), and the univerbation of light-verb compounds (§5.8.3). The grammaticalization of aspectual periphrases has also been reported as a possible source of split-S systems (§5.8.4).

5.8.1 Conventionalization of A ellipsis in languages in which S is normally aligned with A

In languages in which the core term S of intransitive clauses is aligned with A, the reanalysis of P in elliptical transitive constructions (or TRANSIMPERSONAL⁶⁵ constructions) as the unique core term of an intransitive construction may result in the emergence of a class of intransitive verbs that assign P-like coding to the unique core term of their construction.

The notion of transimpersonal construction can be illustrated by the expression of the state of being hungry in Amharic, a language in which S shares with A obligatory indexation by means of person markers which, in the absence of a conominal, normally trigger an anaphoric interpretation. Amharic expresses the state of being hungry, without any hint about a possible external cause, by means of a construction traditionally identified as impersonal, that can be analyzed as an elliptical transitive construction in which, exceptionally, the absence of a noun phrase in A role triggers an indeterminate rather than anaphoric interpretation. In (24a), the verb includes a non-referential A index of 3rd person singular masculine, and a P index representing the person or animal being hungry. However, the same verb also occurs in a canonical transitive construction in which A and P express the semantic roles of stimulus and experiencer, respectively, as in (24b), which justifies analyzing (24a) as an elliptical transitive construction.

⁶⁵ According to Malchukov (2008), this term was coined by Haas (1941).

(24) Amharic (Semitic, Afroasiatic)

a *Rabä-ñ.*

hunger.CPL.I_{S/A}:3SG.M_{EXPL}-I_P:1SG

‘I am hungry.’ (lit. ‘It hungered me.’)

b *Īnjära rabä-ñ.*

bread(M) hunger.CPL.I_{S/A}:3SG.M-I_P:1SG

‘I am hungry for bread.’ (lit. ‘Bread hungered me.’)

(Leslau 2005: 43)

Starting from situations of this type, one can easily imagine how the loss of the construction with a referential A term illustrated by example (24b) might result in the emergence of monovalent verbs whose exceptional construction cannot be explained as an elliptical transitive construction anymore, and should be viewed synchronically as an exceptional case of S = P alignment in a language in which S = A alignment is the norm.

This question is discussed in three of the papers collected by Donohue and Wichmann (2008). Holton (2008) and Mithun (2008) discuss comparative evidence supporting the hypothesis that, in various languages from the Americas and Papua New Guinea, split-S systems developed from the reanalysis of transimpersonal constructions as intransitive constructions with P-coding of the sole core term. Malchukov (2008) proposes a wider discussion of the evolutions of transimpersonal constructions, rightly pointing out that their reanalysis as intransitive constructions has no consequence for systems of core term coding in which intransitive verbs assign P-like coding to S (for example, in the Iwaidjan languages discussed by Evans (2004)), whereas the same reanalysis may trigger the development of a split-S system when it occurs in languages in which, initially, the general rule is that S aligns with A.

The possible reanalysis of a transimpersonal construction as an intransitive construction showing S = P alignment in a language in which S = A alignment is the norm can also be illustrated by the impersonal construction of the Russian verb *trjasti* ‘shake’. This verb occurs in a canonical transitive construction (25a), but also in an impersonal construction that, synchronically, cannot be analyzed as an elliptical variant of the transitive construction, since the participant expressing a semantic role identical or similar to that expressed by the A term of the transitive construction is encoded as an oblique introduced by the preposition *ot* ‘from’. In example (25b), the only core term is an experiencer in the accusative case; it would be ungrammatical to add to this construction a noun phrase in the zero case, whatever the intended meaning, and an external cause can only be mentioned by means of a prepositional phrase in oblique role.

(25) Russian (Slavic, Indo-European)

a *Ja trjasu kovër.*

1SG shake.IPF.PRS.I_{S/A}:1SG carpet.ACC

‘I am shaking the carpet.’

b *Menja trjasët (ot lixoradki).*

1SG.ACC shake.IPF.PRS.I_{S/A}:3SG_{EXPL} (from fever.GEN)

‘I am shaking (with fever).’ lit. ‘It shakes me (from fever).’

It seems, however, reasonable to assume that the impersonal construction in (25b) developed from an elliptical variant of the transitive construction: ‘[An unspecified cause] shakes me’. But the fact that the cause is now encoded as an oblique introduced by the ablative preposition *ot* proves that, in present-day Russian, this construction is no longer an elliptical variant of the transitive construction, and has been reanalyzed as an intransitive construction of its own.

5.8.2 Conventionalization of P ellipsis in languages in which S is normally aligned with P

In the transitive construction of Akhvakh, as in the other languages belonging to the Avar-Andic branch of the Nakh-Daghestanian family, A in the ergative case contrasts with P in the zero case, and the verb agrees in gender and number with P. With few exceptions, the coding frames of intransitive verbs include a term in the zero case governing verb agreement in gender and number like P in the transitive construction. In the absence of a noun phrase in P role, transitive verb forms showing neuter singular agreement or devoid of any apparent agreement mark may equally have an anaphoric or indeterminate interpretation.

In addition to the canonical valency patterns characterized by the presence of a term in the zero case governing the agreement of the verb in gender and number, Akhvakh has a limited class of verbs with non-canonical valency patterns involving a participant encoded as a noun phrase in the ergative case and a participant encoded as a noun phrase in a spatial case, but no participant that could be represented by a noun phrase in the zero case, as in (26). With respect to agreement, the verbs in question can only show neuter singular default agreement.⁶⁶

(26) Akhvakh (Avar-Andic-Tsezic, Nakh-Dagehstianian)

- a *Ek'wa-s^w-e jašo-ga eḡ-ere godi.*
 man(M)-OF-ERG girl(F)-ALL look.at-PROG COP.I_{S/P}SG.N_{EXPL}
 ‘The man is looking at the girl.’
- b *χ^we-de jašo-ge ḡ'eleč'-ari.*
 dog(N)-ERG girl(F)-LOC bite-CPL
 ‘The dog bit the girl.’
- c *Mik'i-de di-ge ḡ'it'-ari.*
 child(N)-ERG 1sg-LOC pinch-CPL
 ‘The child pinched me.’

There is no direct evidence that a P term was ever present in the coding frame of these verbs, and several types of explanations of such exceptional valency patterns can be considered. In some cases, the most plausible explanation is the univerbation of former light-verb compounds (see §5.8.3), but in some others, a plausible explanation is the conventionalization of P ellipsis in constructions that, originally, were perfectly canonical transitive constructions.

For example, the verb *ḡ'waruruḡa* is commonly encountered with the meaning ‘hit’ in a construction superficially similar to those illustrated in example (26), with a term in the ergative case and a term in the locative case, as in (27).

⁶⁶ In the examples quoted in this section, verb agreement is not apparent, due to the fact that, in Avar-Andic languages, not all verbs have a prefixal slot expressing S/P indexation, and the verbs quoted in this section belong to the morphological class of verbs that don't have a prefixal slot for S/P indexes.

(27) Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

Ek'wa-ṣ^w-e jašo-ge ḡ^war-ari.

man(M)-OF-ERG girl(F)-LOC hit-CPL

'The man hit the girl.'

At first sight, *ḡ^waruruḷa* seems to be a bivalent verb with an exceptional valency pattern, but it is also found with the same meaning 'hit' (or closely related meanings) in a construction in which a term in the zero case governing the agreement of the verb in gender and number represents the instrument used by the hitter to perform his/her action, as in (28). In fact, *ḡ^waruruḷa* is a trivalent verb, and (27) is the elliptical variant of a perfectly canonical coding frame in which two of the three essential participants are encoded as A and P, whereas the third one is encoded as an oblique.

(28) Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Ek'wa-ṣ^w-e jašo-ge reḷ'a ḡ^war-ari.*

man(M)-OF-ERG girl(F)-LOC hand(N) hit-CPL

'The man hit the girl with his hand.'

(lit. 'applied the hand to the girl')

b *Ek'wa-ṣ^w-e jašo-ge č'uli ḡ^war-ari.*

man(M)-OF-ERG girl(F)-LOC stick(N) hit-CPL

'The man hit the girl with a stick.'

(lit. 'applied a stick to the girl')

The meaning of *ḡ^waruruḷa* can be analyzed as 's.o. applies s.th. to a surface rapidly/violently'. In Akhvakh, as in other Caucasian languages, the hittee is conceptualized as the target at which an agent is aiming a missile, and (27) is still recognizable as a transitive construction from which the P term is missing: 'The man applied [something unspecified] to the girl', or 'The man aimed [something unspecified] at the girl'. Starting from that, one can easily imagine that at least some of the bivalent verbs of Akhvakh that have non-canonical coding frames occurred initially in a construction including a P term whose elision was subsequently conventionalized.

5.8.3 Univerbation of light-verb compounds in languages in which S is normally aligned with P

Some languages have a particularly high proportion of predicates expressed by means of light-verb compounds in which the light verb is a transitive verb, most often a verb with the meaning 'do, make', as in example (29), and the non-verbal element is a noun encoded like the P term of the transitive construction (Samvelian 2012: 16).

(29) Central Basque (Euskaran)

a *Haurr-ek lo egiten dute.*

child-PL.ERG sleep do.ICPL have.PRS.I_{ERG}:3PL.I_{ZER}:3SG

'The children are sleeping (lit. are doing sleep).'

- b *Gizon horr-ek ez du euskar-az hitz egiten.*
 man DEM.SG-ERG NEG have.PRS.I_{ERG}:3SG.I_{ZER}:3SG Basque-SG.INSTR word do.ICPL
 ‘This man does not speak Basque (lit. does not do word in Basque).’

The coding frame of such predicates can be schematized as A (X) p V, where V is the verbal element of the light-verb compound, (lower-case) p represents the non-verbal element of the compound, coded as if it were the P term of a transitive clause, A represents a participant to which A-coding is assigned, and (X) represents possible additional terms whose presence depends on the valency of the predicate, and to which an oblique-like coding is assigned.

Diachronically, there is a general tendency toward fusion of the two elements of such compounds. This univertation process converts formally transitive constructions A (X) p V (where ‘p’ symbolizes the P-coding of a word that does not represent a participant) into constructions with a term showing A-coding but no term showing P-coding. In the languages in which the general rule is that S aligns with A, the result is a perfectly canonical construction, whereas in the languages in which the general rule is that S aligns with P, the same process results in the emergence of intransitive verbs with non-canonical coding frames.

As already illustrated by example (27) above, Basque makes wide use of light-verb compounds consisting of a bare noun and the verb *egin* ‘do, make’. The coding frame of light-verb compounds like *lo egin* ‘sleep’ or *hitz egin* ‘speak’ can be represented as <ERG, zer>, where (uppercase) ERG symbolizes the slot for the essential participant in the event denoted by the light-verb compound, and (lowercase) zer symbolizes the slot for the non-verbal element of the compound, whose coding characteristics are similar to those of the P term of transitive clauses denoting two-participant events. As observed by Etxepare (2003: 397), such compounds “are not instances of incorporation ... the bare nominal and the verb *egin* can be separated by a number of syntactic operations, and the bare nominal can take partitive case.” See (Oyharçabal 2007) for a more detailed analysis of Basque light-verb compounds.

Many of the light-verb compounds of Basque correspond to simplex verbs whose stem coincides with the non-verbal element of the compound, like *bultzza egin* lit. ‘do impulse’ / *bultzatu* ‘push’ in example (30).⁶⁷

(30) Central Basque (Euskaran)

- a *Mutil-ak ate-ari bultzza egin zion.* <ERG, DAT, zer>
 boy-SG.ERG door-SG.DAT impulse do.CPL have.PST.I_{ERG}:3SG.I_{ZER}:3SG.I_{dat}:3SG
 ‘The boy pushed the door.’
- b *Mutil-ak ate-a bultzatu zuen.* <ERG, ZER>
 boy-SG.ERG door-SG push.CPL have.PST.I_{ERG}:3SG.I_{ZER}:3SG
 same meaning as (a)

In this example, a light-verb compound with the coding frame <ERG, DAT, zer> corresponds to a simplex transitive verb with the coding frame <ERG, ZER>, and the dative term of the light-verb construction represents the same participant as the term in the zero case in the construction of the simplex verb. However, in such situations, the prevailing trend in Basque is rather to encode the terms in the construction of the simplex verb in the same way as in the

⁶⁷ The stem of the verb quoted as *bultzatu* is *bultzaz-*. The form used in Basque grammars and dictionaries as the quotation form of verbs is the completive participle, and *-tu* is one of the allomorphs of the completive aspect marker.

light-verb construction. For example, the light-verb compound *dirdir egin* ‘shine’ (lit. ‘do shining’) and the corresponding simplex verb *dirdiratu* equally assign the ergative case to the noun phrase representing the sole essential participant (example (31)). In other words, *dirdiratu* belongs to the class of intransitive verbs assigning the ergative case to the sole core term of their construction, which included very few verbs in Old Basque but has grown dramatically in the history of most Basque varieties.

(31) Central Basque (Euskaran)

- a *Eguzki-ak dirdir egiten du.* <ERG, zer>
 sun-SG.ERG shining do.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘The sun is shining.’
- b *Eguzki-ak dirdiratzten du.* <ERG>
 sun-SG.ERG shine.ICPL have.PRS.I_{ERG}:3SG
 same meaning as (a)

On this point, the situation is markedly different in Andic languages, a group of closely related Nakh-Daghestanian languages spoken in the western part of Daghestan, which like Basque make a wide use of light-verb compounds, but in which, contrary to Basque, there is a strong tendency to ‘regularize’ the non-canonical coding frames resulting from the univerbation of light-verb compounds. In spite of the extensive use of light-verb compounds consisting of a transitive verb and a noun in the zero case, Andic languages have very few verbs with coding frames including no term coded like P in the transitive construction, even among the verbs that clearly result from the univerbation of a light-verb compound, and none of the verbs in question is used with a non-canonical coding frame in all Andic languages.

For example, for ‘listen’, three situations are found among Andic languages:

- Some Andic languages express ‘listen’ by means of a construction involving the noun ‘ear’ as the non-verbal element of a light verb compound, in addition to the noun phrases encoding the two participants, as in Godoberi *hāt’uk’ja riķi*, literally ‘fix the ear (on someone/something)’ illustrated in example (32). Formally, this construction is an instance of the regular coding frame <ERG, ZER, ALL> with *hāt’uk’ja* ‘ear’ in the zero case.
- Others have a simplex verb ‘hear’ with the exceptional coding frame <ERG, ALL>: Tindi *aniḡiḡa* (33), Chamalal *woḡuk’la*, Bagvalal *aṡtila*;
- A simplex verb ‘hear’ with the regular coding frame <ZER, ALL> is found in two Andic languages: Akhvakh *hādaḡuruḡa* (34), Karata *ādukata*.

(32) Godoberi (Avar-Andic-Tsezic, Nakh-Daghestanian)

- Waṡu-di imu-ḡi hāt’uk’ja riķi ruķida.*
 son(M)-ERG father(M)-LOC/ALL ear(N) hold.INF must.ICPL
 ‘The son must listen to his father.’
 (Saidova 2006)

(33) Tindi (Avar-Andic-Tsezic, Nakh-Daghestanian)

Di-ḡa aniḡā hik'ji oš^w-ī.
 1SG-LOC listen.ICPL NEG DEM.M-ERG
 'He does not listen to me.'
 (Magomedova 2003)

(34) Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

Waša imo-ga hādaḡari.
 boy(M) father(M)-ALL listen.CPL
 'The boy listened to his father.'

Interestingly, 'fix the ear on' is the obvious etymology of Akhvakh *hādaḡuruḡa*, since its stem *handaḡ-* can be decomposed as *hāde* 'ear' plus *-iḡ-* stem of the verb *biḡuruḡa* 'fix', and in spite of that, the noun phrase representing the listener is not in the ergative case that should be expected from this etymology, but in the zero case.

The variation in the expression of 'listen' across Andic languages provides therefore evidence supporting the reconstruction of the following evolution:

- at a first stage, in a light-verb construction, the coalescence of a trivalent verb selecting the regular frame <ERG, ZER, ALL> with a noun in the zero case in the role of non-verbal element of the light-verb compound creates a bivalent verb with the exceptional coding frame <ERG, ALL>;
- at a second stage, attested by Akhvakh and Karata, the exceptional coding frame resulting from this evolution may be regularized into <Ø, ALL>.

Therefore the question is why, in some of the languages that code the S term of intransitive clauses like the P term of the transitive construction and make a wide use of light-verb constructions in which the non-verbal element of the light-verb compound is a noun showing P-like coding, there is a very strong tendency to regularize the non-canonical coding frames that arise automatically from the univerbation of light-verb compounds, whereas in others, the univerbation of light-verb compounds contributes to the emergence and development of a class of S_A intransitive verbs.

In (Creissels 2015a) I argued that, in the history of Basque, the weakening of the tendency toward regularization (or readjustment) of coding frames including no P term must be viewed as part of a general trend toward relaxation of the constraints that limit the use of ergative coding in systems characterized by 'strict' ergative coding, according to a distinction between strict and loose ergative coding introduced by Harris (1985) and applied to Basque by Aldai (2008).⁶⁸

⁶⁸ In languages with strict ergative coding, ergative coding tends to be limited to agents of core transitive verbs in contexts implying a high degree of semantic transitivity, whereas in languages with loose ergative coding, ergative coding is widely used to encode the most agent-like participant in the events denoted by bivalent verbs that are not core transitive verbs, irrespective of the precise semantic roles they assign and of the contexts in which they are used.

5.8.4 The grammaticalization of aspectual periphrases

The grammaticalization of an aspectual periphrasis has been proposed to explain the split-S pattern of Mopan, a language belonging to the Yucatecan branch of the Mayan family.

Three of the four languages constituting this branch of the Mayan family have inflectional classes of intransitive verbs, but no split-S pattern: two of the three classes (the ‘mutative’ and ‘active’ classes) show the same TAM-driven alignment variation, and the fact that the 3rd class (the ‘stative’ class) does not show the same alignment variation can be explained by the mere fact that the verbs of this class are defective verbs devoid of TAM inflection. But in Mopan, the class termed ‘active’ in (Danziger 1996) has undergone a change in completive aspect resulting in a change in the alignment pattern. For example, ‘I fought’ in Mopan results from the grammaticalization of the periphrasis ‘My fighting occurred’ (Danziger 1996: 395), and consequently active verbs in this aspect, which previously showed agreement marks of the P paradigm, now agree via indexes that are etymologically possessive indexes. Since this change has not affected the intransitive verbs of the ‘mutative’ subclass, and in Mayan languages, A indexes and possessive indexes are identical, the renewal of completive aspect marking in the inflection of intransitive verbs of the active subclass has induced a split-S pattern.

5.9 The diachrony of TAM-driven alignment variation

5.9.1 Introductory remarks

Grammaticalization processes resulting in the emergence of new TAM forms in the inflectional paradigm of verbs are very common in the history of languages. They do not necessarily trigger changes in the alignment relationship between transitive and intransitive constructions, even if they affect the coding characteristics of A and P in the transitive construction. For example, in Latvian, the grammaticalization of the debitive construction (analyzed by Seržant & Taperte (2016) and briefly presented in chapter 3 §3.2.2.1) resulted in an alternation between <ZER, ACC> and <DAT, ZER/ACC> in transitive coding, but this change did not affect the status of Latvian as a language with consistent S = A alignment, since the A term of the transitive construction and the S term of intransitive clauses are treated in the same way in the debitive construction.

However, depending on the coding of core terms in the source construction, the grammaticalization processes resulting in the creation of new TAM forms may induce not only TAM-governed alternations in core term coding, but also alternations in the alignment relationship between transitive and intransitive clauses.

New TAM forms may result from the grammaticalization of originally biclausal TAM-periphrases in which the representation of the event being denoted is entirely determined by the lower verb, the semantic contribution of the high verb being limited to the expression of TAM, as in *Snow continued to fall*. The reanalysis of such constructions as monoclausal yields simple clauses whose nucleus is an analytical verb form which may subsequently be converted into a synthetic verb form.

In this grammaticalization process, the source construction may be a TAM periphrasis involving nominalization of the verb and transposition of core terms into genitival modifiers.

Gildea (1992, 1998) showed that the evolution of such periphrases is a major source of TAM-driven alignment alternations in Caribbean languages, and Coon (2008) argues that, in Chol (Mayan), an apparent TAM-driven alignment alternation with S = P alignment in the completive and S = A alignment in the incompletive is due to the fact that the incompletive construction is a periphrasis involving a nominalized form of the verb, literally ‘[A’s V-ing P] happens’ in the transitive, and ‘[S’s V-ing] happens’ in the intransitive.

TAM periphrases analyzable as ‘raising’ constructions in which a participant in the event denoted by the lower verb (the lexical verb) is treated syntactically as a term in the construction of the higher verb (the TAM auxiliary) are also very common cross-linguistically. For example, ‘A is engaged in V-ing P / S is engaged in V-ing’ is a common type of progressive periphrasis. Depending on the coding characteristics assigned by the higher verb to the ‘raised’ term, the grammaticalization of such periphrases may also result in TAM-driven alternations in core term coding, and sometimes also in TAM-driven alignment alternations.

The grammaticalization process resulting in the emergence of a new TAM form with alignment properties different from those of the pre-existing TAM-forms may also involve the reanalysis of an adjunct as a core term.

A third possibility that has often been invoked in the literature is the involvement of passive constructions in the grammaticalization of new TAM form with alignment properties different from those of the pre-existing TAM-forms. However, this is a highly controversial issue.

In his survey of the grammaticalization of ergative case marking, McGregor (2017: 452) mentions oblique markers of the agent phrase in passive constructions among “the most overrated sources of ergative case markers”. On this topic, cf. also (Alridge 2017). The assumption that passive constructions are a major source of P-aligned transitive constructions with ergative flagging of A probably originated within the Indo-Iranian family, “with the availability of historical sources lending considerable force and credibility to such claims” (Casaretto & al. 2020). However, as observed by Haig (2008: 30) precisely for Indo-Iranian perfects, the labeling of the source construction as ‘passive’ is basically a terminological tradition implying no commitment to a syntactic ‘passive’ analysis of the construction in question.

One may also argue that the ‘passive’ constructions mentioned by Harris & Campbell (1995: 244-5) are passive-like constructions involving a resultative participle, rather than true passive constructions. It is therefore debatable whether reference to passive is really necessary for a proper understanding of the evolutions in question, or perhaps the really relevant notion is rather resultativity.

Similarly, in his analysis of six Caribbean languages in which a participle with stative-resultative semantics has variously evolved to give what he calls an “inverse voice”, “some sort of pragmatically-marked active ergative construction”, and a split-ergative pattern with S = P alignment in the past tense, Gildea (1997) argues that, in all cases, the participle has evolved “through an eventive passive stage”. However, at the same time, he clearly recognizes that this eventive passive stage is “unattested in any synchronic Caribbean language”, and that two steps in the evolution he postulates, agentless passive and agentful passive, “must be inferred from the further evolution of the construction”. In other words, the only reason why he posits the development of a passive in the evolution leading from the Proto-Caribbean participle to the split-ergative pattern of Tiriyo and Wayana is the common

(but questionable) belief that an intermediate passive stage is obligatory in the process converting resultative forms of transitive verbs into finite transitive forms P-aligned with the corresponding intransitive forms.

The question of the possible involvement of passive constructions in the emergence or TAM-driven alignment variation will be resumed in §5.9.3, after presenting the data about the emergence of perfect forms triggering P-alignment in predominantly A-aligned languages.

The changes examined in this section, like those examined in chapter 3 §3.5, are changes that affect at the same time the construction of all transitive verbs and modify the alignment properties of the whole participant coding system. The difference is that the types of changes examined in chapter 3 §3.5 convert systems with consistent S = A alignment into systems with consistent S = P alignment and vice-versa, whereas those examined now may result in the emergence of complex split-alignment patterns in which a TAM-driven alternation in the coding properties of A and P has no equivalent in intransitive clauses.

5.9.2 Split-alignment resulting from the grammaticalization of perfect forms

There is a consensus on the fact that the grammaticalization of new forms of perfects is a major source of TAM-driven alignment splits. Iranian languages provide a classical illustration of this type of change. At some stage in their history, the grammaticalization of a new form of perfect (which will be examined in more detail in §5.9.3) resulted in the emergence of a TAM-driven alternation in the coding of A and P still found in some Iranian languages, for example Standard Kurmanji Kurdish (33).

(35) Kurmanji (Iranian, Indo-European)

- a *Ez Sînem-ê dibîn-im.*
 1SG PRN-K see.ICPL-I_{ZER}:1SG
 ‘I see Sinem.’
- b *Sînem min dibîn-e.*
 PRN 1SG.K see.ICPL-I_{ZER}:3SG
 ‘Sinem sees me.’
- c *Min Sînem dît-Ø.*
 1SG.K PRN see.CPL-I_{ZER}:3SG
 ‘I saw Sinem.’
- d *Sînem-ê ez dît-im.*
 PRN-K 1SG see.CPL-I_{ZER}:1SG
 ‘Sinem saw me.’
- (Blau and Barak 1999: 46-50, 65-68)

As illustrated by the intransitive verb *hatin* ‘come’ in example (34), no such alternation developed in the coding of the core term of intransitive clauses.

(36) Kurmanji (Iranian, Indo-European)

- a *Ez tê-m.*
 1SG come.ICPL-I_{ZER}:1SG
 ‘I am coming.’

- b *Sînem têt-Ø*.
 PRN come.ICPL-I_{ZER}:3SG
 ‘Sinem is coming.’
- c *Ez hat-im*.
 1SG come.CPL-I_{ZER}:1SG
 ‘I came.’
- d *Sînem hat-Ø*.
 PRN come.CPL-I_{ZER}:3SG
 ‘Sinem came.’
 (Blau and Barak 1999: 46-50, 65-68)

Consequently, the coding of both A and P in Standard Kurmaji Kurdish is characterized by a TAM-driven alternation between a coding identical to that of the core term of intransitive clauses (zero case + indexation on the verb form) and an oblique-like coding: in (35a-b), A in the zero case is indexed on the verb form, like the core term of intransitive clauses, whereas P in the integrative case is not indexed; in (35c-d), the term coded like the core term of intransitive clauses is P, and A shows the same oblique-like coding as P in (35a-b).

In other words, in Standard Kurmanji Kurdish, the alignment relationship between transitive and intransitive constructions is $A = S \neq P$ in the tenses that trigger the coding of A and P illustrated in (35a-b), $P = S \neq A$ in those that trigger the coding of A and P illustrated in (35c-d), and this alternation in alignment originates in the grammaticalization of a new form of perfect in the history of Iranian languages.

In such a system, the coding of the core term of intransitive clauses cannot be identified GLOBALLY with that of either A or P.

At this point, an important observation is that many languages in which the grammaticalization of a new TAM form resulted in a change in the alignment relationships similar to that illustrated by Kurmanji Kurdish have undergone a subsequent evolution that can be characterized as readjustment or regularization under the pressure of analogy, and this regularization may occur in two different ways. In some cases, the particular coding of A and P found in a (group of) tense(s) as the result of the grammaticalization of new TAM forms aligns with the coding found in the other tenses, whereas in others, a coding alternation that initially developed in the transitive construction was subsequently extended to intransitive clauses.

The first variant of this regularization process (suppression of the coding alternation that had developed in the transitive construction) occurred in many Iranian languages (for example, Persian) which at some point in their history had a participant coding system similar to that of Kurmanji Kurdish, but subsequently aligned the coding of A and P in all tenses with the type of coding found in the present, which re-established consistent $S = A$ alignment.

According to Seržant (2012), the second possible variant of the regularization process (by which a coding alternation that initially developed in the transitive construction extends to the coding of the core term of intransitive clauses) occurred in the history of the North Russian perfect: after the creation of a transitive perfect construction with adessive marking of A, zero marking of P, and no indexation of either A or P (37a), North Russian has extended adessive flagging to the core term of intransitive clauses in the perfect (37b). Note that the perfect form of the verb occurring in this construction is etymologically the neuter singular form of a

participle, but in this construction, no alternation with another gender-number value is possible.

(37) North Russian (Slavic, Indo-European)

- a *U menja ruka poraneno.*
 at 1SG.GEN hand(F).SG injure.PRF
 ‘I have injured my hand.’
- b *U cvetov sovsem zasoxnuto.*
 at flower.PL.GEN totally dry.up.PRF
 ‘The flowers are totally dried up.’
 (Seržant 2012: 371-372)

The extension of adessive coding to S re-established S = A alignment across the whole TAM paradigm, with just a TAM-governed alternation between the type of core term coding commonly associated with S = A alignment and a less common variety of core term coding, in which the zero case is reserved for P, and the same overt flagging is used for A and S.

Among the languages with TAM-driven alternations between S = A alignment and S = P alignment, the configuration found in Iranian languages and illustrated above by Kurmanji Kurdish, with S = P alignment in past tense or completive aspect, is particularly widespread cross-linguistically, and at least in many cases, there is evidence that it arose with the emergence of a perfect that may subsequently have evolved toward a completive aspect or past tense. However, as already mentioned, there is no consensus about the details of the historical scenario responsible for the emergence of such perfect forms.

5.9.3 Split-alignment resulting from the grammaticalization of perfect forms: problems in reconstructing the scenario

Perfects with a coding of A and P distinct from that found with other TAM forms have long been considered as having a ‘passive’ origin, but several authors have argued that if the notion of ‘passive’ is understood as referring to alternative constructions of transitive verbs with the same event structure, participant frame and TAM semantics as their non-passive counterpart, the passive theory is difficult to maintain. This is in particular the point made by Reinöhl (2018) in her critical review of a recently published volume on ergativity in Indic languages (Dahl and Stroński 2016) in which the majority of contributors assume the passive-to-ergative development as the standard view.

Benveniste (1952) argued that the evolution responsible for the emergence of perfects assigning oblique-like coding to A and S-like coding to P in Indo-Iranian languages was not the reanalysis of passive constructions, as had been traditionally assumed, but the creation of a perfect tense according to a scenario basically identical to the formation of Romance or Germanic *have*-perfects. The first stage in the evolution reconstructed by Benveniste is the development of a possessive-resultative periphrasis, i.e. a biclausal construction with a subordinate resultative clause embedded in a possessive clause. Originally, the term coded like the possessor in plain possessive clauses is interpreted in this periphrasis as a person concerned by the result of an event, as was the case in Late Latin when the periphrasis that subsequently became the Romance perfect started developing, cf. example (38).

(38) Late Latin (Italic, Indo-European)

- a *Littera scripta est.*
 letter(F) written.SG.F be.pres.I_{S/A}:3SG
 ‘The letter is written.’
- b *Habeo pecuniam.*
 have.PRES.I_{S/A}:1SG money(F).ACC
 ‘I have money.’
- c *Habeo [litteram scriptam].*
 have.PRES.I_{S/A}:1SG letter(F).ACC written.SG.F.ACC
 ‘I am concerned by the fact that a letter is written.’
 (lit. ‘I have (that) a letter (is) written.’)

Later, the noun phrase encoded like a possessor is reinterpreted as representing the participant encoded as A in the basic construction of the lower verb, and the possessive-resultative periphrasis becomes the expression of perfect with transitive verbs.

Starting from that, it is tempting to think that, in languages with an oblique-like coding of possessors in predicative possession, the same scenario may lead to a split alignment pattern with S = P alignment in the perfect, since in such languages, a possessive-resultative periphrasis would assign oblique-like coding to the possessor subsequently reanalyzed as the agent of a transitive perfect. This was precisely the explanation put forward by Benveniste for the development of Indo-Iranian perfects.

After the publication of Benveniste’s article, some authors like Cardona (1970) argued the case for the traditional theory of the passive origin of Indo-Iranian perfects, emphasizing that Benveniste’s theory is hardly compatible with the fact that the agent in the construction of the Old Indic perfect was in the instrumental case (and not in the genitive or the dative). This observation undoubtedly undermines the plausibility of Benveniste’s theory, since the A term in the constructions of perfects resulting from the reanalysis of a possessive-resultative periphrasis would be expected to be marked by a case typically used for possessors in predicative possession. However, it does not constitute a decisive proof in favor of the passive-to-ergative scenario. On the basis of a careful examination of Old Indic data, authors such as Peterson (1998) and Bynon (2005) have concluded that the traditional explanation must be rejected, without however accepting Benveniste’s theory.

In fact, the reanalysis of a possessive-resultative periphrasis is not the only alternative to the traditional passive-to-ergative scenario. In languages other than the few European languages that have uncontroversial *have*-perfects, it is much more plausible that the crucial stage in the development of transitive perfects from P-oriented resultatives is not the embedding of a resultative clause in a possessive clause, but simply the emergence and routinization of a construction in which a person concerned by the resultative situation is encoded as an adjunct added to the resultative clause, as in the German construction illustrated by example (39b). This construction cannot be described as a possessive clause with an embedded resultative clause, for the simple reason that it does not involve the verb *haben* ‘have’ standardly used to express predicative possession in German, but semantically, the adjunct encoding a person concerned by the resultant state lends itself to the same reanalysis (concernee > involuntary agent > agent) as the possessor in a possessive-resultative periphrasis of the type illustrated above in (38c).

(39) German (Germanic, Indo-European)

- a *Die Kartoffeln sind angebrannt.*
 D.PL potato.PL be.PRS.I_{S/A}:3PL PREV.burn.PTCP
 ‘The potatoes are / have got burnt.’
- b *Mir sind die Kartoffeln angebrannt.*
 1SG.DAT be.PRS.I_{S/A}:3PL D.PL potato.PL PREV.burn.PTCP
 ‘I have been and gone and burned the potatoes.’
 (lit. ‘To me the potatoes are burnt.’)
 (Bynon 2005: 46)

The plausibility of the reanalysis of an adjunct referring to a concerne as a core term referring to an agent is confirmed by the observation of the possible interpretations of the Spanish construction involving a concerne expressed as a dative noun phrase, as in (40). The general meaning of this construction is that the referent of the dative noun phrase is concerned by an event in which the referent of the S phrase is directly involved, but in (40), the dative noun phrase is interpreted as representing an involuntary agent, and the infinitive is interpreted as controlled by the dative noun phrase, which points to the possibility of reanalyzing the dative oblique as a core term.

(40) Spanish (Italic, Indo-European)

- A Ana se le quemaron las niñas al bañar-las*
 to PRN DECAUS I_{DAT}:3SG burn.CPL.I_{S/A}:3PL D.PL.F girl.PL at.D bathe.INF-IP:3PL
 ‘Ana (accidentally) burned the girls when bathing them.’
 (Rivero 2008: 221)

In his analysis of the history of the North Russian perfect and other constructions resulting from the evolution of P-oriented resultatives in various Slavic, Baltic and Uralic languages spoken in the same area, Seržant (2012) convincingly argues that there is no need to postulate either a passive construction or a possessive-resultative periphrasis as an intermediate stage in the evolution by which North Russian acquired a perfect construction with a non-canonical core term coding.⁶⁹ On the basis of a careful examination of the available historical data, he shows that, in spite of the possessor-like coding of A in the North Russian perfect, the scenario that best explains the whole of the data is not the development of a possessive-resultative periphrasis, but rather the addition of an adjunct initially referring to a person concerned in some way or other by the resultant situation, subsequently reanalyzed as referring specifically to the agent.

To summarize, in languages with consistent S = A alignment, a non-canonical coding of agents and patients leading to an alignment alternation in past tense or completive aspect may develop as an automatic consequence of the evolution of P-oriented resultatives, if a construction of the type illustrated in (39b) is reanalyzed as a transitive construction with a new tense form expressing perfect semantics. If the same resultative construction is available with intransitive verbs (as in English *The man is gone* / *The mirror is broken*), and if the resultative construction of intransitive verbs undergoes the same reanalysis as a perfect

⁶⁹ As already mentioned above, in North Russian, the alternation in alignment that could have resulted from this evolution has been eliminated by the extension of the non-canonical coding of A in the perfect to the core term of intransitive clauses in the same tense.

without any change in its form, the construction of the perfect form resulting from this reanalysis will be something like (intr.) *The man is gone* / (tr.) *At the child the mirror is broken*, which contradicts the rule of S = A alignment.

Another scenario likely to lead to the same result is the reanalysis of constructions in which a derived form of transitive verbs expressing resultative semantics is used nominally with a genitival modifier corresponding to the A term of the transitive construction in a construction that can be glossed literally as ‘P is A’s V_{RES}’. Similarities between the coding of A and that of adnominal possessors can be viewed as evidence supporting the reconstruction of this type of scenario, as discussed in (Creissels 1979: 523-529) for Hungarian (Uralic) and K’ichee’ (Mayan). Depending on the coding characteristics of the adnominal possession construction, such an evolution does not necessarily lead to the emergence of a perfect with alignment properties different from those of the pre-existing TAM forms, but this is unquestionably a possibility.

5.9.4 Progressive periphrases and split alignment

Cross-linguistically, progressive aspect is often expressed by means of constructions in which the lexical verb in some non-finite or derived form projects a phrase that can be analyzed as equivalent to a non-verbal predicate, as in English *Mary is [buying gifts for the children]* (to be compared with *Mary is [in the garden]*), or Spanish *María está [comprando regalos para los niños]* (to be compared with *María está [en el jardín]*). The tendency of such constructions to evolve towards a more general meaning of present, as attested by the ongoing evolution of the progressive construction of English, is a well-known phenomenon (Kuteva & al. 2019).

The motivations of this type of periphrasis and its further evolutions have been largely discussed. What I would like to draw attention to here is that, in languages with consistent S = P alignment, if no readjustment occurs, the evolution of such periphrases may lead to a split alignment pattern with S = A alignment in the present tense.

In non-verbal predication, the argument of the non-verbal predicate is most commonly encoded like the S term of intransitive clauses. Consequently, in languages in which S = A alignment is canonical, the coding of the participant encoded as A in the transitive construction as the S term of the main clause in a progressive periphrasis does not modify its coding characteristics, and the grammaticalization of the progressive periphrasis cannot induce a radical change in the participant coding system. By contrast, in languages in which S = P alignment is canonical, the coding of the participant encoded as A in the transitive construction changes in the progressive periphrasis, since it is then treated as the sole core term of an intransitive clause.

This can be illustrated by the Basque progressive periphrasis in which the intransitive compound verb *ari izan* ‘be engaged in’ combines with nominal complements marked typically locative as in (41a), or with clausal complements whose nucleus is the so-called ‘incompletive participle’, also used to form the present of the verbs that do not have synthetic finite forms as in (41b) and (41d). The construction with a clausal complement is a raising construction in which the participant of the lexical verb that would be coded as A or S in an independent clause is uniformly encoded as the core term of *ari izan*. Since *ari izan* is an intransitive verb whose S has the same coding properties as transitive Ps, with transitive verbs (and also with the intransitive verbs that assign ergative coding to the core term of their

construction), this results in coding characteristics different from those of the same participant in non-periphrastic constructions as in (41d-e).

(41) Central Basque (Euskaran)

- a *Jon lanean ari da.*
 PRN work.SG.LOC engaged be.PRS.I_{ZER}:3SG
 ‘Jon is working.’ (lit. ‘Jon is engaged in work.’)
- b *Jon paseatzen da.*
 PRN walk.ICPL be.PRS.I_{ZER}:3SG⁷⁰
 ‘Jon walks / is walking.’ (present)
- c *Jon [[paseatzen] ari]] da.*
 PRN walk.ICPL engaged be.PRS.I_{ZER}:3SG
 ‘Jon is walking.’ (progressive periphrasis)
- d *Jonek berriak ikusten ditu.*
 PRN.ERG news.PL see.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:3PL
 ‘Jon watches / is watching the news.’ (present)
- e *Jon [[berriak ikusten] ari] da.*
 PRN news.PL see.ICPL engaged be.PRS.I_{ZER}:3SG
 ‘Jon is watching the news.’ (progressive periphrasis)

It might be tempting to conclude from this that Basque has a split alignment pattern with a progressive tense triggering S = A alignment, but this would not be correct, since in the speech of most Basque speakers, there is so far no evidence that the *ari izan* construction has been reanalyzed as monoclausal (Hualde and Ortiz de Urbina 2003: 284). But if this periphrasis were reanalyzed as an analytic verb form on a par with the other forms of the Basque verb, in the absence of a readjustment, this evolution would result in a TAM-driven variation in the coding properties of the transitive construction and in alignment, with uniform S = A alignment in a present or progressive tense contrasting with the split alignment pattern found in the other tenses.

A similar process whereby a periphrasis ‘be occupied with’ has given rise to S = A alignment in the progressive is discussed by Gildea (1998: chapter 13).

As regards the progressive periphrasis of Basque, it is nevertheless interesting to observe that there is some evidence that the grammaticalization of this periphrasis could rather trigger a readjustment by analogy with the coding characteristics of the transitive construction in other tenses. For example, (42a) and (42b) are two possible versions of a Basque sentence meaning ‘The companies are preparing the future managers’. The (a) version, where the agentive participant is in the zero case and the patientive participant is not indexed, is the correct one according to normative grammar, but the (b) version, where the agentive participant is in the ergative case and both participants are indexed on the auxiliary indexing, was found in an official document of the Basque government.

⁷⁰ The auxiliary in the analytic conjugation of the intransitive verbs of Basque that assign the zero case to the sole core term of their construction is the verb ‘be’, whereas the intransitive verbs that assign ergative coding to their sole core term, like transitive verbs, use the verb ‘have’ as the auxiliary for their analytical conjugation.

(42) Central Basque (Euskaran)

- a *Enpresak etorkizuneko zuzendariak prestatzen ari dira.*
 company.PL future manager.PL prepare.ICPL engaged be.PRS.I_{ZER}:3PL
 ‘The companies are preparing the future managers.’
- b *Enpresek etorkizuneko zuzendariak prestatzen ari dituzte.*
 company.PL_{ERG} future manager.PL prepare.ICPL engaged have.PRS.I_{ERG}:3PL.I_{ZER}:3PL
 same meaning as (a)
 (Celine Mounole, pers.com.)

The tendency to eliminate the alternation in the coding properties of the transitive construction resulting from the grammaticalization of the progressive periphrasis may be reinforced by the fact that, originally, the development of this periphrasis was limited to some dialectal varieties of Basque (Joseba Lakarra, pers.com.). It is now considered part of the standard Batua (‘unified’) variety, which means that it is now used by many speakers that do not have it in their native dialect, and may be particularly prone to aligning it with the canonical transitive pattern.

The so-called ‘binominative construction’ of transitive verbs in Nakh-Daghestanian languages (aka ‘biabsolute construction’), already mentioned in the discussion about the notion of basic construction or transitive verbs (chapter 3 §3.2.3.1), is another interesting example of a progressive periphrasis in languages with consistent S = P alignment whose reanalysis as a monoclausal construction may result in alignment variation, unless subsequent readjustment reestablishes the predominant S = P alignment.

As a rule, Nakh-Daghestanian languages have S = P alignment and transitive constructions of the kind typically associated with S = P alignment (A in the ergative case, P in the zero case, and gender-number agreement of the verb with P only). The binominative construction is a periphrasis expressing progressive aspect in which both participants are encoded as noun phrases in the zero case (hence the label ‘binominative ~ biabsolute’), and the verb shows a complex agreement pattern.

For example, Avar has a construction expressing present tense in which a participial form of the verb combines with the copula in auxiliary function. With intransitive verbs (example (43a)), the sole core term is invariably in the zero case and invariably controls the agreement of both the copula and the lexical verb. With transitive verbs, the present construction has two variants. A first possibility is an uncontroversial transitive construction with A in the ergative case, P in the zero case, and agreement of the verb with P only, as in the synthetic tenses of Avar. In (43b), A is masculine and P neuter, and *b-eł’ule-b b-ugo* shows neuter agreement in the prefix of the participle, in the suffix of the participle, and in the prefix of the auxiliary. A second possibility is that both participants are encoded as noun phrases in the zero case, and the verb shows a complex agreement pattern: if the lexical verb belongs to the class of verbs that have agreement prefixes, its prefix indexes the patient of prototypical transitive verbs, but the agreement suffix of the lexical verb and the auxiliary express agreement with the agent. In (43c), with the same nouns in the same semantic roles as in (43b), *b-eł’ule-w w-ugo* shows neuter agreement in the prefix of the participle only, whereas the suffix of the participle and the prefix of the auxiliary express masculine agreement (i.e., agreement with the agent).⁷¹

⁷¹ Note that the Avar noun for ‘father’ has two suppletive stems: *emen* in the zero case, and *insu* in other cases.

- (43) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)
- a *Emen w-ač'ule-w w-ugo.*
 father(M) I_{SP}:SG.M-coming-SG.M I_{SP}:SG.M-COP
 'Father is coming.'
- b *Insu-ca χur b-eλ'ule-b b-ugo.*
 father(M)-ERG field(N) I_{SP}:SG.N-plowing-SG.N I_{SP}:SG.N-COP
 'Father is plowing the field.'
- c *Emen [χur b-eλ'ule-w] w-ugo.*
 father(M) field(N) I_{SP}:SG.N-plowing-SG.M I_{SP}:SG.M-COP
 'Father is plowing the field.'
- (Alekseev and Ataev 1997: 93, 94)

The construction illustrated by example (42c) can be analyzed as involving two clauses, a matrix copular clause and a subordinate participial clause:

- the copula agrees with its sole core term *emen* 'father' in the zero case;
- the agreement suffix of the participle reflects its status as the nucleus of a phrase that, taken as a whole, behaves as an adjectival predicate in a copular construction;
- the agreement prefix of the participle takes into account the syntactic relations within the subordinate clause [*χur b-eλ'ule-w*], a transitive clause with unexpressed A and *χur* 'field' in P role.

A plausible explanation, elaborated by Harris and Campbell (1995: 187-189), is that the construction illustrated in (43c) maintains the biclausal structure of the original periphrasis, whereas in (43b), the original biclausal construction has been reinterpreted as a single clause, and the case and agreement marks have been readjusted under the pressure of the predominant pattern with A in the ergative case, P in the zero case, and agreement of the verb with P only. In other words, the construction illustrated by example (43b) can be interpreted as resulting from the elimination of the violation of the rule of S = P alignment introduced by the grammaticalization of the progressive periphrasis.

For a detailed presentation of the binominative construction in Nakh-Daghestanian languages, the cross-linguistic variation in its properties, and a discussion of the problems raised by its analysis, readers are referred to Forker (2012).

5.9.5 Uncommon split alignment patterns, and the TAM periphrases of Basque

Dixon (1979: 95) makes the strong claim that "if a split is conditioned by tense or aspect, the ergative marking is ALWAYS found in either past tense or perfect aspect". Counterexamples to the connection between past tense / perfect and ergativity assumed by Dixon have been found, in particular among Caribbean languages, cf. (Gildea 1992, 1998), but Dixon (1994) discards them as insignificant, because of their "transitional" nature. However, there is nothing extraordinary in the existence of less common TAM-driven split alignment patterns, since it is not difficult to find languages having TAM periphrases whose grammaticalization, in the absence of a readjustment under the pressure of analogy, would automatically give rise to alignment variations contradicting the universal posited by Dixon.

For example, in addition to the progressive periphrasis analyzed in §5.9.4, Basque has several TAM periphrases whose grammaticalization could lead to the emergence of various alternations in the coding properties of the transitive construction and in alignment patterns.

A first example is the future periphrasis in which *joan* ‘go’ combines with the allative form of a verbal noun. As illustrated in (44b), since *joan* is an intransitive verb showing S = P alignment, in this future periphrasis, the participant in the event denoted by the lexical verb that would be treated as A or S in an independent clause is invariably encoded as a noun phrase in the zero case; if the lexical verb is transitive, the participant that would be treated as P in an independent clause is not indexed, since the non-finite verb forms of Basque do not index participants.

(44) Central Basque (Euskaran)

- a *Jon-ek berri-ak ikusiko ditu.*
 PRN-ERG news-PL see.FUT have.PRS.I_{ERG}:3SG.I_{ZER}:3PL
 ‘Jon will watch the news.’ (non-periphrastic future)
- b *Jon [berri-ak ikustera] doa.*
 PRN news-PL see.NMZ.ALL go.PRS.I_{ZER}:3SG
 ‘Jon is going to watch the news.’ (periphrastic future)

Consequently, if no subsequent readjustment occurs, the replacement of the non-periphrastic future by a form originating from this periphrasis (which is a very common phenomenon in the evolution of languages) could lead to the emergence of a new future form imposing the same coding (with in particular zero flagging) to A in the transitive construction and to S in the construction of all intransitive verbs. In other words, this hypothetical future form would display uniform S = A ≠ P alignment contrasting with the split alignment pattern S_A = A ≠ P = S_P found with the other TAM forms.

Another case in point is the debitive periphrasis with *behar izan* ‘need’, lit. ‘have need’. This transitive compound verb can take a nominal complement in the zero case, as in (45a), but it is also found in a debitive periphrasis in which its complement is a clause whose nucleus is the completive participle of the lexical verb, as in (45c) and (45e).⁷² The behavior of this periphrasis is rather intricate, as discussed in detail by Ortiz de Urbina (2003: 301-308), but what matters in the perspective of the present discussion is that, in conformity with the etymology, the person that has to do something can always show A coding, even if the lexical verb is an intransitive verb assigning zero case to the core term of its construction, as in example (45c).

(45) Central Basque (Euskaran)

- a *Jon-ek kotxe berri bat behar du.*
 PRN-ERG car new one need have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon needs a new car.’

⁷² Since in English, *need* can be either a verb or a noun, it is important to keep in mind that, in Basque, *behar* is a noun used here in the zero case as the non-verbal element of a light-verb compound whose verbal element is the verb ‘have’. Formally speaking, *behar* can be viewed as fulfilling the P role in the construction of ‘have’. However, in the construction illustrated by example (45a), *Jonek* and *kotxe berri bat* behave exactly like A and P in the construction of a simplex transitive verb.

- b *Jon etxe-ra doa.*
 PRN house-SG.ALL go.PRS.I_{ZER}:3SG
 ‘Jon is going home.’
- c *Jon-ek [etxe-ra joan] behar du.*
 PRN-ERG house-SG.ALL go.CPL need have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon must go home.’
- d *Jon-ek ogi-a erosten du.*
 PRN-ERG bread-SG buy.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon is buying bread.’
- e *Jon-ek [ogi-a erosi] behar du.*
 PRN-ERG bread.SG buy.CPL need have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon must buy bread.’

Cross-linguistically, debitive constructions are a common source of future tenses. In Basque, in the absence of a readjustment, the grammaticalization of this periphrasis as the usual expression of future might lead again to the emergence of a tense form imposing uniform S = A alignment, but with the atypical variety of flagging pattern in which the same marked case form is assigned to A in transitive clauses and to S in intransitive clauses.

Interestingly, the grammaticalization of the *behar izan* periphrasis with a future meaning is not attested in present-day Basque, but two or three centuries ago, the Lapurdian dialect initiated such an evolution (Mounole 2011: 191). However, the semantic shift was accompanied by a possible regularization of the construction quite similar to that mentioned above for the progressive periphrasis. For example, ‘(S/he) will come’ has been found in the same text as *jin behar du* in an independent clause (46a), and as *jin behar den* in a relative clause (46b).

(46) Old Lapurdian (Euskaran)

- a *Jin behar du.*
 come.CPL need have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘S/he will come.’
- b *jin behar den*
 come.CPL need be.PRS.I_{ZER}:3SG.REL
 ‘who will come’ (relative clause)
 (Mounole 2011: 191)

In (46a), in conformity with the etymology of the *behar izan* periphrasis, the auxiliary *du* is ‘have’, used in auxiliary function with transitive verbs and S_A intransitive verbs, in spite of the fact the lexical verb is an S_P intransitive verb, whereas in (46b), the auxiliary *den* is a dependent form of the auxiliary ‘be’ selected by S_P verbs,⁷³ which points to a possible readjustment in the coding properties of this periphrasis under the pressure of the predominant alignment pattern

We now turn to a resultative periphrasis of Basque in which the verb ‘be’ combines with the completive participle in the definite form treated as an adjectival predicate.⁷⁴

⁷³ The corresponding independent form would be *da*; in the same context, the transitive auxiliary would occur as *duen*.

⁷⁴ In most dialects of Basque, nouns and adjectives in predicate function are in the definite form.

Contrary to resultative participles, this non-finite form of the Basque verb (glossed CPL) shows no particular orientation toward a participant undergoing a change of state or position, and with transitive verbs it can combine with an ergative-marked A, like the finite forms of transitive verbs. Consequently, when transitive verbs occur in the resultative periphrasis, the participant expressed as the S term of the main clause can indifferently be any of the two participants, and the participant expressed within the subordinate clause is treated exactly as in an independent clause, which gives rise to constructions that are sometimes designated as passive periphrasis (if the participant expressed in the main clause corresponds to P in a non-periphrastic construction, as in (47b)) and antipassive periphrasis (if the participant expressed in the main clause corresponds to A in a non-periphrastic construction, as in (47c)).

(47) Central Basque (Euskaran)

- a *Jon-ek eskutitz bat idatzi du.*
 PRN-ERG letter one write.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon wrote a letter.’ (non-periphrastic completeive)
- b *Eskutitz hau [Jon-ek idatzi-a] da.*
 letter DEM.SG PRN-ERG write.CPL-SG be.PRS.I_{ZER}:3SG
 ‘This letter has been written by Jon.’
 (lit. ‘This letter is [Jon (having) written (it)].’)
- c *Jon [eskutitz asko idatzi-a] da.*
 PRN letter many write.CPL-SG be.PRS.I_{ZER}:3SG
 ‘Jon has written many letters.’
 (lit. ‘Jon is [(having) written many letters].’)

In the passive-like periphrasis (47b), there is no change in case assignment in comparison with the non-periphrastic construction of a transitive verb, since the core term in the construction of ‘be’ has the same coding characteristics as P in transitive constructions. Consequently, in the absence of further readjustment, the conversion of this periphrasis into a monoclausal construction would induce no modification in the alignment patterns of Basque, and the loss of verb agreement with A would even reinforce the consistency of S = P alignment. By contrast, the grammaticalization of the antipassive-like periphrasis (47c) could lead to a TAM-driven alignment alternation with uniform S = A alignment in the perfect. In other words, Basque attests a resultative periphrasis whose grammaticalization, in the absence of a readjustment, would automatically lead to the emergence of an alignment alternation in clear contradiction with the universal put forward by Dixon.

5.9.6 Concluding remarks

The data examined in this section show that the grammaticalization of TAM constitutes a potential source of a wide variety of alternations in the coding characteristics of core terms, which may mechanically induce alignment alternations, depending on the alignment properties of the language and the treatment of intransitive verbs in the source construction. However, when the automatic result of the grammaticalization of a TAM periphrasis is a TAM form whose construction violates the predominant alignment pattern, the violation of the Obligatory Coding Principle tends to be eliminated by subsequent evolutions that do not

necessarily align the construction of the new TAM form with that of the pre-existing TAM forms, but at least modify it in such a way as to eliminate the alignment variation.

Consequently, there is no need to look for direct semantic / functional explanations of the fact that just a few TAM-driven alignment variations are well-attested cross-linguistically, while others are marginal or not attested at all. The fact that a particular TAM grammaticalization process at some point in the history of a given language has a side effect on alignment or not depends entirely on the coding of core terms in the source construction, and cross-linguistically, verb forms expressing the same type of TAM value can emerge from the grammaticalization of a variety of source constructions with various types of configurations in terms of core term coding. Given the strong tendency to eliminate the alignment alternations resulting from the grammaticalization of TAM, the only TAM-driven alignment alternations that have a relatively good chance to surface again and again in different languages are those likely to result from particularly common grammaticalization paths. The explanation of the relative frequency of some particular types of TAM-driven alignment variation must therefore not be sought in the semantics of TAM forms. The real question is why some types of evolutions leading to the emergence of new TAM forms are more common than others, and this question has no direct link with the typology of core term coding.

Chapter 6

Impersonal and anti-impersonal constructions

The impersonal coding frames that constitute the main topic of this chapter can be defined as constructions violating the Obligatory Coding Principle in languages in which A-alignment is strongly predominant, and the anti-impersonal coding frames dealt with in §6.7 are their mirror-image in the languages in which P-alignment is strongly predominant.

6.1 Introductory remarks

In the absence of statistical investigations of large corpora, it is impossible to propose an objective evaluation of the relative importance of the violations of the Obligatory Coding Principle in individual languages. There is, consequently, some arbitrariness in the decision to consider that, in a given language, the exceptions to the Obligatory Coding Principle are limited enough to justify a description in terms of impersonal or anti-impersonal constructions.

In this respect, I would like to emphasize that the typological and generative traditions share the same bias in the way they deal with predominantly ‘ergative’ and predominantly ‘accusative’ languages. In predominantly ‘ergative’ languages having a minor class of verbs whose coding frame includes a term having the coding characteristics of A but no term with the coding characteristics of P, no linguist hesitates to recognize a split-S pattern with a minor class of A-aligned intransitive verbs, and even rough sketches of the languages in question mention their existence. But when the mirror-image of this situation is found in predominantly ‘accusative’ languages (for example, in languages like Latin, German or Russian that have a minor class of verbs whose construction involves a participant encoded as an accusative noun phrase but no participant encoded as a nominative noun phrase), the general tendency is to marginalize the exceptions to the Obligatory Coding Principle, and to simply omit mentioning them when establishing the typological profile of the languages in which such a situation is found.

6.2 Impersonality and impersonal constructions

6.2.1 A terminological clarification

Impersonality has been a regular topic of investigation in the description of the languages of Europe. The French grammatical tradition and the Russian grammatical tradition are particularly rich in this respect, cf. (Guiraud-Weber 1984) for an overview of Russian impersonal constructions, and Hériau (1980) on French. However, until very recently, impersonality was not the subject of detailed cross-linguistic or typological research. This is the obvious consequence of the difficulties involved in identifying instances of impersonality on a cross-linguistically valid basis.

A major problem in a cross-linguistic investigation of impersonality is that no clear cross-linguistic definition of impersonality emerges from the inventories of phenomena viewed as instances of impersonality in different traditions. Most of the time, either the phenomena presented as instances of impersonality are just enumerated without any general definition, or their delimitation is justified on the basis of strictly language-internal definitions. The general definitions that are sometimes suggested, if taken at face value, would lead to apply the label ‘impersonal’ to many phenomena that no grammarian ever considered instances of impersonality. Moreover, the recent works that have tried to lay the basis for a cross-linguistic investigation of impersonality, such as (Siewierska 2008), (Malchukov & Siewierska 2011) and (Malchukov & Ogawa 2011), provide definitions and discussions of various types of phenomena traditionally viewed as instances of impersonality, but do not really discuss the justification for grouping them under this label. In fact, they rather suggest that the phenomena to which the label ‘impersonal’ has been variously applied in different traditions do not share more than some vague family resemblance. At the same time, they contribute to maintaining the confusion by indiscriminately using the term of impersonal CONSTRUCTION with reference to phenomena that do not really involve the use of special constructions in the strict sense of this term.

In this book, I make a terminological distinction between ‘impersonality’ and ‘impersonal constructions’. I propose to retain ‘impersonality’ as just a label for the traditional grouping of various phenomena in the description of which the term ‘impersonal’ is commonly used, without trying to justify this label by a definition worthy of the name, and to reserve ‘impersonal construction’ for a subset of the phenomena in question, namely those that can be defined in terms of departure from what can be analyzed as the canonical type of verbal clauses in a given language. The cross-linguistic definition of IMPERSONAL CONSTRUCTIONS that will be put forward in §6.2.2 accounts for a subset of the phenomena commonly subsumed under the label of impersonality. It does not prejudge the possibility of considering impersonal constructions as a particular case of a broader notion of ‘impersonality’, a question about which one may have some doubts.

6.2.2 The notion of impersonal construction

Among the phenomena commonly subsumed under the label ‘impersonal’, the term ‘impersonal construction’ is used here specifically for those that can be defined in terms of departure from the canonical type of verbal clauses in a given language. Consequently, a precise cross-linguistic definition of this notion can only be formulated within the frame of a general typology of the inventories of coding frames through which the verbs of a given language can express their participant frame.

The languages in the description of which the notion of impersonal construction has been used by traditional grammarians are languages in which A-alignment is strongly predominant, but in which the general rule of obligatory A-coding (i.e. the general rule according to which every verb must assign A-like coding to one of its participants) is not without exceptions.⁷⁵ In such languages, an impersonal construction can be defined as a coding frame that does not

⁷⁵ As mentioned in the introduction, the validity of the notion of impersonal construction as defined here is conditioned by the predominance of A-alignment, and consequently, in the absence of statistical investigations of large corpora, there is necessarily some arbitrariness in the decision to consider the notion of impersonal construction as relevant in the analysis of a given language.

include a syntactic slot for a participant encoded in the same way as A in the transitive construction.

For example, in French, in a clause like *Deux femmes sont venues* ‘Two women came’, the sole essential participant of *venir* ‘come’ has the same coding characteristics as A in the transitive construction (obligatory preverbal position and control of verb agreement). By contrast, in *Il est venu deux femmes*, lit. ‘It came two women’, the 3rd person masculine S/A index *il* is a mere place-holder (or expletive) devoid of any reference, and the sole essential participant of *venir* ‘come’ is represented by a noun phrase whose coding characteristics are different from those of A in the transitive construction, since it follows the verb and does not control verb agreement.

(1) French (Italic, Indo-European)

- a *Deux femmes sont venues.*
 two woman(F).PL be.PRS.I_{S/A}:3PL come.PTCP.PL.F
 ‘Two women came.’ (canonical intransitive clause)
- b *Il est venu deux femmes.*
 I_{S/A}:3SG.M_{EXPL} be.PRS.I_{S/A}:3SG_{EXPL} come.PTCP.SG.M two woman(F).PL
 ‘There came two women.’ (impersonal construction)

Note that, as illustrated by this example, an impersonal construction may include expletive elements that could be interpreted in other constructions as representing a participant. What is crucial for the analysis of a pronoun or index otherwise used to represent participants as an expletive in an impersonal construction is the impossibility of replacing it by one of the other pronouns or indexes with which it normally contrasts without modifying the rest of the construction. For example, in (1b), the replacement of the expletive 3rd person masculine S/A index by another S/A index is only possible if the NP in postverbal position (*deux femmes*) is deleted.

6.2.3 Impersonal constructions and R-impersonals

At this point, it is worth noting that, among the phenomena commonly viewed as instances of impersonality, those for which Siewierska (2008, 2011) coined the term R-IMPERSONALS (abbreviation for ‘reference impersonals’) do not meet the definition of impersonal constructions put forward above. R-impersonals include:

- the non-specific interpretation of null subjects or of 3rd person plural pronouns or indexes;
- the generic use of 2nd person pronouns or indexes;
- generic/vague human pronouns or indexes such as German *man* or French *on*;
- pronouns or indexes encoding vague reference to inanimate entities (French *ça*).

Example (2) illustrates the possibility of non-specific readings of 3rd person plural indexes in Spanish, in clauses including no corresponding noun phrase (conominal): ‘specific existential’ (2a), ‘vague existential’ (2b), ‘inferred existential’ (2c), ‘corporate’ (2d), and ‘universal’ (2e).

(2) Spanish (Italic, Indo-European)

- a *Tocan a la puerta.*
 knock:PRS.I_{S/A}:3PL to D.SG.F door(F)
 ‘Someone is knocking at the door.’
- b *Han encontrado una motocicleta en el patio.*
 have.I_{S/A}:3PL find.PTCP IDF.SG.F motorbike(F) in D.SG.M courtyard(M)
 ‘A motorbike has been found in the courtyard.’
- c *Aquí han comido mariscos.*
 here have.I_{S/A}:3PL eat.PTCP seafood(M).PL
 ‘Here someone has eaten seafood.’
- d *Volvieron a aumentar el IVA.*
 return.CPL.I_{S/A}:3PL to raise.INF D.SG.M VAT(M)
 ‘They raised the VAT again.’
- e *En España hablan español.*
 in Spain speak.PRS.I_{S/A}:3PL Spanish
 ‘In Spain they speak Spanish.’
 (Cabredo Hoffher 2003: 83)

In all cases, as illustrated in (3), depending on the context, the same 3rd person plural indexes in the same constructions could be interpreted as referring to a specific group of persons whose identity can be retrieved from the context, and a conominal could be added without modifying the rest of the construction. Consequently, the clauses in (2) do not involve special constructions, but rather a particular use of a syntactic slot available for the expression of participants fulfilling a given semantic role.

(3) Spanish (Italic, Indo-European)

- a *Tocan a la puerta.*
 knock:PRS.I_{S/A}:3PL to D.SG.F door(F)
 ‘Someone is knocking at the door.’ OR ‘They (a specific group of persons identifiable by the addressee) are knocking at the door.’
- b *Los invitados tocan a la puerta.*
 D.PL.M guest(M).PL knock:PRS.I_{S/A}:3PL to D.SG.F door(F)
 ‘The guests are knocking at the door’

Similarly, in Russian, in the absence of a conominal, a 3rd person plural index (or simply a plural index, in the past) is interpreted as referring to an unspecified group of people. Note that, in Russian, contrary to Spanish, there is no ambiguity with a specific reading, since reference to a specific group of people normally requires the use of a personal pronoun.

(4) Russian (Slavic, Indo-European)

- Včera tanceva-l-i na stole.*
 yesterday dance-PST-I_S:PL on table(M).PrepC
 ‘Yesterday people were dancing on the table.’

Example (5) illustrates a less common type of R-impersonal, with a universal reading of a 3rd person SINGULAR index, and example (6) illustrates the possibility of an arbitrary reading of null S/A terms in a language that does not have participant indexation.

(5) Brazilian Portuguese (Italic, Indo-European)

Aquí não pode nadar.
 here NEG can.PRS.I_{S/A}:3SG swim.INF
 ‘Here one cannot swim.’

(6) Mandarin Chinese (Sinitic, Sino-Tibetan)

Yao chenggong, jiu yingdang nuli.
 want succeed then should persist
 ‘If one wants to succeed, one should persist.’
 (Chang 1992: 288)

Crucially, such phenomena, whatever may be the motivation for labeling them ‘impersonal’, occur in constructions that, AS CONSTRUCTIONS, do not depart from those underlying canonical verbal clauses. Given the topic of this book, it is not necessary to discuss them further. By contrast, impersonal CONSTRUCTIONS as defined in §6.2.2 occupy a specific place in the coding frame inventories of many languages.

6.2.4 Impersonal constructions and TAM-governed variation in the coding of core terms

An important consequence of the (re)definition of impersonal constructions in terms of violations of the Obligatory Coding Principle TAM-governed is that, according to this definition, constructions traditionally considered non-canonical but involved in TAM-governed variation in the coding of core terms are excluded from the notion of impersonal construction. For example, traditional grammars of European languages consider impersonal all constructions that depart from the canon of unflagged A/S governing verb agreement. For example, debitive constructions with dative coding of the participant coded as an unflagged NP governing verb agreement in other tense forms, as in (7b), are traditionally considered impersonal. However, this coding variation affects uniformly and automatically all verbs. In the languages in question, dative coding of A/S in the debitive construction is part of the regular coding of A/S phrases. It triggers no alignment variation, and consequently the debitive constructions with dative coding of A/S do not meet the definition of impersonal as defined in this book.

(7) Russian (Slavic, Indo-European)

a *Obyčno ja rano vstaju.*
 usually 1SG early get.up.IPFV.PRS.I_{S/A}:1SG
 ‘I usually get up early.’
 b *Mne ne vstavat’ zavtra rano.*
 1SG.DAT NEG get.up.IPFV.INF tomorrow early
 ‘I don’t have to get up early tomorrow.’

6.3.2 Lexical impersonals and pragmatic impersonals

Uncoded impersonal constructions may constitute the only available option for given verbs with a given participant frame, but they may also be in competition with canonical constructions expressing the same participant frame.

The French verb *falloir* ‘need’ illustrates the case of a verb with an impersonal construction that does not alternate with a canonical construction: in Modern French, this verb can only be used with the expletive S/A index *il* ‘he’, and its two essential participants are obligatorily expressed in the same way as the non-agentive participants of typical trivalent verbs, cf. example (10).

(10) French (Italic, Indo-European)

Il nous faut ces livres.
 I_{S/A}:3SG.M_{EXPL} I_{DAT}:1PL need. I_{S/A}:3SG_{EXPL} DEM.PL book.PL
 ‘We need these books.’ lit. ‘It needs us these books.’

Example (1) above, repeated here as (9), illustrates the case of an impersonal construction in competition with a canonical construction.

(11) French (Italic, Indo-European)

a *Deux femmes sont venues.*
 two woman(F).PL be.PRS.I_{S/A}:3PL come.PTCP.PL.F
 ‘Two women came.’ (canonical intransitive clause)

b *Il est venu deux femmes.*
 I_{S/A}:3SG.M_{EXPL} be.PRS.I_{S/A}:3SG_{EXPL} come.PTCP.SG.M two woman(F).PL
 ‘There came two women.’ (impersonal construction)

In this particular case, the impersonal construction (commonly designated as a ‘presentational inversion construction’) differs from the corresponding canonical construction in that it triggers athetic interpretation, but there may also be cases of free variation between an impersonal construction and the corresponding canonical construction, i.e., cases in which the choice of the impersonal construction has no semantic or pragmatic implication. Example (12) illustrates such a case in French with the verb *sembler* ‘seem’. (12a) is a raising construction in which the S/A index preceding the verb ‘seem’ represents the participant of the embedded verb *avoir* ‘have’ that would be treated as A in an independent clause, whereas the S/A index in (12b) is an expletive index that cannot be related to a possible conominal.

(12) French (Italic, Indo-European)

a *Tu sembles avoir un problème.*
 I_{S/A}:2SG seem.PRS.I_{S/A}:2SG have.INF IDF.SG.M problem(M)
 ‘You seem to have a problem.’ (canonical intransitive construction)

b *Il semble que tu aies un problème.*
 I_{S/A}:3SG.M_{EXPL} seem.PRS.I_{S/A}:3SG_{EXPL} that I_{S/A}:2SG have.SBJV.I_{S/A}:2SG
 IDF.SG.M problem(M)
 ‘It seems that you have a problem.’ (impersonal construction)

- b *Rebėnok rvėt stranicu.*
 child.SG tear.out.PRS.I_{S/A}:3SG page.SG.ACC
 ‘The child is tearing out the page.’

(15) Russian (Slavic, Indo-European)

- a *Menja tošnit.*
 1SG.ACC feel.sick.I_{S/A}:3SG_{EXPL}
 ‘I feel sick.’ lit. ‘I sickens me.’
- b *Menja tošnit ot ètogo.*
 1SG.ACC feel.sick.I_{S/A}:3SG_{EXPL} from DEM.SG.N.GEN
 ‘It makes me sick.’ lit. ‘It sickens me from that.’

In this respect, it is interesting to mention the reanalysis of the construction of Lithuanian *troškinti* ‘make thirsty’, analyzed by Piccini (n.d.). The development of an impersonal construction of this verb is quite similar to the case of the Russian verb *trjasti* ‘shake’ evoked in chapter 5 §5.8.1. *Troškinti* is originally a causative verb occurring in the canonical transitive construction illustrated in (16a). At first sight, (16b) seems to be an elliptical transitive construction in which the absence of a noun phrase in A role exceptionally triggers an indeterminate rather than anaphoric interpretation. However, (16c), where the cause of the physical state is expressed as a prepositional phrase, can only be analyzed as instantiating an impersonal coding frame with the experiencer showing P-like coding, the stimulus encoded as an oblique, and no possibility of inserting an NP showing A-like coding.

(16) Lithuanian (Baltic, Indo-European)

- a *Žuvis mane trošk-in-a.*
 fish 1SG.ACC be.thirsty-CAUS-PRS.I_{S/A}:3SG
 ‘Fish makes me thirsty.’
- b *Mane trošk-in-a.*
 1SG.ACC be.thirsty-CAUS-PRS.I_{S/A}:3SG
 ‘I am thirsty.’ (an unspecified cause makes me thirsty)
- c *Mane trošk-in-a nuo žuvies.*
 1SG.ACC be.thirsty-CAUS-PRS.I_{S/A}:3SG from fish.GEN
 ‘I am thirsty because of fish.’
 (Piccini n.d.: 8-9)

The case of the Lithuanian verb ‘ache’ is also worth being mentioned here. This verb has two possible constructions in which the experiencer phrase is equally in the dative case, whereas the noun phrase referring to the location of pain may be in the zero case, as in (17a), or in the accusative case, as in (17b). In (17b), no noun phrase in the zero case can be inserted, and consequently, the construction qualifies as impersonal. According to Seržant (2013), who analyzes the motivation of the impersonal construction of ‘ache’ in Lithuanian, this construction is historically an innovation.

(17) Lithuanian (Baltic, Indo-European)

- a *Man skauda galva.*
 1SG.DAT ache.PRS.I_{S/A}:3SG head
 ‘I have a headache.’
- b *Man skauda galvą.*
 1SG.DAT ache.PRS.I_{S/A}:3SG_{EXPL} head.ACC
 ‘I have a headache.’
 (Seržant 2013: 189)

Example (18) illustrates an affective impersonal construction with a dative-coded experiencer in Tamil. (18a) shows that, in the transitive construction of Tamil, A is in the zero case, P in the accusative case, and A is indexed. (18b) illustrates the same construction with a bivalent verb which is not a prototypical transitive verb. Finally, (18c) illustrates a construction with a dative-coded experiencer that meets the definition of an impersonal construction, since Tamil is an obligatory A-coding language, and none of the participants implied by the lexical meaning of ‘like’ is coded as a noun phrase in the zero case governing verb agreement.

(18) Tamil (Dravidian)

- a (*Avanga*) *oru aatt-e koṇṇaanga.*
 3PL one goat-ACC kill.PST.I_{S/A}:3PL
 ‘They killed a goat.’
- b (*Naan*) *aruṇ-e paartteen.*
 1SG PRN-ACC see.PST.I_{S/A}:1SG
 ‘I saw Arun.’
- c *Ena-kku aruṇ-e piḍikkum.*
 1SG-DAT PRN-ACC like.PRS.I_{S/A}:3N_{EXPL}
 ‘I like Arun.’

Imbabura Quechua has verbs typically expressing physiological states that only occur in the impersonal construction illustrated in (10), in which the experiencer is encoded like the P term of a transitive construction (Hermon 2001). Note that with the verb ‘hurt’, both the experiencer and the location of pain are encoded as accusative noun phrases.

(19) Imbabura Quechua (Quechuan)

- a *Ñuka-ta-ka chiri-wa-rka-mi.*
 1SG-ACC-TOP be.cold-I_p:1-PST-VAL
 ‘I felt cold.’
- b *Ñuka-ta-ka uma-ta nana-a-n-mi.*
 1SG-ACC-TOP head-ACC hurt-I_p:1-PRS.I_{S/A}:3_{EXPL}-VAL
 ‘My head hurts me.’
 (Hermon 2001: 151, 156)

In the Papuan language Tobelo, Holton (2008) describes affective impersonals in which, as illustrated in (20), the experiencer is indexed by the same prefix as the participant encoded as P in the transitive construction, and the slot dedicated to A indexation is occupied by a 3rd person non-human prefix which however “has no definite reference or antecedent”.

- (20) Tobelo (North Halmaheran)
- a *No-hi-tidingi*.
I_{S/A}:2SG-I_P:1SG-punch
'You punched me.'
 - b *To-boa*.
I_{S/A}:1SG-arrive
'I arrived.'
 - c *I-hi-maata*.
I_{S/A}:3_{EXPL}-I_P:1SG-cold
'I feel cold.', lit. something like 'It cools me.'
- (Holton 2008: 261)

Affective impersonal constructions figure prominently in discussions about so-called non-canonical subjects, since dative- or accusative-marked experiencers tend to show behavioral properties they share with 'canonical subjects'.

It is however interesting to observe that affective impersonal constructions, although quite widespread cross-linguistically, are not found in all the languages in which A-alignment is strongly predominant. For example, after surveying various types of impersonal constructions in a sample of Atlantic and Mande languages, Creissels & al. (2015) conclude that all major functional types of impersonal constructions commonly recognized in the languages of the world are present in the languages of their sample, with however a notable exception: they came across no case of a construction that could be analyzed as an affective impersonal construction, i.e., a construction whose deviation from the canonical construction of verbal clauses could be analyzed as related to the presence of an experiencer in the participant frame. Although further investigation would be necessary before deciding to what extent this conclusion could be generalized to other areas or language families of sub-Saharan Africa, my impression is that the situation described in (Creissels & al. 2015) is at least the most common situation across sub-Saharan Africa.

6.4.2 Transitive verbs of possession used impersonally as existential predicators and inverse-locational copulae

The term 'existential predication' is commonly (although somewhat misleadingly) used with reference to clauses such as *There is a cat in the tree*, best characterized as INVERSE-LOCATIONAL clauses (Creissels 2019c). Inverse-locational clauses express a participant frame <GROUND, FIGURE> identical to that of plain locational clauses such as *The cat is in the tree* (from which they differ in terms of perspectivization of the figure-ground relationship), but distinct from that of 'have' verbs (whose participant frame can be schematized as <POSSESSOR, POSSESSEE>).

The term EXISTENTIAL PREDICATOR is used here with reference to words or expressions acting as monovalent predicates whose argument (the EXISTENT) is characterized as being a constituent element of the universe of discourse, or of a situation within the universe of discourse which is not overtly specified, and whose identity must be retrieved from the context. As a rule, existential predicators are also found in combination with locative expressions in constructions that meet the definition of inverse-locational predication, in

which they act as copulae. For example, in English, *there be* meets the definition of an existential predicator in *There are many ways of doing that*, but acts as an inverse-locational copula in *There is a cat in the tree*, where the preposition *in* is semantically a two-place predicate assigning the role of ground to the referent of *tree* and the role of figure to the referent of *cat*.

In quite a few languages, existential and inverse-locational clauses involve verbs resulting historically from the impersonalization of ‘have’ verbs. As analyzed in more detail in (Creissels 2023a), two possible scenarios can be imagined.

A first possible scenario is that the reanalysis of ‘have’ verbs as existential predicators and inverse-locational copulae occurs in unspecified possessor contexts in which ‘have’ verbs can be reinterpreted as expressing the presence of an entity at some place without reference to any possessor. The crucial move in this scenario is the routinization of the expression of the relationship between a place and an entity, without any reference to a person that could be viewed as a possessor (even in a very broad sense of this term), by means of the impersonalized variant of the have-possessive construction. At this stage, the possessor is suppressed from participant structure, although a morphological element that initially implied reference to non-specific possessors may subsist as an expletive:

- X have Y*
 > *X_{nSP} have Y* ‘(at some place) they_{nSP} have Y’
 > (*X_{EXPL}*) *have Y* ‘(at some place) there is Y’

Example (21) illustrates an uncontroversial case of reanalysis of a 3rd person plural pronoun originally expressing vague reference to unspecified human possessors into an expletive in an impersonal existential construction. In (21), a possessive reading, although not completely excluded, is nevertheless highly unlikely.

- (21) African American English (P/C)
Dey got a fly messing with me.
 they have a fly messing with me
 ‘There is a fly bothering me.’
 (Green 2002: 82)

However, one may also imagine an alternative scenario whose starting point is the possibility of expressing the relationship between a place whose precise identity needs not be specified and an entity located at the place in question as literally *it has X*, *it* referring to the place in question, and *X* to the entity. If such a formulation becomes the usual way of expressing that an entity *X* can be found at a place whose precise identity needs not be specified, speakers may reanalyze the construction as being locational rather than possessive in nature, with the consequence that, if a noun phrase specifying the identity of the place referred to is (re)introduced, it is not coded like the possessor in predicative possession, but like the ground in locational predication. At the final stage of this evolution, if an anaphoric element that originally referred to a place assimilated to the possessor in predicative possession is maintained, its status is that of an expletive in an impersonal construction. For example:

The garden has a tree.

- > *It_i has a tree (the garden_i)*
- > *It_{expl} has a tree (in the garden)*

Whatever the details of the reanalysis process implied by the conversion of *have*-possessive clauses into existential or inverse-locational clauses, the existential and inverse-locational clauses resulting from such evolutions include an existent or figure NP coded like the P term of transitive clauses, but no referential NP coded like the A term of transitive clauses.

For example, in Wolof, *am* as a verb of possession assigns A-coding (manifested in agreement of the verb in person and number) to the possessor and P-coding to the possessee, whereas *am* as an existential predicator or inverse-locational copula assigns P-like coding to the existent or figure NP and invariably shows default 3rd person singular agreement. Note that, in the absence of a noun phrase in A role, there is no apparent distinction between the impersonal construction expressing existential or inverse-locational predication and canonical transitive clauses expressing possession with a 3rd person singular possessor whose identity must be retrieved from the context.

(22) Wolof (Wolof, Atlantic, Niger-Congo)

- a *(Astu) am na jëkkër.*
 PRN have PRF.I_{S/A}:3SG husband
 ‘Astou / she has a husband.’
- b *Am na ngelaw léegi.*
 have PRF.I_{S/A}:3SG_{EXPL} wind today
 ‘There is wind today.’ lit. ‘It has wind today.’

In Romance languages, the impersonal use of *habere* ‘have’ as an existential predicator or inverse-locational copula is attested as early as Vulgar Latin (Melander 1921, quoted by Lambrecht 2000), often with the locative adverb *ibi*, and reflexes of this construction constitute the usual expression of an existential and inverse-locational predication in several modern Romance languages. For example, in Occitan (23), the impersonal use of *aver* ‘have’ in existential or inverse-locational clauses involves a locative expletive (*i* ‘there’, which in this construction is not understood as referring to a specific place).

(23) Occitan (Italic, Indo-European)

- Davant l’ostal i aviá un òme.*
 in.front.of D.SG.M-house(M) there_{EXPL} have.IPRF.I_{S/A}:3SG_{EXPL} IDF.SG.M man (M)
 ‘There was a man in front of the house.’

The existential or inverse-locational use of French *avoir* ‘have’ cumulates a locative expletive *y* and an expletive proclitic S/A index *il*. However, as indicated in example (24), the expletive proclitic S/A index *il* is commonly dropped in Colloquial French, and in fact, its presence seems to be due to the prescriptive influence of 17th century grammarians, cf. (Melander 1921) quoted in (Lambrecht 2000).

(24) French (Italic, Indo-European)

Devant la maison (il) y avait un homme.
 in.front.of D.SG.F house (F) I_{S/A}:3SG.M_{EXPL} there_{EXPL} have.IPRF.I_{S/A}:3SG_{EXPL} IDF.SG.M man (M)
 ‘There was a man in front of the house.’

The evolution of such constructions may result in existential or inverse-locational constructions involving verbs that do not occur in canonical constructions at all. For example in Spanish, the generalization of *tener* (whose original meaning is ‘hold’) as a verb of possession resulted in that the Romance verb of possession *haber*, apart from its use as a TAM auxiliary, is now only used impersonally in existential and inverse-locational clauses, with a frozen locative expletive in the present form *ha-y* (but not in the other tense forms: future *habrá*, imperfect *había*, etc.).

6.4.3 Modal verbs used in impersonal constructions

The French verb *falloir*, illustrated above with the meaning ‘need’, is also used as a modal verb of obligation in another impersonal construction in which its complement is an infinitive or a subjunctive clause, cf. example (25).

(25) French (Italic, Indo-European)

- a *Il me faut parler.*
 I_{S/A}:3SG.M_{EXPL} I_{DAT}:1SG need.I_{S/A}:3SG_{EXPL} speak.INF
 ‘I must speak.’ lit. ‘It needs me to speak.’
- b *Il faut que je parle.*
 I_{S/A}:3SG.M_{EXPL} need.I_{S/A}:3SG_{EXPL} that I_{S/A}:1SG speak.SBJV.I_S:1SG
 ‘I must speak.’ lit. ‘It needs that I speak.’

Modal verbs requiring an impersonal construction in languages in which A-alignment is strongly predominant are not rare cross-linguistically. For example, in Tamil, as illustrated in (26), *mudiyum* ‘can’ exists only in the 3rd person neuter form. It takes an infinitival complement, and the noun phrase representing the person whose ability to do something is predicated can optionally be in the zero case (but without governing verb agreement), or in the instrumental case.

(26) Tamil (Dravidian)

- a *Naan vara mudiyum.*
 1SG come.INF can.FUT.I_{S/A}:3N_{EXPL}
 ‘I can come.’
- b *Ennaale vara mudiyum.*
 1SG.INS come.INF can.FUT.I_{S/A}:3N_{EXPL}
 ‘I can come.’

Finnish has a set of about 20 modal verbs occurring in a ‘necessitative’ impersonal construction (Sands & Campbell 2001:269-274) including no slot for a noun phrase showing A-like coding characteristics, and in which a genitive noun phrase represents the person concerned by the obligation to do something, cf. example (27).

(27) Finnish (Finnic, Uralic)

Sinun pitää mennä.
 2SG.GEN must.I_{S/A}:3SG_{EXPL} go.INF

‘You must go.’

(Sands & Campbell 2001: 270)

6.4.4 Impersonal constructions of monovalent verbs conditioned by the clausal nature of S

Impersonal constructions are common with monovalent verbs whose S term is not a canonical NP, but a phrase whose internal structure is of clausal nature. For example, in French, *apparaître* ‘appear’ has the behavior of a canonical intransitive verb in combination with a noun phrase as the essential term of its construction, as in (28a). The sole core term in the construction of *apparaître* can also be a clause introduced by the complementizer *que* ‘that’, but then the only possible construction is the impersonal construction illustrated in (28b). Note that *il* in this construction is an expletive, and cannot be analyzed as a cataphoric index in a right-dislocation construction in which the complement clause would fulfill the role of afterthought, since the *que*-clause cannot move to the canonical S position immediately to the left of the verb (28c), and clauses such as (28b) are normally not uttered with the intonation break that would be expected to occur immediately before *que* in a dislocation construction.

(28) French (Italic, Indo-European)

a [*Le soleil*] *est apparu à travers les nuages.*
 D.SG.M sun(M) be.PRS.I_{S/A}:3SG appear.PTCP.SG.M through D.PL cloud.PL
 ‘The sun appeared through the clouds.’

b *Il est apparu [que l’enfant mentait].*
 I_{S/A}:3SG.M_{EXPL} be.PRS.I_{S/A}:3SG_{EXPL} appear.PTCP.SG.M that D.SG.M-child(M) lie-IPRF-I_{S/A}:3SG
 ‘It turned out that the child was lying.’

c **[Que l’enfant mentait] est apparu.*
 that D.SG.M-child(M) lie-IPRF-I_{S/A}:3SG be.PRS.I_{S/A}:3SG appear.PTCP.SG.M

A similar phenomenon can be observed in Baule with the verb *fata* ‘fit, suit’. This verb can be found in constructions with a noun phrase in S/A role referring to the entity that fits/suits, exactly like its English equivalents, but if the entity that fits/suits is expressed as a clause introduced by the complementizer *ké* ‘that’, as in (29), the complement clause can only be found in postverbal position, and the verb is preceded by a non-referential S/A index

(29) Baule (Tano, Kwa, Niger-Congo)

Ò fàtà ké bée blá.
 I_{S/A}:3SG_{EXPL} suit that I_{S/A}:3PL.SBJV come
 ‘They should come.’ lit. ‘It suits that they come.’

Given the frequency of such alternations, it is not surprising that the monovalent verbs whose argument can only be expressed as a clause often have a construction analyzable as

(33) Polish (Slavic, Indo-European)

Górze zasnulo mgłą.
 moutain.ACC veil.PST.ISA:SG.NEXPL fog.INS
 ‘The moutain was veiled with / in fog.’
 lit. ‘It veiled the mountain by fog.’
 (Schlund 2020: 42)

(34) Lithuanian (Baltic, Indo-European)

Sniegu užnešė kelius.
 snow.INS cover.PST.ISA:3EXPL roads.ACC
 lit. ‘It covered the roads by snow.’
 (Schlund 2020: 54)

6.5 Pragmatic impersonal constructions

6.5.1 Presentational inversion constructions

In the languages whose basic constituent order in verbal clauses can be schematized as SVX / AVPX (‘SVO languages’ in the tradition initiated by Greenberg’s (1963) account of word order typology), there is often a discursively marked construction of intransitive verbs whose function is to de-topicalize the participant standardly encoded as S in a canonical SVX construction and interpreted as the default topic when encoded in its canonical preverbal position. The general characteristic of this de-topicalizing construction is the post-verbal position of the noun phrase representing the participant in question, contrasting with its preverbal position in the discursively unmarked construction. Such constructions are variously referred to as presentational inversion constructions, sentence focus constructions, etc.

6.5.1.1 Presentational inversion constructions with full demotion of S

Example (1), repeated as (35), illustrates this kind of construction in French, in which the sole essential participant of *venir* ‘come’ loses the coding properties that characterizes S/A terms in canonical verbal clauses, and acquires P-like properties.

(35) French (Italic, Indo-European)

a *Deux femmes sont venues.*
 two woman(F).PL be.PRS.ISA:3PL come.PTCP.PL.F
 ‘Two women came.’ (canonical intransitive clause)

b *Il est venu deux femmes.*
 ISA:3SG.MEXPL be.PRS.ISA:3SGEXPL come.PTCP.SG.M two woman(F).PL
 ‘There came two women.’ (impersonal construction)

Example (36) illustrates the same alternation with the bivalent intransitive verb *manquer* ‘lack’. In French, the other essential participant in the event denoted by this verb (the person

to whom something is missing) is encoded as an oblique noun phrase introduced by the preposition *à* ‘to’ when expressed as a full noun phrase, or as a dative index.

(36) French (Italic, Indo-European)

- a *Ces livres me manquent.*
 DEM.PL book.PL I_{DAT}:1SG lack.PRS.I_S:3PL
 ‘I lack these books.’, lit. ‘These books lack to me.’
- b *Il me manque ces livres.*
 I_{S/A}:3SG.M_{EXPL} I_{DAT}:1SG lack.I_{S/A}:3SG_{EXPL} DEM.PL book.PL
 ‘I lack these books.’, lit. ‘It lacks me these books.’

In French, all possible tests unambiguously show that, in the presentational inversion construction, the noun phrase representing the participant encoded as S in the canonical intransitive construction does not have the properties that characterize canonical S phrases (i.e., S phrases fully aligned with the A term of the transitive construction) and acquire P-like properties (Lambrecht 2000). For example, in floating quantifier constructions with transitive verbs, the clitic *en* ‘thereof’ can be used with reference to P (37a-b), but not with reference to A (37c-d). With intransitive verbs, *en*-cliticization of S is impossible in the canonical intransitive construction (37e-f), which is consistent with the alignment of S with A, but the same participant encoded as a postverbal NP in the presentational inversion construction lends itself to *en*-cliticization (37g-h).

(37) French (Italic, Indo-European)

- a *J’ai invité beaucoup de gens.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG invited many of people
 ‘I invited many people.’
- b *J’en ai invité beaucoup.*
 I_{S/A}:1SG-thereof have.PRS.I_{S/A}:1SG invited many
 ‘I invited many (of them).’
- c *Beaucoup de gens m’ont invité.*
 many of people I_P:1SG- have.PRS.I_{S/A}:3PL invited
 ‘Many people invited me.’
- d **Beaucoup m’en ont invité.*
 many I_P:1SG-thereof have.PRS.I_{S/A}:3PL invited
 intended: ‘Many (of them) invited me.’
 correct: *Beaucoup (d’entre eux) m’ont invité.*
- e *Beaucoup de gens sont arrivés.*
 many of people be.PRS.I_S:3PL arrived.PL
 ‘Many people arrived.’
- f **Beaucoup en sont arrivés.*
 many thereof be.PRS.I_S:3PL arrived.PL
 intended: ‘Many (of them) arrived.’
 correct: *Beaucoup (d’entre eux) sont arrivés.*
- g *Il est arrivé beaucoup de gens.*
 I_{S/A}:3SG.M_{EXPL} be.PRS.I_{S/A}:3SG_{EXPL} arrived many of people
 ‘There arrived many people.’

- h *Il en est arrivé beaucoup.*
 I_{S/A}:3SG.M_{EXPL} thereof be.PRS.I_{S/A}:3SG_{EXPL} arrived many
 ‘There arrived many (of them).’

In French, not all intransitive verbs have equal access to this alternative construction, and it has been proposed that the ability to occur in the presentational inversion construction can be used as a test distinguishing ‘unaccusative’ verbs from ‘unergative’ ones in French. However, recent studies have argued against the hypothesis of a rigid division of intransitive French verbs into two classes on the basis of their possible occurrence in the presentational inversion construction. For example, based on the corpus provided by Hériaux (1980), Cummins (2000) shows that the list of the 50 most frequent verbs in this construction includes several typically ‘unergative’ verbs, and no semantic subclass of intransitive verbs can be considered as absolutely excluded from this construction. The fact that some intransitive verbs (including ‘unergative’ ones) occur in the presentational inversion construction with a particular frequency can be satisfactorily explained by the mere fact that their lexical meaning is “highly compatible with the ‘presentational’ value of the I[mpersonal] C[onstruction], expressing appearance or existence at location” (Cummins 2000: 239). Crucially, with intransitive verbs of other semantic classes, whose compatibility with the inversion construction may at first sight seem questionable, the presence of a locative adjunct improves the acceptability of the inversion construction.

A presentational inversion construction of intransitive verbs is also found in Tswana (Bantu). In the canonical construction of Tswana intransitive verbs, S precedes the verb and governs verb agreement in the same way as A in the transitive construction, but Tswana intransitive verbs also have an alternative construction, whose function is to de-topicalize the participant encoded as S, in which the noun phrase representing the same participant occurs immediately after the verb (like P in the transitive construction) and is not indexed on the verb. In this construction, the morphological slot normally occupied by a variable S/A index is invariably occupied by an expletive S/A index of class 17, as in (38b).

(38) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Bà-símàní bá-tláà-bî:n-à.*
 PL-boy(cl2) I_{A/S}:cl2-FUT-dance-FV
 ‘The boys will dance.’
- b *χó-tláà-bín-á bà-símà:ní.*
 I_{S/A}:cl17_{EXPL}-FUT-dance-FV PL-boy(cl2)
 lit. ‘There will dance boys.’ > ‘The/some boys will dance.’

Interestingly, the presentational inversion construction is much more frequent in Tswana than in French, and all the intransitive verbs of Tswana have equal access to it. This is probably motivated by constraints on the topicality of noun phrases in S/A role that are particularly strict in Tswana. For example, in Tswana, it is impossible to express ‘Nobody danced’ as a canonical intransitive clause with *ópé* ‘nobody’ in S role, since negative pronouns are inherently non-topical, and the common way to express this meaning is an impersonal presentational inversion construction, lit. ‘There danced nobody’.

Finnish has a presentational inversion construction in which the verb is invariably in the 3rd person singular, and the S participant of intransitive verbs is encoded as a noun phrase in the partitive case, cf. ex. (39).

(39) Finnish (Finnic, Uralic)

- a *Lapset leikkivät ulkona.*
 child.PL play.PST.I_{S/A}:3PL outside
 ‘The children played outside.’
- b *Ulkona leikki lapsia.*
 outside play.PST.I_{S/A}:3SG_{EXPL} child.PL.PRTV
 ‘There were children playing outside.’
 (Sands & Campbell 2001: 257)

Example (40) illustrates the inverse-locational construction of Finnish, which can be viewed as a particular case or the presentational inversion construction. Interestingly, in the inverse-locational construction, the noun phrase in postverbal position shows the case marking pattern of an object even more clearly, since personal pronouns (which in Finnish are the only nominals having an unambiguous accusative form) occur in the inverse-locational construction with accusative marking.

(40) Finnish (Finnic, Uralic)

- Niin kauan kuin minulla on sinut,*
 so long than 1SG.ADESS be.PRS.I_{S/A}:3SG_{EXPL} 2SG.ACC
tunnen itseni onnelliseksi.
 feel.PRS.I_A:1SG myself happy.TRNSL
 ‘So long as I have you, I find myself to be happy.’
 (Sands & Campbell 2001: 267)

The notion of impersonal construction is not traditional in Chinese linguistics, but in Mandarin Chinese the transitive construction has the basic AXVP order, without any possibility to move A to postverbal position, whereas the S term of intransitive clauses can move to postverbal position (and consequently align with P) in ‘presentative sentences’ that consequently can be analyzed as having an impersonal construction, cf. example (41).

(41) Mandarin Chinese (Sinitic, Sino-Tibetan)

- a *Tao-le san-zhi yang.*
 escape-PFV three-CLF sheep
 ‘Three sheep escaped.’
- b *Women-de wanhui zhi lai-le Zhangsan gen Lisi.*
 1PL-GEN party only come-PFV Zhangsan and Lisi
 ‘Only Zhangsan and Lisi came to our party.’
 (Li & Thompson 1981: 509-519)

6.5.1.2 Presentational inversion constructions with partial demotion of S

The presentational inversion constructions illustrated in §6.5.1.1 can be straightforwardly characterized as P-aligned intransitive constructions in languages in which A-alignment constitutes the general rule, but not all presentational inversion constructions are uncontroversial impersonal constructions. In fact, in the constructions in which a presentational reading follows from the postverbal position of the S term of intransitive clauses in languages that have the basic AVP order in the transitive construction, there is cross-linguistic variation with respect to flagging and indexation of S terms in postverbal position. In particular, in presentational inversion constructions, the S term does not always lose the control of verb agreement.

For example, in Spanish, the presentational inversion construction does not affect the status of S as the controller of verb agreement. It is however interesting to observe that it does affect some other aspects of its behavior, in particular, combination with determiners. Crucially, in the transitive construction of Spanish, bare nouns can occur freely in P role, but not in A role. As illustrated by example (42), with some intransitive verbs, for example ‘arrive’, S in postverbal position behaves in this respect like P, and even with intransitive verbs such as ‘run’ that do not readily combine with bare noun phrases in the presentational inversion construction, the construction may become acceptable if a locative adverbial phrase is added.⁷⁷

(42) Spanish (Italic, Indo-European)

- a *Llegaron libros.*
arrive.CPL.I_s:3PL book.PL.
‘Some books arrived.’
 - b *??Corren chicos.*
run.PRS.I_s:3PL boy.PL.
‘Boys run.’
 - c *Aquí corren chicos.*
here run.PRS.I_s:3PL boy.PL.
‘Boys run here.’
- (Ortega-Santos 2005: 138, 140)

6.5.2 Russian genitive of negation

Russian is a language with a particularly flexible constituent order, and in positive clauses, nothing would justify the recognition of a special construction marking S de-topicalization. However, in the negative form, intransitive verbs have an alternative impersonal construction in which a noun phrase in the genitive case corresponds to the S term of canonical intransitive clauses.

As discussed among others by Pesetsky (1982), in Russian, the P term of negative transitive clauses, but not the A term, can appear in the genitive case, and this property is shared by the S term in the construction of at least some intransitive verbs, which constitutes a clear departure from the general rule of A-alignment. This construction is typically found with

⁷⁷ On this phenomenon, see among others (Torrego 1989) for Spanish, (Alexiadou 1996) for Greek.

unaccusative intransitives, as in (43c), and is not easily accepted with unergative intransitives, as in (43d).

(43) Russian (Slavic, Indo-European)

- a *Mal'čiki ne polučili nikakix pisem.*
 boy.PL NEG receive.PF.PST.I_{S/A}:PL any.PL.GEN letter.PL.GEN
 'The boys didn't receive any letters.'
- b **Nikakix mal'čikov ne polučilo pis'ma.*
 any.PL.GEN boy.PL.GEN NEG receive.PF.PST.I_{S/A}:SG.N_{EXPL} letter.PL
 intended: 'No boys received letters.'
- c *Ne prišlo ni odnogo mal'čika.*
 NEG come.PF.PST.I_{S/A}:SG.N_{EXPL} not.even one.SG.M.GEN boy(M).SG.GEN
 'Not a single boy came.'
- d **Ne tancevalo ni odnogo mal'čika.*
 NEG dance.PST.I_{S/A}:SG.N_{EXPL} not.even one.SG.M.GEN boy(M).SG.GEN
 intended: 'Not a single boy danced.'

However, Babby (2001) observes that unergativ' intransitives are not disallowed from occurring in this construction, provided a locative prepositional phrase precedes the verb, as in example (44).

(44) Russian (Slavic, Indo-European)

- a *Meždu brevnami ne skryvalos' tarakanov.*
 between beam.PL.INS NEG hide.IPF.PST.I_{S/A}:SG.N_{EXPL} cockroach.PL.GEN
 'There were no cockroaches hiding among the beams.'
- b *Tam bol'se ne igraet nikakix detej.*
 there more NEG play.IPF.PRS.I_{S/A}:3SG_{EXPL} any.PL.GEN child.PL.GEN
 'There are no longer any children playing there.'

For additional examples and references, and a more detailed discussion of the Russian genitive of negation, readers are referred to Harves (2013).

6.5.3 Information structure and the coding of S in Tundra Yukaghir

Maslova (2006) proposes the recognition of what she calls 'focus-oriented split intransitivity' in Tundra Yukaghir. This language has a marker *-le(η)* whose distribution is described by Maslova as follows: in transitive clauses, regardless of information structure, it attaches to P and is incompatible with A, cf. (45a-b), whereas in intransitive clauses, it attaches to S if and only if S is focalized, cf. (45c-d).

(45) Tundra Yukaghir (Yukaghir;

- a *Met ten'i n'awn'iklie-leŋ toŋore-meŋ.*
 1SG here polar.fox-LED chase-CPL.I_A:1/2SG
 'I have been chasing A POLAR FOX here.'

- b *Nime-le aq pajp wie-nun.*
 dwelling-LED only woman.PL make-HAB(FocA)
 ‘Only WOMEN install dwellings.’
- c ... *qahime-leŋ kelu-l.*
 ... raven-LED come-FocS
 ‘...A RAVEN came.’
- d *Qad’ir apanala: me-kelu-j.*
 DISC old.woman AFF-come-TopS
 ‘The old woman CAME.’
 (Maslova 2006: 176)

Contrary to the presentational inversion constructions evoked in the previous sections, this alternation does not involve constituent order, but like the presentational inversion constructions, it marks a change in the information-structural status of S by means of a coding of S similar to that of P in the transitive construction, since in the transitive construction, the distribution of *-le(ŋ)* is that of an accusative marker.

6.6 Meteorological impersonals: a controversial issue

Meteorological clauses may be unproblematic intransitive clauses in which a noun referring to the meteorological phenomenon is the S term of a clause projected by a verb also found with other semantic types of nouns in S role, as for example *The wind is blowing* or *The snow is falling*. By contrast, the analysis of meteorological clauses in which the meteorological phenomenon is lexicalized as a verb (or expressed by means of a predicative expression syntactically equivalent to a verb), such as English *It’s raining*, *It’s cold* or French *Il pleut*, *Il fait froid*, has caused considerable controversy, cf. among others (Alba-Salas 2004) for a discussion within the frame of Relational Grammar.

Interestingly, it seems that all languages have unproblematic meteorological clauses with nouns referring to meteorological phenomena encoded as the S term of clauses projected by ordinary intransitive verbs, whereas meteorological clauses in which the meteorological phenomenon is lexicalized as a verb are not found in all languages.

At first sight, meteorological clauses such as English *It’s raining* or French *Il pleut* seem to be analyzable as impersonal, but several studies have drawn the attention to the fact that French *il* or English *it* in this type of morphological clauses behave differently from expletive *il* or *it* in uncontroversial impersonal constructions. For example, in French, meteorological *il* (but not expletive *il*) can be found in control constructions, as in (46a), and in Colloquial French, meteorological *il* (but not expletive *il*) is in free variation with *ça*, typically used to express vague reference, as shown in (46b-c).

(46) French (Italic, Indo-European)

- a *Il a plu avant de neiger.*
 I_{S/A}:3SG.M have.I_{S/A}:3SG rain.PTCP before of snow.INF
 ‘It rained before snowing.’

- b *Il/ça pleut fort.*
 I_{S/A}:3SG.M/that rain.PRS.I_{S/A}:3SG hard
 ‘It’s raining hard.’
- c *Il/*ça viendra beaucoup de monde.*
 I_{S/A}:3SG.M_{EXPL}/*that come.FUT.I_S:3SG_{EXPL} a.lot of people
 ‘There will come a lot of people.’

A detailed and insightful discussion of the meteorological expressions in which the meteorological phenomenon is lexicalized as a verb can be found in (Ruwet 1990). In this article, Ruwet shows the complexity of the problem and convincingly argues against the analyses according to which, in meteorological expressions, French *il* or English *it* would have a ‘quasi-argumental’ status. A key point in Ruwet’s argumentation is the need to take account of cross-linguistic data.

Cross-linguistically, the meteorological clauses in which the meteorological phenomenon is lexicalized as a verb may include no noun at all, in which case it may be tempting to analyze them as impersonal constructions, but very often (in particular –but not only– in the languages of sub-Saharan Africa), they include a noun encoded as if it were the sole essential participant in events denoted by monovalent verbs. The noun in question either lexicalizes the same meteorological phenomenon, in constructions that can be glossed for example as ‘The rain is raining’, or is found in other contexts with meanings such as ‘sky’, ‘atmosphere’, ‘place’, or ‘God’. However, in their combination with meteorological verbs, the nouns in question do not behave like nouns representing participants, in the sense that they do not lend themselves to operations such topicalization, focalization or questioning. The obvious explanation of this particular behavior is that they do not express the choice between several entities characterizable as having the ability to fulfill the same role in the event denoted by the verb, but rather results from a mere convention that varies from one language to another (with sometimes free variation between two or more possibilities in the same language).

For example, the Atlantic language Ganja is an SVX / AVPX language in which, in the absence of a noun phrase in S/A role, S/A indexation marks gender-number distinctions. The Ganja verb *tob* ‘rain’ may combine either with the noun *hàalá* ‘God’ in preverbal position, or just with the corresponding S/A index *à-* (human singular), as in (48). Superficially, the construction is not different from the construction of a monovalent verb illustrated in (47). However, in canonical intransitive clauses, S indexes are not semantically equivalent to noun phrases in S role, since they act as an instruction to retrieve a referent from the context, whereas S phrases describe a referent. By contrast, in meteorological clauses, there is no difference in meaning between the variants illustrated in (48a-b). Moreover, *hàalá* ‘God’ cannot be substituted by an interrogative. In other words, in spite of the fact that the clauses projected by the Ganja verb ‘rain’ have the appearance of canonical intransitive clauses, their frozen nature is in fact comparable to that of their English or French equivalents.

(47) Ganja (Balanta, Atlantic, Niger-Congo)

- a *Sáajó n-tóyì.*
 PRN(clHA) ICPL-go
 ‘Sadio is going.’

- b *À-n-tóyì.*
I_S:clHA-ICPL-go
'S/he is going.'
- c *Hílà n-tóyì?*
who ICPL-go
'Who is going?'

(48) Ganja (Balanta, Atlantic, Niger-Congo)

- a *Hàalá n-tóbi.*
God(clHA) ICPL-rain
'It is raining.' lit. 'God is raining.'
- b *À-n-tóbi.*
I_S:clHA-ICPL-rain
'It's raining.'
- c **Hílà n-tóbi?*
who ICPL-rain

Detailed cross-linguistic data on the encoding of meteorological events are provided by Eriksen & al. (2010, 2015). They support the conclusion suggested by the examples above, according to which, whatever the appearance of the constructions in which meteorological verbs occur, they must be analyzed as basically avalent, in the sense that NO PRECISION ABOUT POSSIBLE PARTICIPANTS IS REQUIRED TO CONVERT THEIR LEXICAL MEANING INTO A PROPOSITIONAL CONTENT. Consequently, with such verbs, a canonical construction with an participant encoded as a noun phrase displaying the properties expected from a noun phrase representing a participant is simply inconceivable, since no such participant is available. In other words, trying to characterize the construction of meteorological verbs in obligatory A-coding languages as canonical or impersonal does not make much sense.

With meteorological verbs, in obligatory A-coding languages, the coding slot normally available with every verb for a participant coded like the A term of the transitive construction cannot fulfill its usual function. This explains why, according to language-specific rules, this slot may equivalently be filled by pronouns or indexes otherwise used as expletives in true impersonal construction, by pronouns or indexes expressing reference to vaguely identified entities, by nouns lexicalizing the same meteorological event, or by nouns lexicalizing notions variously related to the meteorological event.

6.7 Anti-impersonal constructions

6.7.1 Definition and illustrations

The term ANTI-IMPERSONAL CONSTRUCTION was coined by Gilbert Lazard (1985, 1995) to designate the mirror-image of impersonal constructions in obligatory P-coding languages that have more or less marginal exceptions to the general rule of obligatory P-coding. In such languages, an anti-impersonal construction can be defined as a coding frame that, exceptionally, does not include a slot for a participant encoded in the same way as the P term of the transitive construction.

The Akhvakh-Russian dictionary mentions three monovalent verbs for which a canonical intransitive construction with S in the zero case alternates with a construction including no slot for a participant encoded as a noun phrase in the zero case, as illustrated in (49) for *ĉ'anuruġa* 'feel a sharp pain'.

(49) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Di reġ'a ĉ'an-ere godi.*
 1SG.GEN hand(N) feel.a.sharp.pain-PROG COP.I_{SP}:SG.N
 'I feel a sharp pain in the hand.' lit. 'My hand hurts.'
- b *Di-ga rak'waro-ga ĉ'an-ere godi.*
 1SG-ALL heart(N)-ALL feel.a.sharp.pain-PROG COP.I_{SP}:SG.N_{EXPL}
 I feel a sharp pain in the heart.' lit. 'It hurts to me to the heart'

Similarly, in (50), *q̄'waraturuġa* 'become narrow' occurs in a canonical intransitive construction with S the zero case in (a), but in an anti-impersonal construction in (b), with a participant encoded as a noun phrase in the allative case,⁷⁸ and no possibility of introducing a zero-marked noun phrase referring to some other participant.

(50) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *ġũk'aĉe-la q̄'warat-ari.*
 shoe(N)-PL become.narrow-CPL
 'The shoes became tight.'
- b *Miġa-q̄e q̄'warat-ari.*
 nose(N)-ALL become.narrow-CPL
 'I have a blocked nose.' lit. 'In the nose [it] became narrow.'

In Nakh-Daghestanian languages, anti-impersonal constructions are more common with bivalent verbs, in particular bivalent verbs whose participant frame can be characterized as consisting of an aimer and a target, as in example (51), where an ergative-marked noun phrase represents the aimer, an allative-marked noun phrase represents the target, and no slot for a noun phrase in the zero case is available.

(51) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- Wašo-de jašo-ga eq̄-ari.*
 boy(M)-ERG girl(F)-ALL look.at-CPL
 'The boy looked at the girl.'

Anti-impersonal constructions quite similar to those found in Nakh-Daghestanian languages have been described in various Australian languages under names such as 'semi-transitive' or 'middle', which may be a source of confusion, since the same terms are more commonly found with completely different meanings.

⁷⁸ Akhvakh, like the other Daghestanian languages, has several series of spatial cases. *-ga* in example (46b) is the allative of the *g*-series, the default series which by itself does not encode a particular type of spatial configuration, whereas *-q̄e* in (50b) is the allative of the *q̄*-series.

6.7.2 Functional types of anti-impersonal constructions

Interestingly, impersonal and anti-impersonal constructions are formally the mirror-image of each other, but functionally, they are not found with the same semantic types of verbs.

Among monovalent verbs, anti-impersonal constructions are typically found with unergative verbs, i.e., with verbs denoting events whose sole essential participant can be viewed as relatively agentive, such as ‘cry’, ‘jump’, ‘play’, etc. The fact that the sole essential participant of such verbs is semantically similar to the agent of prototypical transitive verbs may explain a tendency to code it like the A term of the transitive constructions, hence the possibility of violations of the Obligatory Coding Principle in obligatory P-coding languages, since the participant structure or unergative verbs includes no obvious candidate to P-like coding.

Among bivalent verbs, anti-impersonal constructions are typically found with aiming verbs. The particular propensity of verbs of aiming to occur in anti-impersonal constructions, mentioned in §6.7.1 for Nakh-Daghestanian languages, was observed by Lazard in Iranian and Caucasian languages, and similar observations can be made on Australian languages, cf. among others (Tsunoda 1981) on Djaru, (Hale 1982) on Warlpiri, (McGregor 2002) on Warrwa.

Here again, a functional explanation can be considered. Constructions of aiming verbs in which the aimer has the coding characteristics of A in the transitive construction, but the target has the coding characteristics of locative, allative or dative obliques, are cross-linguistically very common, irrespective of alignment patterns. This is consistent with the fact that, in the participant frame of aiming verbs, the aimer does not depart much from a prototypical agent, whereas the target is clearly not a prototypical patient, since there is no implication of a change of state or position. Moreover, the target has obvious semantic affinities with the destination of motion in the participant frame of motion verbs.

In obligatory A-coding languages, as illustrated by English *look at*, coding aimers like prototypical agents and targets differently from prototypical patients does not contradict the rule according to which all coding frames should include a slot for a participant coded like A in the transitive construction, since the coding of the aimer fulfills this condition. By contrast, in obligatory P-coding languages, such a coding of aimers and targets leads to a violation of the constraint according to which all coding frames should include a slot for a participant coded like P in the transitive construction.

Chapter 7

Transitive coding and valency

Languages differ in the extent to which they make use of transitive coding to encode events that are not prototypically transitive, or in other words, in their degree of TRANSITIVITY PROMINENCE. In this chapter, this question is examined successively for bivalent, monovalent and trivalent verbs.

7.1 Bivalent verbs and transitivity

7.1.1 Transitive coding as the default coding frame for bivalent verbs

In all the languages for which the relevant information is available, most bivalent verbs select the transitive construction as their coding frame. However, cross-linguistic variation can be observed in the use of the transitive construction as the coding frame of bivalent verbs that do not meet the definition of prototypical transitive verbs, for example verbs denoting cognitive processes such as ‘forget’. Example (1) shows that, like English or French, Wolof uses transitive coding with the verb ‘forget’, whereas in Mandinka, ‘forget’ (2b) has a construction distinct from the transitive construction illustrated in (2a) but isomorphous with the construction formed by a monovalent verb and two noun phrases representing the sole essential participant and an adjunct, as in (2c).

(1) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Xale bi toj na weer bi.*
child(cIB) cIB.D break PRF.I_{S/A}:3SG glass(cIB) cIB.D
‘The child has broken the glass.’
- b *Xale bi fàtte na sama sant*
child(cIB) cIB.D forget PRF.I_{S/A}:3SG my name(cIW)
‘The child has forgotten my name.’

(2) Mandinka (Central Mande, Mande)

- a *Díndínò yè wéeróo tèyí.*
child.D CPL.TR glass.D break
‘The child has broken the glass.’
- b *Díndínó ñíná-tá í kòntónò lá.*
child.D forget-CPL.ITR 1SG name.D POSTP
‘The child has forgotten my name.’
- c *Díndínò wúli-tá dùntùñ-kúmòo lá.*
child.D get.up-CPL.ITR rooster-sound.D POSTP
‘The child got up with the rooster crow.’

In clauses denoting two-participant events, the coding of one of the participants as an oblique may be the consequence of the use of formally transitive light-verb constructions in which the P slot is occupied by a non-referential noun whose function is to contribute to the elaboration of the event. For example, French *donner lieu à* or its English equivalent *give rise to* are bivalent predicates expressed by means of a construction in which the P slot in the coding frame of the trivalent verb *donner / give* is occupied by a non-referential noun forming a semantic compound with the verb. Example (3) illustrates the same phenomenon in Persian, where the two-participant event encoded in English as *X touches Y* is encoded by means of a light-verb construction whose meaning is literally *X hits hand to Y*.

(3) Persian (Iranian, Indo-European)

Maryam be miz dast zad.

Maryam to table hand hit.PST

‘Maryam touched the table.’

(Pollet Samvelian, pers.com.)

As already discussed in chapter 3 §3.4, some languages may also have bivalent verbs that I have proposed to designate as QUASITRANSITIVES, characterized by a coding frame including a noun phrase coded like transitive A or intransitive S, and another noun phrase whose coding coincides neither with that of P in the transitive construction, nor with that of adjuncts.

7.1.2 General remarks on variation in the use of transitive coding for bivalent verbs

It has long been known that English or French have a much stronger tendency to employ transitive coding for bivalent verbs than for example German or Russian. Say (2014) provides a precise picture of the variation in transitivity prominence for bivalent verbs across European languages. BivalTyp (Say 2020) is a useful database on the coding frames of bivalent verbs, in which, however, European languages are strongly overrepresented. As regards the languages of the world, some precise data are now available due to the Leipzig Valency Classes Project, whose database contains data from 36 languages world-wide.

Haspelmath (2015) discusses the classification of the 36 languages of the Leipzig Valency Classes Project according to their degree of transitivity prominence on the basis of the sample of 80 verb meanings that were systematically collected for all the languages of the project. Among the languages that constitute the sample, the proportion of transitive verbs within the limits of the questionnaire varies between 40% (Bezhta) and 75% (Chintang). These numbers reflect the fact that the Valency Classes questionnaire was designed for a typological investigation of valency in general, and consequently includes verb meanings that either are expressed as transitive verbs in (almost) all languages, and also verb meanings that are rarely (if ever) expressed as transitive verbs.

1.	(75)	Chintang
2-3.	(70)	Emai, N ng
4.	(69)	Ojibwe
5.	(68)	Yoruba
6-8.	(66)	Xârâcùù, Bora, Balinese
9-11.	(65)	Zezonepec Chatino, Mandarin Chinese, Yucatec

12-16.	(64)	Jakarta Indonesian, Sliammon, Ainu, Yaqui, Mapudungun
17.	(63)	Even
18.	(62)	Italian, Mandinka
20-22.	(61)	Hoocak, Japanese (standard), Jaminjung
23.	(60)	Modern Standard Arabic
24.	(59)	Evenki
25-28.	(58)	Mitsukaido Japanese, English, Hokkaido Japanese, Korean
29.	(56)	German
30-31.	(54)	Nen, ⁷⁹ Eastern Armenian
32.	(50)	Russian
33.	(47)	Icelandic
34.	(46)	Ket
35.	(45)	Sri Lanka Malay
36.	(40)	Bezhta

Table 1. The 36 languages of the Leipzig Valency Classes Project ranked according to Haspelmath's (2015) evaluation of their degree of transitivity prominence (1st column: ranking of the languages according to their degree of transitive prominence; 2nd column: proportion of transitive verbs within the limits of the questionnaire)

On this basis, Haspelmath (2015) concludes that, in the languages of the world, the low degree of transitivity prominence that characterizes the languages of Eastern Europe and of the Caucasus is rather exceptional, whereas languages with a degree of transitivity prominence higher than that found in West European languages are common.

7.1.3 A questionnaire designed to evaluate the cross-linguistic variation in transitivity prominence for bivalent verbs

In order to be able to compare languages with respect to this particular aspect of their transitivity system, building on my experience of working on languages belonging to various families and spoken in various parts of the world, I designed a questionnaire consisting of 30 verb meanings implying two essential participants. The verb meanings I selected are neither among those expressed by verbs that assign A coding and P coding to their essential participants in (almost) all the languages for which I have been able to check the relevant data, nor among those that, according to my observations, have a marked tendency to be expressed by verbs assigning other types of coding to their essential participants. I also tried to avoid verb meanings strongly marked as culture-specific, and to select verb meanings, that, cross-linguistically, are commonly lexicalized as simplex verbs.

The 30 verb meanings I selected are listed in the following table. They are quoted by means of English verbs in capitals. Since most of the English verbs used to quote the meanings selected for the questionnaire are polysemous verbs that may be found in various coding frames depending on the precise meaning they encode, it must be emphasized that the only relevant meaning is that illustrated by the English sentence accompanying each of the entries.

⁷⁹ In this language sample, Nen does not refer to the Bantu language Nen, but to a Papuan language of the same name.

1	ATTACK	as in: During the night enemy aircraft attacked several towns.
2	BE AFRAID OF	as in: The child is crying because he is afraid of the dog.
3	BETRAY	as in: He betrayed his best friend.
4	BITE	as in: Do you know what to do if your dog bites you?
5	CALL	as in: Feel free to call me if you need any help.
6	CLIMB	as in: The monkey climbed the tree, or Do you know who was the first person to climb Everest?
7	CROSS	as in: Don't cross the road without looking in both directions!
8	DESPISE	as in: She despises him for failing his exam.
9	ESCAPE FROM	as in: The mouse escaped from the cat.
10	FIND	as in: I found a set of keys in the street yesterday.
11	FOLLOW	as in: A dog followed me home.
12	FORGET	as in: I'll never forget you.
13	HATE	as in: Why does he hate me so much?
14	HEAR	as in: We heard a noise that resembled a bomb.
15	HELP	as in: I don't think he is willing to help us.
16	HIT	as in: Parents hit children because they were hit as children.
17	KNOW	as in: Do you know the man who greeted us?
18	LAUGH AT	as in: Don't laugh at me!
19	LIKE	as in: I cannot understand why she likes him so much.
20	LISTEN TO	as in: Listen to me when I am talking to you!
21	LOOK AT	as in: He looked at me with a strange look on his face.
22	NEED	as in: Don't leave me alone, I need you.
23	PITY	as in: She wasn't sure whether she loved or pitied him.
24	SCOLD	as in: She scolded the child for taking sweets without first having permission.
25	SEARCH FOR	as in: I searched for him but I didn't find him.
26	SEE	as in: I saw him on TV.
27	TOUCH	as in: She touched his hand reassuringly.
28	TRUST	as in: Don't trust this man, he is a liar.
29	WAIT FOR	as in: I waited for him but he never came.
30	WANT	as in: I don't want more money, just less work to do.

Table 2. The 30 verb meanings selected to test the extension of <A, P> coding to the essential participants of bivalent verbs other than prototypical transitive verbs

The relevance of this questionnaire for the cross-linguistic investigation of transitivity prominence is illustrated by the following table, which compares the usual constructions expressing the 30 verb meanings in the following languages:

- Jóola Fóoñi (Atlantic), a language with an extremely high level of transitivity prominence;
- Italian (Romance) and Mandinka (Mande), two languages with a moderate level of transitivity prominence;
- Russian (Slavic), a language with a relatively low level of transitivity prominence;

- Northern Akhvakh (East Caucasian), a language with an extremely low level of transitivity prominence.

In this table, the verbs that select the transitive construction when they express the relevant meaning are tagged with (+), those selecting other types of coding are tagged with (–), and those with two possible constructions for the relevant meaning are tagged with (±).

	Jóola Fooñi	Italian	Mandinka	Russian	Northern Akhvakh
1	lóúm (+)	attaccare (+)	bòyí + kâñ (–) bòyĩkâñ (+)	napast' na (–)	λ'ado abažuruła (–)
2	kólí (+)	temere (+) avere paura (–)	silà + lá (–)	bojat'sja + gén. (–)	λūruła (–)
3	bunt (+)	tradire (+)	jàmfaa (+)	izmenit' + dat. (–)	χijjanahilōruła (–)
4	rum (+)	mordere (+)	kĩñ (+)	kusat' (+)	q'eleč'uruła (–)
5	wonk (+)	chiamare (+)	kìlì (+)	zvat' (+)	žōruła (+)
6	ñito (–)	scalare (+) arrampicarsi (–)	sélè (+ lá) (±)	vlezt' na (–), podnjat'sja na (–)	χ̄eruruła (–)
7	típ (+)	attraversare (+)	tèyí (+ lá) (±)	perexodit' (+)	goč'uruła (+)
8	jútú (+)	disprezzare (+)	jútú + lá (–)	prezirat' (+)	mañuq'efuruła (–)
9	pak (+)	sfuggire a (–)	kàná + má (–)	sbežat' ot (–)	χ̄ ^w ašarilōruła (–)
10	took (+)	trovare (+)	tàrá (+)	naxodit' (+)	mičunuła (–)
11	riiben (+)	seguire (+)	báyindi (+)	sledovat' za (–)	q'edołuruła (–)
12	loñ (+)	dimenticare (+) dimenticarsi di (–)	ñiná + lá (–)	zabyvat' o (–)	hidičuruła (–)
13	lat (+)	detestare, odiare (+)	kōñ (+)	nenavidet' (+)	kit'ałuruła (–)
14	jam (+)	sentire (+)	móyì (+)	slyšat' (+)	ãλ'unuła (–)
15	ramben (+)	aiutare (+)	dèemá (+)	pomoč' + dat. (–)	komoki gūruła (–)
16	tek (+)	colpire (+)	búsá (+)	udarit' (+)	λ̄ ^w aruruła (–)
17	manj (+)	conoscere (+)	lōñ (+)	znat' (+)	beq'uruła (–)
18	lúu (+)	burlarsi di (–) ridere di (–)	jélè (+)	izdevat'sja nad (–)	λ'ado badałuruła (–)
19	mañ (+)	amare (+) voler bene a (–)	kànú (+)	ljubit' (+)	k ^w ilunuła (–)
20	janten (+)	ascoltare (+)	lámóyì (+)	slušat' (+)	hādaχuruła (–)
21	jikeer (+)	guardare (+)	jūubêe (+)	smotret' na (–)	equruła (–)
22	soola (+)	aver bisogno, occorrere (–)	sùulá + lá (–)	nuždat'sja v (–)	q' ^w arašunuła (–)
23	bóténí (+)	avere pietà di (–)	báláfāa + yé (–)	žal' + dat., gén. (–)	guñilōruła (–)
24	ñuumul (+)	sgridare (+)	dóoyāa (+)	rugat' (+)	nañuruła (–)
25	ñes (+)	cercare (+)	ñínì (+)	iskat' (+)	eqēdōruła (+)
26	juk (+)	vedere (+)	jé (+)	videt' (+)	hariguruła (–)
27	gor (+)	toccare (+)	māa (+)	dotronut'sja do (–)	q'ūnuła (–)
28	fium (+)	fidarsi di (–)	lāa + lá (–)	doverit'sja + dat. (–)	bužuruła (–)

29	kob (+)	aspettare (+)	bàtú (+)	ždat' (+ gén.)	čani biḡuruḷa
30	maḡ (+)	volere (+)	lâfi + lá (-)	xotet' (+)	kʷiḷunuḷa (-)
	29 vs. 1	23 vs. 7	20.5 vs. 9.5	15.5 vs. 14.5	3vs. 27

Table 3. The 30 verb meanings in Jóola Fooñi, Italian, Mandinka, Russian and Northern Akhvakh

Within the limits of this sample, the ratio of transitive coding and other types of coding is 29 vs. 1 for Jóola Fooñi, 23 vs. 7 for Italian, 20.5 vs. 9.5 for Mandinka, 15.5 vs. 14.5 for Russian, and 3 vs. 27 for Northern Akhvakh.⁸⁰

According to Haspelmath's (2015) evaluation of the degree of transitivity prominence in the 36 languages of the world-wide sample of the Leipzig Valency Classes Project, Mandinka occupies the 18th rank (ex-æquo with Italian), Russian occupies the 32nd rank, and the last rank is occupied by a language (Bezhta) belonging to the same East Caucasian language family as Northern Akhvakh. Interestingly, the 50% of transitive verbs found by Haspelmath for Russian on the basis of the questionnaire of the Leipzig Valency Classes Project is not very different from the ratio of <A, P> coding vs. other types of coding (15.5 vs. 14.5) for the 30 verb meanings of my questionnaire.

7.1.4 An illustration: transitivity prominence in a sample of sub-Saharan languages

In (Creissels 2017b), I applied this questionnaire to a sample of 17 genetically diverse languages of sub-Saharan Africa, and found the following results:⁸¹

Tswana	Bantu, Benue-Congo, Niger-Congo	29.5 vs. 0.5
Jóola Fóoñi	Joola, Atlantic, Niger-Congo	29 vs. 1
Wolof	Wolof, Atlantic, Niger-Congo	29 vs. 1
Lingala	Bantu, Benue-Congo, Niger-Congo	28.5 vs. 1.5
Beja	Beja, Cushitic, Afroasiatic	27.5 vs. 2.5
Kanuri	Western Saharan, Saharan	26 vs. 4
Jamsay	Dogon	25 vs. 5
Gbaya	Gbaya-Manza-Ngbaka	24 vs. 6
Sar	Sara-Bongo-Bagirmi, Central Sudanic	23 vs. 7
Yoruba	Defoid, Benue-Congo, Niger-Congo	21 vs. 9
Baule	Tano, Kwa, Niger-Congo	20.5 vs. 9.5
Hausa	West Chadic, Chadic, Afroasiatic	20.5 vs. 9.5
Mandinka	Central Mande, Mande	20,5 vs. 9,5

⁸⁰ In this evaluation, cells including two verbs with different constructions, or a single verb with two possible constructions both expressing the relevant meaning, have been counted for 0.5.

⁸¹ The discrepancy between my own evaluation of the degree of transitivity prominence in Yorùbá and Haspelmath's evaluation is due to the fact that Haspelmath's evaluation is based on an account of the valency properties of Yoruba verbs (Atoyebi 2015) in which transitive coding proper is not distinguished from another type of coding frame found with quite a few bivalent verbs, in which one of two essential participants is not coded like typical patients, but like adnominal possessors. The origin of this error, which led to an over-evaluation of the proportion of verbs selecting transitive coding, is that the distinction between transitive coding and the coding frame in which a participant is encoded like adnominal possessors is obvious only if the participant in question is represented by a 2nd or 3rd person singular pronoun. In the other cases, the distinction relies on vowel length and tone distinctions that are not apparent in the current orthography, and consequently easily pass unnoticed in a superficial observation.

Soninke	Soninke-Bozo Mande	18 vs. 12
Gagnoa Bete	Kru, Niger-Congo	17.5 vs. 12.5
Fon	Gbe, Kwa, Niger-Congo	17 vs. 13
Koroboro Senni	Songhay	13 vs. 17

Table 4. The 30 verb meanings in a sample of sub-Saharan languages

These results confirm Haspelmath’s conclusion in the sense that, within the limits of this sample of genetically diverse languages spoken in sub-Saharan Africa, there is a high proportion of languages with a very high degree of transitivity prominence, and no language with a degree of transitivity prominence as low as that found in some Caucasian languages.

It is interesting to observe that the relatively low ratio of transitive coding in Koroboro Senni is related to a particularity of the system of participant coding in this language, already presented in chapter 3 §3.4.2.1. In addition to transitive verbs, characterized by the APV(X) coding frame, and to bivalent verbs with a coding frame in which one of the two essential participants is encoded as a postpositional phrase in post-verbal position, Koroboro Senni has a class of bivalent verbs (designated as ‘VO verbs’ by Heath (1999), but which I propose to characterize rather as ‘quasitransitive’), with one of the two participants encoded in postverbal position (which distinguishes it from the P term in transitive coding), but unflagged (which distinguishes it from ordinary obliques). For example, ‘see’, which cross-linguistically shows a relatively strong tendency to select transitive coding, is treated as a quasitransitive verb in Koroboro Senni, as can be seen by comparing the construction of *wii* ‘kill’ (55a) with that of *dii* ‘see’ (55b).

(4) Koroboro Senni (Songhay)

- a *Woy-oo na ar-oo wii.*
 woman-D CPL.TR man-D kill
 ‘The woman killed the man.’
- b *Ay dii boro foo.*
 1SG see person one
 ‘I saw a person.’
 (Heath 1999: 121, 212)

In addition to *dii* ‘see’, the valency class of Koroboro Senni that I propose to characterize as quasitransitive includes verbs such as *hambur* ‘be afraid of’, *naaney* ‘trust’, *hanga* ‘follow’, *muraadu* ‘need’, *baa* ‘want’ or *maa* ‘hear’, which are not prototypically transitive, but have nevertheless a relatively strong propensity to be treated as transitive cross-linguistically.

In (Creissels 2017b), I also evaluated the relative propensity of the verb meanings included in the questionnaire to select the transitive construction. The following table ranks the 30 verb meanings included in the questionnaire according to the percentage of the languages in the sample in which their usual expression involves transitive coding.

100%	FIND, HIT, KNOW, WAIT FOR
97%	LOOK AT
94%	BITE, SEARCH FOR
91%	BETRAY, CALL, CROSS, HELP
88%	HEAR, LAUGH AT, SEE, WANT

85%	TOUCH
79%	FOLLOW
76%	HATE, LISTEN TO
73%	LIKE
70%	DESPISE
58%	SCOLD
55%	FORGET
50%	ATTACK, CLIMB
47%	NEED
44%	BE AFRAID OF
41%	PITY, TRUST
35%	ESCAPE FROM

Table 5. The 30 verb meanings ranked according to the percentage of languages in the sample in which their usual expression involves transitive coding

However, similar evaluations for language samples representative of various geographical areas would be necessary before trying to disentangle universal tendencies from areal effects in the ranking of bivalent verb meanings according to their affinity with transitive coding.

7.2 Trivalent verbs and transitivity

7.2.1 A note on terminology

The terms ‘ditransitive verb’ and ‘ditransitive construction’ are commonly used in the discussion of the questions addressed in this section, with, however, meanings that vary from one author to another. Logically, given the definition of ‘transitive’ adopted in this book, ‘ditransitive’ could conveniently be used with reference to coding frames including two terms showing the same coding properties as the P term of the transitive construction (commonly designated as ‘double-object constructions’), or to verbs selecting such coding frames, but very few authors retain this definition of ‘ditransitive’.

In the introductory chapter of a volume that constitutes an important milestone in the typological investigation of the syntactic properties of trivalent verbs, Malchukov & al. (2010b) explicitly define ‘ditransitive’ as referring to the SEMANTIC class of verbs whose participant structure includes an agent, a ‘recipient-like’ participant, and a ‘theme’, regardless of the formal manifestation of the participants. As they themselves acknowledge, according to this definition, trivalent verbs such as *put* (*s.th. s.wh.*), *accuse* (*s.o. of s.th.*), or *replace* (*s.o./s.th. by s.o./s.th.*), do not belong to the set of ditransitive verbs. Malchukov & al. (2010b) also acknowledge that the notion of possession is crucial for the definition of the semantic role of recipient that characterizes ‘most typical’ ditransitive verbs. But at the same time, after stating that “formal properties of languages are too heterogeneous to serve as a basis for a definition”, they decide to include ‘show’ and ‘tell’ in their definition of ‘ditransitive’ (and consequently, to analyze their participant structure as including a ‘recipient-like’ participant) simply because many languages treat them formally in the same way as the verbs of giving.

In addition to the unclarity of this definition of ‘ditransitive’, in the recent literature, the same term is found with at least two other meanings, and many authors simply use

formulations such as ‘ditransitive verbs, such as *give*’, without clarifying how ‘such as’ should be understood. On the one hand, ‘ditransitive’ is sometimes used as simply synonymous with ‘trivalent’. On the other hand, ‘ditransitive’ may be found as a label for the syntactic class of the verbs that select the same coding frame as ‘*give*’, without any reference to their possible participant structure.

In fact, the variation and inconsistencies in the use of the term ‘ditransitive’ in the literature are such that the only way of avoiding ambiguities and misunderstandings is to refrain from using it. In this book, constructions including two terms showing the same coding properties as P in the transitive construction will be transparently designated as ‘double-P constructions’, and for semantic classes of trivalent verbs, I will use terms such as ‘verbs of transfer’ or ‘verbs of giving’ that leave no doubt about the semantic nature of the criteria on the basis of which they are delimited.

7.2.2 Verbs of giving and other semantic classes of trivalent verbs

Taking ‘goal’ and ‘transferee’ in a very broad sense, the participant structure of most trivalent verbs can be analyzed as consisting of an agent, a transferee and a goal. This characterization encompasses subclasses such as verbs of giving, verbs of verbal interaction, or verbs of caused motion. The term TRANSFER VERB can be used as a cover term for the trivalent verbs whose participant frame includes participants broadly characterizable as a transferee and a goal. There are, however, trivalent verbs whose participant structure does not meet this definition. In addition to *accuse* (s.o. of s.th.) and *replace* (s.o./s.th. by s.o./s.th.), already mentioned above, one may quote *deprive* (s.o. of s.th.) or *deny* (s.th. to s.o.).

According to Malchukov & al. (2010b: 1), “Ditransitive constructions [in the sense of coding frames selected by verbs of giving, see §7.2.1 above] are the most typical three-argument constructions, just as (mono-) transitive constructions are the most typical two-argument constructions”. In fact, this statement is highly controversial.

There can be little doubt that, among two-participant verbs, the class of verbs whose participant structure can be analyzed as including an agent and a patient is in most languages (if not all) both numerically important and homogeneous regarding the syntactic properties of its members, which justifies analyzing the construction of such verbs as the most typical construction for bivalent verbs. By contrast, (and this is in fact acknowledged by Malchukov & al. (2010b) a few lines further on), “some languages only have a handful of ditransitive verbs [in the sense of verbs of giving], and not uncommonly these do not behave alike”.

In particular, many languages have been described as having a verb ‘give’ with unique morphosyntactic properties. For example, Dimmendaal (2010) observes that, in Tima (Katla, Niger-Congo), “the behavior of the morphologically underived verb ‘give’ is special and irregular in a number of ways”. Similarly, according to Klammer (2010), in the Papuan language Teiwa, “the only verb that may be used in a ditransitive construction [in the sense of double-P construction] is the verb *an* ‘give’”. Hausa (Chadic) is another case in point.⁸²

Kittilä (2006) describes ‘give’ as a “very atypical trivalent verb”. After a cross-linguistic overview of its particularities, he analyzes them as following from the fact that, semantically, ‘give’ shares a number of features with the bivalent verbs that meet the definition of

⁸² Moreover, the specificity of ‘give’ is not limited to its syntactic behavior. ‘Give’ is also unique in having suppletive forms depending on the person of the recipient in quite a few languages, cf. (Comrie 2003).

prototypical transitivity, and consequently tends to outrank other trivalent verbs in syntactic transitivity.

In such conditions, the verbs of giving may be particularly frequent in texts, but it is not clear in what sense they could be viewed as the “most typical” trivalent verbs. Consequently, the idea that the verbs of giving are the most typical trivalent verbs is not retained in this book.

The subclasses of transfer verbs mainly differ in the nature of the transferee (concrete entities, as in the case of *send*, or immaterial entities, as in the case of verbs of verbal interaction), and in the fact that the goal is conceived in purely physical/spatial terms, or in terms of personal sphere of an individual (possession). In this respect, contrary to what is often suggested in studies devoted to the valency properties of transfer verbs, recipients (i.e., goals of the verbs of giving) cannot be equated with animate goals. For example, in a sentence such as *God sent an angel to Mary*, *Mary* is undoubtedly an animate goal, but cannot be characterized as a recipient, since no idea of possession is implied.

In this connection, it is worth emphasizing that, in the participant structure of *give* and its equivalents in many languages, the goal cannot be unambiguously characterized as a recipient. For example, in a sentence such as *John gave me ten euros for you* in the sense of ‘ten euros intended for you’, *me* is not a recipient, in the sense that the future possessor of the ten euros is the referent of the *for*-phrase. This explains why some languages have two possible codings for the goal of ‘give’, one implying that it must be interpreted as a recipient in the strict sense of this term, the other leaving open the possibility of an interpretation in terms of mere physical transfer. As discussed by Daniel & al. (2010), this is a common situation in Nakh-Daghestanian languages. Among the examples they quote, the following one comes from my own data on Northern Akhvakh. In the first part of the sentence, ‘he gave me’ is expressed with the goal in the dative case, because the donkey comes into the recipient’s possession, whereas in the second part of the sentence, ‘he gave me’ is expressed with the goal in the allative case, because the list of the villages the speaker has to visit is not an object of possession.

(5) Northern Akhvakh (Avar-Andic-TsezicNakh-Daghestanian)

χani-ṣ^w-e *dī-λa* *če* *imiχi* *o-ṣ-ari*,
governor-OF.M-ERG **1SG-DAT** one donkey **I_{SP}:N-give-CPL**
‘The governor gave (offered) me a donkey,
bešanoda *hā-λ̄i* *č’eri* *λ’a* *q^war-ada* *kaβa* *o-ṣ-ari* *dī-λ̄ira*.
hundred village-GEN name on write.PTCP.CPL paper **I_{SP}:N-give-CPL** **1SG-ALL**
and (handed me) a paper on which a list of hundred villages was written.’

As illustrated in (6), some languages have two ‘give’ verbs with two distinct coding frames whose choice reflects the same semantic distinction. In Soninke, *ku* implies that the goal can be characterized as a future possessor, whereas *kinì* does not carry any implication in this respect. With *kinì*, the position immediately to the left of the verb, which in Soninke characterizes the P term of the transitive construction, is occupied by the transferee phrase (and the goal is encoded as an oblique), whereas with *ku*, the preverbal position is occupied by the goal phrase (and the transferee is encoded as an oblique).

(6) Soninke (Soninke-Bozo, Mande)

- a *Múusá dà qáliši-n kìnì Dénbà yí.*
 PRN CPL.TR money-D give PRN POSTP
 ‘Moussa gave the money to Demba.’
- b *Múusá dà Dénbà kú qáliší yà.*
 PRN CPL.TR PRN give money POSTP
 ‘Moussa gave money to Demba.’

Another important observation about the participant frame of trivalent verbs concerns the particular case of the verbs of transaction, such as ‘sell’ / ‘buy’, whose distinctive property is that their participant structure can be glossed as ‘X and Y negotiate the transfer of Z from X to Y’. What is special with the verbs of transaction, and distinguishes them from most other trivalent verbs, is that their participant frame includes not one, but two agentive participants. This explains why transaction verbs often go in pairs differing in the choice of the participant encoded as A (source of transfer, as in *sell* or *lend*, or destination of transfer, as in *buy* or *borrow*). Interestingly, transaction verbs whose coding frame is ambiguous about the possibility of interpreting the A phrase as referring to the source or destination of transfer, as English *rent*, are common cross-linguistically.

Finally, regarding the semantics of the verbs of giving, I would like to challenge an analysis that has been proposed in the literature, according to which ‘give’ could be glossed as ‘cause to have’. In fact, although transitive ‘have’ verbs are extremely common cross-linguistically, I am aware of no language in which ‘give’ would be morphologically a causative verb derived from ‘have’, which is enough to cast serious doubts on the validity of this analysis. Moreover, this comes as no surprise if account is taken of the fact that *X makes Y have Z* implies that Z enters the personal sphere of Y without saying anything about the source of transfer, whereas *X gives Z to Y* identifies X as the source of transfer.

7.2.3 Single-P constructions and double-P constructions

As a rule, the basic coding frame of trivalent verbs is either a SINGLE-P coding frame, or a DOUBLE-P coding frame. In both cases, the agent-like participant (or one of the two agent-like participants in the case of the verbs of transaction) is encoded like the A term of the transitive construction. In the single-P type of coding, one of the other two essential participants is encoded like the P term of the transitive construction, and the third one is assigned a distinct coding. In the double-P type of coding, two participants show coding characteristics identical to those of the P term in the transitive construction.

Examples (7) to (10) illustrate the single-P type of coding.

(7) Hungarian (Ugric, Uralic)

- a *János pénz-t keresett.*
 PRN money-ACC earn.PST.I_{S/A}:3SG
 ‘János earned money.’
- b *János pénz-t adott Béla-nak.*
 PRN money-ACC give.PST.I_{S/A}:3SG PRN-DAT
 ‘János gave money to Béla.’

(8) Northern Akhvakh (Avar-Andic-TsezicNakh-Daghestanian)

- a *Hu-s̄^w-e* *koča* *b-eχ-ari*.
 DEM-OF.M-ERG book(N) Ip:N-take-CPL
 ‘He took the book.’
- b *Hu-s̄^w-e* *koča* *o-x̄-ari*. *di-λa*.
 DEM-OF.M-ERG book(N) Ip:N-give-CPL 1SG-DAT
 ‘He gave me the book.’

(9) Chamorro (Chamorro, Austronesian)

- a *Ha tuge’ i kannastra*.
 I_A:3SG weave D basket
 ‘S/he wove the basket.’
- b *Ha na’i i patgon ni leche*.
 I_A:3SG give D child OBL milk
 ‘S/he gave the child milk.’
 (Topping 1973: 241, 251)

(10) Yoruba (Defoid, Benue-Congo, Niger-Congo)

- a *Adé pa ejò náà*.
 PRN kill snake D
 ‘Ade killed the snake.’
- b *Bólá fún Adé ní ìwé*.
 PRN give PRN PREP book
 ‘Bola gave Ade a book.’
 (Atoyebi & al. 2010: 145, 146)

The double-P type of coding, relatively marginal in the modern languages of Europe, is very common in the remainder of the world.⁸³ Examples (11) and (12) illustrate this type of coding in languages that do not have a mechanism of P indexation, but in which the P term of the transitive construction is overtly flagged.

(11) Panyjima (Western Pama-Nyungan, Pama-Nyungan)

- a *Ngunha parnka ngarnarta mantu-yu*.
 DEM lizard eat.FUT meat-ACC
 ‘That lizard will eat the meat.’
- b *Ngatha yukurru-ku mantu-yu yinyanha*.
 1SG dog-ACC meat-ACC give.CPL
 ‘I gave the dog meat.’
 (Dench 1991: 195)

⁸³ The double-P type of coding was also common for some semantic types of trivalent verbs in several ancient Indo-European languages, see e.g. Luraghi & Zanchi 2018.

(12) Yaqui (Cahita, Uto-Aztecan)

- a *U yoeme tabu-ta bwise-k*
 D man rabbit-ACC catch-CPL
 ‘The man caught the rabbit.’
- b *U yoeme jamut-ta kaba’i-ta miika-k.*
 D man woman-ACC horse-ACC give-CPL
 ‘The man gave the woman a horse.’
 (Estrada Fernández & al. 2015a: 1359, 1361)

Example (13) also illustrates the double-P type of coding in a language in which P is overtly flagged but not indexed. The fact that accusative flagging is optional for one of the two P phrases is simply the consequence of the rule of differential P flagging that operates in Northern Mao, according to which accusative flagging is optional for P phrases in immediate preverbal position, obligatory in other positions. The variation in constituent order does not affect the denotative meaning of the clause, and is presumably related to information structure.

(13) Northern Mao (Mao, Omotic, Afroasiatic)

- a *Múnts’-ìf fò:f(-nà) ha-pí-’á. ~ fò:f-nà múnts’-ìf ha-pí-’á.*
 woman-S/A snake(-ACC) AFF-kill-DECL snake-ACC woman-S/A AFF-kill-DECL
 ‘A woman killed a snake.’
- b *Íf p’ìf-nà ko:fmiş(-nà) ha-tí-tà-á.*
 D child-ACC toy(-ACC) AFF-_{S/A}:1SG-give-DECL
 ‘I gave the child a toy.’
- c *Ko:fmiş-nà íf p’ìf(-nà) ha-tí-tà-á.*
 toy-ACC D child(-ACC) AFF-_{S/A}:1SG-give-DECL
 ‘I gave the child a toy.’
 (Ahland 2012: 529, 530, 539)

Example (14) illustrates the double-P type of coding manifested in indexation. In (14d), both the goal and the transferee are indexed by means of indexes identical to those used to index P in the transitive construction of bivalent verbs. In (14d), the goal and the transferee are not represented by identical indexes, but this is a mere consequence of the fact that, in Tswana, P indexes encode the gender and number of their antecedent.

(14) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-tlhàtsw-à lò-sí:à.*
_{S/A}:1SG-FUT-wash-FV SG-baby(cl11)
 ‘I’ll wash the baby.’
- b *Kì-tlàà-ló-tlhâ:tsw-à.*
{S/A}:1SG-FUT-{I_P}:cl11-wash-FV
 ‘I’ll wash it.’
- c *Kì-tlàà-f-á lò-síá má:-fí.*
_{S/A}:1SG-FUT-give-FV SG-baby(cl11) PL-milk(cl6)
 ‘I’ll give the milk to the baby.’

- d *Ki-tlàà-á-lò:-f-á.*
 I_{S/A}:1SG-FUT-I_P:cl6-I_P:cl11-give-FV
 ‘I’ll give it to it.’

In the languages that have double-P constructions, it may happen that some trivalent verb have two possible constructions, a single-P construction and a double-P construction. This alternation, for which the term *DATIVE SHIFT* is commonly found in the literature, is classified in this book as a type of flexivalency alternation designated as *ASYMMETRIC P-X REVERSAL* (see chapter 15 §15.6.2.2). For example, in English, both constructions are possible in *He gave the money to John / He gave John the money*, but when the transferee is expressed as a pronoun (as in *He gave it to him / ?He gave him it*), the double-P construction is not accepted by all speakers.

In Wolof, *jox* ‘give’ is commonly found in a double-P construction, but according to Becher (2005), a single-P construction with the recipient flagged by the locative preposition *ci* is required if the recipient is indefinite.

(15) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Jox naa xale bu jigéen ji benn welo.*
 give PRF.I_{S/A}:1SG child(clB) clB.LK female clJ.D IDF bicycle(clB)
 ‘I gave the girl a bicycle.’
- b *Jox naa welo bi ci benn xale bu jigéen.*
 give PRF.I_{S/A}:1SG bicycle(clB) clB.D LOC IDF child(clB) clB.LK female
 ‘I gave the bicycle to a girl.’
 (Becher 2005: 19)

7.2.4 Indirective vs. secundative alignment in single-P constructions of transfer verbs

As can be seen from examples (7) to (10) above, in the single-P type of coding of the trivalent verbs whose participant structure includes a goal (G) and a transferee (T), there is variation in the choice of the participant encoded as P. In the recent typological literature, the choice of the transferee as the participant encoded as P (as in examples (7) and (8)) is referred to as *indirective alignment*, whereas the choice of the goal as the participant encoded as P (as in examples (9) and (10)) is referred to as *secundative alignment*.

As already illustrated by example (6) above, indirective and secundative alignment may co-exist in the same language. They may even alternate with the same verb. According to König & Heine (2010), the western variety of the Kx’a language !Xun has a verb *|á’ā* ‘give’ that can occur indifferently in an indirective construction (16a) or in a secundative construction (16b). The same multifunctional preposition *kē* flags the goal in the indirective construction and the transferee in the secundative construction, and there is no dissymmetry in the behavior of transferee phrases and recipient phrases. For example, the recipient in the secundative construction and the transferee in the indirective construction can equally be converted into the S term of passive constructions in which the agent is encoded as a prepositional oblique flagged by the same preposition *kē* (16c-d).

- (16) Western !Xun (!Xun, Kx'a)
- a *Mí má kē |à'ā càūn kē dàbà.*
 1SG TOP PST give porridge PREP child
 'I gave the child porridge.'
- b *Mí má kē |à'ā dàbà kē càūn.*
 1SG TOP PST give child PREP porridge
 'I gave the child porridge.'
- c *Dàbà má kē |à'ā tí kē tūú (kē mí).*
 child TOP PST give PASS PREP book PREP 1SG
 'The child was given a book (by me).'
- d *Tūú má kē |à'ā tí kē dàbà (kē mí).*
 book TOP PST give PASS PREP child PREP 1SG
 'The book was given to the child (by me).'
- (König & Heine 2010: 80, 81, 83)

7.2.5 Oblique recipients in indirective constructions and oblique transferees in secundative constructions

7.2.5.1 Oblique recipients and dative coding

As already briefly commented in chapter 1 §1.3.3.6, in the languages in which the verbs of giving select a coding frame characterized by indirective alignment, the coding assigned to the recipient phrase is commonly designated as dative coding. In some of the languages in which a dative type of coding can be recognized according to this definition (but not all), the noun phrases showing dative coding have properties that distinguish them from ordinary obliques and justify giving dative phrases an intermediate status between core terms *stricto sensu* and obliques. As observed by Dimmendaal (2010) in his analysis of 'ditransitive constructions' in Tima (a Niger-Congo language spoken in Central Sudan), "the somewhat ambiguous status of dative complements between core and periphery is known to be a property of many languages".

In particular, the indexation of dative terms is relatively common cross-linguistically, whereas the indexation of other types of obliques is exceptional, and it is not uncommon that the same set of indexes is used, at least partially, for P indexation and dative indexation.

In this connection, it is interesting to observe that the grammaticalization path ALLATIVE FLAGGING > DATIVE FLAGGING > P FLAGGING is common cross-linguistically, as illustrated by the evolution of the Latin preposition *ad*, originally an allative preposition that acquired a dative function, and eventually also an accusative function in Spanish and some other Romance varieties.

It is also interesting to observe that many languages (in particular, Romance languages) attest a propensity of dative coding to acquire uses that cannot be justified by semantic affinities between the role of recipient and the other semantic roles encoded by means of dative phrases. A possible explanation is that dative coding may acquire the function of default coding for essential participants (i.e., participants whose semantic role is implied by the lexical meaning of the verb) that are not expressed as core syntactic terms. For example, in French, 'steal X's Y' is expressed as *voler Y à X*, and 'borrow X from Y' is expressed as *emprunter X à Y*, where *à* (originally an allative preposition) is the preposition also used to

code the recipient of *donner* ‘give’. With *acheter* ‘buy’, *acheter X à Y* is ambiguous between ‘buy X from Y’, Y being interpreted as one of the essential participants (the source of transfer), and ‘buy X for Y’, Y being interpreted as a benefactive adjunct (one of the so-called semantic functions of dative coding).

For more examples, references, and a detailed analysis of the grammaticalization of dative coding in Romance languages, readers are referred to (Fedriani & Prandi 2016).

7.2.5.2 *Oblique transferees*

In the most studied languages, secundative constructions are at most marginal, and this explains the obvious disparity between the literature devoted to indirective constructions and dative coding, and the literature on secundative constructions and the coding of oblique transferees.

Behavioral properties distinguishing oblique transferees in secundative constructions from ordinary obliques are described by Gerds (2010) in Halkomelem Salish, a language in which secundative alignment is the only possible option for trivalent verbs. Interestingly, transferees in the Halkomelem secundative constructions are flagged by an all-purpose preposition, which evokes the desemanticization of dative markers in Romance languages.

7.2.6 **Mismatches between flagging and indexation in the construction of trivalent verbs**

In the languages that have a mechanism of P indexation in the transitive construction, it may happen that, in the coding frame of trivalent verbs, the noun phrases representing the two non-agentive participants share the same flagging (or lack thereof) but differ in their indexation properties.

For example, in Swahili and some other Bantu languages, in the construction of the verb ‘give’, the recipient phrase behaves in all respects like the P term of the basic transitive construction. In particular, it can be indexed by means of the same set of verb prefixes as P. By contrast, the transferee phrase coincides with P in its lack of flagging, but differs from P in that it cannot be indexed (Creissels 2005).

The situation in Maore (a Bantu language closely related to Swahili) illustrates another possible type of mismatch between flagging and indexation. In Maore, the transferee of ‘give’ is unflagged and can be indexed, like the recipient, but the indexes referring to the recipient are the same as those indexing P in the basic transitive construction, whereas the transferee is indexed by means of a distinct set of indexes occupying a distinct position in the verbal template (Creissels 2005).

To summarize, both Swahili and Maore illustrate a type of construction of transfer verbs that cannot be unambiguously characterized as a double-P or secundative construction, since the recipient phrase behaves in all respects like P in the transitive construction, whereas the transferee phrase behaves neither exactly like P, nor like typical obliques.

As observed by Malchukov & al. (2010b), constructions of verbs of giving in which both the recipient and the transferee align with P in flagging, but the recipient is the only one that can be indexed as P, are cross-linguistically common.

7.2.7 Scenario-driven coding of the non-agentive participants in the construction of trivalent verbs

It may happen that, in the construction of trivalent verbs, the coding of one of the two non-agentive participants depends on some characteristics of the other non-agentive participant.

For example, in Spanish, in the construction of *presentar* ‘introduce’, the person being introduced is normally encoded as P, like the transferee in the construction of ‘give’, whereas the other non-agentive participant is coded as a dative oblique. This may result in ambiguities, as in (17a), since in the differential P flagging system of Spanish, animate P phrases are flagged by the same preposition as dative obliques. However, if the noun phrase referring to the person being introduced is not a personal name, and if the third participant is also encoded as a noun phrase (but not if it is encoded as a dative index), the ambiguity may be avoided by dropping the preposition *a*, as in (17b). In other words, the presence of a noun phrase referring to the goal licenses an exception to the rule according to which the coding of the transferee coincides with the coding of P in the transitive construction.

(17) Spanish (Italic, Indo-European)

- a *Presenté a Juan a María.*
 introduce.CPL.I_{S/A}:1SG ACC/DAT PRN(M) ACC/DAT PRN(F)
 ‘I introduced Juan to María.’ OR ‘I introduced María to Juan.’
- b *Presenté (a) mi mujer a mi jefe.*
 introduce.CPL.I_{S/A}:1SG ACC my wife(F) DAT my boss(M)
 ‘I introduced my wife to my boss.’

The so-called person-case constraint is a well-known instance of scenario-driven coding in the construction of trivalent verbs (Agnostopoulou 2017). This constraint is found in constructions of trivalent verbs involving a P term and a dative term that have the possibility of being indexed. Two main variants of the person-case constraint have been discussed in the literature: the weak person-case constraint forbids the combination of a 3rd person dative index with a 1st or 2nd person P index, whereas the strong person-case constraint also forbids the combinations of 1st and 2nd person indexes.

For example, in French, with a verb such as *présenter* ‘introduce’, whose coding frame includes a P term (the participant being introduced) and a dative term (the participant to whom someone is introduced), the only possible combinations of indexes are those involving a third person P index, as in (18b-d). The other logically possible combinations are not allowed, and the rule is that, if the participant being introduced (encoded as the P term of the construction) is an SAP, it must be encoded as an index, and the participant to whom someone is introduced can only be encoded as a prepositional phrase, as in (18e-h). The same constraint applies to all French verbs selecting the same coding frame as *présenter* (which is in fact the standard coding frame for ‘give’ and other trivalent verbs selecting an animate goal).

(18) French (Italic, Indo-European)

- a *Marie présentera Jean à René.*
 PRN introduce.FUT.I_{S/A}:3SG PRN DAT PRN
 ‘Marie will introduce Jean to René.’

- b *Marie le= lui= présentera.*
 PRN I_P:3SGM I_{DAT}:3SG introduce.FUT.I_{S/A}:3SG
 ‘Marie will introduce him to him/her.’
- c *Marie me= le= présentera.*
 PRN I_{DAT}:1SG I_P:3SGM introduce.FUT.I_{S/A}:3SG
 ‘Marie will introduce him to me.’
- d *Marie te= le= présentera.*
 PRN I_{DAT}:2SG I_P:3SGM introduce.FUT.I_{S/A}:3SG
 ‘Marie will introduce him to you.’
- e *Marie me= présentera à toi.*
 PRN I_{DAT}:1SG introduce.FUT.I_{S/A}:3SG DAT PRO.2SG
 ‘Marie will introduce me to you.’
- f *Marie me= présentera à lui.*
 PRN I_{DAT}:1SG introduce.FUT.I_{S/A}:3SG DAT PRO.3SGM
 ‘Marie will introduce me to him.’
- g *Marie te= présentera à moi.*
 PRN I_{DAT}:2SG introduce.FUT.I_{S/A}:3SG DAT PRO.1SG
 ‘Marie will introduce you to me.’
- h *Marie te= présentera à lui.*
 PRN I_{DAT}:2SG introduce.FUT.I_{S/A}:3SG DAT PRO.3SGM
 ‘Marie will introduce you to him.’

Basque has an even stronger constraint on the construction of trivalent verbs whose coding frame includes a P term and a dative term. In Basque, constructions combining a P term and a dative term are only possible if P does not represent an SAP.

7.2.8 Asymmetries in double-P constructions

The distinctive property of double-P constructions is that two participants are encoded as noun phrases showing the same flagging (or lack thereof) as the P term of the transitive construction, and can equally be indexed by means of P indexes, in the languages that have P indexation. However, double-P constructions show important cross-linguistic variation in the rules that regulate the relative order of the P phrases and in the possibility of indexing simultaneously the two participants they represent.

Tswana illustrates a type of double-P construction with no restriction on the possibility of indexing the two participants encoded as P phrases, and in which the linear order of the P phrases and of the P indexes is rigidly determined by animacy hierarchy. The rule is that the P phrase whose referent ranks higher in animacy hierarchy stands closer to the verb, and if the two P phrases are of equal rank, the position closer to the verb is taken by the P phrase whose referent fulfills a role typically fulfilled by humans, cf. example (19a). The verb can simultaneously index two participants by means of indexes identical to those used to index P in the transitive construction, and the linear order of the indexes is the mirror image of the linear order of their conominals, cf. example (19b).⁸⁴

⁸⁴ There seems to be some variation in the properties of the double-P construction across Tswana dialects. The data discussed in this book are from the Ngwaketse variety, on which I did most of my fieldwork on Tswana.

(19) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-f-il-é* *b-àná* *dì-kwá:lò.*
 I_{S/A}:1SG-give-PRF-FV PL-child(cl2) PL-book(cl10)
 ‘I gave the children the books.’
- b *Kì-dì-bà-f-î:l-é.*
 I_{S/A}:1SG-IP:cl10-IP:cl2-give-PRF-FV
 ‘I gave them (the books) to them (the children).’

Wolof (Atlantic) is another good example of a language with a double-P construction in which the two P terms can simultaneously be indexed by means of the same set of indexes, as in (20).⁸⁵

(20) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Dama* =y *jox* *ganaar* *gi* *dugub* *ji.*
 FocV.I_{S/A}:1SG =ICPL give hen(clG/Y)⁸⁶ clG.D millet(clJ) clJ.D
 ‘I am giving the millet to the hen.’
- b *Dama* =ko =ko =y *jox.*
 FocV.I_{S/A}:1SG-ICPL =IP:3SG =IP:3SG =ICPL give
 ‘I am giving it (the millet) to it (the hen).’

There are, however, important contrasts with the double-P construction of Tswana as regards the linear ordering of the P phrases and the P indexes. In Wolof, the relative order of the two P phrases in the double-P construction is free (21a-b), whereas the relative order of the P indexes is rigidly determined by a hierarchical rule. Regardless of the role of their referent, the P indexes are ordered according to the following hierarchy:

1st/2nd person > 3rd person plural > 3rd person singular

As illustrated in (21c), this results in ambiguity when a 3rd person singular index combines with a 3rd person plural index

(21) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Dama* =y *jox* *xale* *bi* *mango* *yi.*
 FocV.I_{S/A}:1SG =ICPL give child(clB/Y) clB.D mango(clB/Y) clY.D
 ‘I am giving the mangoes to the child.’
- b *Dama* =y *jox* *mango* *yi.* *xale* *bi.*
 FocV.I_{S/A}:1SG =ICPL give mango(clB/Y) clY.D child(clB/Y) clB.D
 ‘I am giving the mangoes to the child.’

⁸⁵ Note that, in Wolof, the gender distinctions that are apparent in noun modification are not expressed by pronouns and indexes, which in the 3rd person have just a singular form and a plural form, regardless of the gender of their antecedent.

⁸⁶ The notation ‘clG/Y’ means that *ganaar* triggers G agreement in the singular, and Y agreement in the plural. Most Wolof nouns have the same form in the singular and in the plural, and their number value can only be retrieved from the agreement marks on their modifiers.

- c *Dama* = *leen* = *ko* = *y* *jox*.
 FocV.I_{S/A}:1SG-ICPL =I_P:3PL =I_P:3SG =ICPL give
 ‘I am giving them to him/her.’ OR ‘I am giving it to them.’

Southern Sotho illustrates the case of a double-P construction in which two participants that can be indexed by means of the same P indexes cannot, however, be indexed simultaneously. Moreover, with the verbs of giving, it is possible to express the recipient as an index and the transferee as a free pronoun, but not the other way round. In other words, in the double-object construction of giving verbs, if both the transferee and the recipient are referred to anaphorically, the recipient must be encoded as an index, and the transferee as a free pronoun.

(22) Southern Sotho (Bantu, Benue-Congo, Niger-Congo)

- a *Ki-f-á* *bà-sádí* *li-fièlól*.
 I_{S/A}:1SG-give-FV PL-woman(cl2) SG-broom(cl5)
 ‘I give the broom to the women’
- b *Ki-bá-f-á* *li-fièlól*.
 I_{S/A}:1SG-I_P:cl2-give-FV SG-broom(cl5)
 ‘I give them the broom.’
- c *Ki-lí-f-á* *bà-sádì*.
 I_{S/A}:1SG-IP:cl5-give-FV PL-woman(cl2)
 ‘I give it to the women.’
- d *Ki-bá-f-à* *lònà*.
 I_{S/A}:1SG-I_P:cl2-give-FV cl5.PRO
 ‘I give it to them.’
- e **Ki-lí-f-à* *bònà*.
 I_{S/A}:1SG-I_P:cl5-give-FV cl2.PRO
 intended: ‘I give it to them.’

A similar situation, in which the transferee and the recipient are flagged in the same way, and can equally be indexed, but not both at the same time, is described by Schultze-Berndt (2010) in Jaminjung, a Non-Pama-Nyungan language of Northern Australia.

In Jóola Banjal (Atlantic), according to Bassène (2010: 195-196), the possibility of indexing simultaneously the two terms of the double-P constructions is limited by a constraint of the type commonly called ‘person-case constraint’ (see §7.2.7 above), according to which the simultaneous indexation of the recipient and the transferee is possible only if the recipient ranks higher than the transferee on the person scale (1 > 2 > 3).

As regards the behavioral properties of the two P terms of double-object constructions, the situation is even more complex. The hypothesis of a straightforward distinction between symmetrical double-P constructions (in which both P-terms equally show P-like properties in all respects) and asymmetrical double-P constructions (in which one of the two P terms shows more P-like properties than the other), sometimes suggested in the literature, does not stand scrutiny. As illustrated abundantly by the case studies in (Malchukov & al. 2010a), within a given language, the contrasts in the behavior of the two terms of double-P construction may vary both from a behavioral property to another, and from a trivalent verb to another.

In the remainder of this section, I limit myself to illustrating the variation in the behavior of double object constructions involving verbs of giving with respect to passivization.

As illustrated by example (23), in the double-P constructions of verbs of giving, it is usual that the recipient has access to the role of A in a passive construction, but not the transferee.

(23) Yaqui (Cahita, Uto-Aztecan)

- a *Inepo kareta-ta Maria-ta mikak.*
 1SG cart-ACC PRN-ACC give.CPL
 ‘I gave María a cart.’
- b *Maria kareta-ta mik-wa-k.*
 PRN cart-ACC give-PASS-CPL
 ‘María was given a cart.’
- c **Kareta Maria-ta mik-wa-k.*
 cart PRN-ACC give-PASS-CPL
 Intended meaning: ‘The car was given to María.’
 (Armendáriz 2000: 99, 100)

However, this is not always the case. In Jóola Banjal, it is the transferee that has access to the role of A in a passive construction, cf. example (24).

(24) Jóola Banjal (Joola, Atlantic, Niger-Congo)

- a *Aare aku na-sen-e fu-mangu a-ɲɲil aku.*
 woman(clA) clA.D I_{S/A}:clA-give-CPL SG-mango(clF) SG-child-(clA) clA.D
 ‘The woman gave a mango to the child.’
- b *Fu-mangu fi-sen-i a-ɲɲil aku.*
 SG-mango(clF) I_{S/A}:clF-give-PASS.CPL SG-child-(clA) clA.D
 ‘The mango was given to the child.’
- c **A-ɲɲil aku na-sen-i fu-mangu.*
 SG-child-(clA) clA.D I_{S/A}:clA-give-PASS.CPL SG-mango(clF)
 intended meaning: ‘The child was given a mango.’
 (Bassène 2010: 199)

In the double-P construction of the giving verbs of Tswana (Bantu), both P phrases may be converted into the A term of a passive construction, the other P phrase maintaining its P status, cf. ex. (25b-c). The only contrast between the two P terms is that, if the transferee is encoded as the A term of a passive construction, the recipient cannot be expressed as an index, cf. ex. (25d-e).

(25) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-fil-é b-àná dì-kwâ:lò.*
 I_{S/A}:1SG-give.PRF-FV PL-child(cl2) PL-book(cl10)
 ‘I gave the children the books.’
- b *B-àná ^lbá-fil-w-é dì-kwâ:lò.*
 PL-child(cl2) I_{S/A}:cl2-give.PRF-PASS-FV PL-book(cl10)
 ‘The children were given the books.’
- c *Dì-kwá:lò ^ldí-fil-w-é b-à:ná.*
 PL-book(cl10) I_{S/A}:cl10-give.PRF-PASS-FV PL-child(cl2)
 ‘The books were given to the children.’

- d *B-àná bá-dì-fì:l-w-è.*
 PL-child(cl2) I_{S/A}:cl2-I_P:cl10-give.PRF-PASS-FV
 ‘The children were given them (the books).’
- e **Dì-kwáló dí-bà-fì:l-w-è.*
 PL-book(cl10) I_{S/A}:cl10-I_P:cl2-give.PRF-PASS-FV
 intended: ‘The books were given to them (the children).’

7.2.9 A particular type of double-P construction

The languages that have two variants of the transitive construction differing in the position occupied by the P phrase may have a particular type of double-P construction in which each of the two positions in which the patient of prototypical transitive verbs can be expressed is occupied by one of the two P-phrases.

Zarma (Songhay) has two variants of the transitive construction differing in the position occupied by the P phrase: APVX, as in (26a), and AVPX, as in (26b). The verb *nóo* ‘give’ has three possible constructions. The constructions illustrated in (26c-d) can be described as indirective constructions in which the transferee phrase occupies one of the two positions available for P phrases, and the recipient is encoded as an oblique phrase flagged by a postposition, whereas the construction illustrated in (26e) can be analyzed as a double-P construction in which the recipient is encoded as a preverbal P, and the transferee is encoded as a postverbal P.

(26) Zarma (Songhay)

- a *Himù ga fèejì wii fuwòo banda.*
 PRN ICPL sheep kill house.D behind
 ‘Himou will kill a sheep behind the house.’
- b *Himù ga wii fèejì fuwòo banda.*
 PRN ICPL kill sheep house.D behind
 ‘Himou will kill a sheep behind the house.’
- c *Sorkãa nà nòoru noo taalibõo sè.*
 fisherman.D CPL money give student.D to
 ‘The fisherman gave money to the student.’
- d *Sorkãa Ø noo nòoru taalibõo sè.*
 fisherman.D CPL give money student.D to
 ‘The fisherman gave money to the student.’
- e *Sorkãa nà taalibõo noo nòoru.*
 fisherman.D CPL student.D give money
 ‘The fisherman gave money to the student.’
 (Abdoulaye 2009: 35, 36)

A similar phenomenon is found in the Kwa languages that have an alternation between unflagged P phrases in postverbal position and P phrases in preverbal position flagged by a preposition resulting from the grammaticalization of the verb ‘take’. However, in contrast to Zarma, in Kwa languages, it is the transferee that is encoded as a preverbal P phrase, which is consistent with the etymology of the preposition flagging preverbal P phrases.

A general characteristic of Kwa languages is that the use of ‘take’ as a P flag in the construction of bivalent verbs is relatively infrequent, and typically limited by semantic conditions. By contrast, with trivalent verbs, the *take*-construction with the constituent order ATV_G is more common, and may be obligatory in some conditions.

For example, in Baule, *man* ‘give’ can be found in a double-P construction AVGT, with two unflagged P phrases in postverbal construction, as in (27a), but if the transferee is definite, the only possible construction is the *take*-construction with G preceding the verb, as in (27c).

- (27) Baule (Tano, Kwa, Niger-Congo)
- a *Kuàkú màn-nìn mín sikǎ.*
 PRN five-CPL 1SG money
 ‘Kouakou gave me money.’
- b **Kuàkú màn-nìn mín sikǎ-n.*
 PRN five-CPL 1SG money-D
 intended ‘Kouakou gave me the money’
- c *Kuàkú fà-lì sikǎ-n màn-nìn mín.*
 PRN take-CPL money-D five-CPL 1SG
 ‘Kouakou gave me the money’
 (Creissels & Kouadio 2010: 177-178)

Synchronically, the recipient phrase in the construction illustrated in (27c) can be described as a preverbal P phrase flagged by ‘take’ acting as an accusative marker, since P phrases in the construction of transitive bivalent verbs can show the same coding, cf. example (28).

- (28) Baule (Tano, Kwa, Niger-Congo)
- Kuàkú fà-lì sikǎ-n kà-lí.*
 NPR take-CPL money-D count-CPL
 ‘Kouakou counted the money’

However, the difference in productivity between the use of ‘take’ as a P flag in the transitive construction and its use with recipient phrases in the construction of transfer verbs suggests that, historically, the grammaticalization of ‘take’ as a P flag in the transitive construction and its grammaticalization in the construction of transfer verbs are two distinct processes that do not necessarily develop in parallel.

Sinitic languages have an alternation between unflagged P phrases in postverbal position and P phrases in preverbal position similar in many respects (including its historical origin) to the alternation found in Kwa languages. Interestingly, in Mandarin, exactly as in Baule and other Kwa languages, the verb ‘give’ has a construction with the transferee encoded as a flagged P phrase in preverbal position, and the recipient encoded as an unflagged P phrase in postverbal position (Chappell & Shi 2016: 461).

7.2.10 Bivalent verbs in double-P constructions

In some languages, double-P constructions can be found not only with semantically trivalent verbs, but also with bivalent verbs, one of two P terms representing a beneficiary (i.e., a non-essential participant).

Cross-linguistically, as will be discussed in chapter 15 on applicative constructions, it is common that beneficiaries in the events denoted by bivalent transitive verbs are expressed as P phrases in double-P constructions licensed by applicative marking on the verb. However, in some languages, bivalent transitive verbs may occur in double-P constructions in which one of the P phrases represents a beneficiary without necessitating voice marking. Jóola Fóoñi illustrates this strategy, cf. example (29).

- (29) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)
Ni-wɔn~wɔnk Mosaa a-ñil-a-w.
 I_{S/A}:1SG-call~ASRT PRN(cIA) SG-child(cIA)-D-clA
 ‘I called the child for Moussa.’ lit. ‘I called Moussa the child.’

Given that, in Joola Fóoñi, non-specific participants encoded as P are commonly left unexpressed, the coding of beneficiaries of bivalent transitive verbs as one of the two P phrases of a double-P construction may give rise to ambiguities of the type illustrated in (30), where the P index can equally be interpreted as referring to the patient of the washing event or to a beneficiary.

- (30) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)
Pan i-pɔs-ɔɔl.
 FUT I_{S/A}:1SG-wash-IP:clA
 ‘I’ll wash him/her (the child).’ OR ‘I’ll do the washing for him/her.’

7.2.11 Recipients and beneficiaries encoded as adnominal possessors

After examining the variation in constructions in which, as can be expected, the participants in events involving three essential participants are encoded as distinct terms in the construction of trivalent verbs, we now turn to a cross-linguistically less common type of construction in which one of the participants is encoded as an adnominal possessor of the noun referring to the transferee. This phenomenon may concern essential participants in the role of recipient or non-essential participants in the role of beneficiary.

7.2.11.1 Adnominal possessors ambiguous between a possessor reading and a recipient/beneficiary reading

The constructions discussed in this section, known in the literature as ‘indirect object lowering constructions’ are single-P constructions in which the P phrase includes a noun phrase encoded as an adnominal possessor whose referent has the following characteristics:

- prior to the event denoted by the verb, the participant encoded as an adnominal possessor has no particular relationship with the referent of the noun projecting the P

Wichman (2010: 674) observes that, in Tlapanec, as illustrated in (34), the coding of beneficiaries as adnominal possessors is a source of ambiguity.

- (34) Tlapanec (Subtiapa-Tlapanec, Otomanguean)
Ma-ʔtsí gòʔ-oʔ.
 FUT-buy.I_A:3SG house-I_{ADP}:1SG
 ‘She will buy me a house.’ OR ‘She will buy my house.’
 (Wichmann 2010: 674)

The available literature suggests that such constructions are typically found with beneficiaries rather than with recipients, as explicitly indicated by Wichmann (2010: 674) for Tlapanec (Otomanguean). However, the extension of benefactive coding to recipients is a common type of evolution, and this probably explains that, in some languages at least, the same construction can be used to code recipients.

Malchukov (2019), analyzing this phenomenon as a particular case of a more general trend of “benefactive-possessive convergence”, quotes examples that seem to illustrate the coding of beneficiaries or recipients as adnominal possessors in a variety of Iranian languages.

- (35) (a) Vafsi (b) Persian (Iranian, Indo-European)
 a *Ketab=i d-do-m.*
 book=I:2SG FUT-give-I_{S/A}:1SG
 ‘I’ll give you a book.’
 b *Sämm=eš dad-äm.*
 poison=I:3SG give.PST-I_{S/A}:1SG
 lit. ‘I gave him poison.’
 (Stilo 2010: 263, Mahootian 1997: 140, quoted by Malchukov 2019)

However, in the Iranian examples, it is not always clear whether such constructions really involve possessive marking of the transferee, or perhaps rather the attachment of dative indexes or P indexes homonymous with adnominal possessor indexes to the transferee phrase. Creissels & Kouadio (2010) discuss a similar problem in Baule (Kwa). At first sight, the Baule construction they analyze seems to be an instance of coding of recipients or beneficiaries as adnominal possessors, but their conclusion is that a closer look at its syntactic properties rules out this interpretation.

7.2.11.2 *Recipients or beneficiaries coded as adnominal possessors in morphologically marked constructions*

Two cases of recipients or beneficiaries coded as adnominal possessors in morphologically marked constructions are briefly presented in this section: a Tungusic construction involving the so-called designative case, and a Samoyedic construction involving the so-called destinative marker.

As illustrated by example (36), in Tungusic languages, a special case marker (called ‘designative’) is used instead of the accusative to flag P phrases including an adnominal possessor referring to a recipient or beneficiary. (36a) is an unremarkable construction with an accusative-marked transferee phrase and a dative-marked recipient phrase, whereas in (36b),

the recipient is encoded as an adnominal possessor: in Even, adnominal possessors are in the zero case and are indexed on their head, for example, ‘the child’s sledge’ is rendered as *kunga turki-n*, lit. ‘child sledge-his’). However, the flagging of the P phrase by means of the so-called designative case (instead of the accusative) unambiguously indicates that the adnominal possessor included in the P phrase fulfills the semantic role of recipient.

(36) Even (Tungusic, Altaic)

- a *Etiken kunga-du turki-w bön.*
 old.man child-DAT sledge-ACC give.nFUT.I_{S/A}:3SG
 ‘The old man gave a sledge to the child.’
- b *Etiken kunga turki-ga-n bön.*
 old.man child sledge-DESIGN-I_{ADP}:3SG give.nFUT.I_{S/A}:3SG
 same meaning as (a)
 (Malchukov & Nedjalkov 2010: 327)

Example (37) shows that there is no possible ambiguity with the sentence denoting a situation where the sledge currently belonging to the child is given to someone else.

(37) Even (Tungusic, Altaic)

- Etiken kunga turki-wa-n bön.*
 old.man child sledge-ACC-I_{ADP}:3SG give.nFUT.I_{S/A}:3SG
 ‘The old man gave the child’s sledge.’
 (Malchukov & Nedjalkov 2010: 328)

Example (38) illustrates the same construction with an adnominal possessor representing a beneficiary.

(38) Even (Tungusic, Altaic)

- Etiken min turki-ga-w oon.*
 old.man 1SG sledge-DESIGN-I_{ADP}:1SG make.nFUT.I_{S/A}:3SG
 ‘The old man made a sledge for me.’
 (Malchukov & Nedjalkov 2010: 328)

In Samoyedic languages, the fact that an adnominal possessor included in the P phrase of a transitive construction must be interpreted as a recipient or beneficiary is signaled by a special destinative marker (also called ‘predestinative’) suffixed to the head noun. Note that, contrary to the ‘designative’ marker of Tungusic languages, it is not analyzable as a case marker, since its presence has no incidence on the use of the accusative marker.

(39) Tundra Nenets (Samoyedic, Uralic)

- a *Xasawa-nta mal’°c’a-d° sãd°-b’i.*
 man-GEN.3SG parka-DEST sew-DUR
 ‘She is sewing a parka for her husband.’

- b *Kniga-də-mt^o* *m'ijə-d^om.*
 book-DEST-ACC.I_{ADP}:2SG give-I_{A/S}:1SG
 'I gave you a book.'
 (Nikolaeva 2014: 74)

Moreover, in Samoyedic languages, the destinative marker can be found not only in P phrases, but also in S phrases, as in (40a), and in genitive-marked phrases expressing a functive meaning, as in (40b).

(40) Tundra Nenets (Samoyedic, Uralic)

- a *Xasawa n'ū-də-m'i* *soya.*
 male child-DEST-I_{ADP}:1SG be.born
 'A son was born to me.'
- b *T'uku^o ti-m* *ηəmcodə-d^o-naq* *temta-wewaq.*
 DEM reindeer-ACC food-DEST-GEN.I_{ADP}:1PL buy-INFR.I_A:1PL.I_P:SG
 'We bought this reindeer as food for ourselves.'
 (Nikolaeva 2014: 73, 76)

For more details about the (pre)destinative marker of Tundra Nenets, readers are referred to Nikolaeva (2014; 72-76).

7.3 Monovalent verbs and transitivity

There is a variety of ways in which monovalent verbs may be found in constructions including two terms with the coding characteristics of the A and P terms of the transitive construction. However, with monovalent verbs, in most cases, one of the two terms (most commonly, the P-like term) does not represent a participant, and consequently this term, in spite of its coding, must not be expected to behave in all respects like typical patients. For example, in the languages that have productive passive constructions, the atypical Ps found in transitive constructions of monovalent verbs must not necessarily be expected to have the ability to be converted into the S term of a passive construction.

7.3.1 Monovalent verbs used transitively with a beneficiary encoded as P

In the languages in which beneficiaries of bivalent transitive verbs are expressed as one of the two P phrases of a double-P construction (§7.2.10), it may happen that beneficiaries of monovalent verbs are similarly expressed as the P phrase of a single-P construction. For example, in Nawdm, the verb 'come (speaking of the night)' can be found not only in the intransitive construction illustrated in (41a), but also in the transitive construction illustrated in (41b), whose meaning is that the nightfall prevented the farmers from finishing their work.

(41) Nawdm (Oti-Volta, Gur, Niger-Congo)

- a *Nyingu nyin weem.*
 night(cIKU) come.CPL quickly
 'The night came quickly.'

- b *Nyingu nyin kpamb kpaadba weem.*
 night(cIKU) come.CPL field(cIB) cultivate.AgNMZ(cIBA) quickly
 ‘This night came too quickly for the farmers.’
 lit. ‘The night came the farmers quickly.’
 (Nicole 2017: 137)

7.3.2 Light-verb constructions

Light-verb constructions such as English *have a look*, *do a dance*, or *take a plunge*, depart from the canonical situation in which NPs in a direct syntactic relationship to verbs represent participants in an event encoded by the verb. Light-verb constructions are a particular type of complex predicate, in which a given type of event is lexified as the combination of a verb and a non-verbal word, the verb being semantically ‘light’ in the sense that its contribution to the conceptualization of an event is relatively small in comparison with that of the non-verbal element of the complex predicate. As illustrated by example (42), the non-verbal element of complex predicates of this type is often a noun, and it is particularly common that the light-verb construction has the coding characteristics of a transitive construction with the noun that constitutes the non-verbal element of the complex predicate in P role. This results in constructions in which the unique essential participant in the participant frame of semantically monovalent light-verb compounds is expressed as the A term of a transitive construction, as in (42a), and one of the essential participants in the coding frame of semantically bivalent light-verb compounds can only be expressed as an oblique, as in (42b).

(42) Central Basque (Euskaran)

- a *Haurr-ek lo egiten dute.*
 child-PL.ERG sleep do.ICPL have.PRS.I_{ERG}:3PL.I_{ZER}:3SG
 ‘The children are sleeping (lit. are doing sleep).’
- b *Gizon horr-ek ez du euskar-az hitz egiten.*
 man DEM.SG-ERG NEG have.PRS.I_{ERG}:3SG.I_{ZER}:3SG Basque-SG.INS word do.ICPL
 ‘This man does not speak Basque (lit. does not do word in Basque).’

Light-verb constructions are probably universal, but some languages use them with great frequency and systematically, and thus have a relatively limited number of verbal lexemes, in some cases less than a hundred. Some languages have a particularly high proportion of verb meanings expressed as light-verb compounds in which the light verb is a transitive verb (most often a verb with the meaning ‘do, make’, as in example (42),⁸⁷ but also ‘give’, ‘hit’, etc.), and the non-verbal element is a noun encoded like the P term of a transitive construction.

Languages in which light-verb constructions are particularly frequent can be equally found among languages in which the alignment $A = S \neq P$ (‘accusative’ alignment) is predominant (such as Japanese, Turkish, Persian, or Ewe), among languages in which the alignment $A \neq S = P$ (‘ergative’ alignment) is predominant (such as Tibetan or Lezgi), and among split-S languages (such as Basque). Examples (43) and (44) illustrate the use of Turkish *etmek* ‘do’ and Basque *egin* ‘do’ as light verbs..

⁸⁷ Schultze-Berndt (2008) is an insightful article on ‘do’ verbs.

(43) Turkish (Turkic, Altaic)

<i>hayret</i>	‘astonishment’	<i>hayret etmek</i>	‘be astonished’
<i>istirahat</i>	‘rest (noun)’	<i>istirahat etmek</i>	‘rest (verb)’
<i>kabul</i>	‘acceptance’	<i>kabul etmek</i>	‘accept’
<i>şüphe</i>	‘doubt (noun)’	<i>şüphe etmek</i>	‘doubt (verb)’
<i>taksim</i>	‘division’	<i>taksim etmek</i>	‘divide’
<i>vefat</i>	‘death’	<i>vefat etmek</i>	‘die’

(44) Central Basque (Euskaran)

<i>agur</i>	‘greeting’	<i>agur egin</i>	‘greet’
<i>barre</i>	‘laugh (noun)’	<i>barre egin</i>	‘laugh (verb)’
<i>amets</i>	‘dream (noun)’	<i>amets egin</i>	‘dream (verb)’
<i>leher</i>	‘explosion’	<i>leher egin</i>	‘explode’
<i>lo</i>	‘sleep (noun)’	<i>lo egin</i>	‘sleep (verb)’
<i>negar</i>	‘tear’	<i>negar egin</i>	‘cry’

Cross-linguistically, the nouns acting as the non-verbal element of light-verb compounds usually exhibit morphosyntactic properties different from those of noun phrases representing participants. For instance, in Basque and other languages where determiners are obligatory, light-verb compounds are often characterized by the use of bare nouns. And in languages with a relatively flexible constituent order, the nouns in light-verb compounds tend to exhibit limited mobility in relation to the verb.

The consequences of the evolution of light-verb constructions for the typology of participant coding systems have already been presented in chapter 5 §5.8.3. Readers are referred to Creissels (2015a) for a more detailed discussion of this question.

7.3.3 Cognate-P constructions with intransitive verbs

A COGNATE-P CONSTRUCTION (or cognate-object construction, cognate-accusative construction) is a construction in which a verb is used transitively with a cognate noun in P role. In its broad sense, the notion of cognate-P construction encompasses not only cognate Ps referring to the activity denoted by the verb, but also nouns referring to different manners of performing it: *run marathons*, *play tennis*, *speak English*, etc.

Cognate-P constructions are found with transitive verbs as a possible strategy for avoiding the specification of the participant normally encoded as P (see chapter 15 §15.1.1), but they are also found with verbs that cannot be used transitively with a participant encoded as P, as in example (45).

(45) English (Germanic, Indo-European)

<i>He slept a troubled sleep.</i>
<i>He laughed a bitter laugh.</i>
<i>He died a painful death.</i>
<i>He smiled a charming smile.</i>
<i>He danced a cheerful dance.</i>
<i>He walked their walk and talked their talk.</i> (i.e., He walked and talked as they did.)

In some of the languages that make a particularly wide use of such constructions, many verb meanings implying a sole essential participant can only be expressed via cognate-P constructions.

In the languages that do not have a productive category of manner adverbs, cognate-P constructions of the type illustrated in (45) above, with the cognate noun in P role modified by an adjective or a relative clause, even with verbs that cannot be used transitively with a participant encoded as P, may be used more or less systematically to express manner modification of the verb, as in example (46).

- (46) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)
Jl-kaan man jl-jamɔɔr ka-jamɔɔr k-ajake
 I_{S/A}:2PL-do CSC I_A:2PL-get.along INF(cIK)-get.along cIK-be.good.PTCP
 ‘Take care to ensure that you get along well.’
 lit. ‘Act in such a way that you get along a good getting along.’

Cognate-P constructions may also be motivated by the expression of predicate focus or verum focus (two information-structural notions commonly expressed cross-linguistically by the same morphosyntactic devices). In some of the languages that use this strategy, the cognate noun in P role is then encoded as a focalized NP. For example, the meaning expressed in English as ‘He did sleep’ is rendered literally as *It’s sleep that he slept*. Such constructions are common in Kwa and Western Benue-Congo languages, and in some Creole languages. Example (47) shows that the construction expressing predicate / verum focus in Yoruba (47c) is identical to that expressing P focus (47b), with the sole difference that the focus position is occupied by a nominalized form of the verb.

- (47) Yoruba (Defoid, Benue-Congo, Niger-Congo)
 a *Ajé ra iwé.*
 PRN buy book
 ‘Aje bought a book.’
 b *Ìwé ni Ajé ra.*
 book FOC PRN buy
 ‘It is a book that Aje bought.’
 c *Rírà ni Ajé ra iwé.*
 buying FOC PRN buy book
 ‘Aje BOUGHT a book.’ i.e. he didn’t steal it or get it as a gift
 lit. ‘It is buying that Aje bought a book.’
 (Manfredi 1993: 19-20)

7.3.4 Other types of atypical Ps: illustrations from Soninke and Manding

Mande languages are particularly interesting for a study of atypical Ps, since in Mande languages, verbal clauses are organized in such a way that there cannot be any ambiguity between phrases in P role and oblique phrases.

In Mande morphosyntax, the A term in transitive clauses and the S term in intransitive clauses are immediately followed by a so-called ‘predicative marker’ expressing grammaticalized TAM distinctions and polarity, also involved in S/A indexation and/or

transitivity marking in some Mande languages. The position between the predicative marker and the verb unambiguously characterizes the P term of the transitive construction. However, this position may also be occupied by ATYPICAL P PHRASES, i.e. noun phrases that do not represent a participant, and nevertheless are encoded in the same way as typical patients. In (48a), the noun phrase inserted between the predicative marker and the verb represents the patient, but in (48b), the same position is occupied by a phrase providing information about the duration of an activity. Crucially, in Soninke, it is absolutely impossible to have two successive NPs between the predicative marker and the verb, and consequently, the presence of a phrase expressing duration of the activity in this position excludes the possibility of having a phrase referring to the patientive participant in the position it normally occupies.

(48) Soninke (Soninke-Bozo, Mande)

- a *Hàatú dà kónpè-n cèllà.*
 PRN CPL.TR room-D sweep
 ‘Fatou swept the room.’
- b *Hàatú dà kòotá-n miumâ-n cèllà.*
 PRN CPL.TR day-D whole-DLH sweep
 ‘Fatou spent the whole day sweeping.’

In example (48), the verb is transitive, and the atypical P expressing duration of an activity occupies the syntactic position normally occupied by a noun phrase representing a participant (in (48), the place being swept).⁸⁸ However, as illustrated by example (49), the same construction is also found with otherwise strictly intransitive verbs, i.e. with verbs that cannot be found in a transitive construction with a noun phrase representing a participant in the P slot, and nevertheless can be used transitively with a duration phrase in the P slot.

(49) Soninke (Soninke-Bozo, Mande)

- a *Á wàtí yérú.*
 3SG be.sick last.year
 ‘S/he was sick last year.’
- b *Á dà qású-báané wàtí.*
 3SG CPL.TR month-one be.sick
 ‘S/he was sick during a whole month.’

With some intransitive verbs denoting activity, as illustrated in (50), this construction triggers a change in the final vowel of the verb that can be analyzed as encoding transitivization. Incidentally, note that this phenomenon confirms the necessity of a strict distinction between semantic transitivity and syntactic transitivity, since the presence of an atypical P has no impact on semantic transitivity.

⁸⁸ As explained in detail in chapter 17 §17.4.4.2, when the P slot is occupied by an adjunct, the participant normally expressed as P in the coding frame of Soninke transitive verbs can only be expressed as an incorporated noun.

(50) Soninke (Soninke-Bozo, Mande)

- a *Tógáanà-n téré léeri-nú sikkì.*
 hunter-D walk hour-D three^L
 ‘The hunter walked three hours.’
- b *Tógáanà-n dà léeri-nú sikkì tèrá.*
 hunter-D CPL.TR hour-D three^L walk.TR
 ‘The hunter spent three hours walking.’

Intransitive verbs denoting manner of motion, such as *wùrú* ‘run’ or *téré* ‘walk’ can be used transitively with a duration phrase in the P slot, but the same position may also be occupied by a phrase denoting the interval covered. In this use, as illustrated in (51), they show the same possibility of transitivization marking.

(51) Soninke (Soninke-Bozo, Mande)

- a *Ó wùrú léeri-báané.*
 1PL run hour-one
 ‘We ran one hour.’
- b *Ó dà léeri-báané wùrá.*
 1PL CPL.TR hour-one run.TR
 ‘We spent one hour running.’
- c *Ó dà kiloméetàrá-nú sikkì wùrá.*
 1PL CPL.TR kilometer-PL three^L run.TR
 ‘We ran three kilometers.’

The third type of phrases that do not refer to a participant and can nevertheless be found in the P slot of transitive clauses projected by otherwise strictly intransitive verbs is the noun *hó* ‘thing’, interpreted in this construction as expressing intensity of the activity, cf. example (52).

(52) Soninke (Soninke-Bozo, Mande)

- Léminè-n ñá hó qèngè-né.*
 child-D ICPL thing sleep-GER
 ‘The child sleeps so much.’

As illustrated in (53), *hó* ‘thing’ as an atypical P expressing intensity may trigger the same transitivization marking as described above.

(53) Soninke (Soninke-Bozo, Mande)

- Yàxàrê-n ñá hó tèrà-ná.*
 woman-D ICPL thing walk.TR-GER
 ‘The woman walks so much.’

The same types of atypical Ps are found in Mandinka and other Manding languages, and in addition to that, as illustrated by example (54a), Mandinka has atypical Ps referring to the cause of the event. In particular, with verbs that cannot be used transitively with a participant

in P role, a transitive construction with the interrogative *mũŋ* ‘what’ in the P slot is possible, as in (54b), and *mũŋ* is then interpreted as ‘why’.⁸⁹

(54) Mandinka (Central Mande, Mande)

a *Wùlôo kà làpìrindíò lè ñúurà.*

dog.D ICPL small.blow.D FOC growl

‘It’s for a small blow that the dog growls.’

b *Í kà múnè mée jěe?*

2SG ICPL what.FOC spend.time there

‘Why are you always spending time there?’

7.3.5 Time phrases encoded as the A term of a transitive construction

Many languages have sentences like *The storm found me in the middle of the forest* with the meaning ‘I was in the middle of the forest when the storm burst’. West African languages make a particularly wide use of this kind of construction, and more generally of transitive constructions whose A term does not refer to a participant, but to the dating of the event. Example (52) illustrates such a construction in Mandinka with the transitive verb ‘create’ and the P-ambitransitive verb ‘finish’.

(55) Mandinka (Central Mande, Mande)

Bĩ mâŋ dúniyáa dáa, bĩ fánáŋ té dúniyáa bàn-ná.

today CPL.NEG world create today also ICPL.NEG world finish-GER

lit. ‘Today did not create the world, today will not finish the world either.’

> ‘The world was not created today, it will not finish today either.’

In example (56), sentence (b) illustrates a transitive construction with a temporal adjunct in A role that has the additional particularity of involving an intransitive verb (*nà* ‘come’) having no other possibility of a transitive use. In this construction, the participant normally expressed as the S term of the intransitive construction of *nà* ‘come’ is expressed as P.

(56) Bambara (Central Mande, Mande)

a *Sékù má nà bì.*

PRN CPL.NEG come today

‘Sékou did not come today.’

b *Bì má Sékù nà.*

today CPL.NEG PRN come

lit. ‘Today did not come Sékou.’ > ‘It is not today that Sékou came (but long before).’

⁸⁹ In (54b), the underlying sequence *mũŋ* ‘what’ + *lè* (focus marker) fuses into *múnè*.

Chapter 8

Voice alternations

In chapter 1 § 1.1.3, VALENCY ALTERNATIONS have been defined as relationships between two constructions of the same verb, or of two formally related verbs, denoting identical events, or events that differ at most in the assignment of participant roles to individual participants or in the greater or lesser complexity of the causality chain. The term VOICE has been defined as a general term for morphological operations on verbs regulating the relationship between the syntactic roles of noun phrases and the way their referents participate in the event denoted by the verb. In conformity with these definitions, VOICE ALTERNATION is used as an abbreviation for verb-coded valency alternation. This chapter offers a general survey of voice alternations. The main types of voice alternations, briefly presented in §8.3, are discussed in more detail in chapters 9 to 14.

8.1 Basic notions for the analysis of voice alternations

8.1.1 Voice alternations vs. flexivalency alternations

Voice alternations contrast with valency alternations involving no verbal coding, or FLEXIVALENCY ALTERNATIONS. This distinction is illustrated by examples (1) and (2).

In (1), a transitive construction alternates with an intransitive construction whose S corresponds to the P of the transitive construction, and in which the participant encoded as the A term of the transitive construction is optionally encoded as an oblique; the verb form in the intransitive construction differs from that found in the transitive construction by the presence of a verbal suffix traditionally designated as a passive suffix.

(1) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kítsó* ¹*ó-tláà-kwál-á* *lò-kwá:lò*.
PRN(c11) I_{S/A}:c11-FUT-write-FV SG-letter(c11)
'Kitso will write the letter.'

b *Lò-kwáló* ¹*lò-tláà-kwál-w-à* *kí* *Kí:tsò*.
SG-letter(c11) I_{S/A}:c11-FUT-write-PASS-FV by PRN(c11)
'The letter will be written by Kitso.'

In (2), the relationship between the two clauses can be described in the same terms, but the alternation does not require any specific morphological marking on the verb, either in the intransitive or in the transitive construction. Note that, in Bambara, the P term of the transitive construction is characterized by its obligatory position immediately before the verb, whereas obliques follow the verb.

- (2) Bambara (Central Mande, Mande)
- a *Sékù bènà bàtàkí 'sébén.*
 PRN FUT letter.D write
 'Sékou will write the letter.'
- b *Bàtàkí 'bènà sébén Sékù fê.*
 letter.D FUT write PRN by
 'The letter will be written by Sékou.'

At this point, it is important to observe that not all morphological differences between verb forms involved in a valency alternation must necessarily be analyzed as voice marking. In valency alternations implying a change in transitivity, some formal differences in the verb forms may be a mere consequence of the fact that one of the two alternating constructions is transitive, and the other intransitive. For example, a superficial comparison of the Bambara example (2) above with (3) below might give the impression that the transitive-passive alternation is uncoded in (2) and verb-coded in (3), but what occurs is simply that, independently from any valency alternation, in Bambara, the TAM-polarity value 'completive, positive' (and only this particular TAM-polarity value) is marked differently in transitive and intransitive constructions.

- (3) Bambara (Central Mande, Mande)
- a *Sékù yé bàtàkí 'sébén.*
 PRN CPL.TR letter.D write
 'Sékou wrote the letter.'
- b *Bàtàkí 'sébén-ná Sékù fê.*
 letter.D write-CPL.ITR PRN by
 'The letter was written by Sékou.'

Similarly, in Basque, a superficial observation of pairs of sentences such as those in (4) might suggest an analysis of auxiliary selection in Basque in terms of equipollent voice marking, since the causal (transitive) and noncausal (intransitive) use of 'break' trigger the use of two distinct auxiliaries. However, the relationship between (4a) and (4b) does not involve any specific marking of the valency alternation. The choice of 'have' as the auxiliary in (4a), and of 'be' in (4b), is a mere consequence of the fact that the overwhelming majority of Basque verbs only have analytic finite forms, and independently of any possible kind of involvement in valency alternations, the auxiliary is automatically 'have' if the coding frame of the verb includes a slot for an ergative-marked noun phrase, and 'be' if this is not the case. Consequently, auxiliary selection in Basque does not mark valency alternations, it simply registers the presence of a coding slot for an ergative-marked noun phrase (see chapter 4 §4.7). In spite of this difference in the verb forms, (4) is not an instance of equipollent voice marking, but rather of the particular type of flexivalency designated in this book as P-ambitransitivity.

- (4) Central Basque (Euskaran)
- a *Haurrak ispilua puskatu du.*
 child.SG.ERG mirror.SG break.CPL have.I_{ERG}:3SG.I_{ZER}:3SG
 'The children broke the mirror.'

- b *Ispilua puskatu da.*
 mirror.SG break.CPL be.I_{ZER}:3SG
 ‘The mirror broke.’

8.1.2 Morphologically oriented vs. unoriented voice alternations

Example (1) above illustrates the case of a voice alternation in which the verb form includes specific morphological marking in one of the two alternating constructions. Such voice alternations can be characterized as morphologically oriented, in the sense that one of the verb forms involved in the alternation is morphologically more complex than the other, and can consequently be analyzed as derived. In such cases, the construction involving the morphologically less complex form of the verb will be referred to as the INITIAL CONSTRUCTION, and the other one as the DERIVED CONSTRUCTION.

In the discussion of morphologically oriented voice alternations, ‘initial S, ‘initial A’ and ‘initial P’ will be used as abbreviations referring to participants treated as S, A or P in the initial construction.

Morphologically oriented voice alternations are particularly common cross-linguistically. However, voice alternations may also involve verb forms showing the same degree of morphological complexity in both alternating constructions, with the consequence that there is no obvious reason for treating one of them as derived from the other. Such situations can be characterized as involving EQUIPOLLENT VOICE MARKING.

For example, in Hausa, as illustrated in (5), *nèemi* ‘seek’ and *neemàa* ‘seek for s.o.’ differ in that only *neemàa* has the ability to combine with a dative-marked phrase expressing the semantic role of beneficiary. Morphologically, there is no obvious way of analyzing *neemàa* as the outcome of a morphological operation whose input would be *nèemi*, or the other way round.

(5) Hausa (West Chadic, Chadic, Afroasiatic)

- a *Zaa-mù nèemi aikìi.*
 FUT-I_{S/A}:1PL seek work
 ‘We will seek work.’
- b *Zaa-mù neemàa wa àbooki-n-kà aikìi.*
 FUT-I_{S/A}:1PL seek.APPL DAT friend-CSTR-I_{ADP}:2SG.M work
 ‘We will seek work for your friend.’
 (Newman 2000: 634)

However, the distinction between privative and equipollent marking of voice alternations must be relativized. In the inflectional voice systems discussed in §8.6, one the voices is characterizable as the semantically unmarked DEFAULT VOICE, and the others as semantically marked NON-DEFAULT VOICE(S). Consequently, in spite of the fact that inflectional voice systems involve equipollent marking, there is justification for assimilating the default voice in such systems to the construction projected by the morphologically less complex verb form in voice alternations involving privative marking. This is the reason why, in section 3, the definitions of the types of voice alternations identifiable in voice systems involving morphological orientation will be formulated in such a way that the same types can be identified at least in some of the voice systems involving equipollent marking.

8.1.3 Nucleativization and denucleativization

The notions of nucleativization and denucleativization discussed in this section are crucial for a characterization of morphologically or semantically oriented voice alternations. In most text-book accounts of valency-changing derivations, the distinction posited as basic is rather that between valency-increasing and valency-decreasing mechanisms, but the notions of valency increase and valency decrease as commonly manipulated are somewhat ambiguous, since it is often unclear whether increase/decrease should be understood with reference to the semantic or syntactic aspects of valency.

In this book, the crucial notion is the notion of nuclear participant, defined as a participant encoded as a core NP (i.e., an NP in A, P or S role), and morphologically or semantically oriented voice alternations are characterized in terms of NUCLEATIVIZATION (a participant which is not encoded as a core term of the initial construction is encoded as a core term of the derived construction) and DENUCLEATIVIZATION (a participant which is encoded as a core term of the initial construction is not encoded as a core term of the derived construction). These notions should not be confused with the notions of promotion and demotion as used in the Givonian tradition, since they imply nothing more than a contrast between core terms and obliques, whereas promotion/demotion refer to a hierarchy of grammatical relations.⁹⁰

In morphologically or semantically oriented voice alternations, a nuclear participant of the initial construction is denucleativized if, in the derived construction, it can only be expressed as an oblique NP, or is obligatorily left unexpressed. For example, in (6b), the nuclear participants of the initial construction are maintained in their respective roles in the presence of the voice marker *-el*, whereas in (6c), the voice marker *-w* marks the denucleativization of the initial A (the 1st person), expressed as an oblique. In (6d), the same participant is encoded as P, but according to the definitions formulated above, this is not an instance of denucleativization, since it still belongs to the core of the construction.

(6) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a. *Kì-tlàà-kwál-á* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-FV SG-letter(c111)
 ‘I’ll write the letter.’
- b. *Kì-tlàà-kwál-él-á* ¹*Kítsó* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 ‘I’ll write the letter to/for Kitso.’
- c. *Lò-kwáló* ¹*lò-tlàà-kwál-w-à* *kí n:ná.*
 SG-letter(c111) I_{S/A}:c111-FUT-write-PASS-FV by 1SG
 ‘The letter will be written by me.’
- d. *Bá-tláá-ḡ-kwád-ís-á* *lò-kwâ:lò.*
 I_{S/A}:c12-FUT-1p:1SG-write-CAUS-FV SG-letter(c111)
 ‘They will make me write the letter.’

The notion of nucleativization characterizes morphologically or semantically oriented voice

⁹⁰ For example, in the Givonian tradition, passivization is described in terms of promotion of P to S, whereas in the framework adopted in this book, passivization implies denucleativization of the initial A (i.e., the participant encoded as A in the initial construction), but does not affect the status of the initial P as a nuclear participant.

alternations by which the derived construction includes a core syntactic term referring to a participant which is not a nuclear participant of the initial construction. In example (6), this applies to the recipient/beneficiary (*Kitsso*) which shares the syntactic role of P with the initial P (the letter) in (6b), and to the causer occupying the syntactic role of A in (6d).

The voice alternations involving nucleativization are those commonly characterized as ‘valency-increasing’. However, these two notions are not equivalent, since the nucleativization of a non-nuclear participant of the initial construction may be accompanied by the denucleativization of a nuclear participant, in which cases the number of participants encoded as core syntactic terms is not modified.⁹¹

8.1.4 Synthetic vs. analytic marking of voice alternations

The morphological coding of voice alternations may take the form of a morphological operation affecting directly the verbal stem, or involve the formation of analytic verb forms (complex predicates). TAM-indexation-voice coexponence is a third possibility, cross-linguistically less common (see §8.6).

Cross-linguistically, the synthetic marking of voice alternations is overwhelmingly affixal and privative (in the sense that one of the two verb forms can be described as resulting from the addition of an affix to the other), but other types of morphological modifications of verb stems may be involved in voice marking: ablaut, reduplication, tone change, etc. Example (7) illustrates a voice alternation functionally similar to that illustrated in (6a-b) above, with the difference that the verb forms in (6a) and (6b) differ in the absence/presence of an affix analyzed as an applicative marker, whereas the verb forms in (7a) and (7b) differ in tone and voice quality of vowels.

(7) Agar Dinka (Western Nilotic, Nilotic, Eastern Sudanic)

- a *D̥ɔ̃k ǵ-m̥it w̥ɛŋ.*
 boy DECL-pull cow
 ‘The boy is pulling the cow.’
- b *D̥ɔ̃k ǵ-m̥it w̥ɛŋ m̥ɔc.*
 boy DECL-pull.APPL cow man
 ‘The boy is pulling the cow for the man.’
 (Andersen 1992: 9)

The analytical marking of voice is common in European passives and causatives. In many European languages, passivization involves analytic verb forms in which the verb involved in the voice alternation occurs in a non-finite form commonly designated as past participle or passive participle, whereas tense and agreement morphology attaches to a verb ‘be’ in auxiliary function, as in English *The letter will be written by me*. Similarly, analytic causatives in which a ‘do/make’ verb in auxiliary function combines with the infinitive of the causativized verb are common among European languages.

However, not all constructions that can be the translational equivalent of a voice construction involving synthetic coding qualify as analytic voice constructions. The definition of valency alternations as relationships between two constructions of the same verb implicitly

⁹¹ On the shortcomings of the approaches to the typology of voice alternations based on the distinction between valency-increasing and valency-decreasing alternations, see (Marten & Mous 2014).

restricts the notion of valency alternation to relationships between MONOCLAUSAL constructions, and excludes using the notion of voice to characterize biclausal constructions involving a modification in the expression of the participants in the event denoted by the verb acting as the nucleus of one of the two clauses.

In the remainder of the discussion, readers are invited to keep in mind that the notion of analytic voice construction concerns monoclausal constructions, whereas ‘periphrastic construction’ implies nothing about the possibility of a monoclausal or biclausal analysis.

8.1.5 Voice alternations and periphrastic constructions

Periphrastic constructions meet the definition of voice formulated in chapter 1 insofar as they show evidence of monoclausality. Nevertheless, it may be difficult to draw the line between a bona fide voice construction and a biclausal construction that is merely the translational equivalent of a voice construction.

For example, in English, one can consider an interpretation of a biclausal construction such as *John took the knife and cut the bread* as referring to two successive events that do not share more than the participant ‘John’ fulfilling the same role of agent in both events (i.e., an interpretation according to which the knife mentioned in the first clause does not participate in the cutting event referred to by the second clause). However, the default interpretation of such a sequence is rather that John took the knife and used it to cut the bread. In other words, the first clause is normally interpreted as introducing a participant fulfilling the role of instrument in the event described by the second clause. Functionally, such a construction can consequently be easily interpreted as an APPLICATIVE-LIKE PERIPHRAISIS in which the first clause is not understood as referring to a distinct event, but as just introducing a participant with a specific role in the event described by the second clause.

One may also mention the resultative periphrasis of Basque already discussed in chapter 6 §5.9.5, illustrated in (8). This periphrasis is a raising construction involving a subordinate participial clause with a missing term whose semantic role is assigned to the S of the main verb ‘be’, with two possibilities. If the missing term in the subordinate clause is P, the S term in the construction of the main verb ‘be’ represents the participant that would be coded as P in an independent clause projected by the embedded verb, giving rise to a passive-like periphrasis, as in (8b), and if the missing term in the subordinate clause is A, the S term in the construction of the main verb ‘be’ represents the participant that would be coded as A in an independent clause projected by the lower verb, giving rise to an antipassive-like periphrasis, as in (8c).

(8) Central Basque (Euskaran)

- a *Jon-ek eskutitz bat idatzi du.*
 PRN-ERG letter one write.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon wrote a letter.’ (non-periphrastic completive)
- b *Eskutitz hau [Jon-ek idatzi-a] da.*
 letter DEM.SG PRN-ERG write.CPL-SG be.PRS.I_{ZER}:3SG
 ‘This letter has been written by Jon’
 (lit. ‘This letter_i is [Jon having written Ø_i].’)
- c *Jon [eskutitz asko idatzi-a] da.*
 PRN letter many write.CPL-SG be.PRS.I_{ZER}:3SG

‘Jon has written many letters.’
 (lit. ‘Jon_i is [Ø_i having written many letters].’)

As noted by Zúñiga and Fernández (2021), most scholars working on Basque morphosyntax agree that the biclausality of the constructions illustrated in (7b-c) precludes analyzing them as a passive voice and an antipassive voice fully comparable to the ‘*be* + past participle’ passives found in many European languages.

However, it is not difficult to imagine that the routinization of such periphrases may be accompanied by syntactic changes converting the originally biclausal construction into a construction whose behavior shows more and more evidence of monoclausality, to the point at which the construction can be analyzed as an analytical voice. The problem is that such processes are gradual, and consequently, in the analysis of individual languages at a given point of their history, it is not always easy to decide whether a given construction must be analyzed as a (biclausal) voice-like periphrasis or a (monoclausal) analytical voice. This question has been particularly discussed with respect to passive and causative constructions, and we will briefly return to it in chapter 9 §9.2.6, and chapter 12 §12.1.4.

Given the fuzziness of the limit between analytical voices and biclausal voice-like periphrases, in the remainder of this book, terms such as ‘passive auxiliary’ or ‘causative auxiliary’ will be used with a broad meaning encompassing not only the element of complex predicates to which TAM and agreement morphology attaches in bona fide analytical voice constructions, but also verbs that can be analyzed as contributing to the expression of an operation on the participant structure of the other verb in biclausal constructions.

8.1.6 V>V derivations that modify the coding frame of verbs but cannot be analyzed as voice alternations

Some languages have V>V derivations that cannot be analyzed as involved in valency alternations, although the coding frame of the derived verb is superficially similar to constructions analyzable in terms of nucleativization of a non-nuclear participant.

Such derivations are common in Eskimo languages. In (9), the suffix *-yuk* (glossed ‘believe’, although it is not attested independently as a verb) encodes the addition of a phrase representing a ‘believer’ in A role. If the base verb is intransitive, the initial S is encoded as P in the derived construction. If it is transitive, the initial A is encoded as an allative-marked oblique in the derived construction.

(9) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

- a *Angun ayag-tuq.*
 man go-DECL.I_S:3SG
 ‘The man went away.’
- b *Nuk’a-m angun ayag-yuk-aa.*
 PRN-ERG man go-believe-DECL.I_A:3SG.I_p:3SG
 ‘Nuk’aq believes that the man went away.’
- c *Angute-m kiput-aa kelipaq.*
 man-ERG buy-DECL.I_A:3SG.I_p:3SG bread
 ‘The man bought the bread.’

- d *Nuk'a-m angut-mun kipu-cuk-aa kelipaq.*
 PRN-ERG man-ALL buy-believe-DECL.I_A:3SG.I_p:3SG bread
 'Nuk'aq believes that the man bought the bread.'
 (Mather & al. 2002: 105, 106)

It is tempting to analyze (9b) and (9d) as involving a nucleativizing voice alternation showing some similarity with causativization, but differing from it in the semantic role of the A term of the derived construction. However, a crucial element in the notion of nucleativization is that the referent of the core term licensed by the voice alternation refers to a potential semantic role in the participant structure of the base verb. This is clearly not the case here, since even if the term 'participant' is taken in a very broad sense, the believer cannot be viewed as a potential participant in the going event described by (9a), or in the buying event described by (8c).

Example (10) illustrates a similar case of V>V derivation in Yaqui: the 'desiderative' derivation ('a person wants another person to V'). Here again, superficially, sentence (10b) seems to be analyzable as resulting from a nucleativizing voice alternation licensing an A phrase representing a non-nuclear participant of the initial construction, but this analysis is inconsistent with the very notion of valency alternation.

- (10) Yaqui (Cahita, Uto-Aztecan)
 a *U jamut bachi-ta chi~chijta.*
 D.SG woman corn-ACC HAB~grind
 'The woman grinds corn.'
 b *U yoeme jamut-ta bachi-ta chijta-'ii'aa.*
 D.SG man woman-ACC corn-ACC grind-DESID
 'The man wants the woman to grind corn.'
 (Estrada Fernandez & al. 2015a: 1371)

There are, however, borderline cases in which a voice alternation analysis, although somewhat controversial, can nevertheless be considered. This is for example the case for the 'directive' derivation of Yaquí ('a person asks another person to V') illustrated in (11). The question is whether the 'asker' in (11b) can be viewed as an element of the causality chain leading to the event described by (11a).

- (11) Yaqui (Cahita, Uto-Aztecan)
 a *Ili uusi nee remua-k.*
 DIM child 1SG.ACC help-CPL
 'The child helped me.'
 b *U jamut u-ka ili uusi-ta-u nee remua-sae.*
 D.SG woman D.SG-ACC DIM child-ACC-ALL 1SG.ACC help-DIRV
 'The woman asked the child to help me.'
 (Estrada Fernandez & al. 2015a: 1372)

Before deciding how to analyze a sentence such as (11b), it would be important to know, for example, whether or not it could felicitously be followed by '...but he did not help me'. In the absence of this information, the question of whether (11) qualifies as a voice alternation or not

must be left open.

8.1.7 Symmetrical voices vs. other types of voice alternations

The functional types of voice alternations whose definition is discussed in §8.3 below have in common that their definition refers exclusively to the TR-roles A, P and S. SYMMETRICAL VOICES is the term commonly used with reference to voice alternations typically found in Western Austronesian languages, discussed in more detail in §8.5, which do not meet this characterization. The structure of the clauses involved in symmetrical-voice alternations includes a coding slot for a syntactically privileged term (or PIVOT) that may coincide with either A or P, and verb morphology marks the selection of a particular participant as the referent of the pivot. Moreover, as already discussed in chapter 3 §3.3, it can be argued that, in such systems, the selection of a particular participant as the pivot does not affect the transitivity of clauses. There is, however, some variation in the understanding of the notion of symmetrical voices by different authors. Himmelmann (2005) focuses on the equipollent marking, whereas Riesberg (2014) insists on equal transitivity of all voices.

The definition of symmetrical voices adopted in this book does not consider equipollent marking as essential in the notion of symmetrical voice. What is essential in the notion of symmetrical voices as this term is understood here is that they code the selection of a participant as the referent of the privileged syntactic term WITHOUT AFFECTING THE TRANSITIVITY OF THE CONSTRUCTION.

8.1.8 Voice alternations and coding frame inventories

According to Haspelmath and Müller-Bardy (2001), “The most important constraint on valency changes is that derived valency patterns must be identical to valency patterns that occur with at least some non-derived verbs”. However, counterexamples to this claim are easy to find. In particular, in the languages that have double-P constructions, it is common that applicativization and/or causativization create derived verbs with triple-P constructions, cf. chapter 14 §14.2.2.2. Multiple-object constructions can even be found with derived verbs in some languages that do not have double-P constructions with non-derived verbs. For example, Watters (2017) observes that the constraint formulated by Haspelmath and Müller-Bardy (2001) “is regularly violated in Tepehua and Totonac: there are no non-derived ditransitives [i.e. verbs with a double-P construction as their coding-frame] in the language but the valency-increasing processes applied to transitive verb stems result in ditransitive or polytransitive forms [i.e. verbs whose coding frame includes two or more slots for noun phrases coded like monotransitive Ps]. Also, there are no basic verb forms in the language that take an impersonal subject – every verb root requires a referential NP or a clausal subject. However, the passive-like suffix, *-kan*, may occur on any intransitive verb, resulting in a derived impersonal construction”.

8.2 Polysemous voice markers

8.2.1 Voice markers co-expressing two or more types of voice alternations

Section 8.3 will be devoted to a discussion of the definition of the most widespread types of voice alternations, conceived as COMPARATIVE CONCEPTS accounting for the possible functions of the morphological elements that are involved in the marking of valency alternations in individual languages.

Before discussing the functional types of valency alternations, it is important to emphasize that there is rarely a straightforward correspondence between the morphological elements involved in the coding of voice alternations and the functional types of voice alternations. Quite on the contrary, co-expression of two or more types of voice alternations by the same formal elements (often referred to as ‘voice syncretism’)⁹² is extremely common cross-linguistically. Moreover, it is not uncommon that morphological elements involved in the marking of valency alternations also have uses in which no valency alternation occurs (see §8.2.2 below).

(Bahrt 2021) is an important reference on this question. This book consists of a systematic cross-linguistic investigation of the possibility that the same voice marker is involved in two or more of the following types of voice alternations (whose definitions are discussed in §8.3 below): passivization, antipassivization, reflexivization, reciprocalization, causativization, decausativization, and applicativization. It includes a quantitative evaluation of the frequency of the possible co-expression patterns based on a ‘core sample’ of 222 languages in which all languages belong to different genera, and a review of the diachronic explanations that have been put forward in the literature. The interest of Bahrt’s (2021) comments on the diachronic sources of polysemous voice markers is, however, weakened by his decision to discuss the co-expression patterns in which voice markers are involved without taking into consideration analytic voices and voice-like periphrases, and also by the fact that he mentions only in passing the existence of co-expression patterns involving functions other than voice marking. This led him to favor analyses in terms of acquisition of new functions by already grammaticalized voice markers, and to overlook other possible types of explanations, in particular parallel grammaticalization of the same verb used as a voice auxiliary in different constructions. In the diachronic scenarios he puts forward, Bahrt (2021) also tends to overlook the possibility that the acquisition of new functions by a given voice marker may be followed by the loss of its original function. This possibility is widely attested in the languages whose history is documented, in particular for reflexive markers that lose their reflexive function after acquiring the possibility of coding other types of valency alternations such as anticausativization, passivization, and/or antipassivization.

The polysemy of voice markers can be illustrated in Tswana by a verbal suffix whose main/basic allomorph is *-el*. This marker may be involved in the marking of various types of voice alternations (and is also involved in constructions in which no valency change is implied, cf. chapter 14 §14.7). In (12), its presence does not affect the coding of the participants already present in the initial construction. It just marks the addition of a noun phrase (the proper name *Kítsó*) whose coding properties are those of P in the transitive construction, and whose semantic role may be interpreted as either recipient or beneficiary. According to the typology of voice alternations adopted in this book (see §8.3 below), (12b) is an instance of P-nucleativization (a particular variety of applicativization).

⁹² The reason why the term ‘syncretism’ is avoided here is that it primarily refers to the neutralization of the distinction between two cells in a paradigm, so that ‘co-expression’ better reflects the nature of the phenomenon commonly referred to as ‘voice syncretism’.

(12) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-kwál-á* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-FV SG-letter(c111)
 ‘I’ll write the letter.’
- b *Kì-tlàà-kwál-él-á* [!]*Kítsó* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 ‘I’ll write the letter to/for Kitso.’

By contrast, in (13), the same suffix marks a change in the coding of the participants mentioned in the initial construction, since the participant encoded as A in (13a) (the agent *mòàpèi* ‘the cook’) is not mentioned in (13b), whereas the role of A in (13b) is taken over by a participant (*nàmà* ‘the meat’) which, in the absence of this suffix, can only be encoded as an oblique. In the typology of voice alternations that will be presented in §8.3, (13b) is an instance of non-causative A-nucleativization (see §8.3.3 below).

(13) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-àpèi* *ó-fáb-á* *bò-χóbé* [!]*ká* *nâ:mà.*
 SG-cook(c11) I_{S/A}:c11-flavor-FV SG-porridge(c114) with meat(c19)
 ‘The cook flavors the porridge with meat.’
- b *Nàmà* *í-fáb-él-à* *bò-χó:bè.*
 meat(c19) I_{S/A}:c19-flavor-NuclA-FV SG-porridge(c114)
 ‘Meat gives flavor to the porridge.’

This raises a terminological problem, since there is considerable cross-linguistic variation in the co-expression patterns in which voice markers may be involved. As a rule, in language descriptions, polysemous voice markers are labeled with reference to one of their possible uses that can be considered as particularly prominent, but in a typologically oriented study of voice alternations, it would be quite misleading to use the same labels for voice markers of different languages that share the ability to mark a particular type of voice alternation but may differ greatly in the range of their other uses. In particular, the use of the traditional labels for the glossing of voice markers may hinder the understanding of examples in which the traditional label does not correspond to the function being illustrated.

For example, in Tswana grammars, the voice marker *-él* illustrated in (12) and (13) is traditionally called ‘applicative’, which reflects its function in (12), but not the function it fulfills in (13). When referring to this voice marker in a discussion not limited to Tswana, the problem can in principle be solved by the convention sometimes used in the typological literature, according to which ‘applicative’ with lower case initial refers to a comparative concept (here: a particular type of voice alternation) whereas ‘Applicative’ with upper case initial is an arbitrary label for a language-specific notion (here: a verbal suffix of Tswana whose main/basic allomorph is *-él*, and whose possible functions include the marking of applicativization without being limited to it). However, in practice, this convention is very difficult to follow consistently, and it certainly does not eliminate the risks of confusion and misunderstandings. Moreover, it does not solve the problem of glossing. The solution adopted in this book is that:

- in the text, voice markers are designated by labels that evoke their form, as for

example *w*-voice, *is*-voice and *ɛl*-voice for the voice suffixes of Tswana illustrated in some of the examples above, traditionally referred to as ‘passive’, ‘causative’, and ‘applicative’ in descriptions of Tswana.

- in the examples, voice markers are glossed according to their function in the particular construction illustrated by the example under discussion, without prejudging the existence of other possible functions of the same marker.

Some of the co-expression patterns in which voice markers may be involved are very common cross-linguistically. For example, as illustrated in example (14), quite a few obligatory A-coding languages use the same voice marker to code of the following three voice alternations:

- denucleativization of A without nucleativization of any other participant, combined with a change in the coding characteristics of P, converted into the S term of a canonical intransitive construction (passivization),
- denucleativization of A without nucleativization of any other participant, and without any change in the morphosyntactic treatment of P (impersonal variant of passivization),
- denucleativization of S without nucleativization of any other participant (a type of voice alternation for which there is no term in common use, and which I designate simply as S-denucleativization).

In example (14), (14b) illustrates the passive use of the Tswana voice marker *-w* (already illustrated in (1) above) in which the initial A is expressed as an oblique, and the initial P is converted into the S term of a canonical intransitive construction. In (14c), the same voice marker *-w* marks impersonal passivization, in which the initial A is equally denucleativized, but P remains coded in the same way as in the transitive construction, whereas the morphological slot in the verb form normally used to index A or S is occupied by an expletive index. In (14d-e), the initial construction (14d) is intransitive, and *-w* in (14e) marks the denucleativization of the initial S, the morphological slot in the verb form normally used to index A or S being occupied by the same expletive index as in (14c),⁹³

(14) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kítsó* ¹*ó-tláà-kwál-á* *lò-kwâ:lò*.
 PRN(c11) I_{S/A}:c11-FUT-write-FV SG-letter(c111)
 ‘Kitso will write the letter.’

b *Lò-kwáló* ¹*lò-tláà-kwál-w-à* *kí* ¹*Kí:tsò*.
 SG-letter(c111) I_{S/A}:c11-FUT-write-PASS-FV by PRN(c11)
 ‘The letter will be written by Kitso.’

c *ǁó-tláà-kwál-w-á* *lò-kwâ:lò*.
 I_{S/A}:c117_{EXPL}-FUT-write-ImpPASS-FV SG-letter(c111)
 ‘A letter will be written.’ lit. ‘There will be written a letter.’

⁹³ In the morphosyntax of Tswana, A in transitive clauses and S in intransitive clauses are characterized by their position immediately before the verb and their obligatory indexation by means of the same set of verbal prefixes. The expletive A/S index in (14c) and (14e) is etymologically a locative index.

- d *Bà-sádi* *'bá-tláá-lì:l-à.*
 PL-woman(cl2) I_{S/A}:cl2-FUT-cry-FV
 'The women will cry.'
- e *χó-tláá-lì:l-w-à.*
 I_{S/A}:cl17_{EXPL}-FUT-cry-DenuclS-FV I_{S/A}:cl2-FUT-cry-FV
 'The people will cry.' lit. 'There will be cried.'

Example (15) illustrates a co-expression pattern also attested in quite a few languages: the co-expression of passivization and causativization. The constructions in (15b) and (15c) involve the same voice marker *-ndi* and have in common the denucleativization of the initial A, but in (15b), a causer is introduced in A role, whereas in (15c), the initial P becomes the S of an intransitive construction.

- (15) Diré Songhay (Songhay)
- a *Musa ηa tasu di.*
 PRN eat rice D
 'Moussa ate the rice.'
- b *Ali ηa-ndi tasu di Musa se.*
 PRN eat-CAUS rice D PRN to
 'Ali had Moussa eat the rice.'
- c *Tasu di ηa-ndi.*
 rice D eat-PASS
 'The rice was eaten.'
 (Shopen & Konaré 1970: 211)

8.2.2 Uses of voice markers that do not meet the definition of voice

8.2.2.1 Voice markers also used to mark $V > V$ derivations involving no valency operation

In addition to the possibility that the same voice marker is found in constructions involving different types of valency operations, it is quite common that markers analyzable as voice markers in some constructions also have uses as markers of $V > V$ derivations that involve no modification of the valency of the base verb..

For example, (16) illustrates a use of the Hungarian preverb *ki* (originally a directional particle equivalent to English *out*) in which *ki* can be analyzed as an applicative marker, since the same participant is encoded as an oblique when the preverb *ki* is absent, and as the P term of a transitive construction when *ki* is present.

- (16) Hungarian (Ugric, Uralic)
- a *Péter nevet-ett-∅ János-on.*
 PRN laugh-PST-I_{S/A}:3SG PRN-SUPESS
 'Péter was laughing at János.'
- b *Péter ki-nevet-t-e János-t.*
 PRN APPL-laugh-PST-I_{S/A}:3SG-I_P:3D PRN-ACC
 'Péter laughed at János.'
 (Zúñiga & al. 2024: 457)

However, as can be seen from the translation, *ki* also has a role in determining the aktionsart and the aspectual properties of the verbal expression. While the verb in (16a) describes an unbounded activity, its counterpart with the preverb involves a bounded, completed event. In example (17), the same preverb also turns an activity verb into an accomplishment, but does not trigger any change in the construction, and consequently does not act as a voice marker.

- (17) Hungarian (Ugric, Uralic)
- a *János takarít-ott-Ø.*
 PRN clean-PST-I_{S/A}:3SG
 ‘János was cleaning.’
- b *János ki-takarít-ott-Ø.*
 PRN PFV-clean-PST-I_{S/A}:3SG
 ‘János did the cleaning.’
 (Zúñiga & al. 2024: 465)

In subsequent chapters, such uses of voice markers are dealt with in chapter 10 §10.8.2 for antipassive markers, chapter 11 §11.11 for middle markers, chapter 12 §12.6 for causative markers, and chapter 14 §14.7 for applicative markers.

8.2.2.2 *Voice markers also used to mark N > V or Adj > V derivations*

It is not uncommon cross-linguistically that derivational morphemes used in V > V derivation as causative, applicative or middle markers are also used as verbalizers in N > V or Adj > V derivation. In some languages, the verbalizing use of voice markers is marginal, but it may also have some productivity. In their use as verbalizers, the voice markers determine the valency of the derived verbs, but cannot nevertheless be analyzed as voice markers, since by definition, the notion of voice refers to operations in which the input is a verb.

For example, in Lithuanian, the suffix *-in* expressing causativization in *dėg-ti* ‘burn (intr.)’ > *dėg-in-ti* ‘make burn’ is also used to derive transitive verbs from adjectives or nouns, as in *linksm-as* ‘happy’ > *linksm-in-ti* ‘make happy, entertain’ or *lietuv-is* ‘Lithuanian’ > *lietuv-in-ti* ‘make (like) Lithuanian, lithuanize’. In Wolof, the suffix *-al* regularly used as a causative-applicative marker is also used to derive the verb *tuumaal* ‘accuse’ from the noun *tuuma* ‘accusation’, and the middle marker *-u* is also used with some productivity as a verbalizer expressing the general meaning ‘act as an N’ (as in *jaam* ‘slave’ > *jaam-u* ‘act as a slave’). For similar examples in other languages, see Aikhenvald (2011b: 244-245), Inglese (2022a: 519).

The explanation of such uses of derivational morphemes also used as voice markers certainly lies in the history of the derivational morphemes in question and/or in the history of the individual verbs formed in this way, and a variety of possible scenarios can be imagined, but a systematic cross-linguistic survey would be necessary before trying to be more specific on this point. Consequently, this question will not be resumed in subsequent chapters.

8.2.2.3 *Voice markers also used as direct/inverse markers*

As already discussed in chapter 4 §4.6.4.1, the Kiowa-Tanoan language Picuris has a verbal

suffix that can be analyzed as a passive marker in clauses referring to two-participant events in which none of the essential participants is an SAP (non-local scenarios). The same suffix can be found in clauses referring to two-participant events in which one of the essential participants is an SAP and the other a non-SAP (mixed scenarios), but then it can only be analyzed as an inverse marker that obligatorily occurs in 3→1/2 scenarios and cannot occur in 1/2→3 scenarios.

8.3 The main types of voice alternations

In this section, I propose definitions for the cross-linguistically common types of voice alternations, which will be discussed individually in chapters 10 to 15. Common to them all is that the two alternating constructions either differ in morphological complexity or semantic markedness, and consequently can be characterized in terms of a contrast between a morphologically or semantically unmarked initial construction and a morphologically or semantically marked derived construction.

8.3.1 Causativization and decausativization

Causativization and decausativization have in common that they manipulate the causality chain, expressing morphologically the relationship between two verbs forming semantically a NONCAUSAL-CAUSAL VERB PAIR, i.e. a pair of verbs in which the event denoted by the noncausal member of the pair can be conceptualized as a sub-event of that denoted by the causal member, with the difference lying in the involvement vs. lack of involvement of an instigator or controller. Causativization derives a construction projected by a causal verb from its noncausal counterpart, whereas decausativization derives a construction projected by a noncausal verb from its causal counterpart.

8.3.1.1 Causativization

At least as a first approximation, CAUSATIVIZATION (discussed in greater detail in chapter 13) can be defined as the nucleativization of a participant (the causer) that instigates the event denoted by the initial construction of controls its realization. Cross-linguistically, there are very few exceptions to the general rule according to which the derived construction is a transitive construction with the causer in the syntactic role of A, as in (18).

(18) Mandinka (Central Mande, Mande)

- a *Í lá dèndikôo nôo-tá lè.*
 2SG GEN cloth.D be/become dirty-CPL.ITR FOC
 ‘Your cloth is dirty.’
- b *Í yé í lá dèndikôo nó-ndi lè.*
 2SG CPL.TR 2SG GEN cloth.D be/become dirty-CAUS FOC
 ‘You have soiled your cloth.’

8.3.1.2 Decausativization

In DECAUSATIVIZATION (discussed in greater detail in chapter 9 §9.4, and in chapter 11 §11.1) the initial construction is transitive. Decausativization suppresses the referent of the initial A from participant structure and converts the initial P into the S term of an intransitive construction, as in (16), where the voice marker *-εχ* encodes decausativization.

- (19) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Dw-àná* *ó-t^hùb-íl-é* *mà:-í.*
 SG-child(cl1) I_{S/A}:cl1-break-PRF-FV PL-egg(cl6)
 ‘The child broke the eggs.’
- b *Mà-í* *’á-t^hùb-èχ-ì:l-è.*
 PL-egg(cl6) I_S:cl6-break-DECAUS-PRF-FV
 ‘The eggs broke.’

‘Decausative’ was the term used by Geniušienė (1987) with reference to this voice alternation, but in recent language descriptions and typological accounts of valency-changing mechanisms, the term ‘anticausative’ is more common. The reason for using ‘decausative’ in this book, rather than ‘anticausative’, is that the etymology of ‘decausative’ is perfectly transparent, whereas ‘anticausative’ has the drawback of suggesting a false analogy between passive / antipassive and causative / anticausative. The term ‘antipassive’ is commonly explained as motivated by some parallelism between the treatment of A in passivization and the treatment of P in antipassivization, but there is no such parallelism between causativization and decausativization, and the prefix *de-* better evokes the fact that causativization and decausativization operate on the causality chain in two opposite ways.

8.3.2 Passivization, antipassivization and S-denucleativization

The three types of voice alternations presented in this section have in common that a nuclear participant of the initial construction is denucleativized without being deleted from participant structure, whereas no other participant is nucleativized.

8.3.2.1 Passivization

PASSIVIZATION as this term is used in this book refers to morphologically or semantically oriented voice alternations having in common the following three features:⁹⁴

- the initial construction is transitive,
- the referent of the initial A is denucleativized (i.e., cannot be encoded as a core term of the derived construction) but is maintained in participant structure, even if it is left unexpressed,
- no participant is nucleativized.

⁹⁴ Readers are invited to keep in mind that the notion of nucleativization as used in this book is more restricted than the notion of promotion commonly found in the literature on valency alternations. In passivization, the conversion of the initial P into S is commonly described as an instance of promotion, but this is not an instance of nucleativization, since P is a nuclear term of the initial construction.

The maintenance of the initial A in participant structure is essential to distinguish passivization from decausativization.

Depending on language-specific rules, it may happen that, in passive constructions, the initial A is optionally expressed as an oblique, or is necessarily left unexpressed (although still semantically present).

Passivization is discussed in greater detail in chapter 9 §§9.2-6.

8.3.2.2 *The impersonal variant of passivization (I-passivization)*

In obligatory P-coding languages, where the coding characteristics of P and S are identical, the mere removal of the A phrase from a transitive clause automatically yields a construction with a sole core term showing the coding characteristics of S in canonical intransitive clauses. By contrast, in obligatory A-coding languages, there are two possible ways of treating P in a construction involving denucleativization of A without nucleativization of another participant:

- either the coding characteristics of the initial P are modified so as to respect the rule of obligatory A-coding, as in (20b);
- or the coding characteristics of the initial P do not change, as in (20c), and consequently, the derived construction meets the definition of an impersonal construction, since no participant is encoded as a phrase showing A-like coding, and if an S/A pronoun or index is present, as is the case here, it can only be analyzed as an expletive.

(20) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kì-tlâà-kwâl-á* *lò-kwâ:lò.*

I_{S/A}:1SG-FUT-write-FV SG-letter(c111)

‘I’ll write the letter.’

b *Lò-kwâló* ¹*lò-tlâà-kwâl-w-à* *kí n:ná.*

SG-letter(c111) I_S:c111-FUT-write-PASS-FV by 1SG

‘The letter will be written by me.’

c *ǀó-tlâà-kwâl-w-á* *lò-kwâ:lò.*

I_{S/A}:c115/17_{EXPL}-FUT-write-ImpPASS-FV SG-letter(c111)

‘A letter will be written.’ lit. ‘There will be written a letter.’

The impersonal variant of passivization (or I-passivization) is discussed in greater detail in chapter 9 §9.8.

8.3.2.3 *Antipassivization*

In ANTIPASSIVIZATION (discussed in more detail in chapter 10), the initial construction is transitive. Antipassivization does not modify the participant structure, but the initial P is denucleativized, while the initial A is converted into the S term of an intransitive construction (unless the initial construction is a double-P construction, in which case the derived construction may remain transitive, and consequently the initial A may maintain its status).

Depending on language-specific rules, it may happen that, in antipassive constructions, the

initial P is optionally expressed as an oblique, as in (21), or is necessarily left unexpressed (although still semantically present).

- (21) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)
- a *Arna-m allg-aa 'lumarraq.*
 woman-ERG tear-DECL.I_A:3SG.I_P:3SG shirt
 'The woman tears the shirt.'
- b *Arnaq allg-i-uq 'lumarra-mek.*
 woman tear-ANTIP-DECL.I_S:3SG shirt-ABL
 'The woman tears a shirt.'
 (Mather & al. 2002: 101, 103)

In obligatory A-coding languages, in which the coding characteristics of A and S are identical, the mere removal of the P phrase from a transitive clause automatically yields a construction with a sole core term showing the coding characteristics of S in canonical intransitive clauses. By contrast, in obligatory P-coding languages, there are a priori two possible treatments of P-denucleativization. The coding characteristics of the initial A may be modified so as to respect the rule of obligatory P-coding, as in (21b), but it is also possible to imagine a variety of antipassivization without any change in the coding characteristics of the initial A, in which the derived construction would meet the definition of an anti-impersonal construction (see chapter 6 §6.7). However, this variety of antipassivization, which would be the mirror-image of I-passivization, is not mentioned in the literature on antipassives and does not show up in the documentation I have been able to consult.⁹⁵

8.3.2.4 *S-denucleativization*

Example (14d-e) above, reproduced here as (22), illustrates a type of voice alternation coded in Tswana by means of the same voice marker as passivization and I-passivization, which, however, differs from passivization as defined above in that the initial construction is intransitive, and the denucleativized participant is the initial S, so that the derived construction includes no core nominal term, and the A/S index prefixed to the verb is an expletive.

- (22) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Bà-sádi 'bá-tláá-lì:l-à.*
 PL-woman(cl2) I_{S/A}:cl2-FUT-cry-FV
 'The women will cry.'
- b *χó-tláá-lì:l-w-à.*
 I_{S/A}:cl17_{EXPL}-FUT-cry-DenuclS-FV
 'The people will cry.' lit. 'There will be cried.'

For lack of a better term, this specific type of voice alternation, discussed in greater detail in

⁹⁵ Doornenbal (2009: 225-226) suggests that Bantawa (Kiranti, Sino-Tibetan) has an antipassive marker *k^ha* occurring in a construction in which the initial A has the same ergative coding as in the transitive construction. However, at the same time, he analyzes *k^ha* as a word occupying the object position, and the examples he provides confirm that the construction in which *k^ha* occurs is not really an instance of antipassivization, and *k^ha* is best analyzed as an indefinite pronoun occupying the P slot in the transitive construction.

chapter 9 §9.9, is designated as S-DENUCLEATIVIZATION (abbreviation for ‘denucleativization of the S term of an intransitive construction without nucleativization of any other participant’)

8.3.3 Reflexivization and reciprocalization

In REFLEXIVIZATION and RECIPROCALIZATION (discussed in more detail in chapter 11), two participant roles expressed as A and P (or sometimes as S and a dative oblique) in the initial construction are cumulated by the S term of the derived construction. In reflexivization, S refers to an individual cumulating the two participant roles in a single elementary event, whereas in reciprocalization, S refers to a group of individuals interacting in such a way that a significant proportion of them fulfill the two roles in their interaction with other members of the group.

In example (23), the suffix *-oro* marks reflexivization, whereas in (24), the suffix *-or* marks reciprocalization.

(23) Jóola Banjal (Joola, Atlantic, Niger-Congo)

a *Gáleto na-lluj-e Atejo.*

PRN(cIA) I_{S/A}:clA-look-CPL PRN(cIA)

‘Gáleto looked at Atejo.’

b *Gáleto na-lluj-oro-e bala a-púr*

PRN(cIA) I_S:clA-look-REFL-CPL before I_{S/A}:clA-go.out

‘Gáleto looked at himself (in the mirror) before going out.’

(Bassène 2007: 159)

(24) Jóola Banjal (Joola, Atlantic, Niger-Congo)

a *Gáleto na-ssaf-e Atejo.*

PRN(cIA) I_A:clA-greet-CPL PRN(cIA)

‘Gáleto greeted Atejo.’

b *Gáleto ni Atejo gu-ssaf-or-e*

PRN(cIA) and PRN(cIA) I_A:clBG-greet-REC-CPL

‘Gáleto and Atejo greeted (each other).’

(Bassène 2007: 161)

8.3.4 Non-causative A/S-nucleativization

The voice alternations for which I propose the general term of NON-CAUSATIVE A/S NUCLEATIVIZATION have in common with causativization the nucleativization of a participant taking over the role of A or S in the derived construction. They differ from it in that the nucleativized participant does not outrank the initial A or S in agentivity. Two main varieties of this type of voice alternation can be identified.

8.3.4.1 A/S-nucleativization of obliques

For lack of a better term, I designate as A/S-NUCLEATIVIZATION OF OBLIQUES the voice alternations, discussed in greater detail in chapter 13 §13.2-3, in which the role of A or S in the derived construction is taken over by a participant that could be encoded as an oblique in

the initial construction. In example (25), the expression of the instrument as the A term of a transitive construction is conditioned by the suffix *-ah*, in the absence of which the A term could only express the role or agent or cause, and the instrument could only be encoded as a prepositional oblique.

(25) Laalaa (Cangin, Atlantic, Niger-Congo)

Fetal-aa ap-ah-an paloom.

gun-D kill-NuclA-FUT antelope

‘The gun will be used to kill antelopes.’

Dieye (2010: 206)

Example (13) above is another instance of A-nucleativization of an instrumental oblique.

8.3.4.2 A/S-nucleativization of concernees (concernativization)

As already commented in chapter 2 §2.1.4.2, CONCERNEE-CONCERN CONSTRUCTIONS is the term adopted here for a notion that encompasses the constructions commonly designated as ‘external possession constructions’. In a concernee-concern construction, the concern is part of the construction of a verb that assigns it a semantic role; it has no direct syntactic relationship with the concernee (commonly designated as ‘external possessor’), but the way the concernee is affected by the event in which the concern is involved is entirely determined by a relationship it has with the concern independently of the particular event referred to. For example, in (26), ‘me’ and ‘foot’ form a concernee-concern construction in which the concernee ‘me’ and the concern ‘foot’ are syntactically the dative term and the P term in a clause projected by ‘crush’.

(26) French (Italic, Indo-European)

La voiture m’a écrasé le pied.

D.SG.F car(F) I_{DAT};1SG-have.PRS.I_{S/A}:3SG crush.PTCP D.SG.M foot(M)

‘The car crushed my foot.’ lit. ‘The car crushed the foot to me.’

Concernee-concern constructions may involve a voice alternation that can be described as A/S-nucleativization of a concernee, for which the term CONCERNATIVIZATION will be used in this book.

In this particular type of non-causative A/S-nucleativization, the initial construction may be transitive or intransitive, and the role of A or S in the derived construction is taken over by a participant characterizable as a concernee in relation to the initial S (if the initial construction is intransitive) or the initial P (if the initial construction is transitive).

For example, in (27a), the sole essential participant of ‘sink’ (the anchor) is encoded as the S term of an intransitive construction. In (27b), the voice marker *-i-* marks the conversion of the initial S into the P term of a transitive construction whose A term fulfills the semantic role of concernee in relationship to the initial S converted into P. In Central Alaskan Yupik, this construction implies that the concernee is negatively affected by the event in which the concern is directly involved.

(27) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

- a *Kicaq kit'-uq.*
 anchor.SG sink-IND.I_S:3SG
 'The anchor sank.'
- b *Kit'-i-aqa kicaq.*
 sink-CCN-IND.I_A:1SG.I_P:3SG anchor.SG
 'I had the anchor sunk (me negatively affected).'
 (Miyaoka 2015: 1192)

Concernativization is discussed in greater detail in chapter 13 §13.4. In the literature, 'adversative passive' or 'possessive passive' are the terms most commonly found for this type of voice alternation, because it commonly involves voice-markers also used for passivization, and often has malefactive implications. However, some languages have similar mechanisms involving a marker distinct from that used for passivization, and devoid of any malefactive implication. Consequently, in a general account of voice alternations, a term such as 'concernativization' is more appropriate.

8.3.5 Applicativization

APPLICATIVIZATION (discussed in more detail in chapter 14) may operate on transitive or intransitive constructions. A relatively broad definition of applicativization is adopted in this book, according to which the characteristic features of applicativization are that (i) the participant encoded as A or S in the initial construction is maintained in A or S role, and (ii) the derived construction includes a noun phrase in a role other than A or S (the APPLIED PHRASE) representing a participant which, in the initial construction, either requires a non-core coding distinct from its coding in the derived construction, or cannot be expressed at all.

Three varieties of applicativization can be distinguished according to the syntactic role of the applied phrase: P-APPLICATIVIZATION, in which the applied phrase fulfills the syntactic role of P, D-APPLICATIVIZATION, in which the applied phrase is a dative oblique, and X-APPLICATIVIZATION, in which the applied phrase is an ordinary oblique.

Example (28) illustrates X-applicativization. In (28b), the applied phrase is a locative oblique expressing the semantic role of 'destination of motion', which in Tswana (contrary to English) cannot be expressed in clauses projected by the verb 'fall' in its underived form.

(28) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Dw-àná 'ó-kâ:-w-à.*
 SG-child(c11) I_S:c11-POT-fall-FV
 '(Be careful,) the child might fall down.'
- b *Dw-àná 'ó-ká-w-él-à mó sì-dìbê:-ṅ.*
 SG-child(c11) I_S:c11-POT-fall-APPL-FV LOC SG-well(c17)-LOC
 '(Be careful,) the child might fall into the well.'

However, most accounts of applicativization consider only the particular case of P-applicativization. In P-applicativization, if the initial construction is intransitive, the introduction of the applied P makes the derived construction transitive, and the initial S changes its status to A. If the initial construction is transitive, the initial A maintains its status.

Depending on language-specific rules, in the P-applicativization of transitive constructions, the introduction of the applied P may trigger the denucleativization of the initial P, but in the languages that have multiple-P constructions, the initial P may also maintain its status, as in (12), repeated here as (29). Note that the voice marker in (29b) is the same as in (28b) above, although the voice alternation is not exactly the same.

- (29) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Kì-tlàà-kwál-á* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-FV SG-letter(c111)
 ‘I’ll write the letter.’
- b *Kì-tlàà-kwál-él-á* *’kítsó* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 ‘I’ll write the letter to/for Kitso.’

8.3.6 Voice alternations and avalent verbs

By definition, avalent meteorological verbs cannot lend themselves to types of voice alternations whose definition implies the manipulation of a nuclear participant of the initial construction.⁹⁶ By contrast, there is nothing to prevent avalent verbs from acting as the input of nucleativizing operations.

Semantically, at least two types of nucleativizing operations are conceivable for avalent verbs: nucleativization of an instigator of the meteorological phenomenon, and nucleativization of a person, a thing or a place affected by the meteorological phenomenon.

However, meteorological phenomena are most commonly viewed as occurring without the intervention of an identifiable instigator. This explains Eriksen & al.’s (2015) observation that the causativization of avalent meteorological verbs by means of the same causative morphology as other types of verbs does not seem to be very common, cross-linguistically, and the causative verbs derived from avalent meteorological verbs tend to have meanings whose relation to the meteorological meaning of the base verb is rather indirect. This observation is confirmed for example by Wolof *ngelaw* ‘be windy’ > *ngelaw-al* ‘fart’, where *-al* is a causative suffix. However, in the same language, as illustrated in (30), *taw* ‘rain’ has a perfectly regular causative form *taw-loo*, with another causative suffix typically used for indirect causation (whereas *-al* implies direct causation).

- (30) Wolof (Wolof, Atlantic, Niger-Congo)
- Sëriñ* *b-ii* *mën* *na* *taw-loo.*
 marabout(c1B) c1B-DEM be.able PRF.I_{S/A}:3SG rain-CAUS
 ‘This marabout is able to make it rain.’

Similarly, in Romance languages, the verb ‘rain’ can be causativized with the only peculiarity that its causative construction is an intransitive construction in which (contrary to English) no expletive P is present. This is consistent with the fact that the event to which the initial

⁹⁶ As illustrated by the English verb *rain*, it is common that the verbs denoting meteorological events also have uses referring to other types of events metaphorically related to their meteorological use, in which they behave as ordinary monovalent or bivalent verbs (*Projectiles rained down like hail on them*, *The Lord rained down manna on them*). For such verbs, the remarks in this section only apply to their use as meteorological verbs.

construction refers involves no participant likely to be encoded as P in the causative construction.

(31) French (Italic, Indo-European)

Ne chante pas, tu vas faire pleuvoir!
 NEG sing.IMP NEG I_{S/A}:2SG go.PRS.I_{S/A}:2SG make.INF rain.INF
 ‘Don’t sing, you are going to make it rain!’

As regards the possibility of nucleativizing participants (persons, things or places) affected by a meteorological phenomenon expressed by an avalent verb, some languages do have this possibility, for example Dutch, where this valency operation is coded like passivization, as illustrated in (32).⁹⁷

(32) Dutch (Germanic, Indo-European)

- a *Ik ben nat geregend door een tropische onweersbui.*
 1SG be.PRS.I_{S/A}:1SG wet rain.PTCP through IDF tropical thunderstorm
 ‘I got wet (lit. I was rained wet) because of a tropical thunderstorm.’
- b *Het balkon is onder gesneeuwd.*
 D balcony be.PRS.I_{S/A}:3SG under snow.PTCP
 ‘The balcony is covered with snow (lit. got snowed).’
 (Eriksen & al. 2015: 225)

The same type of voice alternation is found with avalent meteorological verbs in North Saami (Uralic), but with a dedicated suffix that can only be used with avalent verbs referring to weather conditions or natural processes, whose underived form is invariably used with an expletive 3rd person index. The addition of this suffix converts such verbs into regular intransitive verbs whose S refers to a participant negatively affected by the phenomenon in question.

<i>dálvat</i> ‘to become winter’	<i>dálvot</i> ‘to be caught unprepared for winter’
<i>arvit</i> ‘to rain’	<i>arvot</i> ‘to get soaked by rain’
<i>dulvat</i> ‘to flood’	<i>dulvot</i> ‘to be flooded’

⁹⁷ It is interesting to observe that things are different in the case of meteorological clauses in which a noun referring to the meteorological phenomenon is the S of an intransitive verb (as in *The rain is falling*). In such a case, it is common that the person, thing or place affected by the meteorological construction is coded as the applied P in an applicative construction, and that a construction similar to that illustrated in (32) can only be obtained via passivization of the applicative construction, as in the following example from Tswana (Bantu, Benue-Congo, Niger-Congo) :

- a *Púlá* *’í-tláá:-n-à.*
 SG.rain(c19) I_{S/A}:c19-FUT-fall-FV
 ‘It will rain.’ lit. ‘The rain will fall.’
- b *Púlá* *’í-tláà-rí-n-ê:l-à.*
 SG.rain(c19) I_{S/A}:c19-FUT-IP:1PL-fall-APPL-FV
 lit. ‘The rain will fall.on us.’ (applicativization)
- c *Rì-tláà-n-èl-w-à* *kí* *’pū:là.*
 I_{S/A}:1PL-FUT-APPL-PASS-FV by SG.rain(c19)
 lit. ‘We will be fallen.on by the rain.’ (passivization of the applicative construction)

sevnnojodit ‘to get dark’ *sevnnojoduvvat* ‘to be caught out by the darkness’

Table 1. Derivation of intransitive verbs whose S refers to a participant affected by weather conditions or natural processes in North Saami (Valijärvi & Kahn 2017: 256).

8.3.7 Portative derivation and the typology of voice

Caddo and a few other North American languages have a special PORTATIVE marker converting intransitive verbs of spontaneous motion (i.e. verbs such as ‘go’, ‘come’, ‘run’, ‘walk’, ‘climb’, ‘fly’, ‘swim’, etc.) into transitive verbs whose general meaning can be glossed as ‘A moves carrying P’.

(33) Caddo (Caddo, Caddoan)

a *Ci-²a=d(ih)-²a²*.

I_A:1SG-go-FUT

‘I will go.’

b *Ci-ni-²a=d(ih)-²a²*.

I_A:1SG-PORT-go-FUT

‘I will take it.’

(Melnar 1998: 170)

The same semantic relationship can also be found between pairs of formally unrelated verbs such as English *come / bring* or *go / take away*.

Portative derivation has some commonalities with both causativization and applicativization but cannot be straightforwardly analyzed as a mere subtype of either causativization or applicativization:

- As in causativization, the derived construction in portative derivation involves an prototypical agent in A role. Moreover, as in causatives from unergative intransitives, the single essential participant in the initial construction has agentive features but is not a prototypical agent, since its action is not oriented towards a patient. However, in contrast to causativization, it is the A term of the derived construction, rather than the P term, that corresponds to the S term of the initial construction (*John brought the gift* implies *John came*, whereas *²The gift came* can only be understood as a metaphorical way of expressing that the gift has been brought).
- As in applicativization, the derived construction in portative derivation refers to an additional participant encoded as the P term of a transitive construction. However, in contrast to applicativization, the A term in the portative construction cannot be analyzed as expressing a semantic role identical to that of S in the initial construction, since it cumulates the roles of entity moving under its own power and of entity carrying another entity.

Example (34) illustrates the distinction found in Yimas between the applicative marker *tay-* licensing an applied phrase expressing the role of concomitant (a) and the portative marker *pampay-* (b).⁹⁸ Foley (2024) specifies that the portative marker *pampay-* derives from an

⁹⁸ In the paper from which this example has been taken, the portative marker is labeled ‘kinetic’ and analyzed as an applicative.

irregular reduplication of the verb root *pay-* ‘carry, lie’, and is used whenever the referent of the P phrase it licenses “is involved as the passive partner in act of carrying”.

- (34) Yimas (Lower Sepik, Ramu-Lower Sepik)
- a *Na-mpu-taj-wapal-kia-k.*
 I_P:3SG-I_A:3PL-**APPL**-climb-NOCT-IRR
 ‘They came up with her.’ (comitative: she walked along too)
- b *Na-mpu-pampay-wapal-kia-k.*
 I_P:3SG-I_A:3PL-**PORT**-climb-NOCT-IRR
 ‘They came up with her.’ (carrying her)
 (Foley 2024: 362)

Consequently, as argued by Messerschmidt (2022), portative derivation can be analyzed as a distinct type of voice alternation, with, however, the following two particularities: it is restricted to a small semantic class of verbs, and has strong syntactic and semantic affinities with two major types of voice alternations, causativization and applicativization.

In such conditions, it is not surprising that very few languages have a dedicated portative marker. Cross-linguistically, the common situation is that, if the relationship between ‘S moves’ and A moves carrying P’ is expressed morphologically, the marker recruited for that function is also used either in typical causative constructions or in typical applicative constructions. In the language sample analyzed by Messerschmidt (2022), both strategies are common, and the common practice in descriptive grammars is that portative constructions are simply assimilated to causative constructions if the portative marker is also found in bona fide causative constructions, and to applicative constructions if the portative marker is also found in bona fide applicative constructions.

Example (35) illustrates the use of the same suffix *-is* in causative and portative function in Tswana, whereas example (36) illustrates the use of the same suffix *-á* as an applicative marker licensing an applied P expressing the role of instrument and as a portative marker in Datooga.

- (35) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Ǫ-tl̀̀à-lid-ìs-à* *ŋw-à.ná.*
 I_{S/A}:2SG-FUT-cry-**CAUS**-FV SG-child(c11)
 ‘You’ll make the child cry.’
- b *Kì-tl̀̀à-tl-ìs-à* *Ø-m:pʰó.*
 I_{S/A}:1SG-FUT-come-**PORT**-FV SG-gift(c19)
 ‘I’ll bring a gift.’
- (36) Datooga (Western Nilotic, Nilotic, East Sudanic)
- a *Góo-ŋòol-á* *màttiŋgòodà.*
 I_{S/A}:3SG-stir.PLAC-**APPL** cooking.stick
 ‘S/he always stirs with a cooking stick.’
- b *Qá-fwáj-á* *ŋùtta.*
 I_{S/A}:3SG-run.away-**PORT** spear
 ‘S/he runs away with a spear.’
 (Payne 2024 : 811)

In example (37), sentences (a-b) illustrate the use of the Tuwuli verbal suffix *-mla* as a comitative-applicative marker, whereas sentences (c-d) illustrate the same suffix acting as a portative marker.

- (37) Tuwuli (Ka-Togo, Kwa, Niger-Congo)
- a *Ɛ-bɔa bɔl mɔ Kofi.*
 I_{S/A}:3SG-beat ball with PRN
 ‘He played football with Kofi.’
- b *Ɛ-bɔa-mla Kofi bɔl.*
 I_{S/A}:3SG-beat-APPL PRN ball
 ‘He played football with Kofi.’
- c *Ɛ-ya ne yĩ awã mɔ fusĩ.*
 I_{S/A}:3SG-come LOC my place with yams
 ‘S/he brought yams to my place.’
- d *Ɛ-ya-mla fusĩ ne yĩ awã.*
 I_{S/A}:3SG-come-PORT yams LOC my place
 ‘S/he brought yams to my place.’
 (Harley 2005 : 340, 341, 342)

8.3.8 The distribution of the main types of voice alternations in the world’s languages

Bahrt (2021: 144) provides a quantitative evaluation of the distribution of the following types of voice alternations in a sample of 222 languages in which all languages belong to different genera: causativization, reciprocalization, applicativization, reflexivization, decausativization, passivization, and antipassivization. Analytical marking of voice alternations is excluded from this count. The percentages of languages in which synthetic marking of each of these types of voice alternations is attested are as follows:

- causativization: 73.9%
- reciprocalization: 60.4%
- applicativization: 45.9%
- reflexivization: 41.9%
- decausativization: 36.0%
- passivization: 36.0%
- antipassivization: 18.5%

Note, however, that the figures would be slightly lower for applicativization if the evaluation were carried out on the basis of the definitions put forward in this book, since Bahrt’s definition of applicativization conflates applicativization as defined in this book and non-causative A/S-nucleativization.

In terms of macroareas, North America is characterized by a high prevalence of all seven types of voice alternations. Papunesia has significantly lower percentages for all types, with the exception of applicativization. Australia is characterized by a strong prevalence of reciprocalization and reflexivization, and low percentages of languages having passivization or antipassivization. The most salient characteristic of Eurasia is the low percentage of

languages having applicativization, and the most salient characteristic of Africa is the high percentage of languages having passivization.

8.4 Voice marker stacking

8.4.1 Combinations of voice markers interpreted compositionally

It is in principle possible that a verb form already including a derivational voice marker takes an additional voice marker that operates on its valency properties exactly as it could operate on the valency of an underived verb form. For example, the combinations of voice markers in the Tswana verb forms illustrated in (38) have a fully compositional interpretation:

- in (38e), the combination of the voice markers *-is* and *-ets* (allomorph of *-el*) encodes P-applicativization of the causative construction, resulting in a construction with the causer in A role and the possibility of coding three distinct participants as P: the referent of the initial P, the referent of the initial A (not mentioned in (38e)), and a recipient coded as an applied P;
- in (38f), the combination of the voice markers *-el* and *-w* encodes passivization of the applicative construction, resulting in a construction in which the applied P (representing the recipient) is converted into the A of a transitive construction, and the unique P term coincides with the initial P; the referent of the initial A is not mentioned in (38f), but it could be present as a prepositional phrase (for example *kí ñná* ‘by me’);
- in (38g), the combination of the voice markers *-is* and *-iw* (allomorph of *-w*) expresses passivization of the causative construction, resulting in a construction in which the causer introduced in A role by causative derivation is denucleativized, and the P representing the initial P is converted into A, so that the initial A converted into P by causativization regains the status of A;
- in (38h), the combination of the voice markers *-is*, *-ed* (allomorph of *-el*) and *-iw* (allomorph of *-w*) encodes passivization of the construction in (38e), resulting in a construction in which the referent of the applied P introduced by applicativization (i.e., the recipient) is encoded as A, whereas the causer introduced in A role by causativization is denucleativized, and could only be expressed as an oblique.⁹⁹

(38) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-kwál-á* *lò-kwâ:lò.*
I_{S/A}:1SG-FUT-write-FV SG-letter(c11)
 ‘I’ll write a letter.’
- b *Lò-kwáló* ^l*lò-tlàà-kwâ:l-w-à.*
SG-letter(c11) I_{S/A}:c111-FUT-write-PASS-FV
 ‘The letter will be written.’
- c *Kì-tlàà-kwál-él-á* *Mp^hó* *lò-kwâ:lò.*
I_{S/A}:1SG-FUT-write-APPL-FV PRN(c11) SG-letter(c11)
 ‘I’ll write the letter to Mpho.’

⁹⁹ In principle, this construction could also include a P term representing the initial A converted into P by causativization, but in practice, this possibility does not seem to be used.

- d *Kítsó* ¹*ó-tláá-ḡ-kwád-ís-á* *lò-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-IP:1SG-write-CAUS-FV SG-letter(c111)
 ‘Kitso will make me write the letter.’
- e *Kítsó* ¹*ó-tláá-kwád-ís-éts-à* *M̀pʰó* *lò-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-CAUS-APPL-FV PRN(c11) SG-letter(c111)
 ‘Kitso will make someone write a letter to Mpho.’
- f *M̀pʰó* ¹*ó-tláá-kwál-él-w-á* *lò-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-PASS-FV SG-letter(c111)
 ‘A letter will be written to Mpho.’
 lit. ‘Mpho will be written.to a letter.’
- g *Kì-tláà-kwád-ís-ìw-à* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-CAUS-PASS-FV SG-letter(c111)
 ‘Someone will make me write a letter.’
 lit. ‘I will be made write a letter’
- h *M̀pʰó* ¹*ó-tláá-kwád-ís-éd-ìw-à* *lò-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-CAUS-APPL-PASS-FV SG-letter(c111)
 ‘Someone will make someone else write a letter to Mpho.’
 lit. ‘Mpho will be made written.to a letter’

Example (39) illustrates the compositional reading of the combination of a causative marker, a passive marker and an antipassive marker in Nahuatl.

(39) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ti-c-cua* *in nacatl.*
 I_{S/A}:2SG-IP:3SG-eat D meat
 ‘You are eating the meat.’
- b *Ni-mitz-cua-ltia* *in nacatl.*
 I_{S/A}:1SG-IP:2SG-eat-CAUS D meat
 ‘I am making you eat the meat.’
- c *Ni-mitz-tla-cua-ltia.*
 I_{S/A}:1SG-ANTIP-eat-CAUS
 ‘I am making you eat (unspecified things).’
- d *Ti-cua-ltī-lo* *in nacatl.*
 I_{S/A}:2SG-eat-CAUS-PASS D meat
 ‘They are making you eat the meat.’¹⁰⁰ lit. ‘You are made eat the meat.’
- e *Ti-tla-cua-ltī-lo.*
 I_{S/A}:2SG-ANTIP-eat-CAUS-PASS
 ‘They are making you eat (unspecified things).’
 (Launey 1981: 181, 187)

As regards the question of how to account for the order of voice markers in verb forms including two voice markers, there is a consensus that the syntactic and semantic scope of these morphemes plays a role. However, some authors, most notably Hyman (2003), assume that the primary force at play is not scope, but rather a template, whereas others, e.g. Baker

¹⁰⁰ In the translation of sentences (39d-e), *they* must be understood as non-specific.

(1988) assume derivation through syntactic movement. For a survey of the discussion and detailed references, readers are referred to Alsina (2023).

8.4.2 Arbitrary restrictions on voice marker stacking

Combinations of voice markers similar to those illustrated in §8.4.1 are not equally usual in all the languages that have rich inventories of voice alternations. Many languages have arbitrary restrictions on the possibility of taking the output of a morphologically oriented voice alternation as the input of another voice alternation. For example, French, Spanish and Italian have very similar analytical passive and causative constructions, but the passivization of causative constructions is considered ungrammatical in French or Spanish, whereas it is accepted in Italian, cf. example (40).

- (40) Italian (Italic, Indo-European)
Fummo fatti scendere.
 be.CPL.I_{S/A}:1PL make.PTCP.PL.M go.down.INF
 lit. ‘We were made go down.’

In this connection, it is interesting to observe that, when working with consultants, one often gets the impression that speakers may feel uncomfortable processing verb forms that include two or more voice markers. And even if they have no problem with the verb form itself, they may have problems with constructions in which all the participants it implies are overtly expressed.

8.4.3 Voice marker combinations with non-compositional interpretations

Depending on the individual languages, some combinations of voices may lend themselves to non-compositional interpretations.

8.4.3.1 *The passive interpretation of ‘reflexive + causative’*

In French, reflexivization encoded by the middle marker *se* (originally a reflexive marker whose uses still include the expression of reflexivization) may apply to the causative construction of transitive verbs with the compositional meaning ‘Causer_i makes Causee act on Self_i’, but the same reflexive-causative construction is commonly interpreted as passive, as in (41).

- (41) French (Italic, Indo-European)
Il s’est fait tuer dans un accident.
 I_{S/A}:3SG.M REFL-be.PRS.I_{S/A}:3SG make.PTCP kill.INF in IDF.SG.M accident(M)
 ‘He was killed in an accident.’ lit. ‘He_i made (someone) kill himself_i in an accident.’

We will return to this question in chapter 9 §9.5.2, since the reanalysis of reflexive-causative constructions is a possible source of passives.

8.4.3.2 *The simulative interpretation of ‘reflexive + causative’*

In many of the languages of sub-Saharan Africa I am familiar with (Tswana, Mandinka, Joola Fóoñi, etc.), the reflexivization of the causative construction of intransitive verbs, whose compositional meaning is ‘N_i makes self_i V’, is commonly interpreted as expressing a simulative meaning (‘N pretends to V’), as in (42c), where *-is* marks causativization, and *-i-* marks reflexivization. A plausible explanation is a semantic shift from ‘N_i makes self_i V’ to ‘N_i makes efforts to V’, and further to ‘N_i pretends to V’.

(42) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Ḑw-àná* ¹*ó-á-lí:l-à*.
 SG-child(c11) I_{S/A}:c11-DJ-cry-FV
 ‘The child is crying.’
- b *Kí* *ìj* *ó-lìd-ìs-à* *ḡw-àná:* *jò?*
 NomCOP what I_{S/A}:2SG-cry-CAUS-FV SG-child(c11) c11.DEM
 ‘Why are you making this child cry?’
- c *Ḑw-àná* ¹*jó* *ó-à-í-tíd-î:s-à*.
 SG-child(c11) c11.DEM I_S:c11-DJ-REFL-cry-CAUS-FV
 ‘This child is pretending to cry.’ lit. ‘This child is making himself cry.’

The same phenomenon is observed in Mandinka, as illustrated in (43b), where *-ndi* marks causativization, and *à fâḡ* is a reflexive pronoun.

(43) Mandinka (Central Mande, Mande)

- a *Kèê* *fǎa-tà* *lè*.
 man.D die-CPL.TR FOC
 ‘The man died.’
- b *Kèê* *yè* *à* *fâḡ* *nè* *fâ-ndí*.
 man.D CPL.TR 3SG self FOC die-CAUS
 ‘The man pretended to be dead.’ lit. ‘The man made himself die.’

Interestingly, in Mandinka, *fǎa* ‘die, kill’ is ambitransitive and has two causative forms, *fâ-ndí* and *fàa-rìndí*, but the only one that can be used with a true causative meaning is *fàa-rìndí* ‘make kill’; *fâ-ndí* cannot be used with a true causative meaning, and can only be found in the reflexive-causative construction expressing the non-compositional meaning ‘pretend to be dead’.

Regúnaga (2015) describes a similar phenomenon in Yagan, an extinct isolated language that was spoken on the island of Tierra del Fuego (Chile). In Yagan, simulative is expressed by a verbal prefix *mū-*, as in *šalapana* ‘be angry’ > *mū-šalapana* ‘pretend to be angry’, analyzed by Regúnaga (2015) as the combination of the reflexive-reciprocal prefix *m(am)-* and the causative prefix *ū-*.

 8.4.3.3 *The intensive use of double applicatives and double causatives*

In Tswana and other Bantu languages, the repetition of the suffix normally used to mark applicativization may be found with its compositional meaning, as in *kwál-á* ‘write’ > *kwál-*

él-él-à ‘write to s.o. on behalf of s.o. else’, cf. (44).

(44) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-kwál-á* *lò-kwâ:lò*.
 I_{S/A}:1SG-FUT-write-FV SG-letter(cl11)
 ‘I’ll write a letter.’
- b *Kì-tlàà-kwál-él-á* *m̀pʰó* *lò-kwâ:lò*.
 I_{S/A}:1SG-FUT-write-APPL-FV PRN(cl1) SG-letter(cl11)
 ‘I’ll write the letter to/on behalf of Mpho.’
- c *Kì-tlàà-kwál-él-él-à* *ìré* *m̀pʰó* *lò-kwâ:lò*.
 I_{S/A}:1SG-FUT-write-APPL-APPL-FV father(cl1).I_{ADP}:1SG PRN(cl1) SG-letter(cl11)
 ‘I’ll write the letter to Mpho on behalf of my father.’

However, with some verbs, the repetition of the applicative marker may also encode intensity of action without any change in the construction of the base verb, as in *lib-à* ‘look at’ > *lib-él-él-à* ‘watch carefully’.

(45) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Líb-á* *sí-tʰàrì:* *sé!*
 look.at-FV SG-tree(cl7) cl7.DEM
 ‘Look at this tree!’
- b *B-àná* *bá-ì-tʰút-á* *tírò* *j-á-χó-lóχ-à*
 PL-child(cl2) I_{S/A}:cl2-REFL-teach-FV work(cl7) cl7-GEN-INF-plait-FV
ká *χò-lib-él.él-à* *bà-χò:lò*.
 by INF-look.at-EMPH-FV PL-adult(cl2)
 ‘Children learn to plait by observing adults.’

In many Bantu languages, the same intensive meaning without any change in the construction of base verb may also be expressed by the repetition of a causative suffix, as in Tswana *bóts-á* ‘ask, question’ > *bóts-ís-ís-à* ‘cross-examine’.

8.4.3.4 *The honorific use of ‘reflexive + causative’ and ‘reflexive + applicative’ in Nahuatl*

In Classical Nahuatl, in addition to their use with the expected compositional meaning, the combination ‘reflexive + causative’ and ‘reflexive + applicative’ are used as honorific forms of verbs, without any change in valency. The combination ‘reflexive + causative’ can be used as the honorific form of intransitive verbs, whereas the combination ‘reflexive + applicative’ can be used as the honorific form of transitive verbs. In (46), *-mo-* is a middle marker commonly used to mark reflexivization, whereas the suffixes *-tia* and *-ilia* are commonly used to mark causativization and applicativization, respectively.

(46) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ti-mo-cochī-tia*.
 I_S2SG-HON-sleep-HON
 lit. ‘You are making yourself sleep.’ > ‘You are sleeping.’ (hon.)

- b *Ø-Qui-mo-chīhu-ilia*.
 I_A:3SG-I_P:3SG-HON-do-HON
 lit. ‘S/he is doing it for himself.’ > ‘S/he is doing it.’ (hon.)
 (Launey 1981: 201)

8.5 Symmetrical voices

Symmetrical voice systems in the sense defined in §8.1.7 are an essential element of pivot-prominent transitive constructions, i.e., systems of transitive coding in which the coding characteristics of one of the core terms of transitive clauses (the PIVOT) are not related to semantic role distinctions, but exclusively to its status as the syntactically privileged term, whereas verb morphology encodes the semantic role of the participant selected as the pivot.

Two subtypes of symmetrical voice systems can be distinguished: binary symmetrical voice systems, typically found in the languages of Western Indonesia, and multiple symmetrical voice systems, typically found in the languages of the Philippines and in the indigenous languages of Taiwan.

8.5.1 Binary symmetrical voice systems

In binary systems of symmetrical voices, the verb forms projecting transitive clauses show a binary morphological distinction marking the selection of one of the two nuclear participants as the pivot. In the AGENT VOICE, the pivot represents the participant syntactically assimilated to the agent of prototypical transitive verbs, whereas in the PATIENT VOICE, the pivot represents the participant syntactically assimilated to the patient of prototypical transitive verbs.

Such a system is found in Balinese, a Western Austronesian language whose transitive coding system has already been presented in chapter 3 §3.3.3. In Balinese, the pivot is characterized by its preverbal position.

(47) Balinese (Malayo-Sumbawan, Austronesian)

- a *Cang nyemak baju ento*.
 1SG AV.take shirt DEM
 ‘I took the shirt.’ (agent voice)
- b *Baju ento jemak cang*.
 shirt DEM PV.take 1SG
 ‘I took the shirt.’ (patient voice)
 (Udayana 2013: 15)

Note that, in Balinese, this alternation is morphologically oriented, since the agent voice form of verbs can be described as resulting from the prefixation of a nasal element (here, $N + j \rightarrow ny$). However, as already commented in §8.1.7, contrary to what the term ‘symmetrical voices’ itself may suggest, the lack of morphological orientation is not essential in the notion of symmetrical voice as defined in this book. What is essential is that the agent voice construction is not isomorphous with the construction formed by a monovalent verb, a phrase representing the sole essential participant and an adjunct phrase, which precludes analyzing it

as an intransitive (antipassive) alternative to the transitive construction.

8.5.2 Multiple symmetrical voice systems

In systems of multiple symmetrical voices, the selection of the participant encoded as the pivot is not restricted to the two nuclear participants of transitive verbs.

Tagalog, whose system of transitive coding has been presented in chapter 3 §3.3.2, provides a typical illustration of this kind of symmetrical voice system.

In Tagalog, all verb forms include a marker that qualifies as a voice marker, in the sense that it regulates the correspondence between participant roles and the morphosyntactic role of pivot. All nominal terms of Tagalog clauses are flagged by prepositions. As illustrated in (48), the preposition *ang* flagging the pivot replaces the preposition that flags the same term when it is not selected as the pivot, and voice marking gives clues about the participant role expressed by the pivot. In addition to an agent voice (also used to mark the selection of S in intransitive clauses as the pivot) and a patient voice, the LOCATIVE VOICE, the INSTRUMENTAL VOICE and the CONVEYANCE VOICE mark the selection of an oblique as the pivot.

(48) Tagalog (Greater Central Philippine, Austronesian)

- a *B<um>ili ang lalake ng isda sa tindahan.*
 buy<AV> PIV man nPIV fish OBL store
 ‘The man bought fish at the store.’ (agent voice)
- b *B<in>ili-Ø ng lalake ang isda sa tindahan.*
 buy<REAL>-PV¹⁰¹ nPIV man PIV fish OBL store
 ‘The man bought fish at the store.’ (patient voice)
- c *B<in>ilh-an ng lalake ng isda ang tindahan.*
 buy<REAL>-LV nPIV man nPIV fish PIV store
 ‘The man bought fish at the store.’ (locative voice)
- d *I-b<in>ili ng lalake ng isda ang bata.*
 CV -buy<REAL> nPIV man nPIV fish PIV child
 ‘The man bought fish for the child.’ (conveyance voice)
- e *Ip<in>am-bili ng lalake ng isda ang pera.*
 IV<REAL>-buy nPIV man nPIV fish PIV money
 ‘The man bought fish with the money.’ (instrumental voice)
 (Kroeger 1993: 13-14)

8.5.3 Other types of voice alternations in languages with symmetrical voice systems

The existence of symmetrical voices in a language is not exclusive of the possible existence of other types of voice alternations meeting the definitions put forward in §8.3. For example, as illustrated by examples (49) to (51), in addition to the agent and patient voices regulating the selection of the pivot in transitive clauses, Balinese also has voice alternations marking nucleativization or denucleativization of participants: passivization (49), applicativization (50), and causativization (51).

¹⁰¹ The justification for positing a null voice-marker here is that, in the realis, the same voice is marked by a suffix *-ín*.

- (49) Balinese (Malayo-Sumbawan, Austronesian)
Yeh ento ka-inum taken I Made.
 water DEM PASS-drink by PersART PRN
 ‘The water was (unintentionally) drunk by Made.’
 (Udayana 2013: 21)
- (50) Balinese (Malayo-Sumbawan, Austronesian)
 a *I meme meli nasi sig anak-e ento.*
 PersART mother AV.buy rice at person-D DEM
 ‘Mother bought rice from that person.’
 b *I meme meli-in anak-e ento nasi.*
 PersART mother AV.buy-APPL person-D DEM rice
 ‘Mother bought rice from that person.’
 (Udayana 2013: 3)
- (51) Balinese (Malayo-Sumbawan, Austronesian)
 a *Ia niman adin-ne.*
 3SG AV.kiss little.sibling-I_{ADP}:3
 ‘S/he kissed his/her little brother/sister.’
 b *Tiang niman-ang ia sig adin-ne.*
 1SG AV.kiss-CAUS 3SG at little.sibling-I_{ADP}:3
 ‘I made him/her kiss his/her little brother/sister.’
 (Arka 2003: 187)

McDonnell & Truong (2024) is an interesting reference on voice systems combining symmetrical and non-symmetrical voices.

8.5.4 Symmetrical voice systems in Western Austronesian languages

Symmetrical voice systems more or less similar to either the Tagalog system or the Balinese system are mainly found among Western Austronesian languages, although their recognition is still a matter of controversy among Austronesianists.

As observed by Zúñiga and Kittilä (2019: 120-134), the symmetrical-voice account can be considered now as the mainstream model for at least some Western Austronesian languages (including Tagalog). The current consensus among leading Austronesianists is that, even among the languages of the Philippines, there is variation in important aspects of the voice systems, and consequently in the possibility of analyses in terms of symmetrical voices. It is sometimes difficult to decide how the data provided by the available descriptions should be interpreted within the framework proposed in this book, but there are at least some clear cases of Western Austronesian languages that cannot be analyzed as having a symmetrical voice system. For example, the Formosan language Rukai differs from the other Austronesian languages of Taiwan in that it does not have a symmetrical voice system, but passive verb forms derived from transitive verb stems by the addition of a prefix whose syntactic properties meet the definition of a transitive-passive alternation (Chen 2008: 23-24).

Indonesian, discussed in some detail by Zúñiga & Kittilä (2019: 130-133), illustrates the case of a language having a voice (the Indonesian *di*-voice) whose behavior is ambiguous between that of a patient voice in a binary system of symmetrical voices and that of a passive voice as defined in §8.3.2. As illustrated in (52), in Indonesian, the noun phrase following *di*-marked verb forms may be unflagged, as in (52b), or flagged by the preposition *oleh* ‘by’, as in (52c). Consequently, the behavior of *di*- is ambiguous between that of a patient voice marker (*men*- in (52a) being then analyzable as an agent voice marker in a symmetrical voice system) and that of a passive voice marker (*men*- being then analyzable as a transitivity marker).

(52) Indonesian (Malayo-Sumbawan, Austronesian)

- a *Mereka sudah men-jemput Tomo.*
 3PL PRF AV/TR-meet PRN
 ‘They have met Tomo.’
- b *Tomo sudah di-jemput mereka.*
 PRN PRF PV-meet 3PL
 ‘They have met Tomo.’
- c *Tomo sudah di-jemput oleh mereka.*
 PRN PRF PASS-meet by 3PL
 ‘Tomo has been met by them.’
 (Sneddon 1996: 255, 257)

Arka & Ross (2005) is an important reference on the variation in the Austronesian voice systems. There is, however, no consensus on the best way to characterize this variation and to interpret it historically, although the distribution of voice systems sharing essential features with the Tagalog system across the Austronesian family (in particular, the fact that such systems are found in the Formosan languages, but not in the languages of the Oceanic branch of the Austronesian family) supports the hypothesis that a system of this type was present in Proto-Austronesian, and has been variously dismantled in many present-day languages.

8.5.5 Symmetrical voice systems in other parts of the world

Building on Haude & Zúñiga (2016), Zúñiga & Kittilä (2019: 134-150) discuss the existence of symmetrical voices in a selection of Amerindian languages. Their conclusion is that a symmetrical-voice account with a binary opposition between an agent voice and a patient voice can be considered for Jarawara, Movima, Mapudungun, and varieties of Tewa, but does not appear to apply to some other languages for which it may have been suggested in earlier literature. In addition to the binary opposition between an agent voice and a patient voice, Mapudungun has an agentless passive, causatives, and applicatives. Jarawara has neither passives nor antipassives, but it has causative and applicative derivations. Movima has passive, antipassive, causative and applicative derivations. As already discussed in chapter 3 §3.3.4, an important difference between the Movima system and the binary symmetrical voice systems attested in Balinese and other Western Austronesian languages is that, in Movima, the choice between agent voice and patient voice is severely constrained in mixed scenarios, hence the possibility of analyzing the distribution of agent voice and patient voice forms in terms of a direct vs. inverse contrast.

Although they are not mentioned in the general literature on valency and voice, some Western Nilotic languages are also good candidates for an analysis in terms of symmetrical voices.

Western Nilotic languages show important variation in their systems of participant coding and voice, and precise descriptions are lacking for many of them, but several authors have shown that important similarities with Western Austronesian systems can be found in at least three Western Nilotic languages: Dinka (Andersen 1991, Erlewine & al. 2015), Kurmuk (Andersen 2015) and Shilluk (Remijsen & Ayoker 2018). The discussion is not always easy to transpose into the framework adopted in this book, and the massive use of non-concatenative morphology that characterizes Western Nilotic languages does not facilitate the understanding of the examples, but the data are sufficient to conclude that, in the languages in question, a pivot characterized by its immediate preverbal position is the only term of the clause accessible to relativization, and a ternary system of symmetrical voices marks that the pivot in clauses projected by prototypical transitive verbs represents the agent (agent voice), the patient (patient voice) or a non-essential participant (circumstantial voice, glossed as XV). Based on some coding asymmetries, earlier analyses treated the patient voice as a passive voice (i.e. as a voice marking the conversion of A into the S term of an intransitive construction), but two types of observations support an analysis in terms of symmetrical voices: on the one hand, some details in the coding of the agent in the patient voice are difficult to reconcile with the passive analysis, and on the other hand, the patient voice is pragmatically unmarked and at least as frequent in texts (if not more frequent) than the agent voice. In particular, Remijsen & Ajoker (2018) emphasize that, in Shilluk, in the answer to the question ‘What happened?’, the patient voice is felicitous, but the agent voice is not.

Example (53) illustrates the pivot-prominent transitive construction of Kurmuk.

(53) Kurmuk (Western Nilotic, Nilotic, East Sudanic)

- a *ṭáarák 'bóor-ú dēel kà ḡir.*
 person skin-PST goat PREP knife
 ‘The man_{PIV} skinned_{AV} a goat with a knife.’
- b *Dēel bóor-úṭ-ì ḡà ṭáarák kà ḡir.*
 goat skin-PST-PV nPIV.A person PREP knife
 ‘The man skinned_{PV} the goat_{PIV} with a knife.’
- c *Ḋir bóor-úṭ-í dēel ḡà ṭáarák.*
 knife skin-PST-XV goat nPIV.A person
 ‘The man skinned_{XV} a goat with the knife_{PIV}.’
 (Andersen 2015: 510)

Western Nilotic systems of symmetrical voices are similar to the Philippine type in that they are not limited to a binary opposition between agent voice and patient voice, but they are similar to the Indonesian type in that the ternary system of symmetrical voices illustrated in (53) is orthogonal to a system of non-symmetrical voices. For example, Kurmuk has an applicative voice that licenses applied Ps expressing the role of beneficiary. As illustrated by example (54), in clauses projected by an applicative verb form, the applied P can be selected as the pivot (identified as such by its immediately preverbal position) by means of the patient voice, exactly like ordinary Ps (54b), and the circumstantial voice makes it possible to select

as the pivot not only an ordinary oblique, as in (53c), but also the denucleativized initial P, as in (54d).¹⁰²

(54) Kurmuk (Western Nilotic, Nilotic, East Sudanic)

- a *Dĩt káaj-úḡ-á-r.*
goat.PL herd-PST-IA:1SG.PV-FOC
'I herded_{PV} the goats_{PIV}.'
- b *Ṭáarák 'kóo-zúz-úuḡ-à* *dĩt.*
person herd.ANTIP-APPL-PST-IA:1SG.PV goat.PL
'I herded_{PV} goats for the man_{PIV}.'
- c *Bòom kóo-zúz-úuḡ-á* *ṭáarák 'dĩt.*
throwing.stick herd.ANTIP-APPL-PST-IA:1SG.XV person goat.PL
'I herded_{XV} goats for the man with the throwing stick_{PIV}.'
- d *Dĩt kóo-zúz-úuḡ-á* *ṭáarák kà bòom.*
goat.PL herd.ANTIP-APPL-PST-IA:1SG.XV person PREP throwing.stick
'I herded_{XV} the goats_{PIV} for the man with the throwing stick.'
- (Andersen 2015: 528)

8.5.6 The origin of symmetrical voices

The diachronic scenario of verbs having developed from participant nominalizations in the role of non-verbal predicate has frequently been discussed. In the diachronic syntax literature, the fact the a nominal term in a clause whose nucleus is synchronically a finite verb form shows coding properties identical to those of adnominal possessors has often been interpreted as evidence that, originally, the term in question modified a deverbal noun in the role of non-verbal predicate that was subsequently reanalyzed as a finite verb form. This is in particular the kind of explanation considered by Himmelmann (1991) to account for the particular type of clause structure found in the Philippine languages that have symmetrical voice systems of the type found in Tagalog.

In the case of binary symmetrical voice systems, more or less complex scenarios can be imagined, but it is at least possible that, at some point in the history of a language, formulations such as literally 'X's hitter is Y' and 'Y's hittee is X' become two usual ways of expressing 'X hits Y', and are eventually reanalyzed as the two variants of a transitive construction in which an agent voice marker and a patient voice marker are the reflexes of the former agent nominalization and patient nominalization markers.

In the case of multiple symmetrical voice systems, the same scenario with nominalizations other than agent and patient nominalizations can be imagined. For example, formulations such as literally 'X's buying-place of Y was Z' for 'X bought Y at Z' may have been the source of the locative voice found in Tagalog and other Philippine languages.

¹⁰² Note that, in Kurmuk, the applicative marker can only attach to the antipassive form of transitive verb stems.

8.6 Inflectional voices

8.6.1 General remarks on inflectional voices

Cross-linguistically, as a rule, the morphological marking of valency alternations can be analyzed as derivational rather than inflectional. As observed by Auderset (2015) and Bickel & Nichols (2013), cross-linguistically, voice tends to be expressed separately from typical inflectional categories such as TAM and agreement. However, some languages have CUMULATIVE VOICE MARKERS, i.e. portmanteau markers amalgamating the expression of voice with the expression of TAM and/or agreement. The languages in question are commonly described as having INFLECTIONAL VOICES.

In the languages in which verbs divide morphologically into two or more inflectional classes, it may happen that verbs with similar valency properties tend to group into the same inflectional class, and that the same verb stem shows different valency/transitivity properties depending on the inflectional class in which it is conjugated. In such cases, as already mentioned in §8.1.2, there is generally a default (or semantically unmarked) inflectional class, in which verbs with all possible kinds of valency patterns can be found, and one or two semantically marked inflectional classes characterized by a clear predominance of verbs with a given type of valency pattern.

Traditionally, the default inflectional class in such systems is designated as the ‘active voice’, but, as rightly observed among others by Bahrt (2021: 18), this term is quite misleading, since it contradicts the semantically unmarked nature of the inflectional voices for which the label DEFAULT VOICE will be used in the remainder of this section.

The default voice is functionally comparable to the morphologically unmarked construction in morphologically oriented voice alternations, which makes it possible to characterize it equally as the initial construction and to use the same labels for the constructions projected by derived verb forms in morphologically oriented voice systems and for the non-default voices in inflectional voice systems.

Inflectional voice systems are relatively rare in the languages of the world. They are, however, familiar to linguists, due to their occurrence in ancient Indo-European languages (§8.6.2). Some other examples of inflectional voice systems are briefly presented in §§8.6.3-8.

8.6.2 Inflectional voices in ancient Indo-European languages

The Hittite verbal system displayed a two-fold inflectional voice distinction between a default voice and a middle (or mediopassive) voice (Inglese 2020). As illustrated in Table 1, the two inflectional classes of Hittite verbs were characterized by full fusion of voice marking and subject indexation.

	DEFAULT	MIDDLE
	<i>ēp-/ap-</i> ‘take’	<i>iya-</i> ‘march, go’
1SG	<i>ēp-mi</i>	<i>iya-ḥḥa(ri)</i>
2SG	<i>ēp-ši</i>	<i>iya-ttati</i>
3SG	<i>ēp-zi</i>	<i>iya-tta(ri)</i>
1PL	<i>epp-ueni</i>	<i>iya-wasta</i>

2PL	<i>ēp-teni</i>	<i>iya-dduma</i>
3PL	<i>app-anzi</i>	<i>iya-nta(ri)</i>

Table 1. The conjugation of an active verb and a middle verb in the present in Hittite (Inglese 2020)

The voice system of Ancient Greek is commonly described as a system of three inflectional voices (default / middle / passive) that has been reduced to a binary system (default / mediopassive) in Modern Greek. However, this is not entirely accurate, as the distinct passive voice of the aorist in Ancient Greek can better be seen as derivational (Luraghi & al. 2021).

Latin had a binary system in which the semantically marked (non-default) voice is traditionally designated as ‘passive’, although ‘mediopassive’ would certainly be more appropriate, since this voice is widely attested in typically middle functions. For example, in (55), the verbal ending belongs to the ‘active’ paradigm in (55a) and to the ‘passive’ paradigm in (55b-e), but (55b) is the only true passive construction.

(55) Latin (Italic, Indo-European)

- a *Magister pueros laud-at.*
teacher boy.PL.ACC congratulate-PRS.I_{S/A}:3SG
‘The teacher is congratulating the boys.’
- b *Pueri a magistro laud-antur.*
boy.PL by teacher.ABL congratulate-PRS.I_{S/A}:3PL.PASS
‘The boys are congratulated by the teacher.’
- c *Pueri exerc-ebantur.*
boy.PL practice-IPRF.I_{S/A}:3PL.REFL
‘The boys were practicing.’
- d *Copul-antur dexteras.*
join-PRS.I_{S/A}:3PL.REC right.hand.PL.ACC
‘They are shaking hands.’
- e *Laet-antur.*
rejoice-PRS.I_{S/A}:3PL.DECAUS
‘They are rejoicing.’
(Ernout & Thomas 1951)

8.6.3 The inflectional voices of Fula

A system of inflectional voices very similar functionally to the Ancient Greek system is found in Fula.¹⁰³ In Fula, voice marking puts into play portmanteau inflectional suffixes that inseparably express voice, TAM and polarity without affecting the verb stem. The sentences in example (56) illustrate the case of a stem equally compatible with the three paradigms of inflectional suffixes designated as ‘active’ (a), ‘passive’ (b) and ‘middle’ (c) in Fula grammars.

¹⁰³ Fula is also known as Fulfulde (the glossonym used by the speakers of the eastern varieties of Fula) and Pulaar or Pular (the glossonym used by the speakers of the western varieties of Fula).

(56) Fula (Fula-Seereer, Atlantic, Niger-Congo)

- a *O moobt-ii be.*
 I_{S/A}:clO gather-CPL I_p:clBE
 ‘S/he gathered them.’
- b *Be moobt-aama.*
 I_{S/A}:clBE gather-PASS.CPL
 ‘They were gathered.’
- c *Be moobt-iima.*
 I_{S/A}:clBE gather-QuasREFL.CPL
 ‘They gathered.’

For more details on the voice system of Fula, readers may consult (Arnott 1956).

8.6.4 The inflectional voices of Ganja

Ganja (Balanta, Atlantic, Niger-Congo) also has three inflectional classes of verbs (Creissels and Biaye 2016). For example, in the negative form of the completive aspect, some verbs have a null ending (*à-ât-tô-Ø* ‘s/he did not go’, where *à-* is an A/S index, and *-ât-* a negative marker), others have an ending *-ε/e* (*à-âj-jíg-è* ‘s/he did not return’), and still others have an ending *-i/i* (*à-ây-yáb-ì* ‘s/he did not rest’). The first inflectional class of verbs includes much more verbs than the other two, and is quite heterogeneous as regards the valency properties of the verbs it includes. By contrast, most of the verbs belonging to the second class are intransitive, and most of those belonging to the third class are transitive. Moreover, the lexicon includes many pairs such as *hab* ‘kill’ / *hab-ε* ‘get killed’, *fɪs-ε* ‘tear, intr.’ / *fɪs-i* ‘tear, tr.’, or *yant* ‘go out’ / *yant-i* ‘make go out’, which justifies positing a ternary inflectional voice system. Interestingly, semantically, this system is different from those of Ancient Greek or Fula, since in Ganja, the semantically marked voices cannot be characterized as a passive voice and a middle voice, but rather as a mediopassive voice (the inflectional class characterized by the ending *-ε/e* in the completive negative) and a causative voice (the inflectional class characterized by the ending *-i/i* in the completive negative).

8.6.5 The inflectional voices of Hausa

The inflection of Hausa verbs involves a system of alternations affecting the tone pattern and final vowel of verb stems (Newman 2000: 627-8). The choice between the four alternating forms of verb stems, conventionally labelled A, B, C and D in Newman’s (2000) grammar of Hausa, depends on the syntactic context. According to the formal relationship between the four alternating forms of their stem, verbs divide into a number of morphological classes (11 in Newman’s (2000) analysis), referred to traditionally as ‘grades’.

According to Newman (2000), some grades have no particular affinity with given types of meanings, and some of those that can be analyzed as semantically marked are only bound to non-valency-related meanings, but grades 1, 4, 5 and 7, in addition to non-valency-related uses also have valency-related uses in which they are involved in voice alternations. Although the details of the analysis of the individual grades as ‘basic’ or ‘derived’ are not always easy to follow, the data provided by Newman (2000: 682) suggest the possibility of analyzing the valency-related uses of grades 1, 4, 5 and 7 in terms of applicativization for grade 1 (57),

decausativization for grade 4 (58), causativization for grade 5 (59), and passivization for grade 7 (60).

(57) Hausa (West Chadic, Chadic, Afroasiatic)

a *Taa fàdì làabaaɾi.*

CPL.I_{S/A}:3SG.F tell news

‘She told the news.’

b *Taa fadāa ma-sà làabaaɾi.*

CPL.I_{S/A}:3SG.F seek.APPL DAT news

‘She told him the news.’

(Newman 2000: 634)

(58) Hausa (West Chadic, Chadic, Afroasiatic)

a *Yaa karyàa sàndaa.*

CPL.I_{S/A}:3SG.M break stick(M)

‘He broke the stick.’

b *Sàndaa yaa karyèe.*

stick(M) CPL.I_{S/A}:3SG.M break.DECAUS

‘The stick broke.’

(Newman 2000: 650)

(59) Hausa (West Chadic, Chadic, Afroasiatic)

a *Mootàa taa tsayàa.*

car(F) CPL.I_{S/A}:3SG.F stop

‘The car stopped.’

b *Yaa tsaya-ɾ dà mootàa.*

CPL.I_{S/A}:3SG.M stop-CAUS with car(F)

‘He stopped the car.’

(Jaggar 2014:8)

(60) Hausa (West Chadic, Chadic, Afroasiatic)

a *Sun faasà tàfiyàa Maraadi.*

CPL.I_{S/A}:3PL postpone travel(F) PRN

‘They postponed the travel to Maradi.’

b *Tàfiyàa Maraadi taa fàasu.*

travel(F) PRN CPL.I_{S/A}:3SG.F postpone.PASS

‘The trip to Maradi was put off.’

(Newman 2000: 665)

8.6.6 The inflectional voices of Georgian

Georgian has three inflectional classes of verbs that also differ in the coding characteristics they assign to core terms (chapter 5 §5.6). One of the three inflectional classes includes all transitive verbs (such as ‘break (tr.)’ in (61a)), plus a set of intransitive verbs with a typically agentive nuclear participant coded exactly like A in the transitive construction, cf. ‘cry’ in (61b). A second inflectional class includes intransitive verbs whose nuclear participant is

invariably coded as a noun phrase in the zero case, cf. ‘hide’ in (61c). This class includes in particular the intransitive verbs that constitute the noncausal counterpart of prototypical transitive verbs. The third class includes intransitive verbs whose nuclear participant is an experiencer invariably coded as a dative noun phrase, such as ‘sleep’ in (61d).

(61) Georgian (Kartvelian)

- a *Bič'-ma gat'exa žam-i.*
 boy-ERG break.CPL.I_{S/A}:3SG.I_P:3SG bowl-ZER
 ‘The boy broke the bowl.’
- b *Bič'-ma it'ira.*
 boy-ERG cry.CPL.I_{S/A}:3SG
 ‘The boy cried.’
- c *Bič'-i daimala.*
 boy-ZER hide.CPL.I_{S/A}:3SG
 ‘The boy hid.’
- d *Bič'-s edzina.*
 boy-DAT sleep.CPL.I_{S/P}:3SG
 ‘The boy slept.’

8.6.7 The inflectional voices of Mabaan

Mabaan belongs to the Western branch of the Nilotic family, but, in contrast to the Western Nilotic languages whose voice systems have been briefly presented in §8.5.5, it does not have a system of symmetrical voices. As described by Andersen (Forthcoming), in the transitive clauses of Mabaan, P invariably occurs in immediate preverbal position, like S in intransitive clauses, whereas A phrases can either follow the verb or precede the P phrase. Neither A nor P is flagged, but, irrespective of the possible presence of conominals, A and P are obligatorily indexed by means of portmanteau suffixes.

Mabaan has a binary system of inflectional voices in which the non-default ‘circumstantial’ voice is functionally an applicative voice, since it licenses P phrases referring to a participant that could otherwise be expressed as a prepositional or case-marked oblique. The inflectional nature of this applicative voice follows from the fact that it is not marked by a morphological operation affecting the verb stem, but by means of a special set of A.P indexes, distinct from that used in the default voice.

(62) Mabaan (Western Nilotic, Nilotic, East Sudanic)

- a *ʔèkkē báa-g-è (nàn-ā néenè=té).*
 2PL be.absent-PL-I_{A/S}:2PL (place-CSTR DEM=LOC)
 ‘You were absent (from this place).’ (default voice)
- b *Nàn-ā néenè bâa-g-é ʔèkkē.*
 place-CSTR DEM be.absent-PL-CIRC.I_{A/S}:2PL.I_P:3 2PL
 ‘You were absent from this place.’ (circumstantial voice)
 (Andersen Forthcoming)

Interestingly, as illustrated by example (63), Mabaan also has a derivational applicative voice licensing applied Ps representing beneficiaries. In contrast to the circumstantial voice, the

applicative-benefactive voice is marked by a modification of the verb stem.

(63) Mabaan (Western Nilotic, Nilotic, East Sudanic)

a ʔɛɛŋ jʌŋé ɿáal-l-é.

woman meat boil-PST-I_{A/S}:3SG.Ip:3

‘The woman boiled meat.’

b ʔɛɛŋ ʔũuan ɿʌr-n-é. jʌŋé.

woman meat boil.APPL_{BEN}-PST-I_{A/S}:3SG.Ip:3 meat

‘The woman boiled meat for the man.’

(Andersen Forthcoming)

8.6.8 The inflectional voices of Toba

The Guaycuruan language Toba has a system of inflectional voices similar to that found in ancient Indo-European languages, i.e. a binary system in which the non-default voice can be characterized as a middle voice. In Toba, the voice contrast manifests itself in the choice between two sets of inflectional suffixes of verbs expressing S/A indexation, cf. Zurlo (2016) for more details.

8.6.9 The origin of inflectional voices

Diachronically, a possible source of inflectional voice systems is the fusion of inflectional affixes of the type commonly found in verb inflection (TAM markers, participant indexes, etc.) with derivational affixes encoding valency alternations. This historical development is consistent with the functional similarities between inflectional voice systems and morphologically oriented voice alternations. In this perspective, it is interesting to observe that the inflectional markers of the voice that can be analyzed as the default (or semantically unmarked) voice in an inflectional voice system (for example, the ‘active’ voice of Latin, Greek, or Fula) are typically shorter than those of the other voices, which suggests that the endings of the semantically marked voices may have resulted from the fusion of a derivational voice marker and an inflectional marker originally distinct.

However, as discussed in detail by Inglese (2020: 98-100, 250-257), the available data on the ancient Indo-European languages do not support the reconstruction of such a scenario, and suggest considering the possibility that, originally, the paradigms of the default voice and the middle voice were equally complex and not related to each other, and the forms of the middle paradigm were reshaped later on those of the active paradigm.

8.7 Other cases of equipollent marking of voice alternations

This section is devoted to the possibility of equipollent marking in voice systems that are neither symmetrical voice systems nor inflectional voice systems.

8.7.1 Voice contrasts consistently marked by stem alternations

The system of consonant alternations affecting verb stems in the Dravidian language Tamil,

described in detail by Paramasivam (1979) and analyzed by Klaiman (1991: 69-82), commonly characterized in purely morphophonological terms as a ‘weak’ vs. ‘strong’ contrast, meets the definition of a voice system. In this system, the ‘weak’ and ‘strong’ alternants of the stems that lend themselves to the alternation are generally characterizable as noncausal and causal in the sense given to these terms in §8.3.1 above, cf. for example ‘break, intransitive’ (weak, noncausal) / ‘break, transitive’ (strong, causal), ‘sit’ (weak, noncausal) / ‘seat’ (strong, causal), ‘eat’ (weak, noncausal) / ‘feed’ (strong, causal). In other words, functionally, this voice contrast encodes semantic distinctions encoded via causativization or decausativization in other languages, with the difference that there is no obvious orientation. One may imagine that, originally, one of the two alternants differed from the other by the addition of an affix that subsequently fused with the stem, since consonant alternations are generally the trace left by a former formative that has ceased to be identifiable as a distinct segment, but synchronically, there seems to be no evidence suggesting an analysis in terms of either causativization or decausativization.

A productive pattern of purely tonal alternations expressing a noncausal-causal contrast is described by Fabre (2002: 144) and Kastenholz (2017) for two languages belonging to the Samba-Duru branch of the Adamawa subfamily of the Niger-Congo family (Samba Leko and Pere), cf. chapter 16 §16.2.4 for more details.

8.7.2 Voice systems involving sporadic instances of equipollent marking

Voice contrasts consistently marked equipollently, like those presented in §8.7.1, are not common in voice systems that are neither inflectional voice systems nor symmetrical voice systems. However, verbs showing more or less sporadic instances of equipollent marking can be found in quite a few languages for voice alternations that are morphologically oriented for other verbs in the same language.

A first possibility is that voice markers normally added to stems that are attested independently are also found in combination with stems that are only attested in combination with another voice marker. For example, Jóola Fóoñi has a suffix *-en* ~ *-en* marking causativization, cf. *jim* ‘get lost’ > *jim-en* ‘lose’, and a suffix *-o* ~ *-o* marking decausativization, cf. *kembul* ‘open (tr.)’ > *kembul-o* ‘open (intr.)’, but in *buk-en* ‘injure’ / *buk-o* ‘get injured’, the same suffixes attach to a stem *buk-* which is not attested independently.

It may also happen that the stem shared by two verbs that differ in their valency properties is attested, but with a meaning that excludes considering it as the base form in a synchronic analysis. For example, Jóola Fóoñi *gɔr-en* ‘move (tr.)’ and *gɔr-ɔɔr* ‘move (intr.)’ are probably cognate with *gɔr* ‘touch’, but the meaning of these three verbs has evolved in such a way that, synchronically, no regular semantic relationship can be recognized between *gɔr* and *gɔr-en* / *gɔr-ɔɔr*, and consequently, synchronically, *gɔr-ɔɔr* ‘move (intr.)’ / *gɔr-en* ‘move (tr.)’ can only be analyzed as deriving from a stem homonymous with *gɔr* ‘touch’ but distinct from it, only attested in combination with the transitivizing suffix *-en* and the detransitivizing suffix *-ɔɔr*.

Another possibility is that the stem shared by two verbs that differ in their valency properties is attested with a meaning that allows viewing it as the source of a regular derivation, but not as a verbal stem. For example, the Hungarian verb pair *jav-ul* ‘improve (intr.)’ / *jav-ít* ‘improve (tr.)’ illustrated in (60) is an instance of noncausal-causal alternation involving equipollent derivation from a stem *jav-* that does not exist as a verb stem but can be

voice marking can at first sight be considered. However, if one accepts the analysis of transitivity marking in Salish languages advocated by Gerds & Hukari (2006a) (see chapter 4 §4.7) and followed by Willett (2003), this is not an instance of equipollent voice marking, since according to this analysis, *-stu* is a transitivity marker whose presence in transitive forms is not bound to valency operations, and whose absence in the antipassive form is an automatic consequence of the intransitive nature of the antipassive form.

- b *X-Ø-tii'* *ri ak'aal*
 CPL-I_{SP}:3SG-bite.PASS D child
 'The child was bitten.'
 (Campbell 2000: 246)

By contrast, in obligatory A-coding languages, i.e., in languages in which the general rule is that intransitive constructions include a core nominal term whose coding characteristics are identical to those of the A term of the transitive construction, two varieties of passivization can be distinguished:

- in the variety commonly viewed as canonical passivization, illustrated in (2), the initial P (or one of the initial Ps, if the base construction is a multiple-P construction) acquires the coding characteristics of S in canonical intransitive constructions (i.e., coding characteristics identical to those of the A term of the transitive construction);
- in the impersonal variety of passivization (or I-passivization), illustrated in (3), the coding characteristics of the initial P do not change, so that the derived construction meets the definition of an impersonal construction.

(2) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-kwál-á* *lò-kwá:lò.*
 I_{S/A}:1SG-FUT-write-FV SG-letter(cl11)
 'I'll write the letter.'
- b *Lò-kwáló* *'lò-tlàà-kwál-w-à* *kí n:ná*
 SG-letter(cl11) I_{S/A}:CL11-FUT-write-PASS-FV by 1SG
 'The letter will be written by me.'

(3) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-kwál-á* *lò-kwá:lò.*
 I_{S/A}:1SG-FUT-write-FV SG-letter(cl11)
 'I'll write the letter.'
- b *χó-tlàà-kwál-w-á* *lò-kwá:lò.*
 I_{S/A}:cl15/17_{EXPL}-FUT-write-ImpPASS-FV SG-letter(cl11)
 lit. 'There will be written a letter.' > 'A letter will be written.'

Example (4) illustrates the denucleativization of the referent of S not accompanied by the nucleativization of another participant (S-denucleativization) in a language in which this voice alternation is coded by a voice marker also available for canonical passivization and I-passivization.

(4) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Bà-sádí* *'bá-tláá-lì:l-à.*
 PL-woman(cl2) I_{S/A}:cl2-FUT-cry-FV
 'The women will cry.'
- b *χó-tláá-lì:l-w-à.*
 I_{S/A}:cl17_{EXPL}-FUT-cry-sPASS-FV
 'The people will cry.' lit. 'There will be cried.'

I-passivization will be dealt with specifically in §9.8, and §9.9 will be devoted to S-denucleativization. §9.10 will be devoted to a polysemy pattern relatively common in obligatory A-coding languages, where the same voice marker is used for I-passivization and S-denucleativization, but not for canonical passivization.

Siewierska (1984) must be mentioned here as a milestone in the history of the investigation of passivization in a broad typological perspective.

9.2 Issues in the description and analysis of passivization

Before embarking on the analysis of passivization it may be useful to recall once again that some languages have morphologically unmarked constructions constituting intransitive alternatives to the transitive construction, in which the S term represents the same participant as the P of the corresponding transitive construction, whereas the participant encoded as A in the transitive construction is either expressed as an oblique or left unexpressed (although semantically present), cf. chapter 3 §3.5.1. Such constructions differ from the passive constructions discussed in this chapter in that they include no morphological material (auxiliary, affix, or other) that could be analyzed as coding the valency change. They can be referred to as morphologically unmarked passive constructions (or zero-coded passives), but do not meet the definition of passivization adopted in this book. They constitute a particular case of ambitransitivity, and accordingly will be dealt with in chapter 15 §15.3.2.

9.2.1 Agentful passives

9.2.1.1 *The notion of oblique agent phrase*

Example (2b) above illustrates the kind of constructions for which there is consensus on the use of the label ‘passive’, namely passive constructions in which the initial A is converted into an oblique. Such constructions, designated by Siewierska & Bakker (2012) as agentive passives, will be referred to as AGENTFUL PASSIVES, which reflects better their nature. For lack of a better term, the phrase corresponding to the initial A will be designated as the OBLIQUE AGENT PHRASE, although the relevant notion is ‘initial A’ rather than ‘agent’. In (2b), the oblique agent phrase is the prepositional phrase *kí nná* ‘by me’.

9.2.1.2 *The flagging of the oblique agent phrase*

The commonest situation in agentful passive constructions is that the oblique agent phrase is flagged like some types of adjuncts. The flags used for oblique agent phrases are commonly used to flag also comitative adjuncts, instrumental adjuncts, locative adjuncts, ablative adjuncts, and/or mediative adjuncts (‘by means of’). Fleisch (2005) provides Bantu illustrations of most of these possibilities.

Dative flagging of the oblique agent phrase is found in ancient Indo-European languages, especially with non-finite forms of the verb, see (Luraghi 2006). Cross-linguistically, oblique agents in the dative are attested mainly in passive constructions involving a voice marker also used for causativization, which can be viewed as evidence that such polysemous passive-

causative markers were originally causative markers whose use has been extended to the marking of passivization (see §9.5).

In Tswana and some other Bantu languages, the preposition used to flag oblique agent phrases is not used to flag any other type of oblique, but is formally identical to an equative copula. As developed in §9.2.2 below, such situations can be explained as resulting from the reanalysis of a construction that was originally a coordination of two clauses, an agentless passive clause and an equative clause, i.e. something like N_1 was *V-ed*, *it is* N_2 (*who V-ed* N_1).

In some languages, for example Lithuanian and north western Russian dialects (Privitelli & Roduner 2006), the flagging of the oblique agent phrase involves a case designated as ‘genitive’, i.e. a case commonly considered as having adnominal possessor flagging as its primary function. However, this case has other uses whose relationship to adnominal possessor flagging is not obvious, and the complexity of the history of Indo-European case systems makes it difficult to decide how this coincidence should be interpreted. Generally speaking, a possible explanation of the genitival flagging of oblique agents is that the passive verb form was originally a nominalized verb form (something like lit. *it was my making* for *it was made by me*). In the particular case of Lithuanian, the origin of the genitival flagging of oblique agent phrases is a much-discussed issue, but no consensus emerges from the literature that has been devoted to it (Daniel Petit, pers.com.).

Languages may also feature oblique agent phrases flagged by complex adpositions, see e.g. (Piunno & Ganfi 2019) on Italian.

Finally, unflagged oblique agent phrases are also attested, for example in Ganda, cf. example (5). At first sight, one may wonder why (5b) is not analyzed rather as the patient voice in a Western-Austronesian-style system of symmetrical voices. However, a symmetrical-voice analysis would be difficult to reconcile with the fact that the noun phrases in post-verbal position in (5a) and (5b) coincide in their lack of flagging but differ in their indexation properties: the participant represented by the NP in post-verbal position in (5a) can be indexed by means of a special paradigm of P indexes prefixed to the verb stem, whereas in (5b), there is no possibility of indexing the participant represented by the NP in post-verbal position, which can be viewed as evidence of detransitivization. A possible analysis is that the passive construction of Ganda is a quasitransitive construction as this term has been defined in chapter 3 §3.4.2.

(5) Ganda (Bantu, Benue-Congo, Niger-Congo)

- a *Abaana ba-a-sang-a ekitabo.*
 PL.child(c12) I_{S/A}:c12-PST-find-FV SG.book(c17)
 ‘The children found the book.’
- b *Ekitabo ky-a-sang-ibw-a abaana.*
 SG.book(c17) I_{S/A}:c17-PST-find-PASS-FV PL.child(c12)
 ‘The book was found by the children.’
 (Pak 2008: 361)

Whatever the solution adopted in a synchronic account of the passive construction of Ganda, historically, a plausible explanation is that the source construction consisted of an agentless passive clause followed by an equative clause reduced to the NP in predicate function, something like N_1 was *V-ed*, (*it is*) N_2 (*who V-ed* N_1).

Within a single language there may be competition between two or more ways of flagging oblique agent phrases in otherwise identical passive constructions. In such cases, as discussed by Cabredo Hofherr (2023), the choice may depend on the semantic nature of the initial A encoded as an oblique agent phrase in the passive construction, or on its semantic role. For example, in French, the preposition *par* is the only available option if the oblique agent phrase refers to a prototypical agent, but *de* is possible or even preferred when this is not the case. Oblique agent phrases flagged by the preposition *de* are commonly found with the passive form of transitive verbs denoting psychological or cognitive states, as in (6).

(6) French (Italic, Indo-European)

Jean est apprécié de ses collègues.
 PRN(M) be.PRS.I_{S/A}:3SG appreciate.PTCP.SG.M by his.PL colleague(CG).PL
 ‘Jean is appreciated by his colleagues.’

Oblique agent phrases flagged by *de* are also common with the passive form of transitive verbs denoting spatial configurations. Example (7) shows that, with a polysemous verb such as *entourer* ‘surround’, the choice between *par* and *de* is sensitive to semantic distinctions that have no incidence on the coding of participants in the corresponding transitive constructions: there is no difference between a clause denoting an action such as *La police entoure le bâtiment* ‘The police is surrounding the building’ and a clause denoting a spatial configuration *Des vignes entourent le village* ‘Vineyards surround the village’, but their passive counterparts differ in the choice of the preposition flagging the oblique agent phrase.

(7) French (Italic, Indo-European)

a *Le bâtiment est entouré par la police.*
 D.SG.M building(M) be.PRS.I_{S/A}:3SG surround.PTCP.SG.M by D.SG.F police(F)
 ‘The building is surrounded by police.’ cf. *La police entoure le bâtiment.*

b *Le village est entouré de vignes.*
 D.SG.M village(M) be.PRS.I_{S/A}:3SG surround.PTCP.SG.M by vineyard(F).PL
 ‘The village is surrounded by vineyards.’ cf. *Des vignes entourent le village.*

9.2.1.3 *Agentful passives and topicality*

Functionally, the observation of the contexts in which passive constructions including an oblique agent phrase are particularly frequent leads to the conclusion that they can be characterized as presenting the event from the perspective of the participant encoded as P in the transitive construction. In other words, agentful passive constructions express a reversal of the topicality hierarchy, since the default topicality hierarchy is ‘A > P’ in the basic transitive construction, but ‘S (corresponding to the initial P) > others’ in the passive construction.

The relationship between agentful passives and topicality is particularly clear in languages in which inherently non-topical nominals such as interrogative or negative pronouns cannot fulfill the role of A in the basic transitive construction, and the use of a passive construction is obligatory whenever such a nominal refers to a participant normally encoded as the A term of a transitive clause. As illustrated in (8), in Tswana, *mány* ‘who?’ cannot be the A term of a transitive construction, but can be encoded as an oblique agent in a passive construction.

(8) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Máj' 'ú-tláà-kwál-á lò-kwá:lò?

who(c11) I_{S/A}:c11-FUT-write-FV SG-letter(c11)

Intended meaning: 'Who will write the letter?'

b Lò-kwáló 'lò-tláà-kwál-w-à kí 'má:ŋ?

SG-letter(c11) I_{S/A}:c11-FUT-write-PASS-FV by who(c11)

'The letter will be written by whom?'

9.2.1.4 *Obligatory oblique agent phrases*

In principle, in agentful passive constructions, the oblique agent phrase is syntactically optional. However, in the languages that have agentful passive constructions, it is easy to find examples of agentful passive constructions that do not allow for the omission of the oblique agent phrase, in conditions that seem to be similar across languages, but whose precise analysis would require further investigation. For example, in Tswana, *lâtêlwà*, passive form of *lâtêlà* 'follow', can be found in agentless constructions, as in (9a), but also in agentful constructions in which the suppression of the oblique agent phrase would result in ungrammaticality, as in (9b).

(9) Tswana (Bantu, Benue-Congo, Niger-Congo)

a Sî-kàò s-á-ǵáǵwé 'sî-tláá-lâtê:l-w-à

SG-example(c17) c17-GEN-PRO:c11 I_{S/A}:c17-FUT-follow-PASS-FV

'His example will be followed.'

b T^hápèlò í-tláá-lâtêl-w-à *(kí t^hútò j-á-bàibì:lí).

SG.prayer(c19) I_{S/A}:c19-FUT-follow-PASS-FV by SG.study(c19) c19-GEN-bible(9)

'The prayer will be followed by Bible study.'

9.2.1.5 *Restrictions on oblique agent phrases*

According to Maling (2006: 216-217), the dedicated passive construction of Icelandic, formed by combining the verb 'be' in auxiliary function with the past participle of the lexical verb, is incompatible with oblique agent phrases referring to non-humans (a property that distinguishes the Icelandic passive construction from otherwise similar constructions in mainland Scandinavian languages). As illustrated in (10), if the referent of the A term of a transitive clause is not human, a passive construction with an oblique phrase corresponding to the initial A requires the middle form of the verb, and the preposition flagging the oblique corresponding to the initial A is different from that used in the dedicated passive construction.

(10) Icelandic (Germanic, Indo-European)

a Lögreglan tók Sigu fasta.

the.police took PRN.ACC fast.ACC

'The police arrested Sigga.'

b Sigga var tekin föst af lögreglunni.

PRN was taken fast by the.police.DAT

'Sigga was arrested by the police.'

- c *Snjóflóðið eyðilagði húsið.*
 the.avalanche destroyed the.house
 ‘The avalanche destroyed the house.’
- d **Húsið var eyðilagt af snjóflóðinu.*
 the.house was destroyed by the.avalanche.DAT
 Intended: ‘The house was destroyed by the avalanche.’
- e *Húsið eyðilagðist í snjóflóðinu.*
 the.house got.destroyed in the.avalanche.DAT
 ‘The house was destroyed by the avalanche.’
 (Zaenen & al. 1985: 442; Maling 2006: 216-217)

In quite a few languages among those having agentful passive constructions, the possibility of encoding the initial A as an oblique agent phrase is limited by conditions on person. For example, in K’ichee’, there is a ban on passive constructions with an oblique agent phrase referring to an SAP.

(11) K’ichee’ (Mayan)

- a *X-Ø-kunax le yawaab’ r-umaal le ajk’ij.*
 CPL-_{I_{S/P}}:3SG-treat.PASS D sick.person I:3SG-by D diviner
 ‘The sick person was treated by the diviner.’
- b **X-Ø-kunax le yawaab’ w-umaal.*
 CPL-_{I_{S/P}}:3SG-treat.PASS D sick person I:1SG-by
 Intended: ‘The sick person was treated by me.’
 (Mondloch 2017: 81-82)

According to Jelinek & Demers (1983), the same constraint can be observed in Lushootseed (Salishan).

At this point, it is interesting to mention that even in English, according to Kuno & Kaburaki (1977), passive constructions with an oblique agent phrase referring to an SAP are avoided, due to the speaker’s natural empathy with 1st or 2nd person, and to the fact that the focus of speaker empathy tends to be selected as the subject. However, in English, this is a tendency rather than a constraint, since passive constructions with an oblique agent phrase referring to an SAP are grammatical in the right discourse contexts.

As discussed by Cabredo-Hofherr (2023), conditions on the referentiality of the initial P limiting the use of oblique agent phrases are attested in the *se*-passive constructions of the Romance languages that have a productive passive use of the voice marker *se* (a multifunctional voice marker resulting from the grammaticalization of a former reflexive pronoun). For example, in Spanish, agentful *se*-passive constructions are possible with oblique agent phrases referring to institutions, but not to specific individuals.

(12) Spanish (Italic, Indo-European)

- a *Se dictará sentencia por el tribunal.*
 PASS dictate.FUT._{I_{S/A}}:3SG sentence(F) by D.SG.M tribunal(M)
 ‘The sentence will be pronounced by the tribunal.’

- b **Se dictará sentencia por este juez.*
 PASS dictate.FUT.I_{S/A}:3SG sentence(F) by DEM.SG.M judge(M)
 intended: ‘The sentence will be pronounced by this judge.’
 (Cabredo-Hofherr 2023)

Interestingly, in Italian, *si*-passives allowed agent expressions in Old Italian, but this is no longer the case in Modern Italian (Giacalone-Ramat & Sansò 2012).

9.2.2 Agentless passives

As a rule, in agentful passive constructions, the oblique agent phrase is syntactically optional (although there may be configurations in which it can hardly be deleted, see §9.2.1.4 above). However, there are also languages that have constructions meeting the definition of passivization, but in which the initial A, although semantically present, cannot be expressed as an oblique agent phrase.

In such cases, the identification of the construction as passive rather than decausative crucially relies on observations implying that the unexpressed agent is still present semantically. In general, the insertion of agent-oriented adverbs (such as ‘voluntarily’, ‘on purpose’) constitutes a good test, since such adverbs are ruled out from decausative constructions. For example, in French, the adverb *exprès* ‘on purpose’ can be added to *La porte a été ouverte* ‘The door has been opened’, but not to *La porte s’est ouverte* ‘The door opened’, unless the door is personified and the construction is interpreted as quasireflexive.

Another good test is the impossibility of inserting adverbs or adverbial expressions such as *on its own*, which are fully compatible with decausative constructions, but ruled out from passive constructions, since they are in contradiction with the maintenance of the agent in the participant structure.

In languages with agentless passives, biclausal constructions of the type illustrated in (13) constitute a common equivalent of agentful passive constructions.

- (13) Classical Nahuatl (Aztecan, Uto-Aztecan)
Ni-tlazòtla-lo, nēch-tlazòtla in no-tàtzin.
 I_{S/A}:1SG-love-PASS I_P:1SG-love D 1SG-father
 ‘I am loved by my father.’ lit. ‘I am loved, my father loves me.’
 (Launey 1981: 139)

As already mentioned in §9.2.1.2, agentful passive constructions may result from the reanalysis of such biclausal constructions. For example, in Tswana, the preposition *kí* found example (2c), reproduced here as (14a), results from the grammaticalization of the copula *kí* ‘it is’ in a construction that, originally, was something like ‘The letter will be written, it’s me (who will write it)’. Synchronically, the proof that *kí* has been reanalyzed as a preposition is that, in a passive construction involving a negative verb form, ‘*kí* + NP’ falls under the scope of negation. Crucially, if ‘*kí* + NP’ still were a juxtaposed clause, the interpretation of a sentence like (14b) could only be ‘The letter was not written, and I am responsible for the fact that it was not written’.

(14) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Lò-kwáló* ¹*lò-tláà-kwál-w-à* *kí ñ.ná.*

SG-letter(c111) I_{S/A}:CL11-FUT-write-PASS-FV by 1SG

‘The letter will be written by me.’

b *Lò-kwáló* *χà-ló-à-kwál-w-á* *kí ñ.ná.*

SG-letter(c111) NEG-I_{S/A}:CL11-PRF.NEG-write-PASS-FV by 1SG

‘The letter was not written by me.’

= the letter was written, but by someone else than me

9.2.3 Constraints on the use of passive constructions

Constraints on the use of passive constructions are cross-linguistically common. Halkomelem is remarkable for its complex set of restrictions on when to use transitive vs. passive clauses, described in detail by Gerds (1988).

Scenario-driven constraints that may lead to the reanalysis of a passive marker as an inverse marker have already been discussed in chapter 4 §4.6.4.1, and the possible existence of constraints on oblique agent phrases in agentful passive constructions has already been discussed in §9.2.1.5. This section is devoted to other types of conditions that may regulate the choice between passive constructions and the corresponding transitive construction.

In the languages that have two or more constructions that equally meet the definition of passive constructions but are marked differently, they must not be expected to be subject to the same conditions. This applies in particular to the European languages in which a passive construction marked by a reflex of the Indo-European reflexive pronoun **s(w)e* is in competition with a ‘*be* + past participle’ passive.¹⁰⁴ See e.g. Sansò (2011) for a discussion of the factors determining the choice between these two varieties of passive constructions in Italian.

Note also that, in the case of polysemous voice markers, the constraints on their passive use may result in that the passive reading is ruled out in conditions in which other readings are possible.

It has been mentioned above that, in some languages (for example, Tswana), the use of the basic transitive construction is limited by constraints on the inherent topicality of the A term that make the passive construction obligatory in some conditions.

In some languages, passive constructions may be preferred for pragmatic reasons. For example, depending on the relationship between the speech act participants, transitive constructions with a 1st or 2nd person A may be considered rude. As already mentioned in chapter 3 §3.5.2, it has been argued that the systematicization of this pragmatically motivated use of passive constructions may lead to the obsolescence of the original transitive construction, and consequently to the reanalysis of the former passive construction as the basic transitive construction (Queixalós 2013).

Conversely, it may happen that the use of passive constructions is limited by constraints related to the semantic nature of the participants.

A constraint on the animacy of the initial P is found among others in Nahuatl, where the voice alternation marked by the dedicated passive suffix *-lo* is only possible with animate Ps. With inanimate Ps, a transitive-passive alternation is possible, but the verb must be marked in

¹⁰⁴ The reconstruction of the Indo-European reflexive pronoun **s(w)e* is discussed among others by Petit (1999) and Puđu (2007). On the grammaticalization path reflexive > passive, see chapter 11 §11.4.2 §11.4.5.

a middle form also used to express reflexivization. Note that this does not create any ambiguity, since as illustrated in (15), a reflexive reading of the middle marker is only possible with animate S phrases.

(15) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ø-Itta-lō-c in cihuātl.*
 I_{S/A}:3-see-PASS-CPL D woman
 ‘The woman was seen.’
 (passive construction with a dedicated passive voice marker)
- b *Ø-Mo-tta-c in cihuātl.*
 I_{S/A}:3-REFL-see-CPL D woman
 ‘The woman saw herself (e.g. in a mirror).’
 (reflexive construction with a middle voice marker)
- c **Ø-Itta-lō-c in calli.*
 I_S:3-see- PASS-CPL D house
 Intended: ‘The house was seen.’
- d *Ø-Mo-tta-c in calli.*
 I_S:3-PASS-see-CPL D house
 ‘The house was seen.’
 (passive construction with middle marking)
 (Launey 1981: 63, 142, 143)

Constraints on the initial P limiting the availability of a passive construction are also found in Spanish *se*-passives. As illustrated in (16), the passive use of the voice marker *se* (resulting historically from the grammaticalization of a reflexive pronoun) is not possible if the initial P is an SAP. *Me encontré* is possible, but only with the reading ‘I found myself’.

(16) Spanish (Italic, Indo-European)

- a *Se encontraron los ladrones.*
 PASS find.CPL.I_{S/A}:3PL D.PL.M thief(M).PL
 ‘The thieves were found.’
- b **Me encontré.*
 PASS find.CPL.I_{S/A}:1SG
 intended: ‘I was found.’

In French, the middle voice marker *se* is quite productive in the type of uses for which the term QUASIPASSIVE will be proposed below (see §9.4.3), but its passive use is relatively limited. For example, (16a) could not be transposed into French. In French, *Les voleurs se sont trouvés* can only be interpreted as a reciprocal construction (‘The thieves found each other’), and the ‘*be* + past participle’ construction (*Les voleurs ont été trouvés*) is the only possible passive alternative to *On a trouvé les voleurs* ‘They found the thieves’. Passive uses of *se* are only possible if the initial P is inanimate, as in (17), and even in that case, the passive use of *se* is limited by condition whose precise description would require further investigation.

(17) French (Italic, Indo-European)

L'école se construira sur ce terrain.
 D.SG-school(F) PASS build.FUT.I_{S/A}:3SG on DEM.SG.M plot(M)
 'The school will be built on this plot.'

Finally, the use of passive constructions may be favored by the impossibility to perform on the P term of transitive constructions some syntactic operations that are possible on the S term of intransitive constructions. For example, in French, the *ne...que*-construction illustrated in example (18) can be used to express restriction on P phrases or oblique phrases (i.e., on phrases in postverbal position), but not on A/S phrases. With transitive verbs, the conversion of A into an oblique in a passive construction, as in (18b), is a possible way of getting around this constraint.¹⁰⁵

(18) French (Italic, Indo-European)

a *Jean n'a invité que Marie.*
 PRN RESTR-avoir.PRS.I_{S/A}:3SG invite.PTCP RESTR PRN
 'Jean only invited Marie.'

b *Marie n'a été invitée que par Jean.*
 PRN RESTR-avoir.PRS.I_{S/A}:3SG be.PTCP invite.PTCP.SG.F RESTR by PRN
 'Only Jean invited Marie.'

9.2.4 Passivization and alignment

Passivization is more common in the languages in which A-alignment is predominant than in those in which P-alignment is predominant. However, the correlation between A-alignment and the existence of passivization is much less strong than has been sometimes suggested in the literature. Not all languages with a strong predominance of A-alignment have a mechanism of passivization, and passivization is not really rare among the languages in which P-alignment is strongly predominant. Example (19) illustrates passivization in an obligatory P-coding language (Inuktitut) in which unflagged P and S contrast with flagged A, and in which the obligatory indexation of both core terms of the transitive construction contrasts with the indexation of a single participant in intransitive constructions.

(19) Baffin Island Inuktitut (Eskimo, Eskimo-Aleut)

a *Anguti-up arnaq kunik-taa.*
 man-ERG.SG woman kiss-I_A:3SG.I_p:3SG
 'The man kissed the woman.'

b *Arnaq kunik-tau-juq anguti-mut*
 woman kiss-PASS-I_S:3SG man-ABL.SG
 'The woman was kissed by the man.'

(Spreng, 2005: 2-3)

¹⁰⁵ Other ways of getting around this constraint are the use of a presentational cleft (*Il n'y a que Jean qui ait invité Marie*, lit. 'There is only Jean that invited Marie'), and with intransitive verbs, the use of the impersonal presentational construction (*Il n'est venu que Jean*, lit. 'It came only Jean'), since in the impersonal presentational construction of intransitive verbs, the behavior of S in post-verbal position aligns with that of P, cf. chapter 6 §6.5.1.1.

Quite symmetrically, not all languages with a strong predominance of P-alignment have a mechanism of antipassivization, and, as will be developed in chapter 10 §10.4, antipassivization is not rare among the languages in which A-alignment is strongly predominant. For example in the Macro-Jê language Karajá, “any transitive verb, such as *kəɾɔ* ‘to cut’, may be inflected to indicate the suppression of the agent, in a PASSIVE construction, or the suppression of the patient, in an ANTIPASSIVE construction” (Ribeiro 2001: 230).

9.2.5 Double-P constructions and passivization

Double-P constructions have been defined as constructions in which two distinct participants are equally coded like the P term of the transitive construction. A priori, one can imagine two possible ways of passivizing double-P constructions, with one of the two P terms converted into the A term of a monotransitive construction, and the other one left in the role of P. This double possibility of applying passivization to double-P constructions is attested for example in Tswana, cf. example (20).

- (20) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Kì-fil-é* *b-àná* *dì-kwâ:lò*.
 I_{S/A}:1SG-give.PRF-FV PL-child(cl2) PL-book(cl10)
 ‘I gave the children the books.’
- b *B-àná* [!]*bá-fil-w-é* *dì-kwâ:lò*.
 PL-child(cl2) I_{S/A}:cl2-give.PRF-PASS-FV PL-book(cl10)
 ‘The children were given the books.’
- c *Dì-kwálò* [!]*dí-fil-w-é* *b-à:ná*.
 PL-book(cl10) I_{S/A}:cl10-give.PRF-PASS-FV PL-child(cl2)
 ‘The books were given to the children.’

However, in many languages among those having double-P constructions, one of the two Ps only can be converted into the A term of a monotransitive passive construction, cf. example (21). In such cases, with the verbs of giving, it is most of the time the recipient that can be taken as the A term of the passive construction. This is consistent with the fact that a preference for animate Ss in passive constructions of monotransitive verbs can be observed in many languages.

- (21) Yaqui (Cahita, Uto-Aztecan)
- a *Inepo kareta-ta María-ta mikak*.
 1SG cart-ACC PRN-ACC give.CPL
 ‘I gave María a cart.’
- b *María kareta-ta mik-wa-k*.
 PRN cart-ACC give-PASS-CPL
 ‘María was given a cart.’

- c **Kareta Maria-ta mik-wa-k.*
 cart PRN-ACC give-PASS-CPL
 Intended: ‘The cart was given to María.’
 (Armendáriz 2000: 99, 100)

Interestingly, even in a language like Tswana, in which both G and T can take the role of A in a passive construction, the passive construction with G converted into A is less constrained in its syntactic possibilities than the passive construction with T converted into A. As illustrated by example (22), it is possible to index T in the passive construction with G converted into A, whereas G indexation is impossible in the passive construction with T converted into A.

- (22) Tswana (Bantu, Benue-Congo, Niger-Congo)
 a *B-àná bá-dì-fì:l-w-è.*
 PL-child(cl2) I_{S/A}:cl2-I_P:cl10-give.PRF-PASS-FV
 ‘The children were given them (the books).’
 b **Dì-kwáló dí-bà-fì:l-w-è.*
 PL-book(cl10) I_{S/A}:cl10-I_P:cl2-give.PRF-PASS-FV
 intended: ‘The books were given to them (the children).’

To conclude with passives from double-P constructions, I would like to point out that all the cases I am aware of concern languages with $A = S \neq P$ alignment in the coding characteristics of core terms, i.e., languages in which the coding characteristics of the P converted into A in the passivization of double-P constructions change in the same way as those of P converted into S in the passivization of a monotransitive construction. This means in particular that I am aware of no case in which the P converted into A in the passivization of a double-P construction would acquire ergative flagging.

9.2.6 Analytical passives and passive-like periphrases

Biclausal passive-like periphrases and analytical passives resulting from the grammaticalization of such periphrases are cross-linguistically common, especially among European languages. They typically involve a non-finite verb form also used in noun-modifying function with a clearly resultative semantics (commonly designated as ‘past participle’ or ‘passive participle’), combined with a verb acting as a passive auxiliary: either a copular verb (‘be’, ‘become’), a motion verb (‘go’, ‘come’), or a verb of acquisition (‘get’). French and Italian also have passive (or passive-like) constructions in which the auxiliary is the middle form or the verb ‘see’: French *se voir*, Italian *vedersi*.

Example (23) illustrates instances of *come-* and *go-*passives in Italian in which it is clear that the original motion meaning is not maintained. What remains, however, from the original dynamic meaning of the motion verbs acting as passive auxiliaries, is that, contrary to *be-*passives, *come-* and *go-*passives cannot not ambiguous between a passive and a resultative reading.

- (23) Italian (Italic, Indo-European)
 a *Il giovedì il portone veniva chiuso*
 D.SG.M Thursday(M) D.SG.M main.door(M) come.IPRF.I_{S/A}:3SG close.PTCP.SG.M

alle 21.

at.D.PL.F 21

‘On thursdays the main door was closed at 9 p.m.’

b *La casa andò distrutta negli anni settanta.*

D.SG.F house(F) go.CPL.I_{S/A}:3SG destroy.PTCP.SG.F in.D.PL.M year(M).PL seventy

‘The house got destroyed in the Seventies.’

(Giacalone Ramat & Sansò 2016: 2, 5)

Giacalone Ramat & Sansò (2016) provide not only a detailed analysis of the use and history of Italian *andare* ‘go’ and *venire* ‘come’ as passive auxiliaries, but also precise indications and references on similar constructions in Indic languages. They observe that such constructions tend to imply special aspectual and/or modal meanings, even in the absence of overt aspectual or modal operators. For example, in Hindi, the *go*-passive may encode abilitative modality, as in (24a), or habituality/normativity, as in (24b).¹⁰⁶

(24) Hindi (Indic, Indo-European)

a *Reṇu se pātr lik^ha jaega?*

PRN(F) by letter(M) write.PTCP.SG.M go.FUT.I_{S/A}:SG.M

‘Will the letter be written by Renu?’ OR ‘Will Renu be able to write the letter?’

b *Es-ī bat-ō-pār nāhī hāsa jata.*

such-PL.F thing(F)-PL.K-on NEG laugh.PTCP.SG.M go.ICPL.I_{S/A}:SG.M_{EXPL}

‘Such things are not (usually) laughed at.’ OR ‘One should not laugh at such things.’

(Giacalone Ramat & Sansò 2016: 3 quoting Kachru 2006: 176 and Montaut 1991: 130)

One of Giacalone Ramat & Sansò’s (2016) main conclusions is that “motion verbs develop into passive auxiliaries passing through a stage in which they are used as semi-copulas (with mostly aspectual values)”.

Schulze (2014) discusses the grammaticalization of motion verbs as passive auxiliaries in a cognitive perspective.

Example (25) illustrates a passive construction with an acquisitive verb in the role of passive auxiliary in Seychellois, where *ganny* [gãŋ] ‘get’ is cognate with French *gagner*.

(25) Seychellois (French-based Creole)

Zanmen nou’n ganny atake par personn dan mwenson-d-ger.

never 1PL-PRF get attack by anybody in monsoon-of-war

‘We never were attacked by anybody during the war.’

(Kriegel 2005: 76)

On English *get*-passives and their history, the main reference is (Fleisher 2006). On similar constructions in other European languages, see (van der Auwera & al. 2012).

Passive-like periphrases and analytical passives involving an acquisitive verb are particularly interesting in the perspective of the analysis of the polysemy of voice markers,

¹⁰⁶ Note that (22b) is not strictly speaking a passive construction, but an S-denucleative construction with the same morphological marking as a passive construction.

since acquisitive verbs are also commonly used as causative auxiliaries (as in English *I finally got the kids to go to bed*). They have thus the potential to grammaticalize as passive markers and causative markers, and consequently also as polysemous passive-causative markers, cf. §9.5 below.

Examples (26) and (27) illustrate the use of the middle form of ‘see’ as a passive auxiliary in French and in Italian.

(26) Italian (Italic, Indo-European)

l'angoscia dei loro rappresentanti che si vedono
 D.SG.F-anguish of.D.PL.M I_{ADP}:3PL representative(M).PL REL REFL see.PRS.I_{S/A}:3PL
sommergere dall' onda dei colletti bianchi
 submerge.INF by.D.SG.F wave(F) of.D.PL.M collar(M).PL white.PL.M
 ‘the anguish of their representatives who are submerged by the wave of white collars’
 lit. ‘... who see themselves submerge ...’
 (Giacalone Ramat 2020: 263)

(27) French (Italic, Indo-European)

Il s'est vu accusé de trahison.
 I_{S/A}:3SG.M REFL-be.PRS.I_{S/A}:3SG see.PTCP.SG.M accuse.PTCP.SG.M of treason
 ‘He was charged for treason.’ lit. ‘He saw himself charged for treason.’

Analyses of the grammaticalization of ‘see’ as a passive auxiliary are put forward by Giacalone Ramat (2020) for Italian and Bat-Zeev Shyldkrot (1997) for French. For a detailed contrastive analysis of the use of ‘see’ as a passive auxiliary in French and in Italian, cf. also (Giacalone Ramat 2018). We will return to this construction in chapter 13, since with trivalent verbs, it can also be used to code a valency operation combining denucleativization of the initial A and A-nucleativization of an initial dative expressing the role of goal.

9.2.7 Adversative passives

Valijärvi & Kahn (2017: 245-250) describe the contrast found in North Saami between two distinct passive forms. One of them (the plain passive) occurs in agentless passive constructions and carries no particular semantic implication, whereas the other (the adversative passive) can be found in agentful passive constructions and implies that the initial P converted into the S of the passive construction is an animate being for which the action is harmful or unfavorable. For example, *borrat* ‘eat’ has the two passive forms *borrojuvvot* (plain passive, available to express things like ‘the cake has been eaten’) and *borahallat* (adversative passive, available to express things like ‘the rabbit was eaten by a wolf’).

Note that, in the literature, the term ‘adversative (passive)’ is also found with reference to constructions that are voice-like periphrases rather than bona fide voice constructions, cf. §9.7.2, and also with reference to forms found not only in constructions that meet the definition of passivization, but also in concernative constructions, cf. chapter 13 §13.4).

9.3 Passive and resultative

9.3.1 Introductory remarks

Resultative constructions with a non-finite verb form also used in noun-modifying function with resultative semantics (commonly designated as ‘past participle’) in the role of non-verbal predicate are a common source of passive constructions, in particular in the languages of Europe. This raises the question of the details of the grammaticalization path, and of the possible ambiguities that may subsist between passive constructions resulting from such evolutions and the resultative constructions from which they originate. In some languages, the distinction is ensured, synchronically, by the use of a passive auxiliary distinct from the copular verb used in the resultative construction (Spanish *ser* vs. *estar*, German *sein* vs. *werden*), but in others (French, English), if no oblique agent phrase is present, ‘*be* + past participle’ may be ambiguous between an agentless passive reading and a resultative reading, as discussed in (Creissels 2000) for French.

9.3.2 The notion of resultative

Verbal lexemes denoting result-oriented dynamic events may have derived forms (either finite forms or participles) that specifically refer to the state resulting from the event, and such forms are commonly designated as resultatives. According to this definition, the participant structure of a resultative form consists of a single essential participant characterized as having undergone the change of state or position implied by the lexical meaning of the verb.

Depending on the coding assigned to the participant in question by the base form of the verb, resultatives divide in principle into A-oriented resultatives, P-oriented resultatives and S-oriented resultatives, but languages may also have resultative forms whose orientation is not specified a priori, and varies according to the lexical meaning of the verb.

P-oriented resultatives are particularly common, since the lexical meaning of prototypical transitive verbs implies a change of state or position of the patient, and consequently, prototypical transitive verbs lend themselves to P-oriented resultative derivation. However, this property is not necessarily shared by all transitive verbs. For example, ‘see’ is transitive in many languages, but seeing events cannot be viewed as leading to a resultant state of either participant. With non-prototypical transitive verbs, it may also occur that the notion of resulting state is relevant to A, but not to P, as for example with ‘fall in love with’, in the languages in which this meaning is lexicalized as a transitive verb. In English, this can be illustrated by *learned* in a *learned person*.

As regards intransitive verbs, resultative derivation can easily be conceived for the intransitive verbs expressing a change of state of the referent of S, such as ‘die’, but in principle not for intransitive verbs such as ‘walk’ or ‘cry’.

That said, the notion of resultant state may be broadened so as to include the notion of accumulated experience, resulting in the extension of resultative derivation to verbs that, strictly speaking, do not denote result-oriented events. For example, resultative derivation *stricto sensu* cannot apply to a verb like ‘travel’, since traveling does not imply a change of state of the person who travels, but in a broader sense, if the state of a person is viewed as including the experiences s/he has accumulated in his/her life, one can imagine languages in

which the literal equivalent of *a traveled person* would be acceptable with the meaning of ‘a person who has a long traveling experience’.

9.3.3 Resultative predicative constructions

The Spanish construction ‘*estar* + past participle’ is a typical example of a resultative predicative construction. Mandinka provides another typical example of this kind of construction.

Example (28) illustrates the resultative predicative construction of Mandinka, in which the verb in the resultative form, also found in noun modifier function, combines with the adverbial copula *bé* (typically used in locational predication). As can be seen from this example, in principle, a resultative form can equally be derived from transitive and intransitive verbs by means of the suffix *-riŋ*, provided the lexical meaning of the verb refers to an action or a process conceivable as ending up in a resultant state. In both cases, the resultative construction is intransitive. The S term of the resultative construction represents the participant about which the resultant state is predicated; it may correspond to the initial P (if the base verb is transitive) or to the initial S (if the base verb is intransitive).

(28) Mandinka (Central Mande, Mande)

- a *Sùbôo tòlì-tà lè.*
 meat.D get.rotten-CPL.ITR FOC
 ‘The meat got rotten.’
- b *Sùbôo bé tòlì-ríŋ nè.*
 meat.D AdvCOP get.rotten-RES FOC
 ‘The meat is rotten.’
- c *Kèê yè kódóo sàarêe bàŋkôo kónò lè.*
 man.D CPL.TR money.D bury ground.D in FOC
 ‘The man buried the money in the ground.’
- d *Kódòò bé sàarêe-ríŋ bàŋkôo kónò lè.*
 money.D AdvCOP bury-RES ground.D in FOC
 ‘The money is buried in the ground.’

Interestingly, in Niokolo Maninka, which is the closest relative of Mandinka within the Manding dialect cluster, the resultative form of transitive verbs such as ‘know’, ‘love’ or ‘hate’ can also be used transitively, as in (29).

(29) Niokolo Maninka (Central Mande, Mande)

- Á be ŋ kánu-ríŋ.*
 3SG AdvCOP 1SG love-RES
 ‘S/he loves me.’

It is also worth mentioning here that in Kita Maninka (a more distant relative of Mandinka), the resultative form of verbs can be used intransitively as a finite verb form (i.e. without having to combine with a copula in auxiliary function), as in (30a-b). Moreover, in Niokolo Maninka, the resultative form of *nà* ‘come’ has grammaticalized as a perfect marker in the transitive construction, as in (30c).

- (30) Kita Maninka (Central Mande, Mande)
- a *Sùbú tòlì-nín nè.*
 meat.D get.rotten-RES FOC
 ‘The meat is rotten.’
- b *Músá sìgì-nín bún nà.*
 PRN sit-RES room.D POSTP
 ‘Moussa is sitting in the room.’
- c *Hàtú nà-nín sùbú sà.*
 man.D come-RES > PRF money.D bury
 ‘Fatou has bought meat (and she still has the meat).’

9.3.4 Resultative derivation and the notion of voice

P-oriented resultative derivation has in common with decausativization a derived valency pattern including no instigator. However, these two derivations are very different in nature. Decausativization has the removal of the agent from participant structure as its primary function, whereas the primary function of resultative derivation is the expression of a state related to the event encoded by the base verb.

In the case of P-oriented resultative derivation from transitive verbs, the removal of the agent is only a secondary effect of the primary function or resultative derivation, since the very notion of state implies abstracting from the possible causality chains giving rise to states, and with most transitive verbs, a resultant state is easier to conceive for patients than for agents.

As regards resultative derivation from intransitive verbs, since the expression of a state is the primary function of resultative derivation, there is no principled reason why it could not operate on intransitive verbs, provided the lexical meaning of the intransitive verb implies a change of state of the participant encoded as S, and in resultatives from intransitive verbs, there is no valency change at all, as illustrated by (23a-b) above.

To summarize, resultative derivations have an ambiguous relationship with the notion of voice, but in any case, they cannot be straightforwardly considered as voices.

9.3.5 Resultative and voice: the diachronic connection

The diachronic connection between resultative and voice follows from the fact that resultatives are very unstable diachronically. This instability is certainly favored by the fact that, as already commented in 9.3.2, the notion of resultant state is not as clear-cut as it may seem at first sight, since it may be enlarged so as to include cumulative experience. Moreover, resultatives are particularly unstable in their predicative use. A plausible explanation is that, when used predicatively, resultatives tend to re-activate the dynamic meaning of the verb from which they derive. In particular, patient-oriented resultatives derived from transitive verbs tend to reintroduce the suppressed agent in their participant structure, hence the possibility of reanalyzing concernee phrases in resultative constructions as agent phrases, as in the reanalysis of resultative constructions as perfects, or as passive constructions, two evolutions that have been extremely common in the history of Indo-European languages, see (Comrie 2020) and the other chapters in (Crellin & Jügel 2020).

9.4 Passive, decausative and quasipassive

9.4.1 The passive-decausative polysemy

Although decausativization and passivization are in principle two distinct types of voice alternations, many languages have derived verb forms (sometimes labeled ‘mediopassive’) found both in contexts that unambiguously imply a decausative interpretation, and in others implying a passive interpretation. For example, in Russian, the same suffix *-sja* (reflex of the Indo-European reflexive pronoun **s(w)e*) marks decausativization in (31a), and passivization in (31b).

(31) Russian (Slavic, Indo-European)

a *Fil'm načinaet-sja.*

film(M) begin.IPF.PRS.I_{S/A}:3SG-DECAUS

‘The film begins.’

b *Èta teorija obsuždaet-sja mnogimi učěnymi.*

DEM.SG.F theory(F) discuss.IPF.PRS.I_{S/A}:3SG-PASS many.PL.INS scientist.PL.INS

‘This theory is being discussed by many scientists.’

There is ample historical evidence that, in many cases, the decausative-passive polysemy result from the acquisition of passive uses by verb forms originally used in reflexive function that first acquired a decausative function, and later a passive function. More generally, the development of QUASIPASSIVE uses of verb forms productively used in decausativization, is cross-linguistically very common. Diachronically, it is a possible cause of the emergence of decausative-passive co-expression patterns. We will return to this question in §9.4.3.4, after discussing the typology of quasipassive constructions.

9.4.2 The fuzziness of the distinction between passivization and decausativization

Decausativization is similar to passivization in that both types of voice alternation imply transitivity of the base construction, and in both cases, the initial A is denucleativized, whereas the initial P becomes the S term of an intransitive clause. The difference is that, in decausativization, the denucleativization of the initial A is a mere consequence of its deletion from the participant structure of the clause, whereas in passivization, the initial A is maintained with a different syntactic status.

However, in practice, the distinction between decausativization and passivization is not as clearcut as could be expected from the definitions. The obvious reason is that, in decausative constructions, the initial A is absent from the participant structure of the construction, but is still present in the semantic structure of the verb. Semantically, clauses whose meaning does not imply suppression of the initial A of transitive verbs, but manipulations implying a reduction in semantic transitivity, constitute a kind of grey zone between decausative and passive. This is in particular the case of clauses expressing that an entity has an inherent property that allows, facilitates or hinders its involvement in a two-participant event with the

participant role corresponding to the P term of the transitive construction, as in (32b), to be compared with the transitive clause (32a).

(32) Laz (Kartvelian)

- a *Bee-k porça ko-dol-i-kun-am-s.*
 child-ERG cloth PREV-PREV-AUTOB-put.on-THS-I_{S/A}:3SG
 ‘The child is getting dressed.’
- b *Ha porça va dol-i-kun-e-n.*
 DEM cloth NEG PREV-DECAUS-put.on-THS-I_{S/A}:3SG
 ‘This cloth is not wearable (because it is dirty, too small, etc.).’
 (Lacroix 2009: 458, 459)

Such constructions are designated here as QUASIPASSIVE, a term already used by Geniušienė (1987) and other authors, in particular Mitkovska & Bužarovska (2021), who analyze the quasipassive as a gradient category characterized by a variable degree of agent suppression and argue that quasipassive constructions “supply the cognitive link” between decausative constructions coding spontaneous events and passive constructions coding agent backgrounding. Interestingly, in the languages that have productive decausativization and passivization mechanisms involving distinct verb forms, the forms found in (semantically) quasipassive clauses tend to coincide with those used in uncontroversial instances of decausativization rather than with those used in uncontroversial instances of passivization.

9.4.3 Quasipassive uses of decausative verb forms

Three common types of quasipassive use of decausative forms (i.e., of forms having the ability to mark agent suppression) can be distinguished: inadvertent actions (‘be V-ed by an inadvertent agent’), generic passive (‘be usually V-ed’), and facilitative (‘lend itself to being V-ed’).

9.4.3.1 Decausative forms expressing inadvertent actions

The constructions referring to inadvertent actions (often discussed under the heading of ‘involuntary agent constructions’) have already been discussed in §3.2.4.1. The use of decausative verb forms in involuntary agent constructions, as in (33b) (to be compared with the plain decausative construction in (33a)), is cross-linguistically a particularly common strategy in such constructions. For example, (33b) has a literal equivalent in Spanish, with middle marking and the involuntary agent expressed as a dative oblique: *Se me quemó la carne*.

(33) Koasati (Muskogean)

- a *Ittinsá:wa-k kaw-ká-:ci-hawa-:s.*
 branch-S/A snap.PL-DECAUS-MULT-AUD-PST
 ‘One can hear the branches snapping all around..’

- b *A:nipó-k am-onaksóh-ka-t.*
 meat-S/A 1SG.DAT-char-DECAUS
 ‘I charred the meat by accident’
 (Kimball 1991: 76-77)

9.4.3.2 *The generic passive use of decausative forms*

In the use of decausative forms described in this section, for which I propose the term **GENERIC PASSIVE**, the initial A is not deleted from participant structure, but the derived construction does not refer to a specific instance of the event denoted by the corresponding transitive clause. In this use of decausative verb forms, decausative marking implies reference to a **TYPE OF EVENT**, whose agent can only be conceived as a **VIRTUAL OR NON-SPECIFIC AGENT**.

This use of decausative forms is typically found in sentences expressing norms or customs. Mitkovska & Bužarovska (2021) distinguish a **NORMATIVE** variety and a **GENERALIZING** variety of quasipassive, illustrated in (34).

(34) Serbo-Croat (Slavic, Indo-European)

- a *Crno vino se služi na sobnoj temperaturi.*
 black.N.SG wine(N) DECAUS serve.PRS.I_{S/A}:3SG on of.room.F.SG.PrepC temperature(F).PrepC
 ‘Red wine is served (lit. serves itself) at room temperature.’ (normative)
- b *Ovako se pravi sladoled od lubenice.*
 in.this.way DECAUS make.PRS.I_{S/A}:3SG icecream(M) from watermelon(F).GEN
 ‘Watermelon icecream is made (lit. makes itself) in this way.’ (generalizing)

However, the functional difference between normative and generalizing quasipassive constructions is often blurred, in the sense that sentences that may receive both normative and generalizing readings are very common. In fact, in their analysis of the decausative-quasipassive-passive continuum, Mitkovska & Bužarovska (2021) treat the normative subtype and the generalizing subtype as more closely related to each other than to the other subtypes forming part of this continuum. This is the reason why I prefer to conflate them under the term ‘generic passive’.

In French, middle verb forms (formally characterized by the presence of the clitic *se*, reflex of the same Indo-European reflexive pronoun **s(w)e* as Serbo-Croat *se* in example (34)) are productively used in reflexive, reciprocal and decausative function, but are subject to severe restrictions in passive constructions referring to specific agents. However, as illustrated in (35), they are very productively used in generic passive contexts, i.e. in contexts implying non-specific agents.

(35) French (Italic, Indo-European)

- a *Le vin blanc se boit frais.*
 D.SG.M wine(M) white.SG.M DECAUS drink.PRS.I_{S/A}:3SG cool.SG.M
 ‘White wine should be drunk cool.’
 lit. ‘White wine drinks itself cool.’

- b *Ça ne se dit pas comme ça en français.*
 DEM NEG DECAUS say.PRS.I_{S/A}:3SG NEG like DEM in French
 ‘They don’t say it like that in French.’
 lit. ‘It doesn’t say itself like that in French.’
- c *Les jupes se portent courtes cette année.*
 D.PL skirt(F).PL DECAUS wear.PRS.I_{S/A}:3PL short.PL.F DEM.SG.F year(F)
 ‘Women are wearing short skirts this year.’
 lit. ‘Skirts are wearing themselves short this year.’
- d *La grippe se soigne avec du repos.*
 FD.SG.F flu(F) DECAUS cure.PRS.I_{S/A}:3SG with PRTV.SG.M rest(M)
 ‘The usual treatment of flu is rest.’
 lit. ‘Flu cures itself with rest.’

Example (36b) illustrates the generic passive use of Tswana *àpèèχà*, decausative form of *àpàjà* ‘cook’. This verb also has the passive form *àpèwà* ‘be cooked’ (36a), but the form used when describing the normal way of cooking a given meal is the decausative form rather than the passive one.

(36) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Pítsá 'í-tláá-àpè-w-à kí 'má:ŋ?*
 pizza(c19) I_{S/A}:c19-FUT-cook-PASS-FV by who
 ‘The pizza will be cooked by whom?’ (passive)
- b *Pítsá 'í-ápé-èχ-à bòtòká 'mó òntó-ŋ*
 pizza(c19) I_{S/A}:c19-cook-DECAUS-FV best LOC oven(c19)-LOC
é 'χó-dirisiwà-ŋ di-q^bóŋ 'mó χó-jóné.
 c19.REL I_{S/A}:c17_{EXPL}-be.used-REL pl-wood(c110) LOC LOC-PRO.c19
 ‘Pizza is best cooked in a wood-burning oven.’ (decausative in generic passive function)

9.4.3.3 *The facilitative use of decausative forms*

With transitive verbs, the decausative forms are often used, rather than passive forms, to express that an entity has an inherent property that allows, facilitates or hinders its involvement in a two-participant event with the participant role corresponding to the P term of the transitive construction, most commonly with a meaning of kind-level or individual-level property, as in (37).¹⁰⁷

¹⁰⁷ The preferential use of decausative forms to express this type of meaning is confirmed by the sample investigated by Inglese (2022a). A possible exception is the passive suffix *-a(kə)* in Lumun, which, according to the grammar by Smits (2017: 536) occurs almost exclusively in passive function proper but with a couple of verbs also has a facilitative reading (e.g., *χókkakə* ‘be eaten’ but also ‘be edible’), while no trace of decausative function can be detected. If the data is accurate, it might point towards the possibility of a connection between passive and facilitative to the exclusion of the decausative.

(37) French (Italic, Indo-European)

- a *Ce tissu se repasse facilement.*
 DEM.SG.M fabric(M) DECAUS iron.PRS.I_{S/A}:3SG easily
 ‘This fabric can be ironed easily.’
 lit. ‘This fabric irons itself easily.’
- b *Ce livre se lit tout seul.*
 DEM.SG.M book(M) DECAUS read.PRS.I_{S/A}:3SG by.itself
 ‘This book is easy to read.’
 lit. ‘This book reads itself by itself.’

The term FACILITATIVE was coined by Faltz (1977) to characterize such constructions, also referred to in the literature as ‘middle’, ‘modal passive’, ‘potential’ (Mitkovska & Bužarovska 2021), and ‘dispositional’ (Lekakou 2005).

The decausative forms of Tswana verbs, whose generic passive use has been illustrated in §9.4.3.2, can also express a facilitative meaning. For example, the lexical meaning of *kwálá* ‘write (tr.)’ implies an agent, and it is not possible to conceive a true decausative use of the derived decausative verb *kwál-éχ-á*. However, this derived form of *kwálá* is used, rather than the passive form *kwál-w-á*, if no individualized agent is considered, in particular if the intended meaning is in fact ‘lend itself to being written’, ‘be easy to write’, as in (38a), otherwise the passive form must be used, as in (38b).

(38) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lò-kwáló †lò-tláà-kwál-éχ-á mótt^hò:fò.*
 SG-letter(c111) I_S:c111-FUT-write-DECAUS-FV easily
 ‘The letter will be easy to write.’
- b *Lò-kwáló †lò-tláà-kwál-w-à kí ñ:ná.*
 SG-letter(c111) I_S:c111-FUT-write-PASS-FV by 1SG
 ‘The letter will be written by me.’

In the literature, facilitatives are often presented as inherently generic, or at least individual-level. However, Holvoet & Daugavet (2020b) show that stage-level facilitatives are common in Baltic and Slavic languages, and are not totally impossible even in languages where there is a strong tendency for facilitatives to be kind-level or individual-level only. They do not discuss Romance languages, but, as illustrated by (39), their examples of Baltic or Slavic stage-level facilitatives can be transposed into French without any problem.

(39) French (Italic, Indo-European)

- Le couvercle s’est enlevé (facilement).*
 DEM.SG.M lid(M) DECAUS-be.PRS.IS/A:3SG take.off.PTCP easily
 ‘The lid allowed itself to be taken off (easily).’

What seems, however, to be peculiar to Baltic and Slavic facilitatives, is the possibility of expanding the facilitative with an oblique NP (dative or other) referring to a participant characterizable as an EASY AGENT, whose coding coincides with that of involuntary agents or concernees, as in (40) and (41).

(40) Czech (Slavic, Indo-European)

Ta kniha se mu čte hezky.
 DEM.SG.F book(F) DECAUS IDAT:3SG.M read.IPF.PRS.I_{S/A}:3SG well
 ‘He can read the book easily.’ lit. ‘The book reads itself to him well.’
 (Nedjalkov 1980: 224)

(41) Russian (Slavic, Indo-European)

U menja stat’i lučše pišut-sja tol’ko po utram.
 at 1SG.GEN article.PL better write.IPF.PRS.I_{S/A}:3SG-DECAUS only on morning.PL.DAT
 ‘I find it easier to write articles in the morning.’
 lit. ‘At me articles write themselves better in the morning.’
 (Holvoet & Daugavet 2020b: 313)

Letučij (2014) and Holvoet & Daugavet (2020b) show that facilitative constructions with overtly expressed easy agents may be ambiguous with concernee-concern constructions, or with involuntary agent constructions. For example, (42) “is clearly ambiguous between a reading on which the dative is not necessarily the agent but is the interested person, most likely the possessor, and a reading on which the dative is the agent but not necessarily the possessor or even an interested person” (Holvoet & Daugavet 2020b: 313).

(42) Lithuanian (Baltic, Indo-European)

Man batų raišteliai at-si-rišo.
 1SG.DAT shoe.PL.GEN lace.PL un-DECAUS-tie.PST.I_{S/A}:3
 (i) ‘My shoelaces came loose.’
 (ii) ‘I managed to undo the (my) shoelaces.’
 (Holvoet & Daugavet 2020b: 313)

Similarly, in (43), the noun phrase showing adessive flagging can be interpreted as referring to a concernee in a plain decausative construction, or to an easy agent in a facilitative construction.

(43) Russian (Slavic, Indo-European)

U menja dver’ ne otkryvaet-sja.
 at 1SG.GEN door NEG open.IPF.PRS.I_{S/A}:3SG-DECAUS
 (i) ‘My door won’t open.’
 (ii) ‘I cannot manage to open the door.’
 (Holvoet & Daugavet 2020b: 314)

9.4.3.4 *The decausative-quasipassive-passive continuum and its diachronic significance*

The fact that the initial A is absent from the participant structure of decausative constructions but still present in the semantic structure of the verbal lexeme favors the development of uses in which the same constructions do not imply full suppression of the agent. Geniušienė (1987: 349-351) observed that, in the language sample she analyzed, if the same marker is found in decausative and passive function, it also has quasipassive uses, and she concluded that “the quasipassive function of the reflexive markers is likely to evolve from decausative”, and

further that “the quasipassive function may be intermediate in the evolution of the passive function from decausative”. The hypothesis that the decausative-quasipassive-passive continuum as described for example by Mitkovska & Bužarovska for Macedonian and other South Slavic languages may reflect a grammaticalization path DECAUSATIVE > QUASIPASSIVE > PASSIVE is undoubtedly a reasonable hypothesis. The only question is whether this is the only possible explanation of the decausative-passive polysemy.

The history of the *get*-periphrasis in English shows that the emergence of the decausative-passive polysemy is not necessarily the result of the acquisition of passive uses by forms originally used in decausative function. As discussed by Fleisher (2006) on the basis of a careful examination of historical data, the passive-like use of the *get*-periphrasis developed from the ‘*get* + adjective’ construction expressing acquisition of a state (as in *He got sick*). In this construction, the use of adjectival passive participles with a resultative interpretation in the slot for the adjective became more and more frequent, and later the adjectival passive participles used as complements of *get* acquired the possibility of being reanalyzed as verbal passive participles with an eventive interpretation. In present-day English, *It got broken*, although commonly identified by grammarians as an instance of ‘*get*-passive’, is in fact ambiguous between a passive-like and a decausative-like reading, as evidenced by the fact that it can equally be used with reference to situations that can only be rendered in French as *Ça a été cassé* (passive), and with reference to situations rendered in French as *Ça s’est cassé* (decausative). In other words, the decausative-passive polysemy is already present in the English *get*-periphrasis. Consequently, the reanalysis of this construction as a voice construction *stricto sensu* could directly result in the emergence of a voice marker lending itself to decausative and passive uses.

Note also that, according to Kulikov (2011a), Vedic Sanskrit and other Indo-European languages attest a historical change of passives to anticausatives. However this change only concerns a handful of experiential verbs under precise conditions, and is not generalized.

9.4.4 Quasipassive uses of decausative or passive markers or constructions and the question of ‘modal passives’

The fact that the quasipassive uses of decausative or passive constructions imply meanings that can be characterized as modal raises the question of constructions that intrinsically combine a coding of core terms suggesting a passive analysis and the expression of modal meanings. Such constructions are common in the languages of Europe, e.g. the German construction illustrated in (44), designated by Cysouw (2023: 86) as ‘modal passive’.

(44) German (Germanic, Indo-European)

a *Ich führe meinen Hund an der Leine.*
 1SG lead.PRS.I_{S/A}:1SG my.SG.M.ACC dog(M) at D.SG.F.DAT leash(F)
 ‘I keep my dog on the leash.’

b *Hunde sind (von ihren Besitzern) an der Leine zu führen.*
 dog(M).PL be.PRS.I_{S/A}:3PL by their.PL.DAT owner.PL.DAT
 at D.SG.F.DAT leash(F) to lead.INF

‘Dogs must be kept on the leash (by their owners).’
 (Cysouw 2023: 613)

However, if one applies consistently the principle according to which a coding alternation automatically triggered by the use of a particular TAM form (or TAM periphrasis, as here) does not qualify as a valency alternation, the only possible conclusion is that the relationship between (44a) and (44b) is not an instance of passivization.

9.5 The passive-causative polysemy and its historical explanation

9.5.1 The passive-causative polysemy

The use of the same derived verb forms in passive and causative constructions is relatively widespread in the world's languages. It is particularly common in the languages of East Asia, where it has been observed for the first time by Gabelentz (1861), cf. examples (45) and (46).

(45) Manchu (Tungusic, Altaic)

- a *I bata-be va-ha.*
 3SG enemy-ACC kill-PST
 'He killed the enemy.'
- b *I bata-be va-bu-ha.*
 3SG enemy-ACC kill-CAUS-PST
 'He made (somebody) kill the enemy.' (causative)
- c *I (bata-de) va-bu-ha.*
 3SG (enemy-DAT) kill-PASS-PST
 'He is/was killed (by the enemy).' (passive)
 (Nedjalkov 1993: 194)

(46) Korean (Koreanic)

- a *Ai-tul eykey pihayngki ka po-y-ess-ta.*
 child-PL to plane SBJ see-PASS-PST-DECL
 'The plane was seen by (lit. 'to') the children.' (passive)
- b *Na nun ai-tul eykey kulim ul po-y-ess-ta.*
 1SG TOP child-PL to picture ACC see-CAUS-PST-DECL
 'I showed a picture to the children.' (causative)
 (Sohn 1999 : 367)

As already mentioned in chapter 8, and illustrated in (47), the same passive-causative polysemy is also found (among others) in Songhay languages.

(47) Diré Songhay (Songhay)

- a *Musa ŋa tasu di.*
 PRN eat rice D
 'Moussa ate the rice.'
- b *Ali ŋa-ndi tasu di Musa se.*
 PRN eat-CAUS rice D PRN to
 'Ali had Moussa eat the rice.'

- c *Tasu di ŋa-ndi.*
 rice D eat-PASS
 ‘The rice was eaten.’
 (Shopen & Konaré 1970: 211)

Synchronically, such voice markers can be analyzed as encoding nothing more than A denucleativization, leaving open the following two possibilities: either no participant is nucleativized, and P becomes the S term of an intransitive construction (hence a passive construction), or the slot left vacant by the denucleativization of the initial A is filled by a causer (hence a causative construction).

Historically, there is often more or less compelling evidence that the evolution occurred in the causative > passive direction, and there seems to be no case of a language showing evidence of the opposite direction. An interesting observation is that the dative coding of the denucleativized agent that can be observed in the examples above is not common in passive constructions, but quite common in causative constructions.

9.5.2 The reanalysis of reflexive-causative constructions as a possible explanation of the passive-causative polysemy

The commonly admitted hypothesis, put forward among others by Keenan (1985) and Haspelmath (1990),¹⁰⁸ is that polysemous passive-causative markers were initially causative markers. There is also consensus that the origin of the Tungusic passive-causative markers was a verb ‘give’ used as an auxiliary in analytic causative constructions.

As already mentioned in chapter 8 §8.4.3.1, in French, constructions combining the middle marker *se* and the causative auxiliary *faire* ‘do, make’ can still be interpreted with their compositional meaning ‘Causer_i makes Causee act on Self_i’, but are also very commonly interpreted as passive, as in (48).

(48) French (Italic, Indo-European)

Il s’est fait tuer dans un accident.
 I_{S/A}:3SG.M REFL-be.PRS.I_{S/A}:3SG make.PTCP kill.INF in IDF.SG.M accident(M)
 ‘He was killed in an accident.’ lit. ‘He_i made (someone) kill himself_i in an accident.’

There is abundant literature on the factors that condition the passive reading of the reflexive-causative construction in present-day French, and on the development of this polysemy in the history of French. Unsurprisingly, the passive reading of the reflexive-causative construction is preferred if the denoted event is viewed as having adverse effects for the referent of the subject, and if it is unlikely that s/he triggered it on his/her own will, as in (43). See Creissels (2019b) for a summary of the discussion and detailed references.

Such a reanalysis of initially reflexive-causative constructions has been proposed to explain the passive-causative polysemy observed in the languages of East Asia. The difference is that, in French, the reflexivization of the causative construction is overtly

¹⁰⁸ See also on Tungusic languages (Nedjalkov 1993), (Knott 1995), (Malchukov & Nedjalkov 2015), and on Sinitic languages (Hashimoto 1988), (Cheng & al. 1999), (Zhang 2000), (Chen 2011), (Yap & Iwasaki 2003, 2007), (Chappell & Peyraube 2007).

marked by the middle marker *se*, whereas, in the East Asian reflexive-causative constructions reanalyzed as passive constructions, the reflexivization was not overtly marked.

The scenario elaborated by Yap & Iwasaki (2003, 2007) in their analysis of the grammaticalization of ‘give’ in East Asian languages is as follows:

- the original construction expresses permissive causation, for example ‘X (causer) let Y (causee) kill Z (patient)’
- starting from that, the causative construction acquires the possibility of expressing a meaning of unwilling permission): X cannot prevent Y from killing Z;
- in this interpretation of the causative construction, the omission of the patient is interpreted as expressing coreference with the causer, whereas the omission of the causee is interpreted as reference to an unspecified causee: X_i cannot prevent Ø_{arb} from killing Ø_i (‘X cannot avoid being killed’);
- finally, in the same way as in the French reflexive-causative construction, the single core-term of the construction tends to be reinterpreted as having a purely patientive role.

The validity of this explanation is supported not only by the observation of the reflexive-causative construction in present-day French, but also by the morphological structure of the passive forms of Hungarian (Creissels 2019b). In Hungarian, verbs divide into two inflectional classes, and the inflectional class characterized by the set of person endings known in Hungarian grammars as *ik*-inflexion (*ikes ragozás*) can be analyzed as a middle voice (i.e. a polysemous voice whose functions include the expression of decausativization, see chapter 11 §11.4). In present-day Hungarian, this middle voice has lexicalized to a considerable extent, and contrasting pairs such as *tör-Ø* / *tör-ik* (where *tör* ‘break’ combines with *-Ø* and *-ik*, 3SG present endings of the default voice and the middle voice respectively) are now very rare, but the valency-changing function of the middle voice was more prominent in Ancient Hungarian. As regards the passive voice, it is obsolete in present-day Hungarian, but it was formed by combining the causative suffix *-(t)at* with middle voice endings (as for example *mos-Ø* ‘s/he washes’ / *mos-at-Ø* ‘s/he makes wash’ / *mos-at-ik* ‘it is washed’). Since reflexive constructions are a common source of middle voices (see chapter 11 §11.4.2), it is plausible that this was originally a reflexive-causative construction that underwent a semantic shift similar to that attested in French.

9.5.3 Other possible explanations of the passive-causative polysemy

The evolution of reflexive-causative constructions is not the only possible explanation of the passive-causative polysemy. As shown by the history of the so-called *get*-passive of English, another possible scenario is the parallel grammaticalization of two source constructions, a passive-like periphrasis and a causative-like periphrasis, in which the same acquisitive verb acts as an auxiliary.

In English, *get* occurs in various biclausal constructions in which it variously combines with another verb to express meanings such as causation proper (*It is often difficult to get agents to attend these productions*), passivization (*Well, we got caught, of course*), but also permission (*You may not get to attend client meetings*) and obligation (*You’ve got to look at evidence*). With adjectives, *get* also has a grammaticalized use that can be characterized as

inchoative, as in *Sometimes students get anxious about this* (examples from (Fleisher 2006: 226)).

According to Givón & Yang (1994), the passive use of *get* developed from its causative use, but Fleisher (2006) convincingly shows that, in spite of the fact that it is consistent with cross-linguistic data, this analysis faces several problems. As already mentioned above, according to Fleisher's (2006) analysis, the passive-like use of *get* (which appeared relatively recently in the history of English) developed from the inchoative use of *get* in combination with adjectives. Past participles used as adjectives were used in the inchoative construction in the same way as adjectives of any other type, and the inchoative construction extended to past participles used as non-finite verb forms, hence the passive-like use of *get* in present-day English. In other words, this development, which can be hypothesized for other cases of passive or passive-like constructions in which an acquisitive verb acts as an auxiliary, is entirely independent from the possible use of the same auxiliary in a causative-like periphrasis.

9.6 Other co-expression patterns involving passivization

9.6.1 Passivization, I-passivization and S-denucleativization

As will be developed in §§8-9 of this chapter, it is cross-linguistically common that the derived verb forms used in constructions meeting the definition of passivization are also found in I-passive constructions, and S-denucleative constructions are most of the time coded by the same voice markers as passive and I-passive constructions..

9.6.2 The passive-concernative polysemy

The use of the same voice markers for passivization and concernativization is relatively common cross-linguistically. This polysemy pattern will be discussed in chapter 13 §13.4.3.

9.6.3 The passive-antipassive polysemy

The passive-antipassive polysemy is found for example in Soninke. Some of the transitive verbs of Soninke have two distinct derived forms for passivization and antipassivization, but some others have a single detransitivized form equally available for passive and antipassive uses, as illustrated by *yígá* 'eat' in example (49).¹⁰⁹

- (49) Soninke (Soninke-Bozo, Mande)
 a *Lémúnù-n dà tíyè-n ñígá.*
 child.PL-D TR meat-D eat
 'The children ate the meat.'

¹⁰⁹ In this example, it is not immediately obvious why the transitive form *yígá* (whose initial *y* is realized *ñ* in contact with a nasal) should be considered as the base form from which the intransitive form *yígé* is derived. In fact, additional data about this detransitivizing derivation would show that it involves a detransitivizing suffix *-i* which is realized as a distinct segment with monosyllabic stems, but fuses with the last vowel of non-monosyllabic stems, converting a final *a* or *o* into *e*, and a final *u* into *i* (Creissels 2021).

- b *Lémúnù-n ñígé.*
 child.PL-D eat.ANTIP
 ‘The children ate.’
- c *Tíyè-n ñígé.*
 meat-D eat.PASS
 ‘The meat was eaten.’

There is no reason to think that there is a direct historical link between the antipassive and the passive use of the voice markers that show this polysemy. It is much more plausible that the polysemy results from two distinct evolutions from a common origin. In many cases (in particular, in the case of Soninke), there is evidence that the passive-antipassive polysemy result from parallel evolutions of a reflexive marker, see chapter 11. Another possible scenario is that a sociative-reciprocal derivation acquires not only an antipassive function, but also a decausative function, as attested in some Bantu languages (Dom & al. 2016), and subsequently a passive function.

9.7 Passive-like constructions that are not really passives

9.7.1 Introductory remarks

As already discussed in chapter 8, by definition, the notions of valency alternation and voice are restricted to relations between monoclausal constructions, but it is not always easy to distinguish analytical voices (in which a verb acting as a voice operator modifies the participant structure of another verb with which it forms a complex predicate) from biclausal constructions implying similar operations on valency.

This is in particular the case of the passive periphrasis of Basque, illustrated in (50b), whose biclausal nature is explicitly acknowledged in Hualde & Ortiz de Urbina’s (2003: 297-300) reference grammar of Basque.

(50) Central Basque (Euskaran)

- a *Jon-ek eskutitz bat idatzi du.*
 PRN-ERG letter one write.CPL have.PRS.I_{erg}:3SG.I_{zer}:3SG
 ‘Jon wrote a letter.’
- b *Eskutitz hau [Jon-ek idatzi-a] da.*
 letter DEM.SG PRN-ERG write.CPL-SG be.PRS.I_{zer}:3SG
 ‘This letter has been written by Jon’
 (lit. ‘This letter is [Jon (having) written (it)].’)

It is also interesting to examine here a benefactive/adversative construction found in Vietnamese and other languages of South East Asia which has sometimes been described as a passive construction (§9.7.2) and the *bei*-constructions of Mandarin Chinese, commonly described under the heading of passive in Mandarin Chinese grammars (§9.7.3). In fact, the constructions in question evoke passive constructions in some respects, but also have characteristics that make a passive analysis problematic.

9.7.2 The Vietnamese *được/bị*-construction

As described in detail by Bruening & Tran (2015), in Vietnamese, *được* ‘receive, enjoy’ and *bị* ‘suffer’ can be used as benefactive and adversative operators in combination with other verbs. In this benefactive / adversative construction, illustrated in (51), the benefactive or adversative operators *được* / *bị* is preceded by an NP whose semantic role is part of the participant structure of the second verb, whereas the position in which the semantic role in question would be expressed in an independent clause is left empty.

(51) Vietnamese (Vietic, Austroasiatic)

Nam bị xem một phim kinh dị.

PRN suffer see one film horror

‘Nam saw a horror film (and was affected negatively).’

lit. ‘Nam_i suffered (that) Ø_i saw a horror film.’

(Bruening & Tran 2015: 134)

The coding frame of *xem* ‘see’, similar to that of English *see*, is A *xem* P, where A represents the experiencer and P the stimulus, and the structure of example (35) can be schematized as follows:

X_i *bị* [Ø_i *xem* Y’]

In this particular instance of the benefactive / adversative construction, nothing suggests the possibility of a passive analysis. However, if the second verb is transitive, and the phrase to the left of the benefactive / adversative operator is coreferent with the null P in the construction of the second verb, it is tempting to analyze the construction as a passive construction:

X_i *được* (Y) V Ø_i ‘X is V-ed (by Y) and positively affected’

X_i *bị* (Y) V Ø_i ‘X is V-ed (by Y) and negatively affected’

For example:

(52) Vietnamese (Vietic, Austroasiatic)

Nam bị đánh.

PRN suffer hit

‘Nam was hit (and suffered).’

lit. ‘Nam_i suffered (that) Ø_{arb} hit Ø_i.’

(Bruening & Tran 2015: 134)

The passive analysis must however be rejected, since as already illustrated by example (51) above, with transitive verbs, the null term coreferent with the NP preceding the benefactive-adversative operator is not necessarily P. Moreover, the verbs involved in *được* / *bị* periphrases are not necessarily transitive, cf. example (53).

(53) Vietnamese (Vietic, Austroasiatic)

Nam bị mù.

PRN suffer blind

‘Nam was/became blind (and suffered).’

lit. ‘Nam_i suffered (that) Ø_i became blind.’

(Bruening & Tran 2015: 134)

Finally, as illustrated by example (54), even when a passive analysis seems possible (i.e., when the second verb is transitive, and the null term coreferent with the NP preceding the benefactive / adversative operator is P), there is no evidence of denucleativization of A, since its position with respect to the lexical verb does not change, and it does not require any flagging.

(54) Vietnamese (Vietic, Austroasiatic)

Nam bị Nga đánh.

PRN suffer PRN hit

‘Nam was hit by Nga (and suffered).’

lit. ‘Nam_i suffered (that) Nga hit Ø_i.’

(Bruening & Tran 2015: 134)

9.7.3 The Mandarin Chinese *bèi*-constructions

In Mandarin Chinese grammars, the three constructions illustrated in (55b-d) are described as passive constructions.

(55) Mandarin Chinese (Sinitic, Sino-Tibetan)

a *Māma mà-le tā.*

mummy scold-CPL 3SG

‘Mummy scolded him/her.’ (transitive clause)

b *Tā bèi mà-le.*

3SG BEI scold-CPL

‘S/he was scolded.’ (agentless passive)

c *Tā bèi māma mà-le.*

3SG BEI mummy scold-CPL

‘S/he was scolded by mummy.’ (agentful passive)

d *Zhāngsān bèi tǔfēi dǎ-sǐ-le bàba.*

PRN BEI bandit hit-die-CPL father

‘Zhangsan had his father killed by bandits.’ (agentful ‘indirect’ passive)

(Lu & al. 2015: 751)

Historically, *bèi* originated as a verb meaning ‘to cover’, but in present-day Mandarin, this meaning is expressed by other verbs, and *bèi* occurs exclusively in the constructions illustrated in (55b-d).

There are basically two competing views on the agentful *bèi*-construction illustrated in (55c-d). One view argues that it is a zero-coded passive construction in which *bèi* acts as a

preposition flagging the agent phrase. The other view argues that the agentful *bèi*-construction is biclausal, with the passive auxiliary *bèi* acting as the matrix verb.

Several difficulties have been identified with the analysis of *bèi* as a preposition, not only in the agentless *bèi*-construction, but also in the agentful construction, for which this analysis is at first sight appealing. As pointed out by Huang & al. (2009), the sequence formed by *bèi* and the noun phrase that follows it does not show the behavior that should be expected from a prepositional phrase. In fact, constituency tests show that the agent noun phrase does not form a constituent with *bèi*, but rather with the following verb phrase. More generally, the biclausal analysis of the agentful *bèi*-construction better predicts its properties, in particular the possibility that, in certain conditions, the noun phrase preceding *bèi* is resumed by a pronoun occupying a position which, according to the biclausal analysis, is the P position in the embedded clause, cf. example (56).

(56) Mandarin Chinese (Sinitic, Sino-Tibetan)

Zhangsan_i bei Lisi da-le ta_i yixia.

PRN BEI PRN hit-CPL 3SG once

‘Zhangsan was hit once by Lisi.’

lit. ‘Zhangsan experienced (that) Lisi hit him once.’

(Huang & al. 2009: 127)

‘Long-distance passives’ of the type illustrated in (57) also provide compelling evidence in favor of the biclausal analysis of the agentful *bèi*-construction.

(57) Mandarin Chinese (Sinitic, Sino-Tibetan)

Zhangsan bei Lisi pai jingcha zhuazou-le.

PRN BEI PRN send police arrest-CPL

‘Zhangsan was arrested by the police, which Lisi sent to do so.’

lit. ‘Zhangsan experienced (that) Lisi sent the police to arrest (him).’

(Huang & al. 2009: 125)

As regards the agentless *bèi*-construction, the crucial observation is that its properties differ in several important respects from those of the agentful construction, which suggests that, whatever the analysis of the categorial status of *bèi*, the agentless *bèi*-construction should not be analyzed as a mere elliptical variant of the agentful construction. For example, the possibility of long-distance dependencies in the agentful construction, illustrated in (57), has no equivalent in the agentless construction, as shown by the impossibility of (58).

(58) Mandarin Chinese (Sinitic, Sino-Tibetan)

**Zhangsan bei pai jingcha zhuazou-le.*

PRN BEI send police arrest-CPL

intended: ‘Zhangsan was arrested by the police, which someone sent to do so.’

(Huang & al. 2009: 132)

The fact that the agentless *bèi*-construction cannot be analyzed as an elliptical variant of the agentful construction is consistent with the historical data, since, diachronically, the agentless *bèi*-construction appeared much earlier than the agentful construction in the history of

Mandarin Chinese. In fact, as discussed in detail by Li (2015), diachronically, the two *bèi*-constructions have different sources and result from distinct historical developments.

Li (2015) endorses (a variant of) the biclausal analysis of the agentful *bèi*-construction proposed by Huang & al. (2009), but challenges their proposal to extend the biclausal analysis to the agentless construction. According to Li's (2015) analysis, the agentless construction is a monoclausal construction that meets the definition of passive adopted in this book, in which *bèi* acts as a passive marker.

There would be no point in pretending to solve this question here, but whatever the decision about the analysis of the agentless *bèi*-construction, it is hardly disputable that the agentful construction is a biclausal construction, and consequently, identifying it as a passive construction implies a broad definition of 'passive' encompassing not only passivization *stricto sensu*, but also passive-like periphrases.

9.8 The impersonal variant of passivization (I-passivization)

In obligatory A-coding languages, I-passivization can be defined as a variant of passivization in which the initial P maintains its coding characteristics in the derived construction. As already commented, the distinction between (canonical) passivization and I-passivization has no equivalent in obligatory P-coding languages, in which the mere removal of the A phrase from a transitive construction yields a perfectly canonical intransitive construction.

A general tendency in I-passivization (for which I have no explanation to put forward) is that the coding of the initial A by means of an oblique phrase is less common in I-passive constructions than in passive ones. Most of the time, in I-passivization, the initial A is left unexpressed. However, oblique agent phrases in I-passive constructions are possible at least in some of the languages that have this kind of construction.

9.8.1 I-passivization involving the same derived verb forms as passivization

In many languages, the verb forms used in canonical passivization are also found in constructions meeting the definition of I-passivization. Such constructions may involve expletives formally identical to pronouns in A/S role or A/S indexes. For example, in (59c), the gender discord between the expletive A/S index *il* (masculine) and *décision* (feminine) precludes analyzing *il* as a cataphoric index coreferential with *décision*. Moreover, the intonation with which (59c) is uttered unambiguously shows that *une décision* cannot be analyzed as right-dislocated in afterthought role, and this is consistent with the observation of the discursive contexts in which such clauses can occur.

(59) French (Italic, Indo-European)

a *Le president a pris une décision.*
 D.SG.M president(M) have.PRS.I_{S/A}:3SG take.PTCP IDF.SG.F decision(F)
 'The president took a decision.'

b *Une décision a été prise (par le president).*
 IDF.SG.F decision(F) have.PRS.I_{S/A}:3SG be.PTCP take.PTCP.SG.F by D.SG.M president(M)
 'A decision was taken (by the president).' (passive)

- c *Il a été pris une décision.*
 I_{A/S}:3SG.M_{EXPL} have.PRS.I_{S/A}:3SG be.PTCP take.PTCP IDF.SG.F decision(F)
 ‘A decision was taken.’ lit. ‘It has been taken a decision.’ (I-passive)

Example (60) illustrates I-passivization by means of the same derived verb forms as canonical passivization in Tswana. In (60c), the morphological slot in the verb form normally devoted to S/A indexation is occupied by a dummy (non-referential) element which is etymologically a locative index. In Tswana, oblique agent phrases are very usual in passive constructions, but I never came across spontaneously produced I-passive constructions with oblique agent phrases in my fieldwork on Tswana, and when questioned, Tswana consultants express doubts about their acceptability.

(60) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mà-búrá á-rékíl-é dí-q^hò:mó.*
 PL-Afrikaner(cl6) I_{S/A}:cl6-buy.PRF-FV PL-cow(cl10)
 ‘The Afrikaners have bought (the) cows.’
- b *Dì-q^hòmó dí-rèkíl-w-è (kí mà-bù:rù).*
 PL-cow(cl10) I_{S/A}:cl10-buy.PRF-PASS-FV by PL-Afrikaner(cl6)
 ‘The cows have been bought (by the Afrikaners).’ (passivization)
- c *ǀó-rékíl-w-é dí- q^hò:mó.*
 I_{S/A}:cl17_{EXPL}-buy.PRF-ImpPASS-FV PL-cow(cl10)
 ‘Some cows have been bought.’ (I-passivization)
 lit. ‘There has been bought cows.’

As illustrated by example (20) above, reproduced here as (61a-c) Tswana has double-P constructions that can be passivized by taking either of the two initial Ps as the A term of the derived passive construction. As illustrated by example (61d), an I-passive construction involving the same voice marker and in which both Ps are coded exactly as in the initial double-P construction is also possible.

(61) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-fíl-é b-àná dì-kwá:lò.*
 I_{S/A}:1SG-give.PRF-FV PL-child(cl2) PL-book(cl10)
 ‘I gave the children the books.’
- b *B-àná bá-fíl-w-é dì-kwá:lò.*
 PL-child(cl2) I_{S/A}:cl2-give.PRF-PASS-FV PL-book(cl10)
 ‘The children were given the books.’
- c *Dì-kwá:ló dí-fíl-w-é b-à:ná.*
 PL-book(cl10) I_{S/A}:cl10-give.PRF-PASS-FV PL-child(cl2)
 ‘The books were given to the children.’
- d *ǀó-fíl-w-é b-àná dì-kwá:lò.*
 I_{S/A}:cl17_{EXPL}-give.PRF-ImpPASS-FV PL-child(cl2) PL-book(cl10)
 lit. ‘There was given the children the books.’

9.8.2 I-passivization involving middle verb forms

The use of middle verb forms not only in canonical passive constructions, but also in I-passive constructions, will be illustrated in chapter 11 §11.5.

9.8.3 I-passivization involving dedicated verb forms

Some obligatory A-coding languages have derived verb forms found in constructions meeting the definition of I-passivization, but not in passive constructions with the initial P converted into a canonical S. In the descriptions of the languages in question, there is some confusion in the use of the terms ‘passive’ and ‘impersonal’ with reference to such verb forms.

Example (62) illustrates this type of derived verb form in Finnish. In (62c), no noun phrase showing the coding characteristics of A or S can be inserted, and the noun phrase representing the initial P shows the same accusative flagging as in the transitive construction. The impersonal nature of the construction manifests itself in the inability of the verb form to index any of the participants. Note that negative forms are crucial to preclude analyzing *-ta(an)* as an index encoding a non-specific S or A (as for example French *on* or German *man*) rather than a voice marker. The crucial observation is that, in the negative forms of Finnish verbs (consisting of the negative auxiliary and the so-called connegative form of the lexical verb), as shown by (62d-e), S/A indexes attach to the negative auxiliary, whereas *-ta(an)* invariably attaches to the lexical verb.

(62) Finnish (Finnic, Uralic)

- a *Minä tunne-n sinut.*
 1SG know.PRS-I_A:1SG 2SG.ACC
 ‘I know you.’
- b *Sinä tunne-t minut.*
 2SG know.PRS-I_A:2SG 1SG.ACC
 ‘You know me.’
- c *Sinut tunne-taan siellä.*
 2SG.ACC know-ImpPASS.PRS there
 ‘You are known there. / They know you there.’
- d *Minä en tunne sinua.*
 1SG NEG.I_{S/A}:1SG know 2SG.PRTV
 ‘I don’t know you.’
- e *Sinua ei tunne-ta siellä.*
 2SG.PRTV NEG know-ImpPASS.PRS there
 ‘You are not known there. / They don’t know you there.’

As illustrated in (63) for Breton, Celtic languages have derived verb forms, marked by a suffix *-r* or *-d*, found in constructions meeting the definition of I-passivization but not in canonical passive constructions.

(63) Breton (Celtic, Indo-European)

- a *Dibriñ a ran krampouzh.*
 eat.INF A do.I_{S/A}:1SG pancakes
 ‘I eat pancakes.’
- b *Dibriñ a rer krampouzh.*
 eat.INF A do.ImpPASS pancakes
 ‘One eats pancakes.’
 (Hewitt 2002: 19)

According to Hewitt (2002), across Celtic languages, there is variation in the possibility of combining such I-passive forms with oblique agent phrases: this possibility exists in Welsh, but not in Breton.

Like many other European languages, Polish has not only impersonal uses of verb forms also used in canonical passivization, but also verb forms found in I-passive constructions that cannot be used in canonical passive constructions. The forms in question are derived by means of a suffix *-no* or *-to*. Note that, in (64), contrary to what the English translation might suggest, ‘discussion’ is in the accusative case in a construction including no slot for a noun phrase showing the coding characteristics of S or A.

(64) Polish (Slavic, Indo-European)

- Zakończywszy posilek, rozpoczęto dyskusję.*
 finish.GER meal begin.ImpPASS discussion.SG.ACC
 ‘After the meal, a discussion began.’
 (Kibort 2001: 166)

Givón (2011: 249-259) provides a detailed description of a derived form of verbs in the Uto-Aztecan language Ute which he characterizes as “a classical example of an impersonal or non-promotional passive”.

9.9 Denucleativization of S without nucleativization (S-denucleativization)

Within the limits of the documentation I have been able to consult, S-denucleativization not accompanied by nucleativization on a non-nuclear participant is widely attested among obligatory A-coding languages (although it very rarely involves dedicated voice markers), but I came across no mention of this type of valency alternation in obligatory P-coding languages.

9.9.1 S-denucleativization involving the same verb forms as passivization and/or I-passivization

In some obligatory A-coding languages (for example French), I-passivization involving the same verb forms as passivization is usual, but the use of the same verb forms with intransitive verbs to mark denucleativization of S without nucleativization of any other participant is quite unusual (if not completely impossible). In some other languages among those that have I-passive constructions, the forms used to mark canonical passive constructions can also be found productively, not only in I-passive constructions, but also in clauses projected by

(68) Polish (Slavic, Indo-European)

Tutaj tańczono.

here dance.DenuclS

‘There was dancing here.’

(Kibort 2001: 163)

In Latin, S-denucleativization involved middle forms also found in canonical passive constructions (and traditionally labeled ‘passive’), e.g. *itur* ‘one goes’, lit. ‘it is gone’, as discussed by Napoli (2013) and Rovai (2019), who also discusses Celtic material.

9.9.2 S-denucleativization involving verb forms that cannot be used with a passive function

According to Marlett (2017), Seri (a language isolate spoken in Northwestern Mexico for which a Hokan affiliation has sometimes been claimed) has a verbal prefix distinct from the prefixes used to mark passivization, whose only possible function in the verbal system is to mark S-denucleativization. Note, however, that the same prefix is also used on possessed nouns to indicate unspecified possessor.

Classical Nahuatl illustrates the possibility that a language in which transitive verbs do not lend themselves to I-passivization may nevertheless have a mechanism of S-denucleativization (Launey 1981, 1994). Moreover, depending on the individual verbs, three distinct voice markers are used to code S-denucleativization.

A first possibility is the use of the suffix *-lo* also used in passivization. In example (69), sentences (a-b) illustrates the use of *-lo* in passivization of transitive verbs, whereas in (69c-d), the same suffix marks S-denucleativization of an intransitive verb.

(69) Classical Nahuatl (Aztecan, Uto-Aztecan)

a *Ni-qu-itta-c* *in cihuātl.*

I_{S/A}:1SG-IP:3SG-see-CPL D woman

‘I saw the woman.’

b *Ø-Itta-lō-c* *in cihuātl.*

I_{S/A}:3-see-PASS-CPL DEF woman

‘The woman was seen.’

c *Ø-Mayāna* *in pilli.*

I_{S/A}:3-be.hungry D child

‘The child is hungry.’

d *Mayāna-lo.*

be.hungry-DenuclS

‘People are hungry.’

(Launey 1981: 140, 142)

With some other intransitive verbs, S-denucleativization is marked by a prefix *tla-* also used with transitive verbs in P-denucleative (antipassive) function. In example (70), sentences (a-b) illustrates the antipassive use of this prefix, whereas in (70c-d), the same prefix marks S-denucleativization of an intransitive verb. A plausible explanation of this polysemy of the prefix *tla-* is that it originates from the incorporation of a noun meaning ‘thing’, either in P

role with transitive verbs (hence its antipassive function) or in S role with intransitive verbs (hence its involvement in I-passivization).

(70) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ni-qu-itta in calli.*
I_{S/A}:1SG-see D house
'I can see the house(s).'
- b *Ni-tla-tta.*
I_{S/A}:1SG-ANTIP-see
'I can see (something).'
- c *Ø-Popōca in tepetl.*
I_{S/A}:3-smoke D mountain
'The mountain is smoking.'
- d *Tla-popōca.*
DenuclS-smoke
'Something is smoking.'
(Launey 1981: 36, 37, 137)

Finally, Nahuatl has a special suffix *-hua* only used to mark S-denucleative constructions of a subclass of intransitive verbs, as in example (71).

(71) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ø-Chōca in cihuātl.*
I_S:3-cry D woman
'The woman is crying.'
- b *Chōcō-hua.*
cry-DenuclS
'Someone is crying.'
(Launey 1981: 25, 136)

However, *-hua* [wa] is probably the reflex of a former passive marker that lost the possibility of being used in passive constructions and specialized as an S-denucleativization marker, since across the Uto-Aztecan language family, cognates of this suffix are widely attested in passive and I-passive function, cf. among others Hopi Dictionary project (1998: 881) on Hopi, Estrada Fernandez & al. (2015a-b) on Yaqui.

9.9.3 Intransitive bivalent verbs and S-denucleativization

Unsurprisingly, in the languages that have a voice alternation meeting the definition of S-denucleativization, this alternation concerns not only monovalent verbs, as in the examples quoted in §§9.9.1-2, but also bivalent verbs selecting a coding frame in which one of the essential participants is coded as if it were an adjunct. In the S-denucleative construction of such verbs, the essential participant showing adjunct-like coding in the initial construction maintains its coding in the S-denucleative construction. For example, as illustrated in (72), the German verb *helfen* 'help', which assigns dative coding to the helpee phrase, lends itself to S-

denucleativization exactly like monovalent verbs, without any change in the coding of the essential participant encoded as a dative oblique.

(72) German (Germanic, Indo-European)

- a *Wir halfen ihm.*
 1PL help.PST.I_{S/A}:1PL 3SG.M.DAT
 ‘We helped him.’
- b *Ihm wurde geholfen.*
 3SG.M.DAT be.PST.I_{S/A}:3SG_{EXPL} help.PTCP
 ‘He was helped.’

A superficially similar construction is found in Icelandic, where the verb ‘help’ selects the same type of coding frame as German *helfen*.

(73) Icelandic (Germanic, Indo-European)

- Honum var hjálpað.*
 3SG.M.DAT be.PST.I_{S/A}:3SG_{EXPL} help.PTCP
 ‘He was helped.’
 (Zaenen & al. 1985: 442)

However, it is interesting to observe that, as discussed in detail by Zaenen & al. (1985), the S-denucleative construction of ‘help’ has very different behavioral properties in German and in Icelandic. In Icelandic, the dative NP is a ‘non-canonical subject’ in the sense that it patterns with A/S NPs in the zero case on a range of syntactic properties commonly considered as typical for subjects, which makes the construction syntactically similar to canonical passive constructions of transitive verbs. By contrast, this is not the case in German.

9.9.4 A possible reanalysis of I-passive/S-denucleative verb forms

In informal spoken Finnish, the indexation of S/A on verbs differs from formal Finnish in the way illustrated in (74) by the full present-tense paradigm of *asua* ‘to speak’.¹¹⁰

(74) Finnish (Finnic, Uralic)

(informal)		(formal)	
<i>mä asu-n</i>	‘I live’	<i>(minä) asu-n</i>	‘I live’
<i>sä asu-t</i>	‘you _{SG} live’	<i>(sinä) asu-t</i>	‘you _{SG} live’
<i>se asu-u</i>	‘she/he/it lives’	<i>hän asu-u</i>	‘she/he lives’
		<i>se asu-u</i>	‘it lives’
<i>me asu-taan</i>	‘we live’	<i>(me) asu-mme</i>	‘we live’
<i>te asu-tte</i>	‘you _{PL} live’	<i>(te) asu-tte</i>	‘you _{PL} live’
<i>ne asu-vat</i>	‘they live’ ¹¹¹	<i>he asu-vat</i>	‘they live’ (human)
		<i>ne asu-vat</i>	‘they live’ (non-human)

¹¹⁰ In this example, parentheses reflect the fact that the omission of 1st and 2nd person subject pronouns is much more common in formal Finnish than in the informal variety.

¹¹¹ Other sources give *ne asu-u* for ‘they live’ in informal spoken Finnish, i.e. a form with the same verbal ending as 3SG.

Shore (1988 : 155)

Apart from the possible loss of the distinction between 3SG and 3PL, as regards S/A indexation, informal spoken Finnish differs from formal Finnish in the form of the 1PL index (*-taan* vs. *-mme*). In fact, the 1PL form of informal spoken Finnish (*asu-taan*) also exists in formal Finnish, but exclusively with the impersonal meaning ‘one lives’, whereas in informal spoken Finnish it can be used as an impersonal form or as a 1PL form. In formal Finnish, the *-taan* form of verbs is an I-passive or S-denucleative form that cannot combine with any S/A NP (see examples (62) and (67) above), whereas in informal spoken Finnish it has acquired the additional value of a 1PL form compatible with *me* ‘we’ in S/A role.

The same evolution can be observed for the I-passive/S-denucleative use of middle verb forms in the Tuscan variety of Italian, where for example the usual equivalent of Standard Italian (*Noi compriamo un libro* ‘We are buying a book’ is (*Noi si compra un libro*).

Interestingly, the same tendency to reanalyze forms implying a non-specific reading of S/A as first person plural forms is also observed with R-impersonals involving dedicated pronouns or indexes such as French *on* (resulting from the grammaticalization of the noun *homme* ‘man’): in colloquial French, *on* tends to replace *nous* in the role of first person plural S/A index, and only in this role, which is consistent with the fact that, contrary to *nous* (also used as an independent pronoun and as a P index) *on* occurs exclusively in the paradigm of S/A indexes). See (Taylor 2009) for the analysis of a similar evolution of *a gente* lit. ‘the people’ in Brazilian Portuguese.

9.10 R-impersonals and A/S denucleativization

9.10.1 R-impersonals and valency alternations

It may be difficult to distinguish R-impersonals from passive or S-denucleative constructions involving verb forms other than those used in canonical passive constructions. The problem is that it is not always easy to decide whether a morphological element triggering a non-specific reading of a participant otherwise encoded as a noun phrase in S or A role must be interpreted as a voice marker in a passive, I-passive or S-denucleative construction, or as a pronoun or index referring to a non-specific participant in a construction involving no valency alternation, i.e., as a pronoun or index comparable to French *on* or German *man*.

In French, the analysis of *on* as a non-specific human S/A index rather than an I-passive/S-denucleative voice marker is supported by the fact that *on* is consistently found in the same slot as the personal S/A indexes referring to specific participants, cf. example (75).

(75) French (Italic, Indo-European)

- a *Ici on parle français.*
 here I_{S/A}:H.nSP speak.PRS.I_{S/A}:3SG French
 ‘French is spoken here.’
- b *On t’ appelle au téléphone*
 I_{S/A}:H.nSP I_P:2SG call.PRS.I_{S/A}:3SG at.D.SG.M phone(M)
 ‘Someone is calling you on the phone.’

By contrast, in Finnish, as already mentioned in §9.8.3, semantically equivalent verb forms are best analyzed as including a voice marker and no S/A index.

The case of Wolof is particularly interesting to present here. Wolof has a clitic =ees whose presence unambiguously blocks the expression of the participant otherwise expressed as A or S and implies interpreting it as non-specific, without changing anything else in the construction and in the meaning of clauses. Most descriptions of Wolof do not even mention this clitic, and if they mention its existence, they do not analyze it. The problem, which to the best of my knowledge has only been discussed in (Creissels & al. 2015), is that the distribution of =ees is completely idiosyncratic. In example (76), it is obvious that it occupies a position distinct from that of S/A indexes, and that the S/A index that accompanies it must be analyzed as an expletive. Consequently, it can only be analyzed as an I-passivization/S-denucleativization marker.

(76) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Xam-ees na ko.*
 know-*ImpPASS* PRF.I_{S/A}:3SG_{EXPL} Ip:3SG
 ‘One knows that.’
- b *Mën-ees-u ko bëtt.*
 be.able-*ImpPASS-NEG*.I_{S/A}:3SG_{EXPL} Ip:3SG pierce
 ‘One cannot infringe (lit. ‘pierce’) that.’
 (Creissels & al. 2015: 64)

However (and this may be viewed as a problem in a systematic description of Wolof), all the other voice markers of Wolof invariably occupy the position of derivational V>V suffixes between the verb root and the inflectional endings of verbs, whereas =ees behaves as a clitic whose position may coincide with that of derivational suffixes, as in (76) above, but not always. The rule is that =ees systematically occurs in second position in the verbal complex, as illustrated in (77), where the verb root is preceded by other clitics.

(77) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Noonu l-ees di doxale.*
 thus FOC-DenuclS ICPL proceed
 ‘This is the way one proceeds.’
- b *Saĩsaĩ yooyu, d-ees na leen doxal.*
 rights(cly) cly.DEM ICPL-*ImpPASS* PRF.I_{S/A}:3SG_{EXPL} Ip:3PL implement
 ‘The rights in question, one carries them into effect.’
 (Creissels & al. 2015: 64, 65)

Situations where a formative acting as a voice marker occupies a morphological slot distinct from that occupied by the other voice markers are not uncommon cross-linguistically, but in general there is a historical explanation (for example in the case of middle markers occupying a morphological slot otherwise filled by P indexes, see chapter 11 §11.2.3). The problem with the Wolof I-passivization/S-denucleativization marker is that there is no obvious explanation of its atypical distribution.

9.10.2 R-impersonals and I-passivization/S-denucleativization in obligatory A-coding languages

In obligatory A-coding languages, 3rd person plural S/A indexes interpreted as referring to unspecified persons may be reanalyzed as voice markers coding denucleativization of A or S, i.e. I-passivization with transitive verbs, and S-denucleativization with intransitive verbs.

As discussed by Givón (2001, vol. 2:149-151) and Kawasha (2007), Lunda, Kimbundu and other South West Bantu languages attest this grammaticalization path. For example, in clauses that, initially, were something like ‘They killed the lion’ with the possibility of a non-specific reading of the third person plural pronoun or index, it became possible to add an oblique phrase representing a specific participant fulfilling the same semantic role (literally something like ‘They killed the lion by the hunter’, interpreted as expressing the same denotative meaning as ‘The hunter killed the lion’). This possibility implies the reanalysis of the former pronoun or index of 3rd person plural as a voice marker devoid of any reference. Moreover, the Lunda data suggest the possibility of a further evolution whose final outcome could be the conversion of this I-passivization/S-denucleativization voice marker into a canonical passive voice marker.

Example (78) illustrates a canonical transitive sentence of Lunda (78a) and three variants of an alternative construction with an oblique agent phrase. In the three variants, the verb form in the alternative construction begins with what seems to be an S/A index of class 2 *a-* (human plural) fused with the homonymous completive marker. However, the possible adjunction of an oblique phrase representing the initial A without modifying the invariable S/A index of class 2 shows that this apparent S/A index has been converted into a voice marker, although its position in the verbal template is still that typically occupied by S/A indexes. The (78b) and (78c) variants can unambiguously be analyzed as I-passive constructions, since the NP *kánsi* ‘child’ stands in the canonical P position and can be cross-referenced by an optional P index, and consequently *a-* is glossed as ImpPASS. (78d) is more similar to a canonical passive construction, since *kánsi* ‘child’ is in preverbal position and obligatorily indexed, like S in canonical intransitive constructions. However, the obligatory index resuming *kánsi* ‘child’ in (78d) has the form of a P index, and its position between the TAM marker and the verb stem is also that of a P index. Consequently, in spite of some resemblance with a canonical passive construction, the construction in (78d) is still an I-passive construction in which the P phrase is simply topicalized.

(78) Lunda (Bantu, Benue-Congo, Niger-Congo)

- a *Chibínda w-a-(mu-)tambik-a kánsi.*
 SG.hunter(c11) I_{S/A}:c11-CPL-(I_P:c11-)call-FV SG.child(c11)
 ‘The hunter called the child.’
- b *A-tambik-a kánsi kúdi chibínda.*
 ImpPASS.CPL-call-FV SG.child(c11) by SG.hunter(c11)
 ‘The child was called by the hunter.’
 (etymologically ‘They called the child by the hunter.’)
- c *A-mu-tambik-a kánsi kúdi chibínda.*
 ImpPASS.CPL-I_P:c11-call-FV SG.child(c11) by SG.hunter(c11)
 ‘The child was called by the hunter.’
 (etymologically ‘They called him the child by the hunter.’)

- d *Kánsi* *a-mu-tambik-a* *kúdi* *chibínda*.
 SG.child(c11) ImpPASS.CPL-IP:c11-call-FV by SG.hunter(c11)
 ‘The child was called by the hunter.’
 (etymologically ‘The child they called him by the hunter.’)
 (Kawasha 2007: 45, 46, 47)

A similar situation is described in detail by Kula & Marten (2010) for Bemba.

9.10.3 R-impersonals and passivization in obligatory P-coding languages

In obligatory P-coding languages, 3rd person plural A indexes interpreted as referring to unspecified groups of persons may be directly reanalyzed as voice markers coding passivization.

As discussed by Broadwell & Duncan (2002), the Mayan language Kaqchikel illustrates this grammaticalization path. In Kaqchikel, the prefix *ki-*, originally the A index of 3rd person plural, has acquired the additional function of passive marker, as evidenced by the possibility of constructions in which *ki-* coexists with an agent phrase whose person-number value is incompatible with that expressed by *ki-* in its function of A index. Interestingly, the polysemy of the preposition introducing oblique agent phrases results in the possibility of ambiguity between the two functions of *ki-*, as illustrated in (79).

(79) Kaqchikel (Mayan)

- a *Rin x-in-ki-b'a'* *r-oma'* *ri ts'i'*.
 1SG CPL-ISP:1SG-IA:3PL-bite I:3SG-because.of D dog
 ‘They bit me because of the dog.’ (transitive reading)
- b *Rin x-in-ki-b'a'* *r-oma'* *ri ts'i'*.
 1SG CPL-ISP:1SG-PASS-bite I:3SG-by D dog
 ‘I was bitten by the dog.’ (passive reading)
 (Broadwell & Duncan 2002: 32)

Chapter 10

Antipassivization

Like P-passivization, antipassivization does not affect the participant structure of the verb. In antipassivization, a transitive verb undergoes a morphological operation marking that the participant encoded as P in the initial construction, although maintained in participant structure, is not expressed as a nominal term in core syntactic role. In antipassive constructions, the initial P may either be left unexpressed, encoded as an oblique or expressed as an incorporated (or semi-incorporated) noun, whereas the initial A is encoded as the S term of an intransitive clause.¹¹²

10.1 Antipassive constructions and antipassivization: definitional issues

In conformity with the general distinction made in this book between voice alternations and flexivalency alternations, a distinction is made between ANTIPASSIVIZATION, which by definition involves verbal marking, and ANTIPASSIVE AMBITRANSITIVITY (or zero-coded antipassives), i.e. the possible existence of intransitive alternatives to the transitive construction in which the S term corresponds to the A of the transitive construction, without any special verbal coding. Zero-coded antipassives will be discussed in chapter 15 §15.4.1.1.

Raina Heaton's PhD thesis (Heaton 2017) and the collective volume recently edited by Katarzyna Janic and Alena Witzlack-Makarevich (Janic & Witzlack-Makarevich 2021) are two important hallmarks in the study of antipassive constructions and antipassivization. Vigus (2018) is another recent general reference.

The term antipassive was coined by Michael Silverstein to characterize a derived verb form of Chinook:

“I have termed this *-ki-* form the ANTIPASSIVE construction, playing upon its inverse equivalence to a passive of accusative languages, because the sense is clearly equivalent to a transitive, though the form is intransitive, with the grammatical function of the remaining NP reversed (ergator becomes nonergator)” (Silverstein 1972: 395).

As observed by Polinsky (2017b), the motivation of the term antipassive refers to the hypothesis of a symmetry between the status of the A term of transitive clauses as the grammatical subject in ‘accusative’ languages, and the status of the P term of transitive clauses as instantiating the same role of grammatical subject in ‘ergative’ languages. This conception of grammatical relations (and the strict relationship it implies between antipassivization and ergativity) has since been rejected, but the term antipassive has remained in use.

Nothing in the definitions retained in this book implies restricting the notion of antipassivization (and more generally, of antipassive construction) to obligatory P-coding

¹¹² Strictly speaking, this definition implies that the initial construction is a single-P construction. Antipassivization of double-P constructions will be discussed in §10.5.

languages. However, in obligatory A-coding languages, the change in the syntactic status of the initial A triggered by the denucleativization of the initial P has no consequence for its coding characteristics. Consequently, the specificity of antipassive constructions is less obvious in obligatory A-coding languages.

The contrast between the transitive construction and a derived antipassive construction is particularly obvious in the languages in which ergative flagging of A contrasts with zero flagging of S, as in examples (1) and (2). In both examples, the initial P is encoded as an oblique.¹¹³

(1) Dyirbal (Northern Pama-Nyungan, Pama-Nyungan)

- a *Yabu ŋuma-ŋgu bura-n.*
 mother father-ERG see-NFUT
 ‘Father saw mother.’
- b *Duma bural-ŋa-n^yu yabu-gu.*
 father see-ANTIP-NFUT mother-DAT
 same meaning as (a)
 (Dixon 1994: 10, 13)

(2) Warrungu (Northern Pama-Nyungan, Pama-Nyungan)

- a *Pama-ngku kamu pitya-n.*
 man-ERG water drink-PST/PRS
 ‘A man drank/drinks water.’
- b *Pama kamu-ngku pitya-kali-n.*
 man water-INS drink-ANTIP-PST/PRS
 same meaning as (a)
 (Tsunoda 1988: 598)

(3) illustrates the antipassive function of the voice marker *-on* in K’ichee’, a language in which the conversion of A into the S term of an intransitive construction manifests itself in indexation. In the transitive construction of K’ichee’, both A and P are unflagged but obligatorily indexed. In the transitive construction, the agent *ri ixoqiib* ‘the women’ is represented by the 3rd person plural A index *-ki-*, whereas in the derived antipassive construction (in which the initial P is left unexpressed), the agent is represented by the 3rd person plural S/P index *-e-*.

(3) K’ichee’ (Mayan)

- a *X-Ø-ki-loq’ ixim ri ixoqiib’.*
 CPL-I_{S/P}:3SG-I_A:3PL-buy maize D woman.PL
 ‘The women bought some maize.’
- b *X-e-loq’-on ri ixoqiib’.*
 CPL-I_{S/P}:3PL-buy-ANTIP D woman.PL
 ‘The women bought [unspecified things].’
 (López Ixcoy 1997: 372)

¹¹³ Note that, in Warrungu, the same morphological case is used to flag the A term of the transitive construction and some types of obliques, in particular instrumental obliques, hence the gloss INS in (2b).

Example (4) illustrates antipassivization in an obligatory A-coding language. Contrary to examples (1) to (3), in (4), antipassivization triggers no change in the coding characteristics of the participant encoded as A in the transitive construction, since Latvian is an obligatory A-coding language, but the verbal suffix *-s* blocks the possibility of expressing the participant expressed as the P term of the transitive construction, and can therefore be analyzed as fulfilling the function of antipassive marker.

- (4) Latvian (Baltic, Indo-European)
- a *Zirgs spārda visus.*
horse kick.PRS.I_{S/A}:3SG everyone.PL.ACC
‘The horse kicks everyone.’
- b *Zirgs spārdā-s.*
horse kick.PRS.I_{S/A}:3SG-ANTIP
‘The horse kicks.’
(Geniušienė 1987: 84)

The definition formulated above leaves open the possibility of variation along the following parameters:

- in some antipassive constructions, the referent of the initial P may be optionally expressed as an oblique NP or as an incorporated noun (‘patientful antipassives’), but in some others, it is obligatorily left unexpressed (‘patientless antipassives’);
- the verb forms found in antipassive constructions may be dedicated antipassive forms, or forms also found in constructions expressing other types of valency operations, or even in constructions involving no change in the valency of the verb (see §10.8);
- there is also some cross-linguistic variation in the functions of the constructions meeting the definition of antipassive constructions formulated above, in the conditions to which they are bound, and (in the case of patientless antipassives) in their semantic implications for the participant left unexpressed.

10.2 The treatment of the referent of the initial P in antipassivization

10.2.1 Antipassivization with the referent of the initial P left unexpressed

Examples (3) and (4) above illustrate antipassivization with the referent of the initial P left unexpressed. Some languages have antipassivization mechanisms in which this is the only possibility, whereas in some others, the same antipassive marker is found in constructions in which the referent of the initial P is expressed in one of the ways described in §§10.2.2-5.

10.2.2 Antipassivization with the referent of the initial P expressed as an oblique NP

This is a particularly common type of antipassivization. Examples (1) and (2) above illustrate this possibility.

10.2.3 Antipassivization with the referent of the initial P expressed as an incorporated noun

Example (5) illustrates antipassivization with the referent of the initial P expressed as an incorporated noun. In (5b), the antipassive marker \varnothing - licenses a patientless antipassive construction, whereas in (5c), the same marker licenses an antipassive construction with an incorporated noun expressing the same semantic role as the initial P.

(5) Karajá (Karajá, Macro-Jê)

- a *Nadı wa-ritʃɔre rade \varnothing -r-ɪ-krɔ=r-ɛɾɪ.*
 mother I_{ADP}:1SG-offspring hair I_{S/A}:3SG-AND-TR-cut=AND-PROG
 ‘My mother is cutting my child’s hair.’
- b *Nadı \varnothing -r-ɔ-krɔ=r-ɛɾɪ.*
 mother I_{S/A}:3SG-AND-ANTIP-cut=AND-PROG
 ‘My mother is cutting (something).’
- c *Nadı \varnothing -r-ɔ-rade-krɔ=r-ɛɾɪ.*
 mother I_{S/A}:3SG-AND-ANTIP-hair-cut=AND-PROG
 ‘My mother is cutting (someone’s) hair.’
 (Ribeiro 2001: 230, 231)

10.2.4 Antipassivization with the referent of the initial P expressed as an semi-incorporated noun

Examples (6) and (7) illustrate verb-coded antipassive constructions that at first sight do not seem to be different from the corresponding transitive construction, but in which syntactic tests show that the noun expressing the same semantic role as the P term of the transitive construction does not project a canonical NP, and is in fact an instance of semi-incorporation (for more details on the notion of semi-incorporation, see chapter 17 §17.1.2).

Example (6) illustrates antipassivization in the Mayan language Mam with a semi-incorporated noun corresponding to the initial P. Evidence that this is an intransitive construction comes from the indexation of the agent by means of an S/P index and the lack of indexation of the patient. England’s (1988) comment on this construction is that “Although syntactically different, sentences such as these are similar semantically to the English ‘He was a house-builder.’ The object incorporation function of the antipassive involves the lexicalization of V + O.”

(6) Mam (Mayan)

- Ma \varnothing -b'iincha-n qa-jaa.*
 RecPST I_{S/P}:3SG-make-ANTIP PL-house
 ‘S/he constructed houses.’
 (England 1988: 534)

Example (7b), to be compared with the transitive clause (7a), illustrates antipassivization in another Mayan language (Jacalteco, aka Popti’) with a semi-incorporated noun corresponding to the initial P. After discussing evidence that this is an intransitive construction, Craig (1979)

states that “the incorporated object must be generic. Instances of object incorporation always refer to activities routinely carried out by members of the community.”

(7) Jacaltec (Mayan)

- a *Ch-in ha-col-o.*
 ICPL-I_{S/P}:1SG I_A:2SG-help-TR
 ‘You help me.’
- b *Ch-ach col-wi ánma.*
 ICPL-I_{S/P}:2SG help-ANTIP people
 ‘You help people.’
 (Craig 1979: 144, 145)

On antipassivization mechanisms with the referent of the initial P expressed as a semi-incorporated noun, see also (Zavala 1997) on Akatek (Mayan).

10.2.5 Antipassivization with the possibility of expressing the referent of the initial P via applicativization

Still another possible treatment of the referent of the initial P is found in the antipassivization mechanism of the Guaycuruan language Mocoví. A salient typological characteristic of Mocoví is the existence of a rich system of applicative markers and a very strong tendency to express semantic adjuncts as P phrases licensed by applicative derivation rather than as prepositional obliques. In accordance with this tendency, in the antipassive construction of Mocoví, the referent of the initial P denucleativized by antipassive derivation can be reintroduced as an applied P licensed by the applicative suffix *-igi*, typically used to license applied Ps denoting direction of motion.

(8) Mocoví (Qom, Guaycuruan)

- a *Yim qamir s-owagan.*
 1SG 2SG I_{S/A}:1-hit
 ‘I hit you_{SG}.’
- b *Qamir-i s-owagan-agan-igi-lo.*
 2-PL I_{S/A}:1-hit-ANTIP-APPL-I_P:PL
 ‘I hit at you_{PL}.’
 (Juárez & Álvarez González 2017: 243)

10.3 The possible functions and conditioning of antipassivization

10.3.1 Patientless antipassives and constraints on the expression of P in the transitive construction

In the languages that have strict constraints on the expression of the P term in the transitive construction and in which A-lability is exceptional or inexistent, the use of patientless antipassive constructions is one of the possible strategies for leaving P unexpressed if the

speaker has no specific participant in mind, or for some reason considers superfluous or undesirable the specification of the participant that could be encoded as P.

Other possible strategies for leaving unexpressed the referent of P in languages that have a ban on null-Ps with a non-specific reading are the use of hypernymous nouns in P role, cognate-P constructions, or periphrases in which a deverbal event noun is the P term in the construction of a verb ‘do’, but at least in some of the languages that have a ban on null Ps interpreted as non-specific (for example Soninke (Mande), see §10.4.2), antipassivization is the commonest strategy for avoiding the specification of the participant that could be encoded as P.

Note that the systematic use of patientless antipassive constructions to avoid the specification of the participant encoded as P in the transitive construction is hardly compatible with some of the conditions on the use of antipassivization discussed in the following sections. In particular, the relationship between antipassivization and habitual aspect discussed in §10.3.2 should not be expected to concern the languages that have a ban on null Ps with a non-specific reading in the transitive construction and in which antipassivization is a prominent strategy to sidestep this constraint, and Soninke confirms this prediction, cf. §10.4.2.

10.3.2 Antipassivization, referentiality and aspect

In many languages, antipassivization implies reference to habitual rather than specific events, and the expression of the participant that would be encoded as P in the transitive construction, if possible at all, is conditioned by a low degree of referentiality. These tendencies have been repeatedly pointed out in the literature on antipassive. See in particular Cooreman (1994:52-56) on the relationship between antipassivization and referentiality of the participant that would be encoded as P in the transitive construction, and Cooreman (1994: 57-58) on the possible aspectual implications of antipassivization.

A particularly strict relationship between antipassivization and referentiality is found in Eskimo languages. For example, Central Alaskan Yupik does not have articles, but the P term of the transitive construction of Central Alaskan Yupik can only be interpreted as definite. Some Central Alaskan Yupik verbs are A-ambitransitive, and indefiniteness of the participant expressed as P in the transitive constructions requires an intransitive construction in which, however, the verb stem is the same as in the transitive construction, as in (9b). However, other verbs are P-ambitransitive verbs with which a morphologically unmarked intransitive construction can only have an decausative or passive interpretation, as in (9d). With P-ambitransitive verbs, antipassive derivation with the voice marker *-i-* is required to express indefiniteness of the participant expressed as the P term of the transitive construction, as in (9e).

(9) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

a *Arna-m tangrr-aa taqukaq.*

woman-ERG see-DECL.I_A:3SG.I_P:3SG bear

‘The woman sees the bear.’

b *Arnaq tanger-tuq taquka-mek.*

woman see-DECL.I_S:3SG bear-ABL

‘The woman sees a bear.’

- c *Arna-m allg-aa 'lumarraq.*
 woman-ERG tear-DECL.I_A:3SG.I_p:3SG shirt
 'The woman tears the shirt.'
- d *'Lumarraq alleg-tuq.*
 shirt tear-DECL.I_s:3SG
 'The shirt gets torn.' or 'The shirt is being torn.'
- e *Arnaq allg-i-uq 'lumarra-mek.*
 woman tear-ANTIP-DECL.I_s:3SG shirt-ABL
 'The woman tears a shirt.'
 (Mather & al. 2002: 101, 102, 103)

The possible aspectual implication of antipassivization can be illustrated by the antipassive use of the Russian voice marker *-sja ~ -s'* in *kusat'sja < kusat'* 'bite'. As illustrated in (10), *kusat'sja* is used in an antipassive construction that can only have a habitual reading, and the perfective form *ukusit'sja* which would be required with reference to a punctual past event does not lend itself to an antipassive use.

(10) Russian (Slavic, Indo-European)

- a *Lajuščaja sobaka redko kusaet-sja.*
 barking.F.SG dog(F) seldom bite.IPF.PRS.I_{S/A}:3SG-ANTIP
 'Barking dogs seldom bite.'
- b **Oni ubili sobaku, potomu čto ona ukusila-s'.*
 3PL kill.PRF.PST.I_{S/A}:PL dog(F).ACC because 2SG.F bite.PF.PST.I_{S/A}:SG.F-ANTIP
 Intended: 'They killed the dog because it bit someone.'

However, the relationship between antipassive, referentiality and aspect does not manifest itself with the same strength in all the languages that have voice markers with an antipassive function. For example, in Soninke, it is perfectly possible to use *qĩñĩndì*, antipassive form of *qĩñĩ* 'bite', to express 'the dog bit someone' with reference to a specific (although not necessarily identifiable) person, as in (11).

(11) Soninke (Soninke-Bozo, Mande)

- Wùllén qĩñĩ-ndì, à kàrí!*
 dog.D bite-ANTIP 3SG kill
 'The dog bit [someone], kill it!'

10.3.3 Antipassivization and animacy/humanness

Several authors have observed that, in the languages they describe, the availability of antipassivization is restricted to transitive constructions involving animate or human Ps, see in particular Fleck (2006) on Matses, Chamoreau (2008) on Purépecha.

Nahuatl has the particularity of having two distinct antipassive markers. Both are found in constructions in which the initial P is obligatorily left unexpressed. They differ in the semantic nature of the participant that would be encoded as P in the corresponding transitive construction: *-tē-* implies reference to unspecified animates, whereas *-tla-* implies reference to unspecified inanimates.

(12) Classical Nahuatl (Aztecan, Uto-Aztecan)

a *Ni-c-āna* *in Otomitl.*

I_{S/A}:1SG-I_P:3SG-catch D Otomi

‘I am capturing the Otomi.’

b *Ni-tē-āna.*

I_{S/A}:1SG-ANTIP-catch

‘I am capturing people.’

c *Ni-qu-itta* *in calli.*

I_{S/A}:1SG-I_P:3SG-see D house

‘I see the house.’

d *Ni-tla-tta.*

I_{S/A}:1SG-ANTIP-see

‘I see something.’

(Launey 1981: 36, 37)

Note that, in this particular example, an alternative analysis can be considered (and is indeed the analysis put forward in part of the literature on Nahuatl), according to which *-tē-* and *-tla-* are not voice markers, but rather P indexes referring to non-specific animates and inanimates, respectively. This alternative analysis is suggested by the fact that, in (12) above, the antipassive markers seem to occupy the same morphological slot as P indexes such as *-c-* ‘3rd person singular’. However, evidence supporting the antipassive analysis is provided by verb forms including a deictic directional, for example *-on-* (andative), as in example (13). The point is that, in the template of Nahuatl verb forms, participant indexes precede deictic directionals, whereas the antipassive markers are inserted between deictic directionals and the verb root.

(13) Classical Nahuatl (Aztecan, Uto-Aztecan)

a *Ni-mitz-on-itta.*

I_{S/A}:1SG-I_P:3PL-AND-see

‘I am going to see you.’

b *N-on-tē-itta*

I_{S/A}:1SG-AND-ANTIP-catch

‘I am going to see some people.’

(Launey 1981: 60, 61)

Another piece of evidence is that, even in double-P constructions, Nahuatl verbs cannot include more than two indexes (an S/A index and a P index), whereas verb forms including two indexes plus an antipassive marker, or one index plus two antipassive markers, are possible, as illustrated by example (42) in §10.5 below.

10.3.4 Antipassivization and low degree of patient affectedness

Antipassivization may correlate with a decrease in the affectedness of the participant that would be encoded as P in the transitive construction. In (14), antipassivization triggers a

partitive interpretation, whereas in (15), antipassivization indicates that the action was directed toward the bear without necessarily affecting it.

(14) West Greenlandic (Eskimo, Eskimo-Aleut)

- a *Arna-p niqi niri-vaa.*
 woman-ERG meat eat-I_A:3SG.I_p:3SG
 ‘The woman ate the meat.’
- b *Arnaq niqi-mik niri-NNig-puq.*
 woman meat-INS eat-ANTIP-I_S:3SG
 ‘The woman ate some of the meat.’
 (Woodbury 1977: 323-324)

(15) Chukchi (Northern Chukotko-Kamchatkan, Chukotko-Kamchatkan)

- a *Ətləg-e keyη-ən penrə-nen.*
 father-ERG bear-ZER attack-I_A:3SG.I_p:3SG
 ‘The father attacked the bear.’
- b *Ətləg-ən penrə-tko-gʔe kayη-etə.*
 father-ZER attack-ANTIP-I_S:3SG bear-DAT
 ‘The father rushed at the bear.’
 (Kozinsky & al. 1988: 652)

The same phenomenon is mentioned by Comrie & al. (2021) in Bezhta (Nakh-Daghestanian): “In Bezhta, antipassive constructions with singular definite non-collective P arguments express an additional semantic nuance of ‘misachievement’. The construction implies that the agent does not seem to be capable of achieving the effect of the activity”. Similar examples in other languages are discussed by Cooreman (1994: 58-62).

10.3.5 Antipassivization and partial or involuntary agents

Cooreman (1987: 126-128) describes a possible interpretation of Chamorro antipassive constructions according to which the referent of S in the derived antipassive construction shares its role in the event with other persons, as in (16b) (to be compared with (16a)) and (16d) (to be compared with (16c)).

(16) Chamorro (Chamorro, Austronesian)

- a *Ha-yulang si Juan i kareta.*
 I_A:3SG-break PersART PRN D car
 ‘Juan wrecked the car.’
- b *Man-yulang si Juan gi kareta.*
 ANTIP-break PersART PRN LOC car
 ‘Juan was involved/took part in wrecking the car.’
- c *Ha-ayuda yo.*
 I_A:3SG-help 1SG
 ‘S/he helped me.’

- d *Man-ayuda gue' nu guahu.*
 ANTIP-help 3SG OBL EMPH.1SG
 'S/he was one of those who helped me.'
 (Cooreman 1987: 126-128))

Interestingly, Bertet (2020) mentions a similar use of the Tikuna antipassive marker *-tàē*, cf. example (17). Note however that this is the only example of this use of *-tàē* among the examples he quotes, and this particular example cannot be analyzed as an instance of antipassivization, since the initial construction is intransitive, whereas all the other examples of *-tàē* he provides uncontroversially meet the definition of antipassivization.

- (17) Tikuna (Tikuna)
 a *Chā-iā'è.*
 I_{S/A}:1SG-play.turbulently
 'I am bothering people [e.g. a kid playing turbulently].'
 b *Chā-iā'è-tàē.*
 I_{S/A}:1SG-play.turbulently-ANTIP?
 'I am playing games [with other children].'
 (Bertet 2020: 368)

Antipassivization may also be used to express lack of volitionality. According to Austin (2013: 159), with the Diyari verb 'find', antipassivization triggers a non-volitional meaning. Sentence (18a) "can be said when someone is found after a period of purposeful looking for him", while (18b) "describes a situation where the finding is accidental, and was translated by consultants as 'I ran into you'".

- (18) Diyari (Central Pama-Nyungan, Pama-Nyungan)
 a *Ngathu yinanha darnka-rna wara-yi.*
 1SG.ERG 2SG.ACC find-PTCP AUX-PRS
 'I found you (after looking for you).'
 b *Nganhi darnka-tharri-rna wara-yi yingkangu.*
 1SG find-ANTIP-PTCP AUX-PRS 2SG.LOC
 'I found you (accidentally).'
 (Austin 2013: 159)

10.3.6 Antipassivization and information structure

Matses illustrates the possibility of a relationship between antipassivization and information structure. According to Fleck (2006), (19a) marks the referent of the S term of the antipassive construction as a continuous topic: the antipassive construction is used "when talking about scorpions and the fact that they sting, confirming this knowledge by reporting a first-hand experience", while the transitive construction (19b) 'would be good when one is telling about the things that happened to him during some past episode'.¹¹⁴

¹¹⁴ On the interpretation of the antipassive construction in (19a) as referring to a situation involving a 1st person P, see §10.8.4.

(19) Matses (Panoan, Pano-Tacanan)

a *Chichun se-an-onda-sh.*

scorpion sting-ANTIP-DistPST-I_{S/A}:3

‘A scorpion stung me.’

b *Chichun-n se-onda-sh-i.*

scorpion.ERG sting- DistPST-I_{S/A}:3-I_P:1

‘A scorpion stung me.’

(Fleck 2006: 936)

10.3.7 Antipassivization and syntactic ergativity

In some languages, the use of the antipassive may be motivated by the fact that the S term of intransitive clauses lends itself to some operations that are not possible for the A term of transitive clauses.

For example, in English, in a sequence of an intransitive clause and a transitive clause encoding two successive events, the A term of the second clause can be deleted under coreference with the S of the first clause (*The man_i came and Ø_i hit the woman*). By contrast, in Dyirbal (Dixon 1994: 148, 170), in such a configuration, deletion under coreference is only possible if the A of the second clause is converted into S via antipassivization, as in (20).

(20) Dyirbal (Northern Pama-Nyungan, Pama-Nyungan)

a **Bayi yara baninyu balan dyugumbil balgan.*

D man come.PRS/PST D woman hit.PRS/PST

intended: ‘The man came and hit the woman.’

b *Bayi yara baninyu bagun dyugumbilgu balgalnganyu.*

D man come.PRS/PST D.DAT woman.DAT hit.ANTIP.PRS/PST

‘The man came and hit the woman.’

(Dixon 1994: 148, 170)

Relativization, focalization and wh-questions are among the types of operations that frequently group together S and P, to the exclusion of A, and for which antipassivization may be a strategy to get around restrictions on the possibility of relativizing, focalizing or questioning the A term of the transitive construction. As discussed by Heaton (2021), this is in particular the case in a number of Mayan languages, in which the A term of transitive clauses, contrary to P and S, cannot be directly questioned, relativized or focused.

Something similar can be observed in Movima (Amazonian isolate), a language whose transitive construction involves a PROX vs. OBV distinction (see chapter 3 §3.3.4). In Movima, only S and OBV have access to relativization. As illustrated in (21), in the scenarios that require encoding A as PROX, the referent of A can only be relativized by means of a detransitivizing operation involving the antipassive marker *kwey* or *kaw*, by which the transitive clause is converted into an intransitive clause whose S corresponds to the initial PROX (in (20): the girl), whereas the referent of the initial OBV (in (21): the empanadas) is encoded as an oblique or left unexpressed.

(21) Movima (Movima)

kine'e=s ena' tolkosya di' ena' kwey ji:sa:-na
 DEM.F.STD DUR.STD girl REL DUR.STD ANTIP make-DIR
n-is empana:da lat.
 OBL-D.PL empanada EV
 'that (standing) girl who is making empanadas, you see?'
 (Haude 2018: 229)

10.3.8 Antipassivization and the lexical meaning of verbs

A striking characteristic of antipassivization is that, in many languages, in sharp contrast with passivization, antipassivization only concerns limited subsets of transitive verbs. It is also striking that, in such cases, the most prototypical transitive verbs may be excluded from the set of the verbs lending themselves to antipassivization.

For example, in Mandinka, less than ten verbs can be antipassivized by means of a construction formally identical to the reflexive construction (see §10.4.2 below). Mandinka also has a suffix *-ri* that can attach to most transitive verbs to form what can be called antipassive event nouns, such as *tábi-ri* 'cooking' (from *tábi* 'cook'), where the suffix *-ri* is automatically deleted if the thing been cooked is overtly specified, as in (22b-c). The general rule is that the *ri*-form of Mandinka verbs can be used in an antipassive periphrasis in which the antipassive event noun is the P term in the construction of *ké* 'do', as in (22e) but not as an intransitive verb in an antipassive construction. *Dómò* 'eat' is the only Mandinka verb whose *ri*-form *dómó-ri* can be used not only as an antipassive event noun, but also as a verb in a construction meeting the definition of antipassivization, as in (23).

(22) Mandinka (Central Mande, Mande)

- a *Tábi-r-òò mâñ díyâa.*
 cook-NMZ.ANTIP-D CPL.NEG be.easy
 'Cooking is not easy.'
- b *Ñĩñ táb-òò mâñ díyâa.*
 DEM cook(ing)-D CPL.NEG be.easy
 'It is not easy to cook this.'
- c *Kòò-táb-òò mâñ díyâa.*
 salt-cook(ing)-D CPL.NEG be.easy
 'Salt cooking is not easy.'¹¹⁵
- d *Fàatú yè sùb-ôo tábì.*
 PRN CPL.TR meat-D cook
 'Faatu cooked the meat.'
- e *Fàatú yè tábi-r-òò ké.*
 PRN CPL.NEG cook-NMZ.ANTIP-D do
 'Faatu did the cooking.'

¹¹⁵ Salt cooking refers to a traditional technique of getting salt by diluting salty earth with water and boiling the water after filtrating it.

- f **Fàatú tábí-rì-tá.*
 PRN cook-ANTIP-CPL.ITR
 intended: ‘Faatu did the cooking.’

(23) Mandinka (Central Mande, Mande)

- a *Díndín-ò yè mbúur-òò dómò.*
 child-D CPL.TR bread-D eat
 ‘The child ate the bread.’
- b *Díndín-ò dómó-rì-tá.*
 child-D eat-ANTIP-CPL.ITR
 ‘The child ate.’

Moreover (and this is another sharp contrast between antipassivization and passivization), derived antipassive verbs show a strong tendency to develop lexicalized meanings. For example, as analyzed by Janic (2016: 188-226), French has a large set of verbs whose *se*-construction (originally a reflexive construction) has uses that, as a first approximation, can be deemed antipassive-like. However, for an important proportion of them, the denotative meaning of the antipassive-like *se*-construction differs from that of the transitive construction in a synchronically unpredictable way, as illustrated by *s’apercevoir*, a bivalent intransitive verb whose coding frame consists of an S phrase and a prepositional oblique phrase. At first sight, *s’apercevoir* looks like the regular antipassive counterpart of the transitive verb *apercevoir* ‘spot, glimpse’. However, *apercevoir* implies visual perception and selects P phrases referring to concrete objects, as in (24a), to be compared with ungrammatical (24b), whereas the prepositional oblique in the coding frame of *s’apercevoir* can only refer to abstract notions, as in (24c), to be compared with ungrammatical (24d).

(24) French (Italic, Indo-European)

- a *J’ai aperçu un loup dans la forêt.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG spot.PTCP IDF.SG.M wolf(M) in D.SG.F forest(F)
 ‘I spotted a wolf in the forest’
- b **Je me suis aperçu d’un loup.*
 I_{S/A}:1SG LXCZ be.PRS.I_{S/A}:1SG spot.PTCP of-IDF.SG.M wolf(M)
 Intended: ‘I spotted a wolf.’
- c *Je me suis aperçu de mon erreur.*
 I_{S/A}:1SG LXCZ be.PRS.I_{S/A}:1SG become.aware.PTCP of my.SG.F mistake(F)
 ‘I became aware of my mistake.’
- d **J’ai aperçu mon erreur.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG become.aware.PTCP my.SG.F mistake(F)
 Intended: ‘I became aware of my mistake.’

In the Nakh-Daghestanian language Bezhta, in addition to their predictable meaning, the antipassive form of ‘eat’ can express the lexicalized meaning ‘live a dishonest life’, and the antipassive form of ‘blow’ can express the lexicalized meaning ‘boast’ (Comrie & al. 2021).

Say (2021) shows that there are significant typological regularities in the semantic characteristics of the sets of verbs that allow antipassivization. According to his analysis, the following properties are typical of the transitive verbs compatible with antipassivization:

- (i) agentivity of A,
- (ii) specification of the manner component in the verb meaning,
- (iii) lack of inherent telicity,
- (iv) narrow class of potential Ps,
- (v) affectedness of A.

Verbs with all of the properties in (i)–(v), such as ‘eat’, constitute the core of what he calls NATURAL ANTIPASSIVES, whereas verbs with only some of these properties are at the periphery of this class. Say (2021) further shows that the notion of natural antipassive is relevant for a number of phenomena. Two particularly interesting generalizations are that “polyfunctional valency-related markers or constructions tend to yield antipassive reading when applied to natural antipassives”, and that “lexicalization of antipassives is more likely for verbs that lack natural antipassive properties, and a typical scenario of lexicalization involves coercion of some of these properties”. Say (2021) also argues that “it is the relevance of the P-argument for the meaning of the verb which accounts for the rarity of lexically unrestricted and semantically uniform antipassive constructions in the world’s languages”.

On this question, and on the possibility of explanations in terms of frequency asymmetries, see also Seržant & al. (2020).

10.4 Antipassivization and the Obligatory Coding Principle

10.4.1 Introductory remarks

Antipassive derivations have long been observed by linguists describing individual languages, but no cross-linguistic generalization was proposed until relatively recently. For example, the antipassive prefixes of Nahuatl were just called ‘unspecified object prefixes’ in Nahuatl grammars (are still analyzed as object prefixes by some authors). The systematic cross-linguistic investigation of antipassivization started 40-50 years ago in connection with the cross-linguistic study of ergativity, and a correlation was immediately proposed between the alignment properties of languages in core term coding and the availability of voice markers with a passive or antipassive function. According to this hypothesis, obligatory A-coding (‘nominative-accusative’) languages would have passive voices, whereas obligatory P-coding (‘absolutive-ergative’) languages would have antipassive voices (see the quotation from Silverstein (1972), who coined the term ‘antipassive’, in §9.1). However, this hypothesis does not stand up to scrutiny:

- voice markers with an antipassive function, either polysemous or dedicated, are common in obligatory A-coding languages,
- voice markers with a passive function are not rare in obligatory P-coding languages either,
- many languages, whatever their status with respect to the Obligatory Coding Principle, have both voice markers productive in passive function and voice markers productive in antipassive function (K’ichee’, Central Alaskan Yupik, Soninke, Rundi, Chamorro, Karajá, etc.)

- detransitivization markers that have a passive function with some verbs and an antipassive function with some others are not rare.

In fact, one may argue that, as regards antipassivization, the main differences between obligatory A-coding and obligatory P-coding languages are that:

- antipassivization is MORE VISIBLE in obligatory P-coding languages, since the conversion of A into S changes its coding characteristics,¹¹⁶ whereas in obligatory A-coding languages, the conversion of A into S triggers no change in its coding characteristics;
- making the referent of the A term of the transitive construction accessible to operations to which the A term of a transitive construction does not have access is a possible function of antipassivization in some ‘ergative’ languages which has no possible equivalent in ‘accusative’ languages.

Janic (2016) provides a general survey of antipassive constructions in accusative languages, and a general discussion of this question. Mithun (2021) shows that antipassives serve similar semantic and discourse functions regardless of the alignment properties of languages, but at the same time argues that the perception of a special link to ergativity is not unmotivated, due to the formal salience of the shift in participant marking resulting from detransitivization in ergative systems, and the possible existence of syntactic constructions requiring S status of one of the participants in ‘ergative’ languages.

Heaton (2017: 87-148) provides a detailed analysis of the possible correlations between antipassivization, ergativity and other typological features, on the basis of a much larger language sample than those previously used by the other authors that have discussed this question. The language sample she analyzed confirms that the proportion of languages having antipassivization is higher among the languages that have ergative alignment in some aspects of their grammar, but antipassivization is not uncommon among obligatory A-coding languages. An interesting finding is that (perhaps more surprisingly) one third of the languages she characterizes as ‘highly ergative’) don’t have antipassivization. Another observation worth being mentioned is that antipassivization blocking the expression of the participant encoded as the P term of the transitive construction is much more prevalent among obligatory A-coding languages than among obligatory P-coding languages (Heaton 2017: 163).

10.4.2 Antipassivization in obligatory A-coding languages: some illustrations

In the long-standing debate about the relationship between antipassivization and accusativity / ergativity, a number of sub-Saharan languages belonging to various families and areas that have ‘accusative’ alignment in core term coding provide crucial evidence against the hypothesis of a privileged relationship between antipassivization as a type of valency change

¹¹⁶ As already mentioned in chapter 8 §8.3.2.3, in obligatory P-coding languages, one might a priori imagine two varieties of antipassivization, a canonical variety with the coding characteristics of the initial A modified so as to respect the rule of obligatory P-coding, and a non-canonical variety involving no change in the coding characteristics of the initial A. However, this non-canonical variety of antipassivization, which would be the mirror-image of I-passivization, does not seem to be attested in the languages of the world.

and ergativity, and confirm that more or less productive antipassive derivations are not uncommon among ‘accusative’ languages.

Example (25) illustrates this situation in Tennes (Surmic, Eastern Sudanic): Tennes uses the same ‘marked-nominative’ case (glossed S/A) for noun phrases in A or S role, and requires the addition of a special suffix to transitive verbs in unspecified-P constructions, which consequently meet the definition of antipassivization.

(25) Tennes (South Surmic, Surmic, Eastern Sudanic)

- a *Á-dáh doléc áhát.*
 ICPL-eat child.S/A asida
 ‘The child is eating asida.’
- b *Á-dáh-ye doléc.*
 ICPL-eat-ANTIP child.S/A
 ‘The child is eating.’
 (Randall 1998: 245)

Mursi (a language belonging to the same Surmic branch of Eastern Sudanic) has a verbal suffix used to mark antipassivization, but also reciprocalization (Worku 2020: 426-433). This is a particularly common co-expression pattern, as will become apparent in the remainder of this section).

The Songhay language Koroboro Senni has a detransitivizing suffix *-a* which, depending on the individual verbs, may encode valency changes of the mediopassive or antipassive type (Heath 1999: 166-167). The antipassive use of this suffix can be illustrated by *haabu* ‘sweep (tr.)’ > *haab-a* ‘do the sweeping’.

On antipassivization in African languages showing no ergative feature, see also (Payne 2021) on Maa (Nilotic).

In the remainder of this section, I briefly present some Bantu and West African illustrations.

The reciprocal-antipassive polysemy, widely attested outside Africa, in particular among Austronesian and Turkic languages (Janic 2016: 77-94, 121-140), is also typically found among Bantu languages, where the verbal suffix *-an-* traditionally designated as reciprocal extension has more or less productive uses that depart from the notion of reciprocal, and rather fall under the notion of antipassive. In some Bantu languages (for example, Tswana), the antipassive uses of *-an-*, although unquestionably attested, as in (26), have a very low productivity.

(26) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mà-pòdisí á-bátt-á lí-χò:dù.*
 PL-policeman(cl6) I_{S/A}:cl6-look.for- FV SG-thief(cl5)
 ‘The policemen are looking for the thief.’
- b *Mà-pòdisí á-bátt-án-à lí-lí-χò:dù.*
 PL-policeman(cl6) I_{S/A}:cl6-look.for-RECP/ANTIP-FV with-SG-thief(cl5)
 same meaning as (a), lit. ‘The policemen are looking for each other with the thief.’

In some other Bantu languages (for example, Rundi), the reciprocal and antipassive uses of *-an-* seem to have a comparable degree of productivity, resulting in a systematic ambiguity

between the antipassive and reciprocal readings of *-an*-forms with plural NPs in S role, as in example (27).

- (27) Rundi (Bantu, Benue-Congo, Niger-Congo)
- a *Abanyéeshuúle baatukye umwarimu.*
 students insulted teacher
 ‘Students insulted the teacher.’
- b *Abanyéeshuúle baatukanye*
 students insulted.RECP/ANTIP
 (a) ‘Students insulted each other.’ (reciprocal reading)
 (b) ‘Students insulted [people].’ (antipassive reading)
 (Ndayiragije 2006: 275)

On the relationship between reciprocal and antipassive in Bantu, see also (Bostoen & al. 2015), (Dom & al. 2015).

Antipassive derivations with a limited degree of productivity are common among Atlantic and Mande languages. For example, according to Creissels & Biaye (2016), Ganja (Balanta, Atlantic) has ten transitive verbs that cannot be used in a null-P construction, and whose intransitive use with reference to non-specific patients requires the use of a derived form. Five of them (‘cook’, ‘pound’, ‘sow’, ‘sew’, and ‘eat’) involve a special suffix, whereas for the other five verbs (‘applaud’, ‘ask’, ‘cause pain’, ‘give’, and ‘finish’), the form used in antipassive function is marked by a suffix that also has a reciprocal or mediopassive function. Example (28) illustrates antipassive derivation with *wóm* ‘eat’.

- (28) Ganja (Balanta, Atlantic, Niger-Congo)
- a \dot{A} -*wóm* *tíw.* vs. * \dot{A} -*wóm-tè* *tíw.*
 $I_{S/A}:clHA$ -eat meat $I_{S/A}:clHA$ -eat-ANTIP meat
 ‘He/she ate meat.’
- b \dot{A} -*wóm-t-ò.* vs. * \dot{A} -*wóm-ò.*
 $I_{S/A}:clHA$ -eat-ANTIP-FV $I_{S/A}:clHA$ -eat-FV
 ‘He/she ate.’
 (Creissels and Biaye 2016: 251-252)

The antipassive is more productive in Wolof (Atlantic). It involves a suffix *-e* also used in reciprocal function. A remarkable property of the Wolof antipassive (also found in Seereer, a language belonging to another branch of the Atlantic family) is that it is particularly productive with verbs that have a double-P construction (see §10.5 below).

Mandinka (Mande) has a variant of the transitive construction, found with a limited set of transitive verbs only, in which the slot normally occupied by P phrases is occupied by *ń* with 1st person As, *í* with 2nd and 3rd person As. This element is probably a former reflexive pronoun, and it still encodes A/P reflexivization with some verbs, as in example (29a-b). With *kúu* ‘wash’, as shown in (29c), another construction is required to express ‘do the washing’ without reference to specific things or persons being washed.

(29) Mandinka (Central Mande, Mande)

- a *Mùsôo yè dindinjó kũu.*
 woman.D CPL.TR child.D wash
 ‘The woman washed the child.’
- b *Mùsôo yè í kũu.*
 woman.D CPL.TR REFL wash
 ‘The woman washed (herself).’
- c *Mùsôo yè kũu-r-ôo ké.*
 woman.D CPL.TR wash-NMZ.ANTIP-D do
 ‘The woman did the washing.’

However, with some other verbs, *i ~ ij* marks antipassivization. With some of the verbs in question, for example *jé* ‘see’ in example (30), the initial P is obligatorily left unexpressed; with some others, for example ‘drink’ in example (31), it can be expressed as an optional oblique.

(30) Mandinka (Central Mande, Mande)

- a *Kèê yè kàmbàanôo jé.*
 man.D CPL.TR boy.D see
 ‘The man saw the boy.’
- b *Fĩnkintéelú búká í jè.*
 blind.D.PL ICPL ANTIP see
 ‘The blind do not see.’

(31) Mandinka (Central Mande, Mande)

- a *Kèê yè jíyóo mĩŋ.*
 man.D CPL.TR water.D drink
 ‘The man drank water.’
- b *Kèê yè í mĩŋ (jíyòo lá).*
 man.D CPL.TR ANTIP drink water.D POSTP
 ‘The man drank (water).’

This construction has an antipassive function with the verbs expressing the following meanings: ‘answer someone’s call’, ‘drink’, ‘report on something’, ‘hear, obey’, ‘choose’, ‘wait’, ‘put on (clothing)’, ‘take off (clothing)’, and ‘see’.

Among Atlantic and Mande languages, Soninke (Mande) is remarkable for the very high degree of productivity of its antipassive derivation. Moreover, in Soninke, the productivity of antipassive derivation relies essentially on the use of a dedicated antipassive suffix.

Soninke has a particularly clear-cut distinction between transitive and intransitive clauses, even in comparison with the other Mande languages, and very strict constraints on the intransitive use of transitive verbs. Soninke has just a handful of A-ambitransitive verbs, and the general rule is that transitive verbs in their underived form can only be found in a transitive construction with an overt P phrase. The discourse frequency of antipassive constructions in which the verb is overtly marked as detransitized follows from the fact that, in Soninke, antipassivization constitutes the usual strategy to encode two-participant events lexicalized as transitive verbs without mentioning the participant coded as the P term in a

transitive construction. Apart from a very small set of A-ambitransitive verbs (ten or so), the Soninke verbs that can be used transitively have a derived form used in antipassive function. For a minority of transitive verbs, this form is marked by a multifunctional detransitivizing suffix *-i* also found with the same verbs in decausative or passive function, but most transitive verbs are antipassivized by means of a dedicated antipassive suffix *-ndì ~ -ndí*.¹¹⁷ Example (32) illustrates the possible use of *yígé*, intransitive verb derived from transitive *yígá* ‘eat’,¹¹⁸ in passive and antipassive function, whereas (33) illustrates the case of a verb (*séllà* ‘sweep’) whose *i*-form can only be interpreted as passive, and for which antipassivization requires the dedicated antipassive marker.

(32) Soninke (Soninke-Bozo, Mande)

- a *Lémúnùn dà tíyèn ñígá.*
 child.PL.D CPL.TR meat.D eat
 ‘The children ate the meat.’
- b *Lémúnùn ñígé.*
 child.PL.D eat.ANTIP
 ‘The children ate.’
- c *Tíyèn ñígé.*
 meat.D eat.PASS
 ‘The meat was eaten.’

(33) Soninke (Soninke-Bozo, Mande)

- a *Yàxàrùn dà kónpèn céllà.*
 woman.PL.D CPL.TR meat.D sweep
 ‘The women swept the room.’
- b *Yàxàrùn céllà-ndì.*
 woman.PL.D sweep-ANTIP
 ‘The women did the sweeping.’
- c *Kónpèn céllè.*
 room.D sweep.PASS
 ‘The room was swept.’

Soninke has no constraint restricting the use of the antipassive form of transitive verbs to stereotyped activities or habitual events. Antipassive verb forms can refer to specific events, provided no specific patient is mentioned, as in (34b-c). Most of the time, the participant that would be encoded as the P term of the transitive construction is not mentioned at all, as in (34b). As shown by example (34c), constructions in which it is expressed as an oblique can also be found, but this is rather exceptional.

¹¹⁷ The Bozo languages, which are the closest relatives of Soninke, do not have the equivalent of the dedicated antipassive marker of Soninke, but they have a detransitivizing suffix cognate with the Soninke suffix *-i* whose antipassive use is much more productive than that of Soninke *-i*, see (Blecke 2020) on Tigemaxo.

¹¹⁸ The morphological analysis of *yígé* and *séllè* is not immediately obvious, but in Soninke, the intransitive form of monosyllabic transitive verbs is formed via addition of *-yi*, which justifies decomposing the final *e* of the Soninke intransitive verbs that correspond to a transitive verb ending with *a* as *a + -i*. Note also that, in contact with a preceding word ending with a nasal, the initial *y* of *yígá* is automatically converted into *ñ*, and the initial *s* of *séllà* is automatically converted into *c*.

(34) Soninke (Soninke-Bozo, Mande)

- a *Hàatú dà yúgó sàará.*
 PRN CPL.TR male give.birth
 ‘Fatou gave birth to a boy.’
- b *Hàatú sàaré.*
 PRN give.birth.ANTIP
 ‘Fatou had a baby.’
- c *Hàatú sàaré tì lénñúgó yì.*
 PRN give.birth.ANTIP with son POSTP
 ‘Fatou gave birth to a son.’

Interestingly, Soninke also has a productive mechanism of P-incorporation which semantically triggers a non-specific reading of the incorporated noun, and morphologically implies detransitivization marking on the verb. However, as a rule, incorporation requires the multifunctional detransitivizing suffix *-i* (as in example (35b), where *gáagè* can be decomposed as *gáagà + -i*), even with verbs otherwise antipassivized by means of the dedicated antipassive suffix, cf. (35c).

(35) Soninke (Soninke-Bozo, Mande)

- a *Á wá yiràamû-n gáagà-ná.*
 3SG ICPL cloth.PL-D sell-GER
 ‘S/he sells (the) clothes.’
- b *Á wá yiràn-gáagè-né.*
 3SG ICPL cloth-sell.ANTIP-GER
 ‘S/he sells clothes.’ or ‘S/he does cloth selling.’
- c *Á wá gáagá-ndì-ní.*
 3SG ICPL sell.ANTIP-GER
 ‘S/he sells things.’ or ‘S/he does selling.’

As regards the origin of the two suffixes involved in Soninke antipassivization, comparative evidence suggests that the multifunctional detransitivizing suffix was originally a reflexive marker that developed decausative, passive and antipassive uses, whereas the dedicated antipassive suffix might be the reflex of a former verb ‘do’ in an antipassive periphrasis (‘do V-ing’), cf. (Creissels 2020, 2021).

10.5 Antipassivization and double-P constructions

In principle, in the languages having double-P constructions and a voice marker with an antipassive function, the same voice-maker is a priori available to denucleativize either of the two participants that have P-like coding properties, the resulting construction having the characteristics of a monotransitive construction. However, there is cross-linguistic variation in the regulation of the antipassivization of double-P constructions.

Wolof has a voice marker *-e* whose antipassive function with monotransitive verbs is illustrated in (36) and (37).

(36) Wolof (Wolof, Atlantic, Niger-Congo)

a *Xaj a ko màtt.*

dog(clB) FOC Ip:3SG bite

‘A DOG bit him/her.’

b *Xaj b-i du màtt-e.*

dog (clB) clB-D ICPL.NEG.I_{S/A}:3SG bite-ANTIP

‘[You should not be afraid,] the dog doesn’t bite.’

(Nouguier-Voisin 2002: 310)

(37) Wolof (Wolof, Atlantic, Niger-Congo)

a *Sama jabar laa-y xaar.*

POSS.1SG wife(clJ) FOC.I_{S/A}:1SG-ICPL wait

‘I am waiting for my wife.’

b *Saxaar du xaar-e.*

train(clG) ICPL.NEG.I_{S/A}:3SG wait-ANTIP

‘The train does not wait.’

(Nouguier-Voisin 2002: 310)

Interestingly, in Wolof, the productivity of antipassivization is relatively limited, except for verbs that have a double-P construction, with which antipassivization is fully productive. However, in Wolof, with a double-P construction as the initial construction, antipassivization invariably marks denucleativization of the goal, which is obligatorily left unexpressed, as in (38), and is not used to denucleativize the transferee.

(38) Wolof (Wolof, Atlantic, Niger-Congo)

Alal d-u jox-e màqaama.

wealth(clJ) ICPL.NEG.I_{S/A}:3SG give-ANTIP prestige(clM)

‘Wealth does not give prestige.’

(Nouguier-Voisin 2002: 309)

A similar restriction is described by Renaudier (2012) for Seereer (a language belonging to another branch of Atlantic), cf. (39), and by Chamoreau (2008) for Purépecha (isolate, Mexico).

(39) Seereer (Fula-Seereer, Atlantic, Niger-Congo)

O-koor ox-e cood-it depans.

SG-man(clOX) clOX-D give-ANTIP expense

‘The man gives money for the daily food.’

(Renaudier 2012: 313)

Interestingly, in Seereer, null Gs interpreted as non-specific must be validated by antipassive derivation, as in (40b), whereas non-specific Ts can simply be omitted without necessitating any readjustment, as in (40c).

(40) Seereer (Fula-Seereer, Atlantic, Niger-Congo)

- a *O-koor ox-e a-reg-a taangal Ø-ngoor k-e.*
 SG-man(cIOX) cIOX-D I_{S/A}:3-promise-TAM sweets PL-child(cIK) cIK-D
 ‘The man promised to give sweets to the children.’
- b *O-koor ox-e a-reg-t-a taangal.*
 SG-man(cIOX) cIOX-D I_{S/A}:3-promise-ANTIP-TAM sweets
 ‘The man promised to give sweets.’
- c *O-koor ox-e a-reg-a a den.*
 SG-man(cIOX) cIOX-D I_{S/A}:3-promise-TAM ACC 3PL
 ‘The man promised to give them (something).’
 (Renaudier 2012: 313)

However, this way of regulating the use of antipassive derivation for double-P constructions is not universal. In the ditransitive constructions of Northern Paiute, antipassive derivation is necessary to license null Ts interpreted as non-specific, whereas non-specific Gs are simply omitted without necessitating any verbal marking (Thornes, 2024), and the same rule applies to benefactive-applicatives from transitives, the initial P and the applied P being treated like the T and G terms of inherently ditransitive verbs, as in (41).

(41) Northern Paiute (Northern Uto-Aztecan, Uto-Aztecan)

- a *Usu i=ti-kuhani-kki.*
 3SG I_P:1SG=ANTIP-cook-APPL
 ‘S/he’s cooking (something) for me.’
- b *Ni mmiaai kuhani-kki-u-kwi.*
 1SG meat cook-APPL-PND-FUT
 ‘I’ll cook meat for someone.’
 (Thornes 2024: 483)

As illustrated in (42), Nahuatl has double-P constructions in which antipassivization can equally apply to the two terms of double-P constructions that show P-like coding. Note in particular that the simultaneous denucleativization of T and G requires the combination of the inanimate antipassive marker *-tla-* (marking the denucleativization of T) and of the animate antipassive marker *-tē-* (marking denucleativization of G), as in (38d).

(42) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ni-mitz-maca in xōchitl.*
 I_{S/A}:1SG-I_P:2SG-give D flower
 ‘I am giving you flowers.’
- b *Ni-mitz-tla-maca-s.*
 I_{S/A}:1SG-I_P:2SG-ANTIP-give-FUT
 ‘I will give you something.’
- c *Ni-c-tē-maca-c in xōchitl.*
 I_{S/A}:1SG-I_P:3SG-ANTIP-give-CPL D flower
 ‘I gave the flower (to someone).’

- d *Ni-tē-tla-maca.*
 I_{S/A}:1SG-ANTIP-ANTIP-give
 ‘I am making a donation.’
 (Launey 1981: 172, 173, 175)

10.6 Antipassivization-like alternations targeting obliques

In this section I briefly discuss two cross-linguistically rare types of voice alternation that do not meet the definition of antipassivization but show some similarity with it.

10.6.1 D-antipassivization

As discussed in chapter 1 §1.3.3.6, in the languages in which recipients in the construction of trivalent verbs such as ‘give’ have coding properties different from those of patients in the transitive construction, dative obliques (defined as oblique noun phrases showing the same coding properties as the recipient phrase in the indirective construction of giving verbs) may share properties with P in such a way that it is justified to give them a special status, closer to that of core terms *stricto sensu* than to that of ordinary obliques.

In such languages, the notion of antipassivization may be extended so as to encompass D-ANTIPASSIVIZATION, i.e. verb-coded valency alternations by which a participant encoded as a dative in the base construction is left unexpressed or expressed as an ordinary oblique in the derived construction.

The use of the same verb forms to mark antipassivization in the sense of P-denucleativization and D-antipassivization is described by Arkadiev & Letuchiy (2021) in Adyghe and Kabardian (West Caucasian). Example (43) illustrates D-antipassivization with the verb ‘look at’, an intransitive verb whose basic coding frame includes a dative in the integrative case obligatorily cross-referenced on the verb, in addition to the S term in the zero case.¹¹⁹ In the second part of the sentence, antipassivization eliminates the dative term, as evidenced by the lack of dative cross-referencing.

- (43) Besleney Kabardian (Northwest Caucasian)
B^weg^wə-m je-pl-te-qəm a-r jə-šha mədč’e pɫe-w
 road-K I_{DAT}-look-ICPL-NEG DEM-ZER I_{ADP}-head there look.ANTIP-ADV
mədč’e pɫe-w že-t g^wəš’əɽe-r-əw.
 there look.ANTIP-ADV run-ICPL talk-CVB-ADV
 ‘He didn’t look at the road, he would drive talking and looking here and there.’
 (Arkadiev & Letuchiy 2021: 492)

In German, there is no productive pattern of antipassivization in the sense of verb-marked P-denucleativization, but with some verbs, preverbatization results in that a participant expressed as a dative-marked NP either remains unexpressed, or can only be expressed as a prepositional oblique, as in (44). This alternation is designated by Cysouw (2023: 103) as ‘Preverb dative antipassive’.

¹¹⁹ Adyghe and Kabardian have a binary case system in which S and P are zero-flagged, whereas A and obliques (including datives) are flagged by the same integrative case (but differ in their indexation properties).

(44) German (Germanic, Indo-European)

- a *Ich schenke dir ein Buch.*
 1SG offer.PRS.I_{S/A}:1SG 2SG.DAT IDF.SG.N book(N)
 ‘I offer you a book.’
- b *Ich ver-schenke das Buch an dich.*
 1SG DatANTIP-offer.PRS.I_{S/A}:1SG D.SG.N book(N) to 2SG.ACC
 ‘I offer you the book.’
 (Cysouw 2023: 348)

10.6.2 Oblique optionalization

The verb-marked alternation presented in this section operates on ordinary obliques that are obligatory in the initial construction and become optional in the derived construction.

In German, verbs of caused location such as *stecken* ‘put into’ cannot be used without a locative prepositional phrase, but the addition of a prefix to such verbs makes it possible to use them with or without the prepositional phrase. This alternation is designated by Cysouw (2023: 352) as ‘Preverb transitive delocative’.

(45) German (Germanic, Indo-European)

- a *Ich stecke das Geschenk in den Schrank.*
 1SG put.PRS.I_{S/A}:1SG D.SG.N gift(N) book(N) D.SG.M.ACC cupboard(M)
 ‘I put the gift in the cupboard.’
- b **Ich stecke das Geschenk.*
 1SG put.PRS.I_{S/A}:1SG D.SG.N gift(N)
- c *Ich ver-stecke das Geschenk in den Schrank.*
 1SG OptOBL-put.PRS.I_{S/A}:1SG D.SG.N gift(N) book(N) D.SG.M.ACC cupboard(M)
 ‘I stash the gift in the cupboard.’
- d *Ich ver-stecke das Geschenk.*
 1SG OptOBL-put.PRS.I_{S/A}:1SG D.SG.N gift(N)
 ‘I stash the gift away.’
 (Cysouw 2023: 353)

10.7 S-denucleativization in antipassive constructions

Cross-linguistically, the possibility of denucleativizing an initial A converted into the S of an antipassive construction does not seem to be common, but such a possibility is mentioned in Stirtz’ (2012) description of Gaahmg (Eastern Sudanic). In Gaahmg, the passive marker =ε̃ is compatible not only with transitive verbs, as in (46b), but also with derived antipassive verbs, in which case it marks denucleativization of the initial A converted into S, as in (46d). Since Gaahmg is an obligatory A-coding language with AVP / SV constituent order and neither flagging nor indexation of core syntactic terms, (46d) can be analyzed as an impersonal construction in which the initial P cannot be expressed, whereas the initial A is encoded as an oblique.

- (46) Gaahmg (Jebel, Eastern Sudanic)
- a *Kāsá=n nām-sá gùḏū.*
 boy=D break-CPL branch
 ‘The boy broke a branch.’
- b *Gùḏū=n nām-s=ε̄ jên.*
 branch=D break-CPL=PASS person.GEN
 ‘The branch was broken by the person.’
- c *Kāsá=n nām-án-sá.*
 boy=D break-ANTIP-CPL
 ‘The boy broke something.’
- d *Nām-án-s=ε̄ jên.*
 break-ANTIP-CPL=PASS person.GEN
 ‘Something was broken by the person.’
 (Stirtz 2012: 203, 215, 218)

10.8 Markers analyzable as antipassivization markers in some of their uses only

10.8.1 Antipassive markers also used to mark valency operations other than antipassivization

Antipassive markers also used to mark other types of valency operations resulting in detransitivization (reflexivization, reciprocalization, decausativization, passivization) are particularly widespread cross-linguistically. Such co-expression patterns are very common, not only in several branches of Indo-European (Romance, Germanic, Baltic, Slavic, etc.), but also in Australian languages (Terrill 1997), in Oceanic languages (Moyse-Faurie 2021), in Tibeto-Burman languages (Jacques 2021), and in many other language families and linguistic areas in all parts of the world (Bahrt 2021: 82-92). The historical origin of such co-expression patterns will be discussed in chapter 11 §11.4.

The antipassive-causative polysemy is a cross-linguistically uncommon co-expression pattern. A possible diachronic explanation will be discussed in §10.9.3 below.

The antipassive-applicative polysemy is another cross-linguistically uncommon co-expression pattern, discussed in chapter 14 §14.6.3.

10.8.2 Derivational morphemes that antipassivize transitive verbs but also combine with intransitive verbs without changing their valency

Antipassive marking carrying aspectual implications is typologically common, but in some languages, the same markers also combine with intransitive verbs to express the same aspectual values without triggering any change in their construction.

This situation is typically found in the Nakh-Daghestanian language family. Among Nakh-Daghestanian languages, antipassive constructions involving verbal coding are found in Avar, in some Andic languages (e.g. Godoberi), and in all Tsezic languages except Khwarshi. However, as discussed by Comrie & al. (2021), in all the Nakh-Daghestanian languages that have antipassivization, the markers that trigger antipassivization of transitive verbs also

combine with intransitive verbs without modifying their construction. What is constant in the markers in question is that they express aspectual values such as durative, iterative, or habitual. The fact that they trigger a change in the construction or not depends on the nature of the source construction. For example, in Bezhta, iterative derivation has the following effects on the valency properties of the verb:

- no change occurs with intransitive verbs projecting clauses whose single core term is in the zero case, as in (47b);
- with intransitive verbs projecting clauses whose single core term is in the ergative, the single core term shows up in the zero case, but nothing else changes in the construction, as in (48b);
- with transitive verbs (i.e., verbs combining with an ergative-marked A and a zero-marked P), the initial A shows up in the zero case, whereas the initial P is either left unexpressed, or expressed as an oblique (antipassivization), as in (49b) & (50b).

(47) Bezhta (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Öždä b-ogi<ba>c'-iyo.*

boy.PL I_{SP}:H.PL-jump<PL>-CPL

‘The boys jumped once.’

b *Öždä b-ogi<ya-ba>c-ca.*

boy.PL H.PL-jump<ITER-PL>-PRS

‘The boys jump many times.’

(Comrie & al. 2021: 521)

(48) Bezhta (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Öždi öhłö-yö.*

boy.ERG cough-CPL

‘The boy coughed (once).’

b *Öžö öh-dā-yö.*

boy.PL cough-ITER-CPL

‘The boy was coughing.’

(Comrie & al. 2021: 526)

(49) Bezhta (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Öždi xo y-ürq-čä.*

boy.ERG meat(cl4) I_{SP}:cl4-eat-PRS

‘The boy eats the meat.’

b *Öžö xo-lo-d Ø-ürq-dä-š.*

boy(I) meat-OBL-INS I-eat-ITER.ANTIP-PRS

‘The boy is busy eating the meat.’

(Comrie & al. 2021: 526, 527)

(50) Bezhta (Avar-Andic-Tsezic, Nakh-Daghestanian)

a *Öždi t'ek kib-ba-l nił-iyo.*

boy.ERG book girl-OBL-ALL give-CPL

‘The boy gave the book to the girl.’

- b *Öžö kib-ba-l t'ek-lā-d niλ-da-s.*
 boy girl-OBL-ALL book-OBL-INS give-ITER.ANTIP-PRS
 'The boy is giving books to the girl.'
 (Comrie & al. 2021: 528)

A similar situation, with an antipassive marker that has a purely aspectual function in combination with intransitive verb stems, is also described by Payne (2021) for Maa (Nilotic).

10.8.3 The Mayan agent focus construction

Most Mayan languages have an agent focus marker compatible with transitive verbs only, occurring in a construction whose characteristics are partially (but not fully) those of an antipassive construction.

For example, K'ichee' has a verbal suffix *-ow* marking the focalization of the participant coded as the A term of transitive verbs. In sentences such as (51), it can be analyzed as an antipassive marker, since the construction in (51) has all the characteristics of a bona fide antipassive construction: the verb form has the structure of an intransitive verb form, with a single slot for participant indexation, the participant that would be the A term in the corresponding transitive construction is indexed by a prefix belonging to the P/S series of person indexes, and the participant that would be the P term in the corresponding transitive construction is encoded as a prepositional phrase.

- (51) K'ichee' (Mayan)
Aree ri ixoq'ib' x-e-loq'-ow r-eech ri ixim.
 FOC D woman.PL CPL-I_{P,S}:3PL-buy-FocA 3SG-for DEF maize
 'THE WOMEN bought the maize.'
 (López Ixcoy 1997: 372)

However, the same forms can also be found in agent focus constructions involving a valency change that does not meet the definition of antipassivization. In example (52), sentence (b) illustrates the use of the verb forms including the agent focus marker in a construction analyzable as antipassive, whereas sentence (c) illustrates an alternative construction of the same form. In this variant, the sole index included in the verb form refers to the participant expressed as P in the corresponding transitive construction, which suggests a passive rather than antipassive analysis, but at the same time, the phrase representing the participant expressed as A in the transitive construction is not flagged, as should be expected in a bona fide passive construction. This variant of the agent focus construction is conditioned by person hierarchy: it is only possible if the P argument ranks higher than A in the '1st person > 2nd person > 3rd person plural > 3rd person singular' hierarchy.

- (52) K'ichee' (Mayan)
 a *X-oj-u-ti' ri kumatz.*
 CPL-I_{S,P}:1PL-I_A:3SG-bit D snake
 'The snake bit us.'

- b *Aree ri kumatz x-Ø-ti'-ow q-eech.*
 FOC D snake CPL-I_{SP}:3SG-bite-FocA 1PL-for
 'THE SNAKE bit us.'
- c *Aree ri kumatz x-oj-ti'-ow-ik.*
 FOC DEF snake CPL-I_{SP}:1PL-bite-FocA-ITR
 'THE SNAKE bit us.'
 (López Ixcoy 1997: 368)

The agent focus construction of Mayan languages has been discussed among others by Aissen (1999), Broadwell (2000), Duncan (2003), and Bergqvist (2007). Blunk (2008) proposed to explain the apparent oddities of this construction by analyzing it as a biclausal construction. For a recent and detailed discussion of the agent focus construction of Mayan languages, readers are referred to (Heaton 2017: 312-316, 332-342, 403-414, 2021: 565-569), and for a summary, to (Heaton 2021).

10.8.4 Antipassive markers and A/P indexation in the transitive construction

As illustrated by example (53), Chukchi has a transitive construction with A in the ergative case, P in the zero case, and indexation of both A (by means of prefixes) and P (by means of suffixes), whereas in intransitive clauses, S in the zero case is indexed by means of a combination of prefixes and suffixes.

- (53) Chukchi (Northern Chukoktko-Kamchatkan, Chukotko-Kamchatkan)
- a *ɣəm-nan ɣət tə-lʔu-ɣət.*
 1SG.ERG 2SG I_A:1SG-see-I_P:2SG
 'I saw you.'
- b *Əɣə-nan ɣəm ne-lʔu-ɣəm.*
 3PL.ERG 1SG I_A:3PL-see-I_P:1SG
 'They saw me.'
- c *ɣəm tə-kətɣəntat-ɣʔak.*
 1SG I_S:1SG-run-I_S:1SG
 'I ran.'
 (Skorik 1977: 19, 44, 45)

Chukchi also has a verbal prefix occurring in constructions that fully meet the definition of antipassivization, as in (54b).

- (54) Chukchi (Northern Chukoktko-Kamchatkan, Chukotko-Kamchatkan)
- a *ʔaačək-a kimitʔən ne-nʔetət-ən.*
 youth-ERG load I_A:3PL-carry-I_P:3SG
 '(The) young men carried away the load.'
- b *ʔaačəkət ine-nʔetət-ɣʔət kimitʔ-e.*
 youth.PL ANTIP-carry-I_S:3PL load-INS
 '(The) young men carried away the load.'
 (Kozinsky & al. 1988: 652)

However, in addition to its antipassive use, the same prefix is also found in constructions that do not meet the definition of antipassivization, as in (55), where a verb form which seems to be analyzable as detransitivized (since A only seems to be indexed) combines with two NPs flagged exactly in the same way as in the basic transitive construction.

(55) Chukchi (Northern Chukotko-Kamchatkan, Chukotko-Kamchatkan)

Ə-nan γəm ine-tʔu-γʔi.
 3SG-ERG 1SG ?-see- I_A:3SG
 ‘S/he saw me.’
 (Skorik 1977: 14)

However, the constructions involving this ‘spurious antipassive’ prefix cannot be analyzed as instances of antipassivization, there is no possible choice between the verb form in (55) and another form that would express the same scenario 3SG→1SG in an uncontroversial transitive clause. As argued by Polinsky (2017b), whatever the historical explanation of this situation, synchronically, the construction illustrated in (55) can only be analyzed as a transitive construction involving the same flagging of A and P as those in (53a-b) and (54a), but a distinct indexation pattern automatically triggered by a hierarchical relationship between A and P. In (55), *ine-* does not act as an antipassive marker participating in valency-changing morphology, but as an element of a system of scenario-driven A/P indexation in transitive verb forms, with a meaning that can be glossed as ‘P higher than A on the relevant hierarchy’.

Quite a few other languages have been signaled as having markers whose ambiguous status between antipassivization marking and A/P indexation in the transitive construction can be viewed as resulting from a tendency to use patientless antipassive constructions with reference to situations involving an SAP in a role normally expressed as the P term of a transitive construction. Interestingly, the languages in question have no genetic link and are spoken in areas very distant from each other.

In Ainu (isolate, Japan), Bugaeva (2021: 238-239) identifies two uses of the verbal prefix *i-*: on the one hand, as a derivational antipassive marker, and on the other hand, as an inflectional P index with the functions of 1st person plural inclusive, second person honorific, and logophoric. She proposes to explain this situation as the result of “common pragmatic developments of argument-defocusing constructions that end up being used more or less systematically when the speaker wants to avoid mentioning a speech act participant”.

In Matsigenka (Panoan), “in addition to the cross-linguistically typical indefinite Patient reading, it [the antipassive] can also be used to code an unmentioned first-person Patient”, which can be explained “by a combination of interacting factors, including a first-person empathy phenomenon and accommodation to a competing functionally similar object omission construction” (Fleck 2006: 551).

In Ixcatec (Otomanguan; Adamou 2014), an antipassive marker transparently related to the noun for ‘person’ is used mainly to imply SAPs in a role that would trigger P coding in the transitive construction, and cannot be used to leave inanimate participants unexpressed, although structurally, there is compelling evidence that the construction involving this marker must be analyzed as antipassive.

Diachronically, such situations pave the way for a reanalysis of patientless antipassive constructions as transitive constructions implying 1st or 2nd person Ps.

According to Bickel & Gaenszle (2015), several Kiranti languages (Sino-Tibetan, Nepal) from different genealogical sub-groups show multiple parallel developments by which patientless antipassive constructions are reanalyzed as transitive constructions with a 1st person P index resulting from the reanalysis of an antipassive marker that ultimately goes back to an etymon meaning ‘person, human being, people’ or ‘all’. They explain this development as due to contact with politeness strategies of speaker-effacement in Maithili (Indo-Aryan) formal style.

Konnerth (2021) describes another possible outcome of the evolution of antipassives involved in strategies of avoiding overt reference to SAPs. Monsang (Kuki-Chin, Sino-Tibetan) has a system of P/A indexation in the transitive construction involving prefixes *ɲ-* or *ɪ-* straightforwardly analyzable as inverse markers, since they occurs in 3→2, 3→1 and 2→1 scenarios, with however a particularity that is not found in the other direct/inverse systems of A/P indexation found across the Sino-Tibetan language family: in the scenarios marked as inverse by one of these two prefixes, only A is indexed. Moreover, the A index comes from the same person marker set as the corresponding intransitive S index. After showing that, in spite of the lack of P indexation and homonymy between A indexes and S indexes, the forms in question must be analyzed as inverse transitive forms, Konnerth (2021) discusses evidence that this situation results from the reanalysis of an antipassive marker as an inverse marker. In the scenario she proposes, the antipassive marker was first reanalyzed as a 1st person P index whose use was subsequently extended to other inverse scenarios.

10.9 The origin of antipassive markers

It is reasonable to think that the cross-linguistic variation in antipassive constructions has to do with the variety of the possible historical sources of antipassive markers. On this question, the main reference is (Sansò 2017), where four well-attested sources of antipassive markers are identified.

10.9.1 Antipassivization marking as an extension of the uses of reflexive or reciprocal markers

The evolution from reflexive to antipassive is widely attested by the reflexes of the Indo-European reflexive pronoun **s(w)e* that have become multifunctional detransitivization markers whose uses may include the marking of antipassivization, mainly in Romance, Slavic and Baltic languages, but also for example in Swedish.

Terrill (1997) observes that the overwhelming majority of the antipassive constructions found in Australian languages are marked by the same verbal morphology that each language uses to mark its reflexive constructions, and analyzes this situation as evidence of a grammaticalization path from reflexive to antipassive.

However, antipassives that unambiguously result from the evolution of reciprocal (rather than reflexive) verb forms are also quite widespread in the languages of the world, and the development from reciprocal to antipassive is easier to explain semantically.

Consequently, the question that arises is whether antipassive markers can develop directly from reflexive markers, or only from reflexive markers that have already acquired reciprocal uses, as suggested by Sansò (2017).

What makes Sansò's hypothesis attractive is that, semantically, it is at first sight easier to imagine a development from reciprocal to antipassive than from reflexive to antipassive. However, the problem is that quite a few languages have a detransitivization marker used in antipassive, decausative and passive functions, but not in reciprocal function, which strongly suggests the possibility of a direct development from reflexive to antipassive. This is for example the case for the Soninke-Bozo detransitivizing suffix *-i*, and the hypothesis that the antipassive use of this suffix would have developed from a reciprocal use is all the less plausible given that, to the best of my knowledge, the reflexive-reciprocal co-expression pattern has not been signaled in any Mande language. The same remark applies to the antipassive uses of the reflexive construction in Mandinka.

The question of the acquisition of antipassive uses by reflexive markers or reciprocal markers will be resumed in chapter 13, after a discussion of the co-expression patterns in which reflexive and reciprocal markers may be involved.

10.9.2 Antipassive markers resulting from the incorporation of hypernymous nouns in P role

A second well-attested scenario is the grammaticalization of hypernymous nouns such as 'person' or 'thing' in P role: 'buy thing' > buy.ANTIP, 'help person' > help.ANTIP. See Sansò (2017) for detailed references.

10.9.3 Antipassive markers originating from a light verb 'do' in an antipassive periphrasis involving event nominalization

The scenario according to which a light verb 'do' in an antipassive periphrasis involving an event nominalization may grammaticalize as an antipassive marker ('do buying' > buy.ANTIP) is the scenario I propose for the Soninke antipassive marker *-ndí ~ -ndì*, which might be cognate with a Proto-West-Mande root reconstructable as **tin* 'do' (Creissels 2021). An important observation is that this antipassive marker has the same segmental form as the causative marker *-ndí*, and may be fully homonymous with it depending on the tone pattern of the verb, since the antipassive marker is *-ndì* if the tone pattern of the stem includes no low-high sequence, and *-ndí* if the tone pattern of the stem includes a low-high sequence, whereas the causative marker is *-ndí* regardless of the tone pattern of the verb stem. The obvious advantage of this etymological hypothesis is that it explains the quasi-homonymy between the antipassive marker *-ndí ~ -ndì* and the causative marker *-ndí*, since verbs 'do' are also a common source of causative markers.

A similar scenario is also plausible for the Papuan language Makalero, given the resemblance between the causative-antipassive suffix *-ini* and the verb *kini* 'do, make' (Huber 2011: 128).

On event nominalizations combined with a light verb 'do' as possible sources of antipassive verb forms, in addition to the references provided by Sansò (2017), cf. (Juárez & Álvarez González 2021) on Mocoví (Guaycuruan).

10.9.4 Antipassive markers resulting from the verbalization of agent nominalization

This grammaticalization scenario can be schematized as ‘be a buyer’ > buy.ANTIP. See Sansò (2017) for references.

10.9.5 Antipassive markers resulting from the grammaticalization of cognate Ps

Cognate-P constructions are another plausible source of antipassive marking, as suggested by the fact that verb reduplication is used to mark antipassivization in some languages, for example Cavineña (56), Paluai (57), or Kokota (Palmer 2009: 192-193).

(56) Cavineña (Tacanan, Pano-Tacanan)

Peta~peta-ya =*mike?*

look.at~ANTIP-ICPL =2SG

‘Are you looking (at something)?’

(Guillaume 2008: 147)

(57) Paluai (Oceanic, Austronesian)

Nga=to ngan-ngan.

1SG=CONT ANTIP~eat

‘I am eating.’

(Schokkin 2014: 457)

In general, cognate-P constructions are a possible source of verb reduplication, and the hypothesis of a cognate-object construction as the historical source of verb reduplication can be considered in the particular case of reduplication marking antipassivization, since many languages use cognate-P constructions to avoid specifying the participant normally encoded as P (see chapter 15 §15.1.1). However, a connection with pluractionality (and reciprocalization) is also possible, since many languages use verb reduplication to express pluractionality, and the connection with pluractionality can also be considered in the languages in which reduplication can be used for detransitivizing operations other than antipassivization.

10.9.6 Others

Another possibility, explored by Payne (2021) for Maa (Nilotic), is that antipassive markers may result from the grammaticalization of verbs ‘give’. Among the scenarios she considers, a particularly plausible one is a variant of the scenario evoked in §10.9.3 above, with ‘give’ instead of ‘do’ in the role of light verb.

Chapter 11

Decausativization, reflexivization, reciprocalization, and middle voices

The particularity of reflexivization and reciprocalization (which distinguishes these two operations from passivization and antipassivization) is that, in reflexive and reciprocal constructions, the relationship between participants in the event and participant roles implied by the lexical meaning of the verb is not one-to-one, but reflexivization and reciprocalization have in common with passivization and antipassivization that they do not affect the set of participant roles implied by the lexical meaning of transitive verbs. By contrast, decausativization modifies the set of participant roles implied by the lexical meaning of transitive verbs by suppressing the role encoded as the A term of the transitive construction, which sets decausativization apart from all the other valency operations discussed in this chapter. However, cross-linguistically, dedicated decausative voices are less common than multifunctional detransitivizing voices, commonly designated as middle voices, used to encode not only decausativization, but also various semantic types of valency operations that involve detransitivization without modifying the set of participant roles.

11.1 Decausativization

Decausativization is the only major type of voice alternation whose discussion is distributed between two chapters of this book, due to the special relationship that links decausativization to passivization on the one hand, and to reflexivization on the other hand. This unavoidably entails some amount of repetition, but a single chapter dedicated to decausativization would not have solved the problem, since decausativization can hardly be discussed without constant reference to either passivization or reflexivization. It is impossible to discuss passivization without discussing the decausative-quasipassive-passive continuum (chapter 9 §9.4), and this is why decausativization has already been dealt with in the chapter on passivization. But it is equally impossible to discuss reflexivization without reference to the reflexive-quasireflexive-decausative continuum (this chapter §11.4.2).

In fact, decausativization is rarely coded by means of dedicated markers but plays a central role in the development of the type of polysemous voices for which the term of middle voice is adopted in this book.

11.1.1 Decausativization as an agent-suppressing operation

As already discussed in chapter 9 §9.4, decausativization is similar to passivization in that it also implies transitivity of the initial construction, and in both cases, the initial A loses its status of nuclear participant, whereas the initial P becomes the S term of an intransitive construction. However, in decausativization, the denucleativization of the agent can be viewed as a mere consequence of its deletion from the list of participant roles implied by the verb, whereas in passivization, the agent is syntactically denucleativized without being

semantically suppressed. Semantically, a passive construction such as the French analytic passive construction ‘*be + past participle*’ crucially differs from the corresponding decausative construction involving the voice marker *se* (reflex of the Indo-European reflexive pronoun **s(w)e*) in that, in the passive construction (1a), an agent is implied, even if no agent is mentioned explicitly, whereas the event encoded by the decausative construction (1b) is thought of as happening spontaneously, or at least without a clearly identified external cause (either animate instigator or inanimate force).

(1) French (Italic, Indo-European)

- a *La porte a été ouverte.*
 D.SG.F door(F) have.PRS.I_{S/A}:3SG be.PTCP open.PTCP.F
 ‘The door has been opened (by an un unspecified agent).’
- b *La porte s’est ouverte.*
 D.SG.F door DECAUS-be.PRST.I_{S/A}:3SG open.PTCP.F
 ‘The door opened (for some unidentified cause).’

This explains the following two observations:

- agent-oriented adverbs can be included in passive constructions, as in (2a), but not in decausative constructions with inanimate nouns in S role, as shown by the fact that (2b) is rejected by speakers as ill-formed, unless the door is personified;
- adverbs highlighting the absence of involvement of an instigator can be included in decausative constructions, as in (2c), but not in passive constructions, as shown by the ill-formedness of (2d).

(2) French (Italic, Indo-European)

- a *La porte a été ouverte exprès.*
 D.SG.F door(F) have.PRS.I_{S/A}:3SG be.PTCP open.PTCP.F on.purpose
 ‘The door has been opened on purpose.’
- b **La porte s’est ouverte exprès.*
 D.SG.F door DECAUS-be.PRST.I_{S/A}:3SG open.PTCP.F on.purpose
- c *La porte s’est ouverte toute seule.*
 D.SG.F door DECAUS-be.PRST.I_{S/A}:3SG open.PTCP.F by.itself
 ‘The door opened by itself.’
- d **La porte a été ouverte toute seule.*
 D.SG.F door(F) have.PRS.I_{S/A}:3SG be.PTCP open.PTCP.F by.itself

11.1.2 Quasipassive uses of decausative forms

As discussed among others by Haspelmath (1987) and Koontz-Garboden (2007), contrary to passivization, which in principle may apply to all transitive verbs without particular semantic restrictions, decausativization as defined above is in principle limited to verbs expressing processes that can be thought of as happening spontaneously, or at least without a (human) agent’s intervention.

However, as already discussed in chapter 9 §9.4.3, it is very common that, even in the languages that have distinct voice markers for passivization, the use of the voice markers that

have a decausative function extends to the expression of quasipassive meanings, characterized by the fact that the participant expressed as the A of the transitive construction is not suppressed from the list of participants implied by the verb, but undergoes a manipulation of its semantic role resulting in a decrease in semantic transitivity.

In chapter 9, I have proposed to distinguish three types of quasipassive uses of decausative forms: inadvertent actions ('be V-ed inadvertently (by X)', as in (3) and (4)), generic passive ('be usually V-ed', as in (5) and (6)), and facilitative ('lend itself to being V-ed', as in (7) and (8)).

(4) Spanish (Italic, Indo-European)

Se me quemó la paella.
 DECAUS I_{DAT}:1SG burn.CPL.I_{S/A}:3SG D.SG.F paella(F)
 'I inadvertently let the paella burn.'

(5) Latvian (Baltic, Indo-European)

Viņ-am akmens iesviedā-s log-ā.
 2SG.M-DAT stone threw.in.I_{S/A}:3SG-DECAUS window-LOC
 'He threw a stone into the window by accident.'
 lit. 'To him a stone threw itself into the window.'
 (Geniušienė 1987: 275)

(6) Serbo-Croat (Slavic, Indo-European)

Crno vino se služi na sobnoj temperaturi.
 black.N.SG wine(N) DECAUS serve.PRS.I_{S/A}:3SG on of.room.F.SG.PREPC temperature(F).PREPC
 'Red wine is served at room temperature.'

(7) Spanish (Italic, Indo-European)

Este verano se llevan mucho las faldas largas.
 DEM.SG.M summer(M) DECAUS wear.PRS.I_{S/A}:3PL.F much D.PL.F skirt(F).PL long.PL.F
 'This summer many women are wearing long skirts.'

(8) Tswana (Bantu, Benue-Congo, Niger-Congo)¹²⁰

a *Lò-kwálò ló 'lò-bál-éχ-à mòtl^hò:fò.*
 SG-book(c111) CL11.DEM I_{S/A}:c111-read-DECAUS-FV easily
 'This book reads easily.'
 b *Mà-tswèlá 'á-bón-ál-à ká bó-nà:kò.*
 PL-benefit(c16) I_{S/A}:c16-see-DECAUS-FV with SG-speed(c114)
 'The benefits can be seen immediately.'

Quasipassive constructions involving verb forms also used in decausative function are often ambiguous with a plain decausative reading. Examples of sentences whose construction can be interpreted as a facilitative construction or as a decausative construction combined with a concernee-concern construction have been given in chapter 9 §9.4.3.3. (9) illustrates the possible ambiguity between inadvertent-action decausatives and plain decausatives combined with a concernee-concern construction.

¹²⁰ The verbal suffixes *-al* (8a) and *-éχ* (8b) are semantically equivalent; their distribution is purely lexical.

(9) Bulgarian (Slavic, Indo-European)

Na Ivan mu se sčupixa očilata.
 DAT PRN I_{DAT}:3SG.M DECAUS break.CPL.I_{S/A}:3PL glasses.D

(i) ‘Ivan broke the glasses involuntarily.’

(ii) ‘Ivan was somehow affected by the glasses breaking.’

(Rivero 2003: 470)

Sentences that are simply ambiguous between a decausative and a facilitative reading, as in (10) and (11), are also easy to find in the languages that have decausative markers also used in quasipassive function.

(10) German (Germanic, Indo-European)

Trockenes Holz entzündet sich leicht.
 dry.N.SG wood(N) ignite.PRS.I_{S/A}:3SG DECAUS easily

(i) ‘Dry wood catches fire easily.’

(ii) ‘Dry wood can easily be set on fire.’

(Mitkovska & Bužarovska 2021:331 quoting Schäfer 2008:192)

(11) Macedonian (Slavic, Indo-European)

Vrata-ta se zaglavuv-a.
 door(F)-D.SG.F DECAUS block-PRS.IS/A:3SG

(i) ‘The door gets blocked by itself.’

(ii) ‘The door can be blocked.’

(Mitkovska & Bužarovska 2021:331)

11.1.3 Non-valency-related uses of decausative markers

The Totonacan language Tepehua has an inchoative verbal prefix *ta-* described by Watters (2017) as having two uses that differ in their impact on valency. It applies to the stem of some transitive achievement verb to derive intransitive change-of-state verbs, acting then as a decausative marker, as in (12a-b). However, the same prefix also applies to some intransitive stage-level stative verbs without triggering any change in valency, since it changes those statives into equally intransitive change-of-state verbs, as in (12c-d).

(12) Tepehua (Totonacan)

a *ʔef-li.*
 tear-CPL
 ‘S/he tore it.’

b *Ta-ʔef-li.*
 INCH-tear-CPL
 ‘It tore.’

c *Laktfahu-y.*
 be.closed-ICPL
 ‘It’s closed.’

- d *Ta-laktfahu-y*.
 INCH-be.closed-ICPL
 ‘It closes.’

11.2 Reflexivization

11.2.1 Reflexive events, reflexive constructions, reflexivization

Reflexive events are events that can be conceptualized as involving a participant cumulating two participant roles NORMALLY ASSIGNED SEPARATELY, as in (13b).

- (13) English (Germanic, Indo-European)
 a *John blames Peter for losing the keys.*
 b *John blames himself for losing the keys.*

Example (13b) illustrates a cross-linguistically common way of coding reflexive events: the construction is the same as for the same event with distinct participants fulfilling each of the two roles, and one of the two syntactic roles is fulfilled by a reflexive pronoun, i.e., a form (in (13b): *himself*) interpreted as co-referent with another term of the construction (in (13b): the A phrase *John*). The constraints on the syntactic positions that can be occupied by a reflexive pronoun and its antecedent is a complex question which has caused a lot of ink to flow, but need not be developed here, given the topic of this book. Suffice it to say that constructions involving reflexive pronouns with the antecedent in A/S role are universally privileged.

Depending on the individual languages and the syntactic roles involved in the reflexive relationship, this kind of reflexivity coding may involve fully dedicated reflexive pronouns, or other types of nominal forms lending themselves to a reflexive interpretation in certain conditions. A detailed discussion of the typology of the forms acting as reflexive pronouns in the world’s languages can be found in (Haspelmath 2023). In the remainder of this section, I limit myself to a brief summary of this question.

Intensive pronouns, often formed by combining an ordinary pronoun and a self-intensification marker such as English *-self* or French *-même*, are particularly common in reflexive function. As illustrated in (14), in many languages, intensive pronouns in S/A role cannot have an antecedent belonging to the same clause (as in 14a), but have a reflexive reading in other syntactic positions (as in 14b).

- (14) French (Italic, Indo-European)
 a *Lui-même ne cite que cet auteur.*
 3SG.M-INT RESTR quote.PRS.I_{S/A}:3SG RESTR D.SG.M author(M)
 ‘He himself_i only quotes this author_j.’
 b *Cet auteur ne cite que lui-même.*
 D.SG.M author(M) RESTR quote.PRS.I_{S/A}:3SG RESTR 3SG.M-INT
 ‘This author_i only quotes himself_i.’

However, depending on language-specific rules, it may also happen that ordinary third person pronouns in roles other than S/A are interpreted as coreferential with A/S. For example, in

(15a), the use of an intensive pronoun triggers a reflexive reading, whereas in (15b), the ordinary pronoun is ambiguous between a reflexive and a non-reflexive reading.

(15) French (Italic, Indo-European)

- a *Jean ne travaille que pour lui-même.*
 PRN_i RESTR work.PRS.I_{S/A}:3SG RESTR for 3SG.M-INT
 ‘Jean_i only works for himself_i.’
- b *Jean ne travaille que pour lui.*
 PRN_i RESTR work.PRS.I_{S/A}:3SG RESTR for 3SG.M
 ‘Jean_i only works for him_j.’ OR ‘Jean_i only works for himself_i.’

A cross-linguistically common restriction on the reflexive use of ordinary pronouns is the impossibility of a reflexive reading for ordinary 3rd person pronouns in P role. However, in some languages, even ordinary 3rd person personal pronouns in P role may be ambiguous between a reflexive and a non-reflexive interpretation, as in (16b). In Soso, intensive pronouns are only used for disambiguation, as in (16c).

(16) Soso (Soso-Jalonke, Mande)

- a *Xáméé bárà yèxéé fùlùn.*
 man PRF sheep free
 ‘The man freed the sheep.’
- b *Xáméé bárà à fùlùn.*
 man PRF 3SG free
 ‘The man freed it/him/her.’ OR ‘The man freed himself.’
- c *Xáméé bárà à yèté fùlùn.*
 man PRF 3SG INT free
 ‘The man freed himself.’

The role of reflexive pronoun may also be fulfilled by forms that transparently result from the grammaticalization of nouns such as ‘body’, ‘head’, or ‘soul’, either alone or combined with possessives, as in example (17). Note that, in (17b), in conformity with the etymology of the reflexive pronoun, the P index included in the verb form is a third person singular index.

(17) Georgian (Kartvelian)

- a *Vano-s bedžit st’udent’-ad vtvli.*
 PRN-DAT¹²¹ serious student-as consider.PRS.I_{S/A}:1SG.Ip:3SG
 ‘I consider Vano a serious student.’
- b *Čem-s tav-s bedžit st’udent’-ad vtvli.*
 POSS.1SG-DAT head-DAT serious student-as consider.PRS.I_{S/A}:1SG.Ip:3SG
 ‘I consider myself (lit. I consider my head) a serious student.’

¹²¹ The case system of Georgian does not include a dedicated accusative marker. Depending on the TAM value expressed by the verb form, NPs in P role may be in the dative case or in the zero case.

The grammaticalization of ‘head’ as an intensive/reflexive pronoun is analyzed in detail by Robert (2020) with reference to Wolof. On lexical sources of reflexive markers, see also (Schladt 2000) and (Evseeva & Salaberri 2018).

11.2.2 Derived verb forms encoding reflexivization

When the two semantic roles assigned to the same participant are normally encoded as A and P in a transitive construction, many languages code the participant cumulating two roles as the S term of an intransitive construction involving a derived form of the transitive verb.

As discussed by Bahrt (2021: 169, 171), evidence that reflexivization markers may result from the grammaticalization of nouns such as ‘body’ or ‘head’ fulfilling the role of reflexive pronouns can be found in Nilotic languages (Luo, Lango), in the Chadic language Bura, in the Nadahup language Hup, and in the Yuman language Tiipay.

Reflexive coding by means of derived verb forms is quite widespread, and some languages have been described as having a dedicated reflexive voice, among others the Gunywinguan language Anindilyakwa (van Egmond 2023), the Mirndi language Jaminjung (Schultze-Berndt 2023) and the Jivaroan language Aguaruna (Overall 2023). However, fully dedicated reflexive voices are not common cross-linguistically.

According to Gaby (2023), Kuuk Thaayorre (Northern Pama-Nyungan) has a reflexive voice and a reciprocal voice, but uses reciprocal morphology to describe some reflexive events, and reflexive morphology to describe some reciprocal events. Helmbrecht (2023) indicates that Hooçak (Mississippi valley Siouan) has a reflexive voice also available to express reciprocity, in competition with a dedicated reciprocal voice. Rose (2003: 348-354) describes a reflexive-reciprocal voice in Emerillon (Maweti-Guarani, Tupian).

However, most of the voice markers available to mark A-P reflexivization are involved in more complex co-expression patterns of the type subsumed under the notion of middle voice. In example (18), the voice marker *-v-* of Eastern Armenian illustrates this kind of situation, which will be analyzed in more detail in §11.4.

(18) Eastern Armenian (Armenian, Indo-European)

- a *Ara-n amen or sap^hr-v-um e.*
 PRN-D every day shave-REFL-PTCP be. I_{S/A}:3SG
 ‘Aran shaves (himself) every day.’ (A-P reflexivization)
- b *Bažak-əš kotr^h-v-ets^h.*
 glass-I_{ADP}:1SG break-DECAUS-CPL.I_{S/A}:3SG
 ‘My glass broke.’ (decausativization)
- c *Zork^h-ə haxt^h-v-ets^h tšnam-uts^h.*
 army-D defeat-PASS-CPL.I_{S/A}:3SG enemy-ABL
 ‘The army was defeated by the enemy.’ (passivization)

11.2.3 Reflexive voice markers and reflexive indexes

Like other pronouns, reflexive pronouns may cliticize, resulting in paradigms of P indexes (sometimes also dative indexes) including a reflexive index, and the distinction between reflexive indexes and reflexive voice markers is not always easy to establish. Two kinds of criteria can be considered, functional (a morpheme that does not always encodes

reflexivization is better analyzed as a voice marker) and morphological (reflexive indexes are expected to show exactly the same morphological behavior as the other P indexes).

However, the reflexive indexes resulting from the cliticization of reflexive pronouns tend to acquire uses that do not meet the definition of reflexivization, which comes as no surprise, since the same phenomenon can be observed with free pronoun in P role (see §11.4.2). This may result in situations where verb formatives that have uses in which they can only be analyzed as voice markers continue to behave morphologically as if they still were P indexes.

For example, in Tswana (Bantu, Benue-Congo, Niger-Congo), a language with a particularly complex tonal morphology, P indexes are characterized by a very specific tonal behavior that distinguishes them from any other type of verbal formatives. Moreover, their position before the verb root distinguishes them from voice markers, which follow the verb root. In Tswana, A-P reflexivization is encoded by a formative *-í-* which not only occupies the same morphological slot as non-reflexive P-indexes, but also behaves tonally exactly like them, which suggests analyzing it as a reflexive P-index (i.e., a bound form which in all other respects behaves like reflexive pronouns). However, with some verbs, such as *-í-kálá* ‘spread (intr.)’ < *-àlà* ‘spread (tr.)’, a pronominal analysis of *-í-* is not possible, and *-í-* can only be analyzed as marking decausativization. For example, in (19b), to be compared with (19a), *-í-* can be analyzed as a reflexive index occupying the slot for P indexes in a transitive verb form.¹²² By contrast, in (19c), it would make no sense to analyze *-í-* as a reflexive index expressing that ‘roots’ cumulates the roles of agent and patient.

(19) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-χò-ók-à* *ká* *mó-limò:* *ó.*
 I_{S/A}:1SG-FUT-I_P:2SG -cure-FV with SG-medicine(cl3) cl3.DEM
 ‘I’ll cure you with this medicine.’
- b *Kì-tlàà-í-kók-à* *ká* *mó-limò:* *ó.*
 I_{S/A}:1SG-FUT-REFL-cure-FV with SG-medicine(cl3) cl3.DEM
 ‘I’ll cure myself with this medicine.’
- c *Mì-dì* *í-í-kál-à* *mó* *mè-mù:-ìj.*
 PL-root(cl4) I_{S/A}:cl4-DECAUS-spread-FV LOC SG-soil(cl3)-LOC
 ‘The roots spread in the soil.’

11.2.4 Reflexivization and autobenefactive

Semantically, autobenefaction (or agent-beneficiary reflexivization) can be decomposed into two successive operations: the addition of a participant fulfilling the role of beneficiary and the identification of the beneficiary with the agent. This decomposition is transparently reflected in the autobenefactive construction of Tswana and other languages that express autobenefaction by combining applicativization and reflexivization, as in example (20), where the voice markers *-el-* and *-í-* are used in applicative and reflexive function, respectively.

¹²² In Tswana, the alternation between the two variants *-ók-* and *-kók-* of the verbal root for ‘cure’ and between the two variants *-àl-* and *-kàl-* of the verbal root for ‘spread’ is a regular morphophonological pattern, although its conditioning is phonologically opaque in the present state of the language. The allomorph *-tʰók-* of *-rók-* ‘sew’ in example (20) is another illustration of the same alternation.

(20) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-rók-á mó-sì:sì.*
 I_{S/A}:1SG-sew-FV SG-dress(cl3)
 ‘I am sewing a dress.’
- b *Kì-rók-él-á Lòrátó mó-sì:sì.*
 I_{S/A}:1SG-sew-APPL-FV PRN(cl1) SG-dress(cl3)
 ‘I am sewing a dress for Lorato.’
- c *Kì-í-t^hók-él-á mó-sì:sì.*
 I_{S/A}:1SG-REFL-sew-APPL-FV SG-dress(cl3)
 ‘I am sewing a dress for myself.’

In other languages, agent-beneficiary reflexivization may be expressed by means of reflexive pronouns encoded like benefactive NPs, as in English (*He bought her a laptop / He bought himself a laptop*).

Autobenefaction may also be expressed by means of derived verb forms identical to those used for agent-patient reflexivization. The expression of autobenefaction is in particular a common function of the European middle voices that result from the evolution of the Indo-European reflexive pronoun **s(w)e*, see e.g. Holvoet (2020: 15-25) on Baltic languages. The use of middle forms to express autobenefaction is also found in Cushitic languages (Vanhove 2024).

In a language such as Jóola Fóoñi, the autobenefactive use of the reflexive voice marker *-ɔɔɔ* is expected, since in Jóola Fóoñi, nothing distinguishes noun phrases representing beneficiaries from noun phrases representing patients of typical transitive verbs. (21) illustrates the use of *-ɔɔɔ* to mark agent-patient reflexivization in Jóola Fóoñi. In (22), the lexical meaning of the verb excludes the possibility of agent-patient reflexivization, but the verb ‘cook’ can be found not only in a monotransitive construction, but also in a double-P construction in which one of the two P phrases is interpreted as representing a beneficiary, as in (22a), and quite logically, *-ɔɔɔ* (which surfaces as *-ooro* because of vowel harmony) can mark agent-beneficiary reflexivization.

(21) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- Na-ηɔɔlen~ηɔɔlen a-pacɛn bɔk-aa-kɔ,*
 I_{S/A}:clA-be.able-ASRT I_{S/A}:clA-save clBK-other-clBK
 ‘S/he was able to save the others,
bare a-ηɔɔlen-ɔt a-pacɛn-ɔɔɔ.
 but I_{S/A}:clA-be.able-NEG I_{S/A}:clA-save-REFL
 but s/he was not able to save him/herself.’

(22) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *A-sɛɛk-a-w pan ɐ-siil a-jaaburɔŋ-a-w ɛ-lɪw-ɛ-y.*
 SG-woman(clA)-D-clA FUT I_{S/A}:clA-cook SG-guest(clA)-D-clA SG-meat(clE)-D-clE
 ‘The woman will cook the meat for the guest.’
- b *A-sɛɛk-a-w pan ɐ-siil-ooro ɛ-lɪw-ɛ-y.*
 SG-woman(clA)-D-clA FUT I_{S/A}:clA-cook-REFL SG-meat(clE)-D-clE
 ‘The woman will cook the meat for herself.’

Georgian has the particularity of having derived verb forms exclusively used to encode agent-beneficiary reflexivization, cf. example (23). They are traditionally called ‘subjective version’, but a label such as AUTOBENEFACTIVE VOICE would be more appropriate in a typological perspective.

(23) Georgian (Kartvelian)

- a *K'aba-s v-k'erav.*
 dress-DAT I_{S/A}:1SG-sew
 ‘I am sewing a dress.’
- b *K'aba-s v-i-k'erav.*
 dress-DAT I_{S/A}:1SG-AUTOBEN-sew
 ‘I am sewing a dress for myself.’

Morphologically, the autobenefactive marker of Georgian belongs to a paradigm whose other members (the so-called ‘objective version’ and ‘locative version’) are applicative markers (cf. chapter 14 §14.1.3).

11.2.5 Verbal marking of reflexivization and self-intensification: the case of Jóola Fóoñi

In Jóola Fóoñi, A-P reflexivization is encoded by means of the verbal suffix *-ɔɔɔ*, already illustrated in (21) and (22) above. (24) is another illustration of the use of *-ɔɔɔ* in reflexive constructions.

(24) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- V-niinɛ-ɐ-w ba-raan-ɛ b-ɛɛben man a-boj-ɔɔɔ.*
 SG-man(cIA)-D-clA CVB-drink-CVB SG-poison(cIB) CSC I_{S/A}:clA-kill-REFL
 ‘The man committed suicide (lit. ‘killed himself’) by drinking poison.’

As discussed in detail in (Creissels and Bassène 2023), there can be no doubt about the status of *-ɔɔɔ* as a voice marker, since *-ɔɔɔ* does not occupy the same slot as P indexes in the morphological structure of Jóola Fóoñi verb forms, and behaves clearly as a derivational suffix forming part of the verb stem.

However, this voice marker has two cross-linguistically rare properties. The first one is that, as a voice marker, its use is strictly limited to the coding of A-P reflexivization. The second one is that it can also be used to encode self-intensification of the S/A argument, in which case it triggers no change in valency.

For example, in (25a), *kamben-ɔɔɔ* is interpreted as encoding agent-patient coreference (‘lock self’). In (25b), the presence of the object index *-kɔ* resuming *kajonkɔtak* ‘the door’ excludes this possibility, but the first part of the sentence is decisive for the choice between the two possible readings ‘close s.th. for self’ (autobenefactive) and ‘close s.th. self’ (self-intensification of the S/A argument).

(25) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *Jaw ɔ-kamben-ɔɔrɔ di ka-limbis-a-k man ɔ-wɔraŋ.*
 go I_{S/A}:2SG-close-REFL PREP SG-room(cIK)-D-clK CSC I_{S/A}:2SG-undress
 ‘Go and lock yourself in the room to change your clothes.’
- b *Nɛɛn-ɔɔ a-kamben ka-jɔnkɔt-a-k,*
 I_{S/A}:1SG.tell-IP:clA I_{S/A}:clA-close SG-door(K)-D-clK
 ‘I told him/her to close the door,
naane ɪ-jaw ɪ-kamben-ɔɔrɔ-kɔ.
 I_{S/A}:clA.tell I_{S/A}:1SG-go sI:1SG-close-INT-IP:clK
 and s/he told me to go and close it myself.’

Similarly, the reflexive interpretation of *rɛg-ɔɔrɔ* < *rɛg* ‘tell’ is quite common, since in Jóola Fóoñi, as in many other languages, ‘think’ or ‘imagine’ can be expressed as lit. ‘tell to self’. However, in (26), the context is hardly compatible with the agent-addressee coreference reading, leaving self-intensification of the S/A argument as the only plausible reading.

(26) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- Ō-cɛɛŋ-ɔɔl, Ø-ɔɔ Ø-lɛt a-ñiil,*
 I_{S/A}:2SG-ask-IP:clA clA-PRO I_{S/A}:clD-not.to.be SG-child(A)
 ‘Ask him/her, s/he is not a child,
pan a-ŋɔɔlɛn a-rɛg-ɔɔrɔ.
 FUT I_{S/A}:clA-be.able I_{S/A}:clA-tell-INT
 s/he will be able to tell (it) him/herself.’

As already mentioned in §11.2.1, cross-linguistically, it is very common that the same forms have the ability to fulfill the functions of self-intensifiers and reflexive pronouns. The particularity of Jóola Fóoñi and other Jóola varieties is that they have a VERBAL AFFIX (rather than a free form) showing this co-expression pattern, which to the best of my knowledge is not a common situation in the world’s languages.

11.2.6 Metonymic reflexives

The term METONYMIC REFLEXIVE was introduced by Zribi-Hertz (1978) for a class of French constructions (further analyzed, among others, by Herslund (1997) and Waltereit (1999)) formally identical to true reflexive constructions expressing that a single participant cumulates the participant roles assigned to A and P in the transitive construction. In a metonymic reflexive construction, the participant encoded as if it cumulated two roles in a reflexive construction is interpreted as fulfilling the same role as the referent of A in the transitive construction, whereas the role assigned to P in the transitive construction is interpreted as fulfilled by an element of his/her personal sphere whose identity is left implicit, as in (27).

(27) French (Italic, Indo-European)

- Il doit s'économiser pour la suite.*
 I_{S/A}:3SG.M need.PRS.I_{S/A}:3SG REFL-spare-INF for D.SG.F continuation(F)
 ‘He needs to save forces for later.’

lit. ‘He needs to spare himself for the continuation.’

In this particular example (and this is often the case with metonymic reflexives), the metonymic reflexive interpretation is forced by the fact that, in the transitive construction of *économiser* ‘spare’, the P phrase normally does not refer to a human participant.

Metonymic reflexive constructions are particularly common in French. A sample of French verbs commonly used in such constructions is given in (28).

(28) French (Italic, Indo-European)

<i>se répéter</i>	lit. ‘repeat oneself’	> ‘repeat one’s own words’
<i>se prononcer</i>	lit. ‘deliver oneself’	> ‘deliver one’s opinion’
<i>se disperser</i>	lit. ‘scatter oneself’	> ‘scatter one’s efforts’
<i>se chercher</i>	lit. ‘search for oneself’	> ‘search for one’s own way’
<i>se raconter</i>	lit. ‘tell oneself’	> ‘tell one’s life’

Example (29b), to be compared with (29a), illustrates a metonymic reflexive construction with the German verb *äußern* ‘express’, whose equivalents in many other languages can be found in a similar construction: French (*s’exprimer*), Spanish (*expresarse*), Hungarian (*kifejezi magát*), English (*express oneself*), etc. Cysouw (2023: 106) characterizes such reflexive constructions as ‘endoreflexive’.

(29) German (Germanic, Indo-European)

a	<i>Er</i>	<i>äußert</i>	<i>sein</i>	<i>Bedauern</i>	<i>über</i>	<i>den</i>	<i>Fall.</i>
	3SG.M	express.PRS.I _{S/A} :3SG	his.SG.N	regret(N)	on	D.SG.M.ACC	case(M)
	‘He expresses his regret about the case.’						
b	<i>Er</i>	<i>äußert</i>	<i>sich</i>	<i>über</i>	<i>den</i>	<i>Fall.</i>	
	3SG.M	express.PRS.I _{S/A} :3SG	REFL	on	D.SG.M.ACC	case(M)	
	‘He expresses himself (=he expresses his views) about the case.’						

Example (29) illustrates a metonymic reflexive construction in Russian. Say (2008: 379) paraphrases *kserit’-sja* (lit. ‘xerox oneself’) as *kserit’ svoi bumagi* ‘xerox one’s own papers’.

(30) Russian (Slavic, Indo-European)

<i>Ty</i>	<i>čto,</i>	<i>budeš</i>	<i>kserit’-sja?</i>
2SG	what	FUT.I _{S/A} :2SG	xerox.INF-REFL
‘Well, are you going to do your xeroxing (lit. ‘... to xerox yourself)?			
(Say 2008: 379)			

As argued by Waltereit (1999), the partitive-reflexive constructions of grooming verbs can be thought of as the prototype of metonymic reflexives. In partitive-reflexive constructions, the grooming action performed by a person affects a specific part of his/her body, as in *He shaved (himself)* interpreted as ‘He shaved his own beard’ (or another bodypart that can be shaved, depending on the context). Cross-linguistically, the partitive-reflexive constructions of grooming verbs are extremely common, and the metonymic reflexives illustrated in the previous examples can be analyzed as the extension of the partitive-reflexive prototype to cases where the patientive participant that could be expressed as the P term of a transitive

construction is not mentioned explicitly because it belongs to the agentive participant's personal sphere, and can therefore be identified metonymically to the agentive participant.

Metonymic reflexives meet the usual definition of antipassivization, and can be viewed as instances of what Cooreman (1994: 52) identifies as the use of the antipassive where the unexpressed patient is predictable or obvious. They have been analyzed as antipassives by Say (2008) and Janic (2016), among others. However, Holvoet (2020) and Holvoet & Daugavet (2020b) argue that metonymic reflexives should be analyzed as a natural extension of reflexivization, rather than a variety of antipassive. In fact, they are perhaps best viewed as ambiguous between a reflexive and an antipassive analysis, and consequently, as playing a key role in the grammaticalization path REFLEXIVE > ANTIPASSIVE (see §11.4.6).

11.2.7 Quasireflexives

The notion of QUASIREFLEXIVE EVENT accounts for the cross-linguistically widespread tendency of reflexive forms or constructions to extend their use to the coding of one-participant events that cannot be viewed as reflexive events *stricto sensu*, although they have an affinity with reflexive events that explains the tendency to code them like bona fide reflexive events.

For example, in French, the formal relationship between *se lever* 'stand up', lit. 'raise oneself', and *lever* 'raise', is the same as between *se blesser* 'injure oneself' and *blesser* 'injure', although the semantic relationship is not identical: a person who is standing up cannot be described as performing on him/herself the same action as when raising another person or an object. However, the use of lit. 'raise oneself' in the sense of 'stand up' has a clear semantic motivation in that a person who is standing up is the instigator of an event whose manifestations concern exclusively his/her own body.

Consequently, I propose the term of QUASIREFLEXIVITY for the type of relationship between verbs encoding one- and two-participant events illustrated in French by *lever* 'raise' / *se lever* 'stand up'. Quasireflexivity can be defined as follows:

- the base verb denotes a two-participant event, whereas the derived verb denotes a one-participant event;
- the visible effects of the action performed by the unique participant in the event encoded by the derived verb are the same as if s/he were the affected participant in the two-participant event encoded by the base verb;
- the unique participant in the event encoded by the derived verb acts consciously and voluntarily, but in a way that cannot be assimilated to the action performed by the agentive participant in the two-participant event encoded by the base verb.

In Geniušienė's (1987) terminology, quasireflexives are designated as 'autocausatives'.

11.3 Reciprocalization

11.3.1 Reciprocal events, reciprocal constructions, reciprocalization

Prototypical reciprocal events are two-participant events implying two participant roles that are shared by the two participants, as in (31b), which can be paraphrased as *John greeted Peter and Peter greeted John*.

- (31) English (Germanic, Indo-European)
 a *John greeted Peter.*
 b *John and Peter greeted each other.*

The definition of reciprocal events with more than two participants involved in the reciprocal relationship is less straightforward. For example, *The guests greeted each other* does not necessarily imply that each of the guests greeted all the others, but only that a sizeable proportion of the guests greeted another members of the group and were also greeted, not necessarily by the same persons. It is no exaggeration to say that “reciprocal constructions arguably denote the most complex event type to be expressed in most languages by regular grammatical means” (Evans 2008: 33). For a detailed discussion of the complex semantics of reciprocal events, see (Evans & al. 2011).

Example (31b) illustrates a cross-linguistically common way of coding reciprocal events: the construction is the same as that of clauses referring to the same event with distinct participants fulfilling each of the two roles, the S/A phrase represents the group of participants involved in the reciprocal relationship, and the other syntactic role involved in the reciprocal relationship is fulfilled by a reciprocal pronoun. Depending on the individual languages, this type of reciprocity coding may involve fully dedicated reciprocal pronouns or forms that transparently result from the grammaticalization of nouns such as ‘like’ or ‘companion’, or of word combinations such as ‘one one’ or ‘one other’, cf. the entry RECIPROCAL in the Target-Source List of the World Lexicon of Grammaticalization (Kuteva & al. 2019).

However, when the two roles shared by a group of participants are normally encoded as A and P in a transitive construction, many languages use another type of reciprocal construction, in which the group of participants sharing two roles is encoded as the unique core term in clauses projected by a derived intransitive verb form, as in (32b). It may also happen that one / a subset of the participants involved in the reciprocal relationship is encoded as the S of a derived intransitive verb form, the other(s) being encoded as a comitative adjunct, as in (32c).

- (32) Tswana (Bantu, Benue-Congo, Niger-Congo)
 a *Kítsó ¹ó-rát-á Lòrátó ¹t^hâ:tà.*
 PRN(c11) I_{S/A}:c11-love-FV PRN(c11) much
 ‘Kitso loves Lorato much.’
 b *Kítsó lí-Lòrátó ¹bá-rát-án-à t^hâ:tà.*
 PRN(c11) with-PRN(c11) I_{S/A}:c12-love-RECP-FV much
 ‘Kitso and Lorato love each other much.’

- c *Kítsó* ¹*ó-rát-án-à* *lí-Lòrà:tò.*
 PRN(c11) I_{S/A}:c11-love-RECP-FV with-PRN(c11)
 ‘Kitso and Lorato love each other.’
 lit. ‘Kitso loves each other with Lorato.’

The reciprocal constructions of the type illustrated in (32c), discussed in detail by Dimitriadis (2004), are known in the literature as DISCONTINUOUS RECIPROCAL CONSTRUCTIONS. In (32c), the verb form includes a singular A/S index, which is consistent with the fact that the corresponding syntactic slot is occupied by a singular NP (the proper name *Kítsó*), but this is not necessarily the case in all the languages that have this kind of reciprocal construction. For example, in Jóola Fóoñi, when two participants involved in a reciprocal relationship are dissociated, one of them being represented by an NP in postverbal position as if it were a comitative adjunct, the A/S index in the verb form is a plural index, as in (33b), where BK agreement can be characterized semantically as human plural.

(33) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *A-kamana-a-w* *a-rɛ~rɛg* *a-paal-ɔɔl* *si-kullɛ-ɸ-s.*
 SG-boy(c1A)-D-clA I_{S/A}:c1A-tell~ASRT SG-friend(c1A)-I_{ADP}:c1A PL-secret(c1S)-D-clS
 ‘The boy told secrets to his friend.’
- b *A-kamana-a-w* *kɪ-rɛgɔɔ~rɛgɔɔr* *dɪ* *a-paal-ɔɔl* *si-kullɛ-ɸ-s.*
 SG-boy(c1A)-D-clA I_{S/A}:clBK-tell.RECP~ASRT with SG-friend(c1A)-I_{ADP}:c1A PL-secret(c1S)-D-clS
 ‘The boy and his friend told secrets to each other.’
 lit. ‘The boy they-told.to.each.other with his friend secrets.’

Evans & al. (2007) describe as valency mismatches in the coding of reciprocity various phenomena that can be found in the reciprocal constructions of some Australian languages. The reciprocal constructions in question involve verbal marking of reciprocity but show some particularities that distinguish them from plain intransitive constructions. Such a phenomenon is also mentioned by Maslova (2008) in the Bantu language Tonga. In (34), the verb form includes a reciprocal marker cognate with that found in the Tswana example (32), but in contrast to the common type of discontinuous reciprocal construction illustrated in (32c), the phrase in a syntactic role other than S that refers to part of the participants involved in the reciprocal event does not show the coding characteristics of a comitative adjunct, but rather of a P phrase, at least as regards the absence of flagging. Moreover, as in the Jóola Fóoñi example (33b), the verb shows plural agreement, in spite of the fact that the S/A slot is filled by a singular NP.

(34) Tonga (Bantu, Benue-Congo, Niger-Congo)

- Joni ba-la-yand-an-a* *amukaintu wakwe.*
 PRN 3PL-PRS-love-RECP-FV wife his
 ‘John and his wife love each other.’
 (Collins 1962: 74; cited in Maslova 2008: 230)

Reciprocal constructions involving a derived intransitive form of transitive verbs are quite widespread cross-linguistically, but most of the time, as developed in §§11.3.2-3, the derived

verb forms expressing reciprocity also have uses related either to co-participation or to reflexivization.

11.3.2 Reciprocity, co-participation, and the reciprocal-antipassive polysemy

The reciprocal-antipassive polysemy has already been evoked in chapter 10 §10.81. Another co-expression pattern in which the voice markers used for reciprocalization are commonly involved is the use of the same markers for SOCIATIVE derivation, i.e., the formation of derived verbs expressing joint action (co-participation) without any change in the valency. The reciprocal-sociative polysemy is discussed in general terms by Nejalkov (2007a), and also with reference to several languages in other chapters of the same volume.

For example, Turkish has a verbal suffix *-(I)ş* commonly designated as ‘reciprocal suffix’, whose meaning is described in Turkish grammars as indicating a reciprocal OR MUTUAL action. This suffix has a reciprocal interpretation when it attaches to transitive verbs, as for example *bak-ış* ‘look at one another’, but with intransitive verbs, the same suffix indicates co-participation with identical roles: *koş-uş* ‘run together’, *gül-üş* ‘laugh together’, etc.

For a proper understanding of the co-expression patterns in which reciprocal, sociative and antipassive markers may be involved, it is important to keep in mind that:

- (a) reciprocity can be viewed as a particular type of co-participation;
- (b) co-participation can be viewed as an extension of the notion of reciprocity;
- (c) co-participation marking can be understood as including situations in which the question of semantic role assignment to individual participants is left open, and contextual factors or world knowledge constitute the basis on which particular semantic roles are assigned to individual participants.

The notion of co-participation can conveniently be defined as characterizing constructions that imply a plurality of participants in the event they refer to without assigning them distinct roles. This definition groups together three types of situations that can be termed UNSPECIFIED CO-PARTICIPATION, PARALLEL CO-PARTICIPATION, and RECIPROCAL CO-PARTICIPATION.

In constructions with a meaning of unspecified co-participation, an event involves two or more participants that may assume distinct roles, but the construction by itself leaves open the precise role assumed by some of them, and role recognition crucially relies on lexical and/or pragmatic factors. Constructions with a meaning of parallel co-participation (typically expressed by *together* in English) imply that two or more participants share the same role, and constructions with a meaning of reciprocal co-participation imply a plurality of participants interacting in such a way that at least some of them fulfill two distinct roles in their interaction with the others.

Such definitions are necessary, but the linguistic manifestations of the different types of co-participation are not always easy to identify, and shifts are not rare, from one type of co-participation to another, or from co-participation to types of role assignment in which each participant receives a distinct role.

For example, many languages have markers such as English *with*, commonly defined as polysemous, with a comitative meaning and an instrumental meaning, and COMITATIVE > INSTRUMENTAL is a very common diachronic process. The notion of comitative is commonly defined in a way that makes it compatible with the notion of parallel co-participation, whereas

the notion of instrumental implies a conceptualization of the event in which each participant explicitly receives a distinct role, and consequently, cannot be included in parallel co-participation. Moreover, the notion of parallel co-participation is too restricted to cover the variety of non-instrumental uses of *with*. For example, *John came with Peter* can indistinctly refer to situations that could be described in a more precise way by sentences such as *John and Peter came together*, *John came and brought Peter with him*, *John came in the car driven by Peter*, etc.

The distinction between abstract meaning and default interpretation provides a possible explanation of such facts. According to this kind of analysis, *with* has unspecified co-participation as its abstract meaning, and parallel co-participation as its default interpretation. This definition of the meaning of *with* leaves open the possibility that contextual and/or pragmatic factors force interpretations of *with* whereby the noun phrase introduced by *with* represents a participant whose role is more or less distinct from those assumed by the other participants. For example, *X came with Y* says nothing about the precise way the entity represented by the term Y participates in the event. In the absence of any other indication, the default interpretation will therefore be that X and Y came together. But the construction by itself does not necessarily imply a meaning of parallel co-participation, even when X and Y represent entities of the same type (as in *John came with Peter*). And in sentences in which X and Y are necessarily assigned distinct semantic roles, such as *Mary came with her baby* (= *Mary brought her baby*) and *Mary came with her bicycle* (= *Mary used her bicycle to come*), it seems reasonable to posit that the difference in the interpretation is determined by the semantic nature of the entities denoted by the nominal terms of a construction whose abstract meaning is unspecified participation.

In this perspective, the diachronic shift COMITATIVE > INSTRUMENTAL can be analyzed as involving both the loss of the default interpretation of parallel co-participation and the semanticization of a contextually determined interpretation. The interest of this analysis is confirmed by the fact that, cross-linguistically, the use of comitative markers to code participants with specific roles recoverable from the context, and the tendency to semanticize such uses, are not limited to the expression of an instrumental meaning, as illustrated by the fact that some languages use comitative markers to flag the denucleativized agent in passive constructions.

Returning to the verbal derivations currently identified as reciprocal in descriptive grammars, it is interesting to observe that derived verb forms used most commonly in a way compatible with the notion of reciprocity may also have more or less marginal uses that cannot be described as reciprocal. Such ‘reciprocal’ verb forms clearly have reciprocity as their default meaning, but can also be used with a meaning of unspecified or parallel co-participation in contexts that exclude a reciprocal interpretation.

Some Tswana data are particularly suggestive in this respect. The Tswana verbs derived by means of the suffix *-an-* are commonly termed reciprocal, and this designation is justified by the fact that they almost always unambiguously convey a reciprocal meaning. However, verbs derived by means of the suffix *-an-* are also found, although sporadically, in contexts in which speakers unanimously interpret them as non-reciprocal. For example, the only possible meaning of *bóp-áχ-án-à* (< *bóp-éχ-á* ‘take shape’) is ‘fuse together’, and *χán-án-á* (< *χán-á* ‘refuse’) is commonly interpreted as ‘disobey’. Example (35) is particularly interesting. A reciprocal interpretation of (35a) is not excluded, but this ‘reciprocal’ clause is commonly

understood as synonymous with the transitive clause (35b), in which *bàtl-à* ‘look for’ combines with *lipòdísí* ‘policeman’ in A role, and *líχòdù* ‘thief’ in P role.

(35) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Mà-pòdísí* *’á-bátł-án-à* *lí-lí-χó:dù.*

PL-policeman(cl6) I_{S/A}:cl6-look.for-RECP-FV with-SG-thief(cl5)

abstract meaning: ‘The policemen are involved in a looking-for event that also involves a thief.’

preferred interpretation: ‘The policemen are looking for the thief.’

b *Mà-pòdísí* *’á-bátł-á* *lí-χò:dù.*

PL-policeman(cl6) I_{S/A}:cl6-look.for-FV SG-thief(cl5)

‘The policemen are looking for the thief.’

Such observations can easily be accounted for by positing that:

- (a) reciprocity is the default interpretation of Tswana *an*-verbs,
- (b) the reciprocal interpretation of Tswana *an*-verbs can be cancelled by the lexical meaning of the verb, or by pragmatic factors,
- (c) the cancellation of the default interpretation of reciprocity results in activating an instruction to go back to the more abstract meaning of co-participation, and to construct an interpretation compatible with the factors that have led to the cancellation of the default meaning.

For example, a reciprocal interpretation of *bóp-áχ-án-à* ‘fuse’ is excluded, since *bóp-éχ-á* ‘take shape’ has only one semantic role to assign, but a meaning of parallel co-participation (‘take shape together’ > ‘fuse’) is easy to imagine.

In the case of *χán-án-á* ‘disobey’ < *χán-á* ‘refuse’, a reciprocal interpretation is not totally excluded, but one usually refuses a proposal, or a thing, not another person, which makes a reciprocal interpretation not very likely.

Finally, in the case of *bàtl-án-à*, in principle, a reciprocal interpretation of (34a) is perfectly possible, and what suggests not to retain it here is that, in real life, policemen are more likely to look for thieves than thieves to look for policemen.

In Tswana, the interpretation of the *an*-form of transitive verbs in a construction including a comitative adjunct seems to proceed as follows: the S term is assigned the same semantic role as A in the transitive construction of the corresponding non-derived verb, and the recognition of the precise way its referent interacts with the participant represented by the comitative adjunct relies on lexical, contextual and pragmatic factors, the reciprocal interpretation being only the default interpretation. The example of *bàtl-án-à* shows that interpretations of reciprocal verbs whereby a comitative adjunct is assigned the same semantic role as P in the transitive construction of the corresponding non-derived verb are not excluded. This results in sporadic antipassive uses of the reciprocal derivation of Tswana.

The Tuvan example (36), where *-ž-* is a voice marker typically used in reciprocal constructions, illustrates the same phenomenon, since the abstract meaning of this sentence is ‘Mother and associate(s) have been involved in a sucking event’, but for obvious reasons, it is commonly understood as ‘Mother has suckled the baby’.

(36) Tuvan (Turkic, Altaic)

Ava-škə-lar emzir-ž-ip olur-gan-nar.
 mother-COLL-PL suck-RECP-CVB AUX-CPL-I_{S/A}:3PL
 ‘Mother has suckled the baby.’
 lit. ‘Mother and associate(s) have sucked each other.’
 (Kuular 2007: 1214)

11.3.3 The reflexive-reciprocal polysemy and its possible sources

The reflexive-reciprocal polysemy, analyzed in detail by Heine & Miyashita (2008), is the most frequent co-expression pattern involving voice markers in the language sample analyzed by Bahrt (2021).

As illustrated in (37a-b) with the K’ichee’ reflexive-reciprocal pronoun *-iib’*, the reflexive-reciprocal polysemy may concern not only grammaticalized voice markers, but also pronouns. Note that the reflexive-reciprocal pronoun of K’ichee’ has no obvious etymology, but the fact that it is cross-referenced in the verb form by a 3rd person index, even when it refers to speech act participants, suggests that it results from the grammaticalization of a possessed noun. Moreover, the fact that this reflexive-reciprocal pronoun is basically a noun is confirmed by its possible use without possessive marking as the S term of passive clauses, as in (37c).

(37) K’ichee’ (Mayan)

- a *X-Ø-aw-il aw-iib’ pa ja’.*
 CPL-I_{S/P}:3SG-I_A:2SG-see I_{ADP}:2SG-self in water
 ‘You saw yourself in the water.’
- b *Aninaq x-Ø-qa-chapala’ q-iib’.*
 rapidly CPL-I_{S/P}:3SG-I_A:1PL-grab I_{ADP}:1PL-self
 ‘We grabbed each other rapidly.’
 (López Ixcoy 1997: 236)
- c *K-Ø-too’ iib’.*
 ICPL-I_{S/P}:3SG-help.PASS self
 ‘The people help each other.’ lit. ‘Self is helped.’
 (López Ixcoy 1997: 236, Campbell 2000: 293)

The use of the same pronouns in reflexive and reciprocal function is also found among others in Senufo languages, cf. for example (Coulibaly 2020: 272) on Minyanka.

Two possible functional explanations of the use of the same pronouns or markers in reflexive and reciprocal function can be considered. On the one hand, a reciprocal event can be viewed as a reflexive event involving a plural individual, but on the other hand, if a reciprocal event is defined as an event involving a set of participants in which a sizeable proportion of the participants fulfill the two roles implied by the lexical meaning of a bivalent verb, a reflexive event can be viewed as the borderline case where the set of participants is reduced to a single participant.

As regards the possible origins of the reflexive-reciprocal polysemy in voice markers, as observed by Bahrt (2021: 167-173, 185-192), who discusses this question in great detail, relatively few language families provide convincing evidence supporting the hypothesis of a

development from reflexive to reciprocal or from reciprocal to reflexive. The development from reflexive to reciprocal is attested in several branches of Indo-European, and evidence of a similar development can be found in some other languages families. As regards the development from reciprocal to reflexive, Heine & Miyashita (2008: 216) argue explicitly that “reciprocals do not seem to grammaticalize into reflexives”, but Bahrt (2021: 185-192) shows that there are some language families in which it seems hardly disputable that the development occurred in the reciprocal > reflexive direction. The case of the Turkic language Tuvan (Kuular 2007) is particularly convincing.

11.4 Middle voices and their development

11.4.1 The notion of middle voice

Derived verb forms of transitive verbs having the ability to code decausativization are cross-linguistically very common, but most of the time, such forms are also used more or less productively in other functions having in common that they imply detransitivization of transitive verbs: reflexive, reciprocal, passive, and/or antipassive. The explanation is that:

- decausative markers commonly result from the evolution of reflexive or reciprocal markers;
- reflexive and reciprocal markers are also a common source of antipassive markers;
- decausative markers are a common source of passive markers.

Given the very high frequency of these co-expression patterns involving decausative markers, in the perspective of defining descriptive concepts likely to be relevant to the description of an important proportion of the world’s languages and to the search for cross-linguistic generalizations, I propose to generalize the terminological practice already adopted in many descriptive traditions and theoretical works, and to operate with a cross-linguistic definition according to which a middle voice is A MULTIFUNCTIONAL VOICE WHOSE PRODUCTIVE USES INCLUDE THE MARKING OF DECAUSATIVIZATION.¹²³

Inglese (2022a: 494) proposes a different definition, according to which a middle marker meets the following three characteristics: (i) it occurs with bivalent (or more) verbs to encode one or more of the following valency-changing operations: passive, decausative, reflexive, reciprocal, antipassive, (ii) the same construction is also obligatory with some (at least monovalent) verbs that cannot occur without middle marker, and (iii) the semantics of (at least some of) the verbs in (i) does not match that of those in (ii) or vice versa. In principle, this definition is not equivalent to that used in this book, since it does not consider the marking of decausativization as a definitional property of middle voices, and conversely, the definition used in this book does not consider the existence of lexicalized uses of middle markers as a definitional property of middle voices. However, in practice, voices meeting Inglese’s definition of middle voice but not the definition of middle voice used in this book, or vice versa, are certainly not common. I am aware of no language having a voice that would meet my definition of middle voice and would not also have lexicalized uses, and conversely,

¹²³ Note that some authors use the term *middle* in a more restricted sense, corresponding either to what is called here ‘quasireflexive’, or to what is called here ‘facilitative’.

Inglese shows that, cross-linguistically, markers meeting his definition of middle markers are most conspicuously found in decausative function and with middle-only verbs denoting spontaneous events.

Examples of voices meeting the definition of middle voice put forward above abound in the languages of the world, in particular in various branches of Indo-European. Indo-European middle voices typically involve voice markers that are reflexes of the Indo-European reflexive pronoun **s(w)e* (Italian *si*, Russian *-sja*, Lithuanian *-s(i)*, Swedish *-s*, etc.), see e.g. de Benito Moreno (2022) for a detailed analysis of the middle voice in Ibero-Romance. Detailed analyses of middle markers and their relationship with reflexivization in non-Indo-European languages are provided among many others by Vihman (2002, 2004) on Estonian, Nougier Voisin (2002 chapter 3) on Wolof (Wolof, Atlantic, Niger-Congo), Renaudier (2012 chapter 11) on Seereer (Fula-Seereer, Atlantic, Niger-Congo), Farina (2011) on Syriac (Semitic, Afroasiatic), Mous & Qorro (2000) on Iraqw (Southern Cushitic, Cushitic, Afroasiatic), Lahaussis (2023) on Thulung (Kiranti, Sino-Tibetan), Döhler (2023) on Komnzo (Tonda, Yam), Brooks (2023) on Chini (Ramu, Ramu-Lower Sepik), Gerds & Hukari (2006b) on Halkomelem (Central Salish, Salishan), Michelson (2023) on Oneida (Northern Iroquoian, Iroquoian), Zariquiey (2023) on Kakataibo (Panoan, Pano-Tacanan), Zurlo (2016) on Toba (Guaycuruan), and Rose (2023) on Mojeño Trinitario (Bolivia-Paraná, Arawakan).

Note that middle voices are well-attested not only as derivational voices, but also as (one of the) non-default voice(s) in inflectional voice systems.

There is, however, important cross-linguistic variation in the precise range of the uses of the voices meeting the definition of middle voices adopted in this book, even within groups of closely related languages. For example, Romance languages differ greatly in the availability of their middle voices for passive and antipassive uses.

Scandinavian languages provide another good example of variation in the uses of historically related middle voices within a group of closely related languages. As shown by Wiskandt (2019), all Scandinavian languages have a verbal suffix *-s* or *-st* (reflex of the Indo-European reflexive pronoun **s(w)e*) that can be analyzed as a middle marker. However, decausative and reciprocal are the only uses of this middle marker attested in all Scandinavian languages. Its other uses vary across Scandinavian languages as follows:

- The reflexive use of the middle marker has been completely lost in Mainland Scandinavian (Danish, Norwegian and Swedish), whereas it subsists at least to some extent in Insular Scandinavian (Icelandic and Faroese).
- The use of the middle marker to denote “a disposition of the subject to undergo a certain action” is found in Insular Scandinavian, but not in Mainland Scandinavian.
- The passive use of the middle marker is more productive in Mainland Scandinavian than in Insular Scandinavian.
- Swedish is the only Scandinavian language in which the middle marker is relatively productive in antipassive function.

(Geniušienė 1987), (Kemmer 1993) and (Inglese 2022a) mark important milestones in the investigation of middle voices in the perspective of typology and language universals. (Geniušienė 1987) is the first systematic cross-linguistic study of the co-expression patterns in which forms or constructions whose initial function is the expression of reflexivity may be

involved. Kemmer's (1993) principal aim was to provide a typologically valid characterization of the category of middle voice in terms of which it could be incorporated in a cognitively-based theory of human language. The main theses in Kemmer's book are that (i) there is a coherent, though complex, semantic category of middle voice in human language, which receives grammatical instantiation in many languages, and (ii) there is a semantic property crucial to the nature of the middle, which she terms "relative elaboration of events", that serves as a parameter along which the reflexive and the middle can be situated as semantic categories intermediate in transitivity between one-participant and two-participant events. Inglese (2022a) expresses doubts about low elaboration of events as the best explanation of the polyfunctionality of middle markers, and wonders whether "the similarities (and divergences) in the configuration of middle voice systems are ultimately mostly due to diachronic factors".

11.4.2 From reflexive to decausative: the reflexive-quasireflexive-decausative continuum

Reflexive constructions have an obvious propensity to extend their use well beyond the expression of reflexivity. Crucially, this tendency manifests itself even in formally transitive reflexive constructions involving a reflexive pronoun in P role. This phenomenon can be observed in English, where the intensive-reflexive pronoun *-self* in P role can be found not only in true reflexive constructions in which it marks that the referent of A also fulfills the participant role normally assigned to the P phrase, but also in constructions such as (37), which meet the definition of decausativization.¹²⁴

(38) English (Germanic, Indo-European)

This problem usually resolves itself after a few days.

Similarly, Álvarez González (2007) observes that, in Yaqui, with the verbs 'tangle up', 'lose', 'close', and 'open', the reflexive pronoun "can also be found as a marker of non-agentive event constructions in which it does not imply reflexivity (i.e., co-reference between subject and object), but anticausativity", cf. example (39).

(39) Yaqui (Cahita, Uto-Aztecan)

a *Joan bentaana-ta eta-k.*

PRN window-ACC close-CPL

'Juan closed the window.'

b *U bentaana emo eta-k.*

D window self close-CPL

'The window closed.' lit. 'The window closed itself.'

(Álvarez González 2007: 16)

The extension of reflexive marking to quasireflexive events as defined in §11.2.7 above can be viewed as an important move in the emergence of decausative uses of reflexive marking.

¹²⁴ For a detailed account of the non-reflexive uses of *itself* in English, see Geniušienė (1987: 179-216), Siemund (2008).

This extension is certainly favored by the existence of intermediate cases between uncontroversial reflexives and uncontroversial quasireflexives. For example, *wash (self)* stands closer to the reflexive prototype than *stand up*, but cannot be viewed as denoting a fully prototypical reflexive event either, since washing oneself is not exactly performing on oneself an action normally performed on other persons. This ambiguous status of *wash* and other grooming verbs has its linguistic manifestation in the fact that grooming verbs systematically show reflexive/middle marking in some languages (for example, French), whereas in other languages in which reflexive marking is required for prototypical reflexives (for example, English), grooming verbs are commonly used intransitively without any voice marking. Another possibility is that prototypical reflexive events and grooming events are encoded by means of two distinct voice markers, as in Jóola Fóoñi, where *-ɔɔɔ* is a dedicated reflexive marker (40a), but reflexivization in the case of grooming verbs is marked by *-ɔ* (40b), a middle marker particularly productive in decausative function, as in (40c).

(40) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *A-ηɔɔlɛn-ɔt* *a-pacɛn-ɔɔɔ*.
 I_{S/A}:clA-be.able-NEG I_{S/A}:clA-save-REFL
 ‘S/he was not able to save himself.’
- b *A-ηɔɔlɛn-ɔt* *a-pɔs-ɔ*.
 I_{S/A}:clA-be.able-NEG I_{S/A}:clA-wash-REFL
 ‘S/he was not able to wash (him/herself).’
- c *Kɛ-rumbɛ-ɛ-k* *kɔ-lɔ~lɔ*, *bare* *kɔ-fɔm-ɔ-ɔt*.
 SG-pot(clK)-D-clK I_{S/A}:clK-fall~ASRT but I_{S/A}:clK-break-DECAUS-NEG
 ‘The pot fell but did not break.’

As regards the extension of reflexive marking to decausativization marking, the crucial observation is that, for an outside observer, quasireflexive events are similar to the spontaneous events typically encoded by means of decausative constructions, from which they differ essentially in that the unique nuclear participant in a quasireflexive event exerts control on the event, whereas the unique essential participant in the kind of event typically encoded by means of decausative constructions is viewed as exerting no control. This explains why many languages use the same derived verb forms in quasireflexive and decausative function, as illustrated in ex. (41) by the French verb (*se*) *lever* already used above to introduce the notion of quasireflexivity. In fact, in such an example, the interpretation of the construction as quasireflexive or decausative entirely relies on the fact that the referent of the S phrase is animate or inanimate.

(41) French (Italic, Indo-European)

- a *L’homme* *se* *lève*.
 D.SG.M-man(M) REFL raise.PRS.I_{S/A}:3SG
 ‘The man is standing up.’ (quasireflexive)
- b *Le* *brouillard* *se* *lève*.
 D.SG.M fog(M) DECAUS raise.PRS.I_{S/A}:3SG
 ‘The fog is lifting.’ (decausative)

The fuzzy limit between typical reflexive constructions and quasireflexive constructions, and between quasireflexive constructions and decausative constructions, certainly plays a crucial role in the tendency to extend reflexive marking to events lending themselves to a quasireflexive or decausative type of conceptualization.

Interestingly, as already mentioned above, constructions that have the appearance of reflexive constructions, but can only have a decausative interpretation, can be found even in languages expressing reflexivity by means of transitive constructions with a reflexive pronoun in P role. In other words, morphologicization of reflexive marking is not a pre-requisite for the development of non-reflexive uses of reflexive marking.

However, as discussed by Inglese (2022b), some languages show evidence of a diachronic development in the opposite direction, thereby also supporting the anticausative > reflexive/reciprocal shift argued for Hittite by Inglese (2020).

11.4.3 Development of middle voices and renewal of reflexive marking

Another interesting observation is that, at some stage of their evolution, it is not rare that middle voices whose ultimate origin is a reflexive construction lose the ability to encode typical reflexive events that constituted their original function, subsisting only in other functions. For example, in Scandinavian languages, the reflexive use of the middle marker *-s(t)* (reflex of the Indo-European reflexive pronoun **s(w)e*) still subsists to some extent in Icelandic and Faroese (mainly in quasireflexive function), but in Mainland Scandinavian languages, reflexivization and quasireflexivization can only be encoded by means of the reflexive strategy using a free reflexive pronoun.

In Wolof, the middle marker *-u* is used in reflexive constructions involving grooming verbs, for example with *sang-u* ‘wash (self)’ < *sang* ‘wash’, but apart from grooming verbs, co-reference between A and P can only be encoded by means of the pronominal strategy with *bopp* ‘head’ combined with a possessive in the role of reflexive pronoun.

11.4.4 From reciprocal to decausative

The evolution of reciprocal markers that may have a connection with pluractionality but have no connection with reflexivity is another possible explanation of the existence of multifunction detransitivization markers with functions including the expression of anticausativity, but not reflexivity. This development, whose functional motivation is much less obvious than the acquisition of a decausative function by reflexive markers, is however well-documented by the evolution of reciprocal markers in some Bantu languages (see Dom & al. (2016) and references therein), and has also been observed in Oceanic languages (see Nedjalkov (2007b) and references therein).

11.4.5 From decausative to passive: the decausative-quasipassive-passive continuum

As already mentioned, Indo-European languages provide ample evidence for the grammaticalization path REFLEXIVE > DECAUSATIVE > PASSIVE, analyzable as the sequence of the following two steps: REFLEXIVE > QUASIREFLEXIVE > DECAUSATIVE and DECAUSATIVE > QUASIPASSIVE > PASSIVE. In some of the Indo-European languages in which the Indo-European reflexive pronoun **s(w)e* has grammaticalized as a middle marker, its passive uses

are not fully productive (this is for example the case in French), whereas in others (Spanish, or Russian), the Indo-European reflexive pronoun **s(w)e* converted into a middle voice marker subsequently acquired a productive passive use with reference to specific events implying full-fledged agents. In example (42), (a) illustrates the original reflexive function of the middle marker of Russian *-sja*, whereas (b) illustrates the passive use of the same marker.¹²⁵

(42) Russian (Slavic, Indo-European)

a *Ivan moet-sja*

PRN(M) wash.IPFV.PRS.I_{S/A}:3SG-REFL

‘Ivan is washing.’

b *Dver’ budet otkryvat’-sja Ivan-om.*

door(F) be.PRS.I_{S/A}:3SG open.IPFV.INF-PASS PRN(M)-INS

‘The door will be opened by Ivan.’

As discussed in chapter 9 §9.4, quasipassive uses of decausative verb forms are common, and their development can be explained by the fact that, in decausativization, the initial A is suppressed from the participant structure of the construction but is still present in the lexical structure of the verb. The final step of the grammaticalization path DECAUSATIVE > QUASIPASSIVE > PASSIVE. can be explained by the fact that the reanalysis of quasipassive constructions as expressing passivization does not require more than the relaxation of the constraints on the quasiagent and the interpretation of its role.

11.4.6 From reflexive or reciprocal to antipassive

Detransitivization markers serving an antipassive function alongside with a decausative function and other functions commonly expressed by middle markers are extremely common cross-linguistically, although this phenomenon is often overlooked in descriptive grammars. For example, Sapién & al. (2021) observe that, although no published reference grammar of a Caribbean language has described an antipassive use of the detransitivization marker found in all Caribbean languages, they encountered a substantial number of examples that can only be characterized as antipassive in texts from the five Caribbean languages they examined (Akawaio, Hixkaryana, Kari’nja, Tiriyó, and Ye’kwana).

It follows from the discussion in §11.3.2 that there is no difficulty in conceiving the possibility of a grammaticalization path RECIPROCAL > ANTIPASSIVE.

As regards the possibility of a grammaticalization path REFLEXIVE > ANTIPASSIVE, it is uncontroversial that many Indo-European languages (in particular in the Romance, Germanic, Baltic and Slavic branches of Indo-European) have a more or less productive antipassive use of middle markers whose ultimate origin is the Indo-European reflexive pronoun **s(w)e*, as for example Russian *-sja* (43), Spanish *se* (44b),¹²⁶ or Lithuanian *-s(i)* (45b). As regards Spanish, an updated discussion of the antipassive use of *se* can be found in de Benito Moreno (2022: 70-75).

¹²⁵ In Russian, the middle form of verbs has a passive function with imperfective verbs only; perfective verbs have an analytic passive construction ‘*be* + past participle’.

¹²⁶ Note that, in Spanish, as in other Romance languages, the middle marker shows the same variation in person-number as the reflexive clitic pronoun from which it originates

(43) Russian (Slavic, Indo-European)

Beregite-s' sobaki, ona kusaet-sja.
 protect-REFL dog(F).GEN 3SG.F bite.PRS.I_{S/A}:3SG-ANTIP
 'Beware of the dog, it bites.'

(44) Spanish (Italic, Indo-European)

a *Aproveché la confusión.*
 take.advantage.of.CPL. I_{S/A}:1SG D.SG.F confusion(F)
 'I took advantage of the confusion.'

b *Me aproveché de la confusión.*
 ANTIP.1SG take.advantage.of.CPL.I_{S/A}:1SG of D.SG.F confusion(F)
 'I took advantage of the confusion.'

(45) Lithuanian (Baltic, Indo-European)

a *Mes naudojame elektr-q.*
 1PL use.PRS.I_{S/A}:1PL electricity-ACC
 'We use electricity.'

b *Mes naudojamė-s elektr-a.*
 1PL use.PRS.I_{S/A}:1PL-ANTIP electricity-INS
 'We use electricity.'
 (Geniušienė 1987: 70)

Example (46a) illustrates the antipassive use of the Swedish reflex of the Indo-European reflexive pronoun **s(w)e* in a construction in which the participant that would be encoded as the P term of the corresponding transitive constructions is left unexpressed, whereas (46b) illustrates an antipassive construction in which it is expressed as an oblique. In the latter case, the same meaning can be expressed by the transitive clause *Olle reta-r mig* (where *-r* is the present marker).

(45) Swedish (Germanic, Indo-European)

a *Nässlan bränn-s.*
 nettle.D burn-ANTIP
 'The nettle stings.'

b *Olle reta-s med mig.*
 PRN tease-ANTIP with 1SG
 'Olle teases me.'
 (Wiskandt 2019: 31)

The question that arises is whether antipassives can develop directly from reflexives, or only after reflexives have acquired a reciprocal function, as suggested by Sansò (2017). However, as already discussed in chapter 10 §10.9.1, there are languages for which the hypothesis of a reflexive > reciprocal > antipassive development is unlikely. Moreover, as observed by Holvoet (2020), there is no difficulty in imagining a direct development from reflexive to antipassive via reanalysis of metonymic reflexives as antipassives. The point is that metonymic reflexives (such as *He expressed himself* for *He expressed his opinion*) are in fact

ambiguous between a reflexive analysis and an antipassive analysis, and their reinterpretation as pure antipassives may result from the relaxation of the constraint according to which the unexpressed participant must be an element of the personal sphere of the participant expressed as the A/S term of the reflexive construction, or from the addition of an oblique phrase expressing the participant left implicit in the metonymic reflexive construction (something like *He expressed himself about his intentions*).

11.5 Middle marking, I-passivization and S-denucleativization

The use of middle forms in constructions meeting the definition of I-passivization is found among others in Spanish. (47a) illustrates the transitive construction of *encontrar* ‘find’. In (47b), the construction is detransitivized by the middle marker (originally, a reflexive clitic) *se*; the NP in post-verbal position governs verb agreement, and the construction is ambiguous between a reciprocal and a passive reading. In (47c), the NP in post-verbal position does not govern verb agreement, and it is flagged by the same preposition *a* as in (47a), where this preposition flags the P term of the transitive construction. Moreover, there is no possibility of adding an NP governing verb agreement. Consequently, the construction (47c) must be analyzed as an impersonal construction including a slot for a term showing P coding, but no slot for a term showing A coding.

(47) Spanish (Italic, Indo-European)

- a *El policía encontró a los ladrones.*
 D.SG.M policeman(M) find.CPL.I_{S/A}:3SG ACC D.PL.M thief(M).PL
 ‘The policeman found the thieves.’
- b *Se encontraron los ladrones.*
 REC/PASS find.CPL.I_{S/A}:3PL D.PL.M thief(M).PL
 ‘The thieves met.’ or ‘The thieves were found.’
- c *Se encontró a los ladrones.*
 ImpPASS find.CPL.I_{S/A}:3SG_{EXPL} ACC D.PL.M thief(M).PL
 ‘The thieves were found.’

Example (48) illustrates the use of middle marking in a Portuguese impersonal clause in which the S participant of *nadar* ‘swim’ is denucleativized.

(48) Portuguese (Italic, Indo-European)

- Aquí não se pode nadar.*
 here NEG DenuclS be.able.PRS.I_{S/A}:3SG_{EXPL} swim.INF
 ‘One can’t swim here.’

For the historical details of the extension of the use of middle markers to the marking of I-passivization and S-denucleativization in Romance, readers are referred to Wolfsgruber (2017).

11.6 Middle marking and perspectivization of three-participant events

Middle marking may also be used to modify the perspectivization of three-participant events involving two agentive participants (cf. chapter 7 § 7.2.2) without affecting the number of participants or their roles. In such cases, the participant selected by the middle form as A is in some sense less agentive than the initial A (which justifies the use of a verb form also used to mark decausativization), whereas the initial A is encoded as an oblique. For example, in Lithuanian, ‘borrow’ derives from ‘lend’ via the addition of the middle marker *-s(i)*, cf. example (49).

(49) Lithuanian (Baltic, Indo-European)

- a *Petras pa-skolino man pinig-ų.*
 PRN PREV-lend.PST.I_{S/A}:3SG 1SG.DAT money-PL.GEN
 ‘Petras lent me some money.’
- b *Aš pa-si-skolinau iš Petro pinig-ų.*
 1SG PREV-DECAUS-lend.PST.I_{S/A}:1SG from PRN.GEN money-PL.GEN
 ‘I borrowed (lit. ‘I lent myself’) some money from Petras.’
 Geniušienė (1987: 73)

Verb pairs such as ‘borrow’ / ‘lend’ refer to the same event type with the same participants, but the participant selected as A in the construction of ‘lend’ is more agentive in the sense that, in such a transaction, what is crucial is the initial possessor’s willingness to conclude the deal. This analysis is confirmed by the observation that causative marking may also be used to express the perspectivization of the same three-participant events, but in that case, ‘lend’ formally derives from ‘borrow’ via addition of causative marking (cf. chapter 12 §12.4.2).

11.7 Dative-experiencer middles

The modal use of middle forms described in this section is found in Baltic and Slavic languages. It should not be confused with the facilitative use of decausative forms, much more widespread cross-linguistically, although the hypothesis of a development from facilitative can be considered, as argued by Holvoet & Daugavet (2020b). In this use of middle forms, also analyzed by Rivero (2003) and Nichols (2006), the middle marker is glossed DESID for ‘desiderative’.¹²⁷

Syntactically, the A/S term in the coding frame of the base verb corresponds to a dative NP in the coding frame of the middle form. With transitive verbs, as illustrated in (50) and (51), the P term of the initial construction may be converted into the S term of the derived construction, whereas with intransitive verbs, the derived construction can only be an impersonal construction in which the verb form expresses default 3rd person singular (or neuter singular) agreement, as in examples (52) and (53). Semantically, the construction expresses a meaning of unmanageable desire, which implies a change in the semantic role of the initial A/S, and this change is consistent with the conversion of the initial A/S into a dative oblique.

¹²⁷¹²⁷ The term used by Holvoet & Daugavet (2020b) is ‘dispositional’.

- (50) Serbo-Croat (Slavic, Indo-European)
- a *Deca jedu kajganu.*
 child.PL eat.IPF.PRS.I_{S/A}:3PL omelette.ACC
 ‘The children are eating omelette.’
- b *Deci se jede kajgana.*
 child.PL.DAT DESID eat.IPF.PRS.I_{S/A}:3SG omelette
 ‘The children are craving omelette.’
 (Ilić 2013: 23)
- (51) Bulgarian (Slavic, Indo-European)
- Na Ivan mu se četjaxa knigi.*
 DAT PRN I_{DAT}:3SG.M DESID read.PST.I_{S/A}:3PL books
 ‘Ivan felt like reading books.’
 (Rivero 2003: 473)
- (52) Lithuanian (Baltic, Indo-European)
- a *Aš ne-dirbu.*
 1SG NEG-work.PRS.I_{S/A}:1SG
 ‘I don’t work.’
- b *Man ne-si-dirba.*
 1SG.DAT NEG-DESID-work.PRS.I_{S/A}:3SG_{EXPL}
 ‘I don’t feel like working.’
 (Geniušienė 1987: 125)
- (53) Russian (Slavic, Indo-European)
- a *Ja ne rabotaju.*
 1SG NEG work.IPF.PRS.I_{S/A}:1SG
 ‘I don’t work.’
- b *Mne ne rabotaet-sja.*
 1SG.DAT NEG work.IPF.PRS.I_{S/A}:3SG_{EXPL}-DESID
 ‘I don’t feel like working.’

11.8 Affected-agent middles

Starting from the expression of agent-beneficiary reflexivization (or AUTOBENEFACTIVE, cf. §11.2.4), middle voices may develop uses involving no change in the number of participants, their syntactic status, or the denotative meaning of the clause, in which middle marking just highlights the affectedness of the participant coded as A or S. For example, in (54b), the middle marker *se* marks agent-beneficiary coreference in a construction potentially involving three distinct participants (*X buys Y for Z*), as shown by the possibility of a focalizing construction that singles out the beneficiary (54c), even if it is the same participant as the agent. By contrast, with (54d-e), the same transformation sounds quite unnatural, which shows that agent-beneficiary reflexivization is not at play here. The reason is simply that the lexical meaning of ‘eat’ is hardly compatible with the introduction of an additional participant

in beneficiary role, which forces an interpretation of the middle marker as highlighting the impact that the action may have on the agent.

(54) French (Italic, Indo-European)

- a *Il a acheté des chaussures.*
 3SG.M have.PRS.I_{S/A}:3SG buy.PTCP IDF.PL shoe(F).PL
 ‘He bought shoes.’
- b *Il s’est acheté des chaussures.*
 3SG.M REFL-be.PRS.I_{S/A}:3SG¹²⁸ buy.PTCP IDF.PL shoe(F).PL
 ‘He bought shoes for himself.’
- c *C’est pour lui-même qu’il a acheté des chaussures.*
 DEM-be.PRS.I_{S/A}:3SG for 3SG.M-INT that-3SG.M have.PRS.I_{S/A}:3SG buy.PTCP
 IDF.PL shoe(F).PL
 ‘It is for himself that he bought shoes.’
- d *Il a mangé un gâteau entier.*
 3SG.M have.PRS.I_{S/A}:3SG eat.PTCP IDF.SG.M cake(M) whole.SG.M
 ‘He ate a whole cake.’
- e *Il s’est mangé un gâteau entier.*
 3SG.M AffAG-be.PRS.I_{S/A}:3SG eat.PTCP IDF.SG.M cake(M) whole.SG.M
 ‘He ate a whole cake (and enjoyed it).’
- f ^{??}*C’est pour lui-même qu’il a mangé un gâteau.*
 DEM-be.PRS.I_{S/A}:3SG for 3SG.M-INT that-3SG.M have.PRS.I_{S/A}:3SG eat.PTCP
 IDF.SG.M cake(M)
 lit. ‘It is for himself that he ate a cake.’

The precise interpretation of middle markers encoding agent affectedness depends on the lexical meaning of the verb, and this use of middle markers is not equally productive in the languages in which it is possible. For example, it is much more productive in Spanish than in French (Creissels 2007). In example (55), sentence (b) illustrates this use of middle marking in Lithuanian.

(55) Lithuanian (Baltic, Indo-European)

- a *Petras įkvėpė or-o.*
 PRN PREV-inhale.PST.I_{S/A}:3SG air-GEN
 ‘Petras inhaled some air.’
- b *Petras įsi-kvėpė or-o.*
 PRN PREV-AffAG-inhale.PST.I_{S/A}:3SG air-GEN
 ‘Petras inhaled some air.’ (with an implication of agent affectedness)
 (Geniušienė 1987: 125)

¹²⁸ In French, middle marking automatically triggers the use of ‘be’ (instead of ‘have’) in completive auxiliary function.

11.9 Issues in the analysis of some uses of middle voices

11.9.1 The question of ‘converse reflexives’

Geniušienė (1987) distinguishes a use of middle forms she designates as ‘converse reflexives’, also analyzed by De Benito Moreno (2022: 75-78) for Spanish. This use of middle marking, analyzed by (Kulikov 2011b: 379-380) as expressing a special type of valency operation designated as ‘converse diathesis’ (or ‘conversive’) is illustrated by examples (56) to (60).

(56) Lithuanian (Baltic, Indo-European)

- a *Kolon-os laiko lub-as*
 column-PL.ZER support.PST.I_{S/A}:3PL ceiling-PL.ACC
 ‘Columns support the ceiling.’
- b *Lub-os laiko-si ant kolon-ų*
 ceiling-PL.ZER support.PST.I_{S/A}:3PL-PASS on column-PL.GEN
 ‘The ceiling is supported by columns.’
 (Geniušienė 1987: 118)

(57) Russian (Slavic, Indo-European)

- a *Grom ispuga-l-∅ sobaku.*
 thunder(M) frighten-PST-I_{S/A}:SG.M dog(F).ACC
 ‘The thunder frightened the dog.’
- b *Sobaka ispuga-l-a-s’ groma.*
 dog(F) frighten-PST-I_{S/A}:SG.F-PASS thunder(M).GEN
 ‘The dog was frightened by the thunder.’
 (Kulikov 2011b: 380)

(58) Russian (Slavic, Indo-European)

- a *Ozero otažayet lunu.*
 lake(N) reflect.IPF.PRS.I_{S/A}:3SG moon(F).ACC
 ‘The lake reflects the moon.’
- b *Luna otažayet-sja v ozere*
 moon(F) reflect.IPF.PRS.I_{S/A}:3SG-PASS in lake(N).LOC
 ‘The moon is reflected in the lake.’

(59) French (Italic, Indo-European)

- a *Le lac reflète la lune.*
 D.SG.M lake(M) reflect.PRS.I_{S/A}:3SG D.SG.F moon(F)
 ‘The lake reflects the moon.’
- b *La lune se reflète dans le lac.*
 D.SG.F moon(F) PASS reflect.PRS.I_{S/A}:3SG in D.SG.M lake(M)
 ‘The moon is reflected in the lake.’

(60) Spanish (Italic, Indo-European)

- a *Al niño le asustan los perros.*
 ACC.D.SG.M child(M) I_P:3SG.M frighten.PRS.I_{S/A}:3PL. D.PL.M dog(M).PL
 ‘The dogs frighten the child.’
- b *El niño se asusta con los perros.*
 D.SG.M child(M) PASS frighten.PRS.I_{S/A}:3SG. with D.PL.M dog(M).PL
 ‘The child is frightened by the dogs.’

In fact, as reflected in the glosses of the examples above, such constructions meet the definition of passive constructions, since there is no change in participant roles, and the participant encoded as the A term of the transitive construction is encoded as an oblique NP in the synonymous clause projected by a middle-marked verb.

This use of middle forms involves non-prototypical transitive verbs whose A refers to a non-agentive participant, and this semantic particularity correlates with a flagging of the oblique phrase corresponding to the A of the transitive construction different from the flagging of agent phrases in passive constructions of prototypical transitive verbs in the same language. As rightly observed by (Geniušienė 1987: 120), the verbs involved in such constructions are typically “stative verbs expressing spatial (or other) relations between the referents”, and “in statives, it is not always easy to define the semantic roles of referents”, which may explain that the flagging of the oblique phrase in this use of middle voices varies in the same language from one verb to another, “being definitely dependent on the lexical meaning of verb stems” (Geniušienė (1987: 119). However, as mentioned in chapter 9 §9.2.1.2, the possibility of a flagging of the oblique agent phrase distinct from that found with prototypical transitive verbs is a general property of the passive use of non-prototypical transitive verbs, irrespective of the type of marking involved. Consequently, the variation in the flagging of the oblique phrase is not a reason for rejecting the analysis of this use of middle forms as an instance of passivization.

11.9.2 The question of ‘autocurative reflexives’

Geniušienė (1987) distinguishes a use of middle forms she designates as ‘reflexive-causative (or autocurative) reflexives’, illustrated in (61) and (62) by the possibility of a causative reading of constructions whose literal meaning is ‘Petras cut the hair to himself’ (also interpretable as ‘Petras had the barber cut his hair’) and ‘The newcomers register themselves’ (normally interpreted as ‘The newcomers have the person on duty register them’).

(61) Lithuanian (Baltic, Indo-European)

- a *Kirpėj-as ap-kirpo Petrą.*
 barber-ZER PREV-cut.hair.CPL.I_{S/A}:3SG PRN.ACC
 ‘The barber gave Petras a hair-cut.’
- b *Petras ap-si-kirpo pas kirpėj-q.*
 PRN PREV-REFL-cut.hair.CPL.I_{S/A}:3SG at barber-ACC
 ‘Petras had his hair cut at the barber’s.’
 Geniušienė (1987: 124)

(62) Latvian (Baltic, Indo-European)

- a *Dežurant-s reģistrē ieraduš-os*
 man.on.duty-ZER register.PRS.I_{S/A}:3SG newcomer-PL.ACC
 ‘The man on duty registers the newcomers.’
- b *Ieraduš-ie reģistrēja-s pie dežurant-a*
 newcomer-PL.ZER register.PRS.I_{S/A}:3PL-REFL at man.on.duty-ACC
 ‘The newcomers register at the arrival desk.’
 Geniušienė (1987: 124)

Similar uses of middle forms are common in many languages, for example, Spanish, and also (although to a lesser extent) French.

(63) Spanish (Romance)

- Se cortó el pelo.*
 REFL cut.CPL.I_{S/A}:3SG D.SG.M hair (M)
 lit. ‘S/he cut the hair to him/herself.’
 > ‘S/he had [an unspecified causee] cut his/her hair.’

The problem with the analysis of such constructions as a particular functional type of middle constructions is that, as discussed in more detail by Creissels (2019b), the possibility of interpreting a clause showing no causative marking as implicitly causative is not restricted to clauses projected by middle verb forms. In the languages in which this use of middle verb forms is attested, it is also possible to interpret the A term of the corresponding plain transitive constructions as referring to an indirect causer rather than to the immediate agent.

For example, in Spanish, *operarse*, middle form of *operar* ‘perform surgery on s.o.’, is commonly interpreted as ‘have a surgery’ (rather than ‘perform surgery on self’). However, this must not be analyzed as a property of the derived verb *operarse*, but rather as a property inherited from the transitive verb *operar*, since it is also perfectly possible to interpret the A term in the construction of *operar* as referring to a person who decides to send another person to surgery (and not to the surgeon), as illustrated by example (64).

(64) Spanish (Italic, Indo-European)

- Operé a mi hijo,*
 perform.surgery.on.CPL.I_{S/A}:1SG ACC my.SG.M son(M)
 ‘I sent my son to surgery (lit. ‘I performed surgery on my son’),
que a mí me ha ido muy bien.
 that to 1SG.DAT I_{DAT}:1SG have.PRS.I_{S/A}:3SG go.PTCP very well
 and it went very well.’
 (<https://www.topdoctors.es/articulos-medicos/una-de-las-madres-me-llego-a-decir-opere-a-mi-hijo-que-a-mi-me-ha-ido-muy-bien>)

Consequently, there is no reason to consider a special category of ‘autocurative’ middles or reflexives, since the use of middle verb forms for which Geniušienė (1987) proposed this notion can be quite regularly derived from a similar use of plain transitive constructions.

11.10 Lexicalized middles, middle verbs without non-middle counterpart, optional middle marking

11.10.1 Lexicalized middles

All detailed descriptions of middle voices in individual languages mention that verbs combined with a middle marker have a very strong propensity to lexicalize. Remember that Inglese (2022a) considers the existence of lexicalized middles as a definitional characteristic of middle voices.

For example, Jóola Fóoñi *lakɔ* ‘sit’ corresponds to transitive *lak* ‘put (a pot) on the fire’. However, synchronically, the meaning of *lakɔ* cannot be predicted by analyzing it as deriving from *lak* via the addition of the middle suffix *-ɔ*. A plausible explanation is that, originally, the meaning of *lak* was something like ‘put’, and *lak-ɔ* was simply the corresponding quasireflexive ‘settle’. Subsequently, the lexical meaning of *lak* was restricted to a very particular type of putting event, with the result that, in the present state of the language, the meaning of *lakɔ* cannot be predicted from the meaning of *lak* anymore. In this particular case, the lexicalized use of the middle voice marker can be related historically to its quasireflexive use, but lexicalized uses of middle markers may develop from any other use of middle voices. For example, as discussed in chapter §10.3.8, French *s’apercevoir de* ‘become aware of’, historically related to *apercevoir* ‘spot, glimpse’, can be analyzed as resulting from the lexicalization of an antipassive use of the middle marker *se*.

I am aware of no counterexample to the generalization that the languages that have a voice meeting the definition of middle voice adopted in this book also have verbs that show middle marking but cannot be analyzed as the middle form of another verb in a synchronic analysis.

In this connection, it is interesting to mention the middle voice of Otomi (Otomian, Otomanguean) as analyzed by Palancar (2006) on the basis of a sample of 72 verbs displaying the middle morpheme. The middle voice of Otomi is an extreme case of a strongly lexicalized middle voice, since “about two-thirds of the verbs in the sample still show traces of lexical derivation, but the derivative process has become unproductive and most middle verbs in Otomi function as independent units in the lexicon, showing just a morphological connection to their source verbs”.

11.10.2 Middle verbs without non-middle counterpart

A particular case of lexicalized middles, illustrated by French *s’avérer* ‘turn out to be’, or *s’évanouir* ‘faint’, is that of middle verbs whose root is only attested (at least synchronically) with middle marking. Such verbs, traditionally called MEDIA / REFLEXIVA TANTUM, are discussed by Inglese (2022a: 514-517) as NON-OPPOSITIONAL MIDDLES. Following Kemmer (1993), they are commonly described in terms of the situation types they express. An important result of Inglese’s systematic survey of a sample of 129 middle-marking languages is that “spontaneous events, which are a marginal class in Kemmer’s typology, and verbs of translational motion, rank highest both in terms of number of languages and of verbs. By contrast, verbs of grooming and non-translational motion, which are analyzed by Kemmer (1993: 53-56) as constituting the semantic core of the middle domain, are in general less predominant. Another interesting finding is that in several languages, middle markers “also

occur with deponents, that is, highly transitive verbs like ‘break’ (Grestenberger 2016).” (Inglese 2022a: 515).

An interesting issue is whether lexicalized middles are necessarily secondary or might also be the source of valency-related usages of middle markers. See Inglese (2023) for discussion and references.

11.10.3 Optional middle marking

In the languages that have a middle voice, intransitive verbs are sometimes optionally found with middle marking without any change in the construction and without any obvious change in its meaning, as in Spanish *morir(se)* ‘die’. Geniušienė (1987: 137) quotes examples such as Lithuanian *liauti(s)* ‘stop (doing something)’ or *sėsti(s)* ‘sit down’. Her proposal is that, in such cases, middle marking “serves the pragmatic purpose of emphasizing the verbal meaning”.

This issue is also discussed for Spanish by de Benito Moreno (2022: Chap. 5), who argues that analogy with valency-related usages might be a driving factor behind the spread of optional reflexives (and their ultimate obligatorification).

11.11 Non-valency-related uses of middle markers

As mentioned in §11.10.3, it has been proposed to analyze optional middle marking as expressing emphasis on the verbal meaning.

Another possible pragmatic function of middle marking is mentioned by Treis (2023: 179-180) for the Cushitic language Kambaata, in which “the middle derivation has also acquired an intersubjective meaning and expresses the emotional involvement of the speaker – and not the subject – in a state-of-affairs”. This non-valency-related use of middle marking in Kambaata probably developed from the auto-benefactive function of middle marking, which is particularly prominent in Kambaata.

A different type of non-valency-related function of middle markers, already mentioned in chapter 8 §8.2.2.2, is the use of the same markers as verbalizers.

Middle markers may also be used as markers of $V > V$ derivations implying no valency change. According to Inglese (2022a: 509), two main groups of such functions can be identified: aspectual and low-transitivity functions. However, within the theoretical and terminological framework adopted in this book, marking a decrease in transitivity without affecting the number of participants is a particular type of valency operation, and the use of middle markers to encode inadvertent actions has been treated accordingly, i.e. as a particular subtype of quasipassive.

As regards the aspectual functions of markers also used as middle markers, Inglese (2022a: 510) observes that middle markers show different associations with the aspectual domain. In some languages, they show functions “connected with imperfectivity/atelicity”, whereas in some others, they are “associated with stativity/resultativity”. I am not in a position to be more specific on this point, but I would like to mention that the analysis of the aspectual functions of middle marking may be made difficult by the fact that such uses of middle markers may be more or less lexicalized. French *mourir* ‘die’ / *se mourir* ‘be near death’ is an extreme case of this phenomenon. In French, the middle form *se mourir* of *mourir* ‘die’ can

be used in exactly the same intransitive construction as the underived form *mourir*, with the aspectual meaning ‘be engaged in the process whose final outcome is death’. However, this use is only possible in the present and imperfect tenses, and I am aware of no other French verb whose middle form would be available to express the same aspectual meaning.

In fact, as a consequence of the difficulty in establishing regularities in this kind of use of middle marking, it may be difficult to draw a distinction between the non-valency-related functions of middle markers evoked in this section and the lexicalized or optional uses of middle marking dealt with in §11.10.

Chapter 12

Causativization

Causativization is probably the most widespread type of morphologically oriented valency alternation in the world's languages, and a huge amount of studies have been devoted to it during the last decades. The classical works on causativization include Comrie (1975, 1976, 1981, 1985), Comrie & Polinsky (1993), Song (1996), Dixon (2000), Shibatani (1976, 2002), Shibatani & Pardeshi (2001). In comparison with previous accounts of causativization in a broad typological perspective, a salient feature of this chapter is the attention devoted to the possibility of accounting for some a priori non-canonical uses of causative morphology by considering the usual definition of causativization as a particular case of a broader definition.

12.1 Definitional and terminological issues

12.1.1 Narrow vs. broad definition of causativization

Causativization *stricto sensu* is commonly defined as an oriented valency alternation in which the participant structure expressed by the derived construction and that expressed by the initial construction differ in that the derived construction mentions the involvement of a CAUSER showing the following two characteristics:

- formally, the causer is encoded as the A/S term of the derived construction;¹²⁹
- semantically, the causer instigates or controls the event denoted by the initial construction or controls its realization.

This definition implies that, if the participant expressed as the A/S term of the initial construction fulfills an active role in the event, its role in the event denoted by the derived construction is that of a CAUSEE acting under the supervision of the causer. It also implies that, in the derived construction, the participant expressed as the A/S term of the initial construction can only be either expressed as P or denucleativized.

Example (1) illustrates such an alternation with an intransitive verb (1a-b) and a transitive verb (1c-d) in Nahuatl. Note that, in (1d), the slot dedicated to P indexation in the causative verb form does not index the initial P, but the causee.

(1) Classical Nahuatl (Uto-Aztecan);

a *Ni-tzàtzi.*

I_{S/A}:1SG-scream.PRS

'I am screaming.'

¹²⁹ Causative constructions are almost always transitive constructions with the causer in A role. There are however exceptions, see section 12.3.4.1.

- b *Ti-nēch-tzàtzī-tia*.
 I_{S/A}:2SG-I_p:1SG-scream-CAUS.PRS
 ‘You are making me scream.’
- c *Ti-c-cua* *in nacatl*.
 I_{S/A}:2SG-I_p:3SG-eat.PRS D meat
 ‘You are eating the meat.’
- d *Ni-mitz-cua-ltia* *in nacatl*.
 I_{S/A}:1SG-I_p:2SG-eat-CAUS.PRS D meat
 ‘I am making you eat the meat.’
 (Launey 1981: 181)

The narrow definition of causativization implies the possibility of describing causative constructions as the result of a syntactic transformation, as for example for (1a-b):

$$V X_S \rightarrow V_{CAUS} Y_A X_P$$

and for (1c-d):

$$V X_A Y_P \rightarrow V_{CAUS} Z_A X_{P1} Y_{P2}$$

The problem with such a definition is that it cannot account for the fact that, cross-linguistically, causative morphology is also commonly used to mark some types of valency alternations that do not meet this narrow definition but can easily be encompassed by a broader definition. In particular, in many languages, causative forms of spontaneous motion verbs may express not only caused motion *stricto sensu* (‘A makes P move’), but also the portative meaning ‘A moves carrying P’ (on the notion of portative, see chapter 8 §8.3.7). For example, as illustrated in (3), Tswana expresses ‘bring’ by adding to the verb ‘come’ the same voice marker *-is* as that found in ‘make cry’ (2), in spite of the fact that ‘The woman brought the food’ implies ‘The woman came’, which can consequently be analyzed as the initial construction, whereas inanimate objects can be brought, but cannot strictly speaking ‘come’.¹³⁰

(2) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-sádí* [!]*ó-lid-ís-íts-é* *ŋw-à:ná*.
 SG-woma(c11) I_{S/A}:c11-cry-CAUS-PRF-FV SG-child(c11)
 ‘The woman made the child cry.’
- b *Dw-àná* [!]*ó-lí:ts-è*.
 SG-child(c11) I_{S/A}:c11-cry.PRF¹³¹-FV
 ‘The child cried.’

¹³⁰ The analysis of this example may be disturbed by the fact that English uses the same verb stem *come* as a monovalent verb denoting a motion event and subcategorizing an S term referring to an entity having the ability to move by itself, and as a bivalent verb (*come from*) that has no such implication, cf. e.g. *The word ‘chocolate’ comes from Nahuatl* / **The word ‘chocolate’ comes*. In Tswana, *tswa* ‘come from’ is distinct from *tla* ‘come’.

¹³¹ The stem of this verb is *lil-*, with an allomorph *lid-*, as in (2a), but in the perfect, if no other formative separates the stem from the perfect marker, they fuse into the portmanteau form *lits-*.

- (3) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Mò-sádí* *ó-tl-ís-íts-é* *dì:-džó.*
 SG-woman(c11) I_{S/A}:c11-come-CAUS-PRF-FV PL-food(c18)
 ‘The woman brought the food.’
- b *Mò-sádí* *’ó-tl-í:l-è.*
 SG-woman(c11) I_{S/A}:c11-come-PRF-FV
 ‘The woman came.’
- c **Dì-džó* *’dí-tl-í:l-è.*
 PL-food(c18) I_{S/A}:c18-come-CAUS-PRF-FV
 lit. ‘The food came.’

Semantically, it is not difficult to explain the use of the causative form of ‘come’ with the meaning ‘bring’, since ‘bring’ expresses the same motion toward the deictic center as ‘come’, but differs from ‘come’ in that it involves two essential participants, one of which can be characterized as the instigator or controller. However, this analysis can hardly be formulated as a syntactic transformation operating on a clause such as (3c), since the normal way of referring to the situation in question without mentioning an instigator / controller would rather be a passive clause (*Didžó ’dí-tl-í:l-tswè* ‘The food has been brought’) or a stative locational clause (*Didžó ’dí-fà* ‘The food is here’).

There are two possible ways of solving this question. Either portative is recognized as a distinct valency operation (and the use of causative morphology to express ‘bring’ should then be treated as an instance of polysemy), or, as proposed here, causativization *stricto sensu* is considered a particular variety of a broader notion of causativization.

Causativization *lato sensu* can be defined as encompassing all kinds of morphologically oriented valency operations in which the referent of the A/S term of the derived construction is more agentive than the referent of the A/S term of the initial construction, without any additional condition on the mapping of semantic roles onto morphosyntactic slots in the initial construction and in the derived construction. For example, in (3a), the A term of the derived construction expresses the same role of person who comes as the S of the initial construction ‘The woman came’, but at the same time it expresses the role of agent controlling the position of the referent of the P term. Contrary to the situations meeting the narrow definition of causativization, the nucleativized participant is the referent of P rather than the referent of A, but its introduction modifies the semantic role of the sole essential participant of ‘come’ in a way that justifies the use of causative morphology.

The question of the uses of causative morphology that can be accounted for by this broad definition of causativization will be treated in detail in §12.4.

12.1.2 Causativization and causation

An important terminological point is the distinction between ‘causativization’ / ‘causer’ and ‘causation’ / ‘instigator/controller’. CAUSATIVIZATION refers to derived verb forms marking a particular type of morphologically oriented valency alternation, and CAUSER refers to the participant encoded as A/S in the derived construction, whereas in the remainder of this chapter, CAUSATION and INSTIGATOR/CONTROLLER must be understood as purely semantic notions referring to the fact that (i) an event (the causing event) may trigger another event (the caused event), and (ii) a participant (the instigator/controller) may be characterized as playing

a key role in the triggering or progress of an event. Causativization mechanisms are language-specific (and are not found in all languages, although causativization is probably the most common type of oriented valency alternation, cross-linguistically), whereas causation and instigator are universal semantic notions that manifest themselves in one way or another in all languages, including those that have no morphosyntactic mechanism meeting the definition of causativization. For example:

- in lexical semantics, the notion of causation is relevant for the analysis of formally unrelated pairs of verbs such as English *die* and *kill*, or of ambitransitive verbs such as Basque *hil* ‘(intr.) die / (tr.) kill’;
- the notion of causation also accounts for the semantic relationship between some denominal or deadjectival transitive verbs, such as French *élargir* ‘widen (tr.)’, and the stative predicate expressed by the noun or adjective from which they derive (*être large* ‘be wide’);¹³²
- in the syntax of the clause, the mention of an additional participant with the role of instigator/controller may be made via the mere addition of a causal adjunct, as in *Unemployment has decreased thanks to Government action*;
- the relationship between an event and its instigator may also be encoded as a complex construction in which a causation verb combines with a noun phrase representing the instigator/controller and a clause representing the caused event, as in *The government must ensure that education really is for all*.

12.1.3 Causative / decausative and causal / noncausal

In the perspective of preventing confusions in the discussion of issues related to causation or causativization, it is also important to carefully distinguish causative / decausative from causal / noncausal. In this book, ‘causative’ and ‘decausative’ are exclusively used with reference to ORIENTED valency alternations that are LANGUAGE-SPECIFIC in the sense that, for example, in some languages (including Russian) ‘learn’ is expressed as the decausative form of ‘teach’, in some others (including Mandinka) ‘teach’ is expressed as the causative form of ‘learn’, and in still other languages (including English), none of the verbs expressing these two meanings can be analyzed morphologically as deriving from the other. Like causative / decausative, causal / noncausal refers to possible relationships between verbs, but the definition of ‘causal / noncausal’ is PURELY SEMANTIC.

In a CAUSAL-NONCAUSAL VERB PAIR, the event denoted by the noncausal member of the pair can be conceptualized as a sub-event of that denoted by the causal member, with the difference lying in the involvement vs. lack of involvement of an instigator/controller.

Moreover, ‘noncausal’ and ‘causal’ are relative notions, in the sense that a verb (or, more generally, a predicate) is not noncausal or causal inherently, but only in comparison with another verb. For example, ‘show’ is causal in relation to ‘see’, but noncausal in relation to ‘make show’. The question of the cross-linguistic variation in the possible formal relationships between verbs forming noncausal-causal pairs will be discussed in detail in chapter 16 §16.2.

¹³² Cross-linguistically, it is not uncommon that causativization markers are also used to derive such deadjectival or denominal verbs, cf. chapter 8 §8.2.2.2.

12.1.4 Synthetic causatives, analytical causatives and causative-like periphrases

In conformity with general decisions about the definition of ‘valency alternation’ and ‘voice’ (see chapter 8 §8.1), in this book, the notion of causativization is restricted to mechanisms operating WITHIN THE LIMITS OF THE CLAUSE and involving MANIPULATION OF CORE SYNTACTIC ROLES, which means that manifestations of causation such as those enumerated at the end of §12.1.2 are excluded from causativization.

As in the case of other types of morphologically marked valency alternations, causativization marking may involve either morphological operations (affixation or other) affecting verb stems (synthetic causatives), or the formation of complex predicates in which an auxiliary acting as a valency operator combines with a (typically non-finite) form of the causativized verb (analytical causatives).

Finnish illustrates the case of a language in which analytical and synthetic causatives are in competition and can be used to express the same denotative meanings, as in (4).

(4) Finnish (Finnic, Uralic)

- a *Keisari pani orjat rakentamaan temppelin.*
 emperor.SG make.PST.I_{S/A}:3SG slave.PL build.INF.ILL temple.SG.ACC
 ‘The emperor made the slaves build a temple.’
- b *Keisari rakennutti orjalla temppelin.*
 emperor.SG build.CAUS.PST.I_{S/A}:3SG slave.PL.ADESS temple.SG.ACC
 ‘The emperor made the slaves build a temple.’
 (Sakuma 2020: 17)

However, as argued by Sakuma (2020), the two causative constructions illustrated in (4) differ in the focus of their description: the synthetic construction (4b) focuses on the accomplishment of the caused event, while the analytic construction (4a) focuses on the coercion exerted on the causee.¹³³

Cross-linguistically, the verbs acting as valency operators in analytical causative constructions are most commonly ‘do/make’, as in (4) and (5), but sometimes also ‘give’, as in (6), ‘put’, ‘send’, ‘say’, ‘get/have’, etc.

(5) French (Italic, Indo-European)

- Jean a fait laver la voiture par son fils.*
 PRN have.PRS.I_{S/A}:3SG make.PTCP wash.INF D.SG.F car(F) by his.SG.M son(M)
 ‘Jean made his son wash the car.’

(6) Eastern Armenian (Armenian, Indo-European)

- a *Yerexa-n patuhan-ə bats^h-ets^h.*
 child-D window-D open-CPL.I_{S/A}:3SG
 ‘The child opened the window.’

¹³³ Interestingly, French does not have synthetic causatives, but the same semantic distinction is found in French between two variants of the analytical causative construction that differ in the coding of the initial A (see §12.3.4.2 below).

- b *Yerex-in patuhan-ə bats^h-el təv-ets^h-i.*
 child-DAT window-D open-INF give-CPL-1_{S/A}:1SG
 ‘I made the child open the window.’
 (Megerdooimian 2005: 13)

Avar illustrates the transition from analytical to synthetic causatives. As shown in (7), the causative suffix of Avar *-iza* (7b) results from the contraction of an analytical causative construction in which *ha-* ‘do, make’ in the role of causative auxiliary is immediately preceded by the infinitive of the verb denoting the caused event (7a). In the present state of Avar, both variants are equally acceptable.

- (7) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)
- a *Pat’imat-i-ca was w-orč’-ize ha-w-una.*
 PRN-OF-ERG boy M-wake.up-INF make-M-CPL
 ‘Pat’imat awakened the boy.’ (analytical causative)
- b *Pat’imat-i-ca was w-orč’-iza-w-una.*
 PRN-OF-ERG boy M-wake.up-CAUS-M-CPL
 ‘Pat’imat awakened the boy.’ (synthetic causative)

Causative constructions involving the formation of a complex predicate can only be distinguished from causative-like periphrases on the basis of syntactic tests interpretable as providing clues about their monoclausal nature, as opposed to the biclausal nature of causative-like periphrases. Establishing the distinction between complex predicates and subordination involving non-finite subordinate clauses is notoriously a particularly difficult issue, and in fact, for most of the constructions quoted in the typological literature as analytical causatives, it is unclear whether they are really monoclausal constructions whose nucleus is a complex predicate, or rather biclausal constructions for which the term ‘causative-like periphrasis’ would be more appropriate.

There is a huge literature about the analysis of biverbal constructions expressing causation in Romance and Germanic languages, in which the criteria according to which they can be analyzed as behaving as biclausal or monoclausal constructions are discussed in detail, see Pitteroff & Campanini (2013), Martin (Forthcoming) and references therein. An important conclusion is that constructions expressing the same causation relationships, and in which the verb expressing the caused event is equally in the infinitive, show important cross-linguistic variation in their syntactic properties. Moreover, they do not always exhibit a behavior making it possible to analyze them unambiguously as mono- or biclausal, which is perfectly normal if one considers that clause union as a diachronic process implies intermediate stages in which a construction that already shows evidence of monoclausality in some aspects of its behavior may at the same time still show evidence of biclausality in some others.

In French, there is an obvious contrast in this respect between plain causatives with *faire* ‘do, make’ in the function of causative auxiliary and permissive causatives with *laisser* ‘let’. As illustrated in (8), *laisser*-causatives have two possible constructions, The observation of constituent order and pronominalization leads to the conclusion that the construction in (8a-b) is a biclausal construction involving the syntactic phenomenon commonly designated as raising-to-object. In this construction, the status of *les enfants* as belonging to the matrix clause or to the subordinate clause is controversial, but *le gâteau* unambiguously fulfills the

role of P in the subordinate infinitival clause. By contrast, in (8c-d), the constituent order, the dative marking of *les enfants* and the position of the pronominal clitics unambiguously lead to the conclusion that *laisser manger* also has the possibility of behaving as a complex predicate with a construction essentially identical to that of trivalent verbs such as *donner* ‘give’ (compare with *Marie a donné le gâteau aux enfants* ‘Marie gave the cake to the children’ / *Marie le leur a donné* ‘Marie gave it to them’).

(8) French (Italic, Indo-European)

- a *Marie a laissé les enfants manger le gâteau.*
 PRN have.PRS.I_{S/A}:3SG let.PTCP D.PL child.PL eat.INF D.SG.M cake(M)
 ‘Marie let the children eat the cake.’
- b *Marie les=a laissés le=manger*
 PRN I_P:3PL= have.PRS.I_{S/A}:3SG let.PTCP.PL I_P:3SG=eat.INF
 ‘Marie let them eat it.’
- c *Marie a laissé manger le gâteau. aux enfants.*
 PRN have.PRS.I_{S/A}:3SG let.PTCP eat.INF D.SG.M cake(M) to-D.PL child.PL
 same meaning as (a)
- d *Marie le=leur=a laissé manger*
 PRN I_P:3SG=I_{DAT}:3PL= have.PRS.I_{S/A}:3SG let.PTCP eat.INF
 same meaning as (b)

By contrast, with *faire manger* ‘make eat’, the only possible option is a monoclausal construction identical to that in (8c-d):

(9) French (Italic, Indo-European)

- a **Marie a fait les enfants manger le gâteau.*
 PRN have.PRS.I_{S/A}:3SG make.PTCP D.PL child.PL eat.INF D.SG.M cake(M)
- b **Marie les=a faits le=manger*
 PRN I_P:3PL= have.PRS.I_{S/A}:3SG make.PTCP.PL I_P:3SG=eat.INF
- c *Marie a fait manger le gâteau. aux enfants.*
 PRN have.PRS.I_{S/A}:3SG make.PTCP eat.INF D.SG.M cake(M) to-D.PL child.PL
 ‘Marie had the children eat the cake.’
- d *Marie le=leur=a fait manger*
 PRN I_P:3SG=I_{DAT}:3PL= have.PRS.I_{S/A}:3SG make.PTCP eat.INF
 ‘Marie had them eat it.’

Similarly, in Spanish, *hacer* + INF cannot be analyzed as ‘main verb + complement clause in the infinitive’ and must be analyzed as involving the formation of a complex predicate, since (a) it is impossible to insert a noun phrase between *hacer* and the infinitive, and (b) the initial P cannot be indexed on the infinitive, cf. example (9).

(10) Spanish (Italic, Indo-European)

- a *Le=hice preparar la comida a María.*
 I_{DAT}:3SG=make.CPL.I_{S/A}:1SG cook.INF D.SG.F meal(F) to PRN
 ‘I made María cook the meal.’

- b *Se=la=hice* *preparar.*
 I_{DAT}:3SG¹³⁴=I_p:3SG.F=make.CPL.I_{S/A}:1SG cook.INF
 ‘I made her cook it.’
- c **Le=hice* *a María preparar la comida.*
 I_{DAT}:3SG=make.I_{S/A}:1SG to PRN cook.INF D.SG.F meal
- d **Le=hice* *preparar-la*
 I_{DAT}:3SG=make.I_{S/A}:1SG cook.INF-I_p:3SG.F

12.2 Causativization and semantic types of causation

Some languages have two or more causative constructions expressing different semantic types of causation. Others have causative constructions lending themselves to a wide range of interpretations. Important work on the semantics of causative verb forms and on factors regulating the choice of different causative markers within the same language and across languages has been carried out by Levshina (2016a, 2016b).

12.2.1 Direct vs. indirect causation

A widespread situation is the use of two distinct causative markers or constructions for two semantic types of causation commonly designated as DIRECT and INDIRECT causation. In causative constructions expressing direct causation, the causer is presented as acting directly on the other participant(s) in order to get the content of the base verb realized, whereas with causative markers expressing indirect causation (‘have someone do something’), the causer is conceived of as the indirect instigator or distant cause of the realization of the verb content. With indirect causatives, the causative verb (or complex predicate) encodes a complex event that can be dissociated into two sub-events: the causing sub-event and the caused sub-event.

For example, Yaqui has two distinct causative markers: *tua* for direct causation (11a-b), and *tebo* for indirect causation (11c-d).

(11) Yaqui (Cahita, Uto-Aztecan)

- a *Aapo ousi tase.*
 2SG much cough.PRS
 ‘You cough much.’
- b *To’ochia enchi tas-tua.*
 dust 2SG.ACC cough-CAUS
 ‘The dust makes you cough.’
- c *U yoeme maejtro-ta-u u-ka mobe’i-ta maka-k.*
 D.SG man teacher-ACC-ALL D.SG-ACC hat-ACC give-CPL
 ‘The man gave a hat to the teacher.’

¹³⁴ In Spanish, the dative clitic of 3rd person singular is in principle *le*, but in contact with another pronominal clitic, it automatically takes the form *se* (homonymous with the middle marker *se* originating from a former reflexive clitic).

- d *U yoeme maejtro-ta-u u-ka mobe'i-ta mak-tebo-k.*
 D.SG man teacher-ACC-ALL D.SG-ACC hat-ACC give-CAUS-CPL
 ‘The man had someone give a hat to the teacher.’
 (Estrada Fernández & al. 2015b: 107, 109)

Note incidentally that example (11c-d) also illustrates the fact that even causative derivations unambiguously encoding the addition of a causer to the participant structure of the base verb do not always result in an increase of the number of participants that can be mentioned in the clause: in Yaqui, with the indirect causative marker *-tebo*, it is impossible to express the causee. Formally, the construction of the base verb and that of the derived verb are identical, with the only difference being that the participant encoded as A is the immediate agent in (11c), an indirect instigator in (11d).

The distinction between direct and indirect causation can also be illustrated by the two causative forms *toog-al* and *toog-loo* of the Wolof verb *toog* ‘sit’: *toog-al* implies that the causer is physically involved in the caused event (for example, by bringing a chair), whereas *toog-loo* does not imply more than an invitation to sit down (Nouguier-Voisin 2002).

Similarly, in Yimas, there are two ways of causativizing the verb *kwalca* ‘rise’. Both causatives constructions involve complex predicates, but the construction implying that the causer physically manipulates the causee uses *tar* ‘hold’ as the causative auxiliary, whereas the construction implying manipulation by means of a speech act uses *tmi* ‘say’ (Foley 1991: 291).

In Tamil, direct and indirect causation are equally expressed by means of analytical constructions, but with two distinct auxiliaries: in Tamil, the verb ‘place’ has been grammaticalized as a direct causative auxiliary, and the verb ‘make’ as an indirect causative auxiliary (Fedson 1985).

According to Loewenthal (2003), a similar situation is found in Dutch, where *doen* ‘make’ marks direct causation, characterized by the fact that “the result is the inevitable consequence of the underlying causing event”, whereas *laten* ‘let’ marks indirect causation, in which “the causing event is not a sufficient condition for the realization of the effected predicate, but there is another force active that is more directly involved in the realization of the effect”.

A cross-linguistically common situation is that the expression of direct causation involves ambitransitivity, as in (12b), whereas indirect causation requires the use of a marked causative form, as in (12c).

(12) Bambara (Central Mande, Mande)

- a *Sõ / wùlú 'bé bòlí.*
 horse.D / dog.D ICPL run
 ‘The horse / dog is running.’
- b *Sékù bé sõ bòlí.*
 PRN ICPL horse.D run
 ‘Sékou is driving the horse.’ lit. ‘S. is running the horse.’
- c *Sékù bé wùlú 'lá-bòlí.*
 PRN ICPL dog.D CAUS-run
 ‘Sékou is making the dog run.’

Similarly, the French verb *sortir* ‘go/come out’ is ambitransitive, but its transitive use is limited to the expression of direct causation, and an analytical causative construction must be used for situations involving indirect causation: (13b) describes a situation in which the man holds the knife in his hand, whereas (13c) does not imply physical contact between the man and the dog (one may imagine for example that the man shouted at the dog, or made a threatening gesture).

(13) French (Italic, Indo-European)

- a *L’homme est sorti de la pièce.*
 D.SG.M-man(M) be.PRS:IS/A:3SG gone/come.out.PTCP from D.SG.F room(F)
 ‘The man went/came out from the room.’
- b *L’homme a sorti un couteau de sa poche.*
 D.SG.M-man(M) have.PRS:IS/A:3SG take.out.PTCP IDF.SG.M knife(M)
 from his.SG.F pocket(F)
 ‘The man took out a knife from his pocket.’
- c *L’homme a fait sortir le chien de la pièce.*
 D.SG.M-man(M) have.PRS:IS/A:3SG make.PTCP go/come.out.INF D.SG.M dog(M)
 from D.SG.F room(F)
 ‘The man made the dog come/go out from the room.’

Still another possibility is that indirect causation is expressed by a causative construction, whereas the expression of direct causation involves lexical suppletion (i.e., the use of two formally unrelated lexemes), as in English *make die* vs. *kill*, or Spanish *hacer salir* ‘make go/come out’ vs. *sacar* ‘take out’. Note that, cross-linguistically, lexical suppletion is particularly common for the pair ‘die / kill’ (although there are also languages with an ambitransitive verb ‘die / kill’, such as Basque *hil*, and languages in which the same derived form of ‘die’ is used for ‘kill’ and ‘make die’, such as Turkish *öl-dür*).

Generally speaking, direct causation is easier to conceive for intransitive verbs (in particular those assigning a patientive role to their core argument) than for transitive ones, but this is not a strict rule, just a tendency. For example, it is not difficult to imagine a causative construction involving ‘eat’ with a meaning of direct causation. (‘Causer puts food into Causee’s mouth’).

In the literature, causatives derived from verbs denoting activities and expressing that the referent of the A term of the causative construction makes someone else perform the activity denoted by the base verb are sometimes referred to as ‘curative causatives’, a term that seems to have been used initially in descriptions of Finnish (Kytömäki 1978, Pennanen 1986).

12.2.2 Sociative causation

In many languages, causative markers can be found not only in constructions in which there is a clear contrast in agentivity between the causer and the other participants (coercive causation), but also in constructions in which the role of the participant encoded like the instigator in typical (coercive) causative constructions must rather be characterized in terms of permission, supervision, joint-action, or help. In such situations, a participant that cannot be

unambiguously analyzed as the instigator of the event nevertheless makes a decisive contribution to its realization. The expression of such meanings may involve specific markers or constructions, but the fact that many languages encode them by means of the same markers or auxiliaries as typical (coercive) causation justifies the term of SOCIATIVE CAUSATION often used to subsume them in the recent literature (Shibatani & Pardeshi 2002, Guillaume & Rose 2010).

However, in order to be able to account for the possibility of expressing sociative causation by means of constructions involving the same markers or auxiliaries as coercive causation, the definition of causativization must be relaxed as follows: causativization yields derived constructions involving an A/S term whose degree of agentivity is AT LEAST AS HIGH as that of the A/S term of the base construction.

Example (14) illustrates the fact that, in Japanese, the same voice marker *-se-* can be found not only in causative constructions expressing coercive causation (14a), but also in constructions expressing different varieties of sociative causation: joint-action (14b), help (14c), or supervision (14d).

(14) Japanese (Japonic)

- a *Taroo-ga Ziroo-ni/o hasira-se-ta.*
 PRN-SBJ PRN-DAT/ACC run-CAUS-PST
 ‘Taro had/made Ziro run.’ (Taro is not running)
- b *Hahaoya-ga kodomo-o asoba-se-te i-ru.*
 mother-SBJ child-ACC play-CAUS-CVB be-PRS
 ‘Mother is making the child play (playing with her).’
- c *Hahaoya-ga kodomo-ni osikko-o sa-se-te i-ru.*
 mother-SBJ child-DAT pee-ACC do-CAUS-CVB be-PRS
 ‘Mother is making the child pee.’
- d *Hahaoya-ga kodomo-ni hon-o yoma-se-te i-ru.*
 mother-SBJ child-DAT book-ACC read-CAUS-CVB be-PRS
 ‘Mother is making the child read a book.’
 (Shibatani & Pardeshi 2002: 87, 100)

Similarly, in Tswana, depending on the context, *áχísá* (causative form of *áchá* ‘build’) can be interpreted as ‘make build’, ‘let build’, or ‘help to build’, cf. example (15).

(15) Tswana (Bantu, Benue-Congo, Niger-Congo)

- Kitso ’ó-ách-ís-á Mphó ñ:tlò.*
 PRN(c11) I_{S/A}:cl1-build-CAUS-FV PRN(c11) house(c19)
1. ‘Kitso makes Mpho build a house.’
 2. ‘Kitso lets Mpho build a house.’
 3. ‘Kitso helps Mpho to build a house.’

Georgian is another example of a language with a single causative marker lending itself to a wide variety of interpretations, cf. example (16).

(16) Georgian (Kartvelian)

- Mama švil-s c'eril-s ac'erinebs.*
 father son-DAT letter-DAT write.CAUS.PRES.I_{S/A}:3SG.I_P:3SG
 (a) 'The father makes the son write a letter.'
 (b) 'The father lets the son write a letter.'
 (c) 'The father helps the son to write a letter.'
 (Comrie 1985: 334)

Example (17) provides further illustrations of the semantic extension of the Tswana causative marker *-is-* to the expression of various nuances of sociative causation. Note that, depending on the context, the causative verbs occurring in this example could also be found with a meaning of coercive causation ('make someone cry', 'make someone speak').

(17) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Bà-sádí 'bá-líd-ís-à m̀ò-tl'óláχá:dì.*
 PL-woman(c12) I_{S/A}:c12-cry-CAUS-FV SG-widow(c11)
 'The women are crying with the widow.'
 b *Kì-tl̀àà-bú-ís-á tàútóná kámò:só.*
 I_{S/A}:1SG-FUT-speak-CAUS-FV president(c11) tomorrow
 'I'll talk with the president tomorrow.'

Interestingly, at least in some languages, a construction identical to that expressing permissive causation is possible with reference to events on which the participant encoded as if it were a causer has absolutely no control, which forces the interpretation 'wait until some event occurs', as in (18b).

(18) French (Italic, Indo-European)

- a *J'ai laissé l'enfant jouer.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG let.PTCP D.SG.M-child play.INF
 'I let the child play.' (permissive causation)
 b *J'ai laissé la pluie s'arrêter avant de sortir*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG let.PTCP D.SG.F rain stop.INF before to go.out.INF
 lit. 'I let the rain stop before going out.'
 > 'I waited until the rain stopped before going out.'

As discussed by Guillaume & Rose (2010), specific morphological marking for the various types of sociative causation is widespread in South America. However, cross-linguistically, sociative causation is more commonly expressed, either periphrastically, or by markers also used to mark plain causativization or applicativization.

In a diachronic perspective, the *laten*-construction of Dutch (where *laten* is cognate with German *lassen* and English *let*) illustrates the possibility that a construction whose original meaning is permissive causation acquires the possibility of expressing also coercive causation (Loewenthal 2003).

12.2.3 Causeless causatives

12.2.3.1 Causeless causatives from transitives

In Lithuanian, causatives formed from non-ingestive transitive verbs uniformly occur in a causeless construction (Arkadiev & Pakerys 2015). In Latvian, according to Nau (2015), the only transitive verbs whose causative form can be found in causative constructions with an overtly expressed causee are verbs of ingestion or verbs of abstract action (i.e. verbs with a participant frame consists of an experiencer and a stimulus, such as ‘see’ or ‘remember’); for the other transitive verbs, morphological causativization is only possible if the causee is left unexpressed.

Wolof has two distinct suffixes for indirect causation, one of them (*-loo*) compatible with the expression of the causee, the other (*-lu*) blocking the expression of the causee, which must be interpreted as unspecified, cf. example (19).

- (19) Wolof (Wolof, Atlantic, Niger-Congo)
- a *Ñaw-loo naa ko roob.*
 sew-CAUS PRF.I_{S/A}:1SG Ip:3SG dress
 ‘I made him sew a dress.’
- b *Ñaw-lu naa roob.*
 sew-CAUS PRF.I_{S/A}:1SG dress
 ‘I had a dress sewn.’
 (Nouguier-Voisin 2002)

The case of Yaqui, with a marker of indirect causation incompatible with the expression of the causee, has already been evoked in §12.2.1.

According to Loewenthal (2003), in Dutch, causeless causative constructions are only possible with transitive verbs, and with the auxiliary *laten* expressing indirect causation. Moreover, *laten*-constructions including an overtly expressed causee, as in (20a), are normally interpreted as expressing permissive causation, whereas in its causeless use, *laten* tends to be interpreted as expressing coercive causation, as in (20b).

- (20) Dutch (Germanic, Indo-European)
- a *De conducteur liet de hooligans de trein afbreken.*
 the conductor let the hooligans the train demolish
 ‘The conductor let the hooligans demolish the train.’
- b *Hij laat een omheining om zijn tuin bouwen.*
 he lets a fence around his garden build
 ‘He has a fence built around his garden.’
 (Loewenthal 2003: 98, 99)

The corpus study carried out by Loewenthal (2003) reveals that such causeless constructions typically refer to events “where the causee does the effected predicate more or less as its job or profession and where the causer’s sole goal is the effected predicate to happen”.

Similarly, in Lithuanian, the causeless causative construction of transitive verbs “focuses not on making or forcing particular people perform the action denoted by the base verb, but

- b ... *saule spīdinā ac-īs.*
 sun shine.CAUS.PRS.I_{S/A}:3 eye-PL.LOC
 ‘(it was a bit strange to sing carols around a Christmas tree at a moment when
 the sun shines in your eyes.’
 (Holvoet 2015: 152, 153)

12.3 Issues in the description of causative constructions

12.3.1 Restrictions on causativization

It is cross-linguistically common that synthetic causatives are restricted to intransitive verbs, or even to unaccusative intransitives, whereas transitive verbs (and sometimes also unergative intransitives) can only be causativized by means of analytical causatives or more or less grammaticalized causative periphrases.

According to Hale (2000), O’odham (Uto-Aztecan) is among the languages where only synthetic causatives of unaccusatives are possible. A similar situation has been reported among others in Fijian (Dixon 1988), Vedic Sanskrit (Kulikov 2013) and Hittite (Luraghi 2012). In Soso (Mande), according to Shluinsky (2014: 98), most of the verbs compatible with the prefix *rà-* in causative function are “uncontrolled non-agentive verbs”.

Conversely, as already observed by Nedjalkov (1966) and confirmed by subsequent studies, if a language allows synthetic causatives of transitives, it also allows synthetic causatives of the intransitives that do not lend themselves to morphologically unmarked noncausal-causal alternation.

Interestingly, in the languages that restrict synthetic causatives to intransitive verbs, ‘eat’ and ‘drink’ are generally among the transitive verbs that exceptionally lend themselves to the same causative derivation as intransitive verbs,¹³⁵ and ‘learn’ is also often found among the transitive verbs that behave like intransitive verbs with respect to causativization.

As discussed by Haspelmath (2016: 44-47), if a language has two different markers whose distribution is not conditioned phonologically, and if one of the markers is longer than the other, either the longer marker tends to be used with transitive bases, while the shorter one is used with intransitive bases, or the longer one tends to be used with unergative bases, whereas the shorter one is used with unaccusative bases.

For example, Mandinka has two causative markers *-ndi* and *-(di)rindi*¹³⁶ with the following distribution: *-ndi* is used to causativize intransitive verbs, and also a limited number of transitive verbs (less than ten, see Creissels & Sambou 2013: 389), whereas *-(di)rindi* is used for the transitive verbs that cannot be causativized by means of *-ndi*. Interestingly, *kàrâŋ*, a polysemous transitive verb with the two possible meanings ‘read’ and ‘learn’, has the two causative forms *kàrà-ndí* ‘teach’ (with the short causative suffix typically used with

¹³⁵ More generally, as discussed in particular by Arkadiev & Pakerys (2015: 69-81), causative constructions of ingestive verbs tend to show particularities that distinguish them from causative constructions involving other semantic types of transitive verbs.

¹³⁶ As discussed in (Creissels 2015b), *-(di)rindi* can be decomposed etymologically as *-(di)ri-ndi*, where *-(di)ri* is a morpheme found with an antipassive function in several derivational operations. The analysis of *-(di)rindi* as a complex marker, at least etymologically, is strongly supported by the fact that *-(di)rindi* does not behave tonally as a single formative, but as a sequence of two formatives.

intransitive verbs) and *kàràn-dirìndí* ‘make read’ (with the long causative suffix only used with transitive verbs).

12.3.2 Double causativization and other possible interpretations of causative marker stacking

Some of the languages that allow morphological causativization of transitive verbs also allow double causativization, with a direct causative serving as the base for the formation of an indirect causative.

In (23), the repetition of the causative marker *-poj* reflects the fact that ‘fell’, causative verb derived from ‘fall’, is in turn the input of causative derivation: ‘X falls’ > ‘Y fells X’ > ‘Z makes Y fell X’.

(23) Movima (Movima)

Loy it lok-a-poj-poj-na u'ko n-as ko'.

ITN 1SG fall-DIR-CAUS-CAUS-DIR 3SG.M OBL-D.N tree

‘I’ll have him fell the tree.’

(Haude 2006: 395)

Similarly, in (24), the repetition of the causative auxiliary ‘do’ encodes double causativisation. Note that the causer of the embedded causative, which is also the causee of the higher causative, is in the ergative case, whereas the causee of the embedded causative is in the adessive.

(24) Agul (Lezxic, Nakh-Daghestanian)

Hadada zun gadajiw ħabawas k'ež lik'as

grandfather.ERG 1SG.ERG son.ADESS grandmother.DAT letter write.IPFV.INF

q'as q'une.

do.IPFV.INF do.PFV.PRF

‘Grandfather made me make my son write a letter to the grandmother.’

(Daniel & al. 2012: 57)

In Mandinka, the long causative suffix *-(di)rindi* only used with transitive verbs (see §12.3.1) may attach not only to underived transitives, but also to transitives derived from intransitives by means of the short causative suffix *-ndi*.

(25) Mandinka (Central Mande, Mande)

a *Bòotô fâa-tà.*

bag.D get.full-CPL

‘The bag is/got full.’

b *Kàmbàanô yè bòotô fá-ndi.*

boy.D CPL bag.D get.full-CAUS

‘The boy filled the bag.’

c *Mùsôo yè kàmbàanô fá-ndi-ríndí bòotô lá.*

woman.D CPL boy.D get.full-CAUS-CAUS bag.D POSTP

‘The woman made the boy fill the bag.’

However, the reiteration of causative marking within the same verb form is not always interpreted compositionally. As discussed by Kulikov (1993), the addition of a second causative marker may also modify the causative meaning expressed by the first one in one of the following ways, without adding an additional participant:

- the second causative may be intensive to the first causative;¹³⁷
- the second causative may add a meaning of iterativity;¹³⁸
- the second causative may express plurality of causees.

An example of intensity of causation expressed by repeating the causative marker is provided by Aikhenvald (2011a: 117-118) in Tariana (Arawak): the Tariana verb *pusa* ‘be wet’ is intransitive, and can be causativized by the marker *-i-ta*; if the marker *-i-ta* is repeated, no additional participant is introduced, but the implication is that the referent of P is made wet through and through.

A similar pattern has been described for Hunzib (Nakh-Daghestanian) by van den Berg (1995: 107-108). In Hunzib, when the causative suffix occurs twice on an intransitive verb, the meaning is double causativization. When the causative suffix occurs twice on a transitive verb, the double occurrence of the causative suffix implies intensity of causation (‘force someone to do something’), but no extra participant is added.

12.3.3 The causativization of trivalent verbs

Cross-linguistically, even among the languages that have productive causativization devices for transitive verbs, the causativization of trivalent verbs tends to be severely restricted, or even totally impossible. For example, in Tswana, the voice marker *-is-* is productive for the causativization of both intransitive verbs and bivalent transitive verbs, but cannot be used with *fá* ‘give’. In Tswana, ‘make s.o. give s.th. to s.o. else’ can only be expressed periphrastically, as in (26c). Interestingly, this cannot be viewed as the consequence of a general ban on constructions with three terms encoded like monotransitive Ps, since such constructions are attested in Tswana (for example with *félá*, applicative form of the same verb *fá* ‘give’).

(26) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-bàd-ís-íts-é* *M-p^hó* *lò-kwâ:lò*.
 I_{SA}:1SG-read-CAUS-PRF-FV PRN(c1) SG-book(c11)
 ‘I made Mpho read the book.’
- b **Kì-f-ís-íts-é* *M-p^hó* *ŋw-àná* *lò-kwâ:lò*.
 I_{SA}:1SG-read-CAUS-PRF-FV PRN(c1) SG-child(c1) SG-book(c11)
 intended: ‘I made Mpho give the book to the child.’
- c *Kì-làóts-é* *χóri* *M-p^hó* *’ó-f-é* *ŋw-àná* *lò-kwâ:lò*.
 I_{SA}:1SG-order.PRF-FV that PRN(c1) I_{SA}:c11-give-FV SG-child(c1) SG-book(c11)
 lit. ‘I ordered that Mpho give the book to the child’

¹³⁷ On causative marking and the expression of intensity, see also §12.6.2.

¹³⁸ On causative marking and pluractionality marking, see also §12.6.10.

According to Shopen & Konaré (1970: 215), in Koyra Chiini, it is possible to causativize a trivalent verb such as *neere* ‘sell’. The causer and the recipient can equally be encoded in the causative construction as obliques, and they are flagged by the same dative postposition *se*, but it is impossible to have them expressed at the same time.

- (27) Koyra Chiini (Songhay)
Garba neere-ndi bari di Musa se.
 PRN sell-CAUS horse D PRN POSTP
 ‘Garba had Moussa sell the horse.’
 OR ‘Garba had the horse sold to Moussa’
 (Shopen & Konaré 1970:215)

Kittilä (2007) is an important reference on the causativization (and applicativization) or trivalent verbs, in particular on the variation in the coding of causees in causatives from trivalent verbs.

12.3.4 The coding of the initial S/A

According to Nedjalkov & al. (1995: 78), Nivkh (isolate, Russia) is one of the very rare languages that have a marker used exclusively to flag the phrase corresponding to the initial S/A in causative constructions. As a rule, the coding of the initial S/A coincides with that of NPs in P role or in some oblique role. However, there is considerable cross-linguistic variation in the choice between these two options, and in their implications for the coding of the other participants.

12.3.4.1 The coding of the initial S in causatives derived from intransitives

As a rule, as illustrated by several of the examples above, causatives derived from intransitives have a transitive construction with the causer in A role and the initial S in P role.

However, Hausa is an exception to this rule. In Hausa, with all causative verbs, including those derived from intransitives (such as *tsayar̃* ‘stop (tr.)’ < *tsayàa* ‘stop (intr.)’ in (28)), the initial S is flagged by the comitative-instrumental preposition *dà* ‘with’.

- (28) Hausa (West Chadic, Chadic, Afroasiatic)
 a *Mootàa taa tsayàa.*
 car(F) CPL.I_{S/A}:3SG.F stop
 ‘The car stopped.’
 b *Yaa tsayar̃ dà mootàa.*
 CPL.I_{S/A}:3SG.M stop.CAUS with car(F)
 ‘He stopped the car.’
 (Jaggar 2014:8)

12.3.4.2 The coding of the initial A in causatives derived from transitives

Causatives derived from transitives show more variety in their possible constructions, and much more space than is available here would be necessary to give a detailed account of this

the initial A being then encoded as an oblique), or (ii) the initial P is denucleativized, whereas the initial A takes the role of P in the causative construction. The rules accounting for the choice between these two solutions show considerable cross-linguistic variation. Sometimes they apply quite mechanically, but they may also be sensitive to semantic factors.

Comrie (1975) observed that, in many languages, the coding of the initial S/A can be accounted for straightforwardly by means of a rule according to which the initial S/A takes the first available position in some hierarchy of syntactic functions. For example, in Turkish, it is encoded as an accusative NP if the base verb is intransitive, as a dative NP if the base verb is a transitive verb with no argument expressed as a dative NP, and as a postpositional oblique if the base verb is transitive and already has a dative NP in its construction. Interestingly, the postposition used to flag the initial A in (31f) is the same as that used to flag oblique agent phrases in passive constructions.

(31) Turkish (Turkic, Altaic)

- a *Ali öl-dü.*
PRN die-PST.I_{S/A}:3SG
'Ali died.'
- b *Ali Hasan-ı öl-dür-dü.*
PRN PRN-ACC die-CAUS-PST.I_{S/A}:3SG
'Ali killed Hasan.'
- c *Müdür mektub-u imzala-dı.*
director letter-ACC sign-PST.I_{S/A}:3SG
'The director signed the letter.'
- d *Dişçi mektub-u müdür-e imzala-t-tı.*
dentist letter-ACC director-DAT sign-CAUS-PST.I_{S/A}:3SG
'The dentist made the director sign the letter.'
- e *Müdür Hasan-a mektub-u göster-di.*
director PRN-DAT letter-ACC show-PST.I_{S/A}:3SG
'The director showed the letter to Hasan.'
- f *Dişçi Hasan-a mektub-u müdür tarafından göster-t-ti.*
dentist PRN-DAT letter-ACC director by show-CAUS-PST.I_{S/A}:3SG
'The dentist made the director show the letter to Hasan.'
- (Comrie 1975: 5ff)

In Georgian, contrary to Turkish, even if the base verb is a trivalent verb whose coding frame includes a dative term representing the goal, the initial A is encoded as the dative term of the causative construction, the goal being then encoded as if it were a benefactive adjunct.

(32) Georgian (Kartvelian)

- a *Šota-m Vano-s puli misca.*
PRN-ERG PRN-DAT money give.CPL.I_{S/A}:3SG.I_{DAT}:3SG
'Shota gave money to Vano.'
- b *P'avle-m Šota-s puli miacemina Vano-stvis.*
PRN-ERG PRN-DAT money give.CAUS.CPL.I_{S/A}:3SG.I_{DAT}:3SG PRN-for
'Pavle made Shota give money to Vano.'

In Soninke, as illustrated by example (33), the rule is that, if both the initial A and the initial P are expressed, the initial P is maintained in P role, and the initial A is expressed as an oblique; however, the initial P may be left unexpressed, and then the P role in the causative construction is taken over by the initial A.

(33) Soninke (Soninke-Bozo, Mande)

- a *Lémínè-n dà tíyè-n ñígá.*
 child-D CPL.TR meat-D eat
 ‘The child ate meat.’
- b *Hàatú dà tíyè-n ñígá-ndí lémínè-n ñá.*
 PRN CPL.TR meat-D eat-CAUS child-D POSTP
 ‘Fatou made the child eat meat.’
- c *Hàatú dà lémínè-n ñígá-ndí.*
 PRN CPL.TR child-D eat-CAUS
 ‘Fatou made the child eat.’

Similarly, in the causativization of Finnish transitive verbs, if the initial P is expressed, it can be maintained in P role, and the initial A displays then adessive flagging, as in (34a),¹⁴⁰ whereas if the initial P is left unexpressed, the initial A cannot be in the adessive case, but only in the partitive, as in (34b).

(34) Finnish (Finnic, Uralic)

- a *Matti ompelu-tt-aa Liisa-lla puvu-n*
 PRN sew-CAUS-*I_{S/A}*:3SG PRN-ADESS dress-ACC
 ‘Matti has Liisa sew the dress.’
- b *Matti ompelu-tt-aa Liisa-a*
 PRN sew-CAUS-*I_{S/A}*:3SG PRN-PRTV
 ‘Matti has Liisa sew.’
 (Paulsen 2011: 285)

In Akhvakh, a language whose transitive construction is characterized by ergative flagging of A and zero flagging of P, a similar rule accounts for the locative flagging of the initial A in (35b) as opposed to its zero flagging in (35c).

(35) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Mik'i-de ĩeni ċ'ar-ari.*
 child-ERG water drink-CPL
 ‘The child drank water.’
- b *Ek^wa-š^w-e mik'i-ge ĩeni ċ'ar-āri.*
 man-OF-ERG child-LOC water drink-CAUS.CPL¹⁴¹
 ‘The man made the child drink water.’

¹⁴⁰ Alternatively, the causee may be in the partitive case, and the initial P in the adessive: *Matti ompeluttaa Liisaa puvulla.*

¹⁴¹ The ending *-āri* (where *ā* represents a long *a*) results from the reduction of an underlying sequence *-aj* (voice marker) + *-ari* (TAM marker).

- c *Ek^wa-s̄^w-e mik'e c̄'ar-āri.*
 man-OF-ERG child drink-CAUS.CPL
 'The man made the child drink.'

Sometimes, as illustrated by example (36), the choice is less mechanical, in the sense that it cannot be predicted in purely syntactic terms. In (36b), the initial A is in the comitative-instrumental case, and the initial P is maintained in P role, whereas in (36d), the role of P is taken over by the initial A, the initial P being expressed as an oblique in the comitative-instrumental case.

(36) Hungarian (Ugric, Uralic)

- a *A rendőrség keres-i a gyerek-et.*
 D police look.for-I_{S/A}:3SG.I_P:3D D child-ACC
 'The police is searching the child.'
- b *A szülő-k keres-tet-ik a gyerek-et a rendőrség-gel.*
 D parent-PL look.for-CAUS- I_{S/A}:3PL.I_P:3D D child-ACC D police-with
 'The parents make the police search the child.'
- c *A gyerek tej-et isz-ik*
 D child milk-ACC drink-I_{S/A}:3SG
 'The child is drinking milk.'
- d *Az anya tej-jel i-tat-ja a gyerek-et*
 D mother milk-with drink-I_{S/A}:3SG.I_P:3D DEF child-ACC
 'The mother is making the child drink milk.'

In such cases, the choice between the two possible constructions of causatives from transitives may be sensitive to semantic distinctions such as the degree of affectedness of the initial A or the distinction between direct and indirect causation. In (36), the most likely explanation is that the causer is interested in an outcome concerning the initial P in (a), and the initial A in (b).

In (37), the choice between two possible constructions of the causative form of 'drink' expresses the distinction between 'give s.th. to drink to s.o.' (initial A in the accusative, initial P in the instrumental) and 'obliges s.o. do drink s.th' (initial A in the dative, initial P in the accusative).

(37) Lithuanian (Baltic, Indo-European)

- a *J-i ger-ė vin-q*
 3-SG.F drink-PST.3 wine-SG.ACC
 'She drank wine.'
- b *Gir-d-ė j-q vin-u.*
 drink-CAUS-PST.3 3-SG.F.ACC wine-SG.INS
 'He/she/they gave her wine to drink.'
- c *J-ai gir-d-ė degtin-ę*
 3-SG.F.DAT drink-CAUS-PST.3 brandy-SG.ACC
 'He/she/they made her drink brandy.'
- (Nau & Holvoet 2015: 25, 26)

A similar behavior of the causative form of ingestive verbs is mentioned in Finnish by Kittilä (2009: 77-78).

In Mandinka, causatives from transitives are most commonly constructed with the initial A encoded as P, and the initial P encoded as an oblique. However, semantically motivated exceptions to this rule may be observed. For example in (38b), the construction of *jàni-rìndí* < *jàní* ‘burn’, ‘fry’ follows the general rule, whereas in (38d), the same derived verb form is constructed with the initial P maintained in P role. The relevant factor here is that (38d) refers to a situation of permissive causation, in which the causer (the man) does not trigger the action of the initial A (the fire) in order to get the content of the verb ‘burn’ realized, but simply does not oppose its action.

(38) Mandinka (Central Mande, Mande)

- a *Mùsòo yè ñée jàní.*
 woman.D CPL.TR fish.D grill
 ‘The woman grilled the fish.’
- b *Kèê yè mùsòo jàni-rìndí ñée lá.*
 man.D CPL.TR fish.D grill-CAUS fish.D POSTP
 ‘The man made the woman grill the fish.’
- c *Dìmbâa yè dindíjò jàní.*
 fire.D CPL.TR child.D burn
 ‘The fire burnt the child.’
- d *Kèê yè dindíjò jàni-rìndí òmbâa lá.*
 man.D CPL.TR child.D burn-CAUS fire.D POSTP
 ‘The man is responsible for the child being burnt by the fire.’

In the languages that do not have double-P constructions, the choice in causatives from transitives is not always between P-coding and oblique coding of the initial A. For example, in French, the choice is between dative coding of the initial A, as in (39a), and a coding of the initial A identical to that of the oblique agent phrase in passive constructions, as in (39b). Semantically, the first option implies insistence on the coercion exerted by the causer on the initial A, whereas the second option puts emphasis on the fact that the causer is directly interested in the result of the caused event, the initial A being then conceptualized as a kind of animate instrument.

(39) French (Italic, Indo-European)

- a *Jean a fait apprendre la leçon*
 PRN have.PRS.I_{S/A}:1SG make.PTCP learn.INF D.SG.F lesson(F)
à son fils.
 to his.SG.M son(M)
 ‘Jean had his son learn the lesson.’
- b *Jean a fait laver la voiture*
 PRN have.PRS.I_{S/A}:1SG make.PTCP wash.INF D.SG.F car(F)
par son fils.
 by his.SG.M son(M)
 ‘Jean had the car washed by his son.’

12.3.5 Causativization of transitive verbs and antipassivization

In the languages that do not have double-P constructions and in which the general rule is that the initial A is encoded as the P term of the causative construction, the causativization of transitive verbs implies denucleativization of the initial P. Interestingly, in some of the languages that have morphological causatives and systematically code the initial A as the P term of the causative construction, the causative form of transitive verbs obligatorily includes an antipassive marker analyzable as marking that, in the causative construction, the initial P must be demoted first, so as to make room for the initial A converted into the P term of the causative construction. Example (40) illustrates this mechanism in Halkomelem.

- (40) Halkomelem (Central Salish, Salishan)
Ni cən qʷəl-əm-stəxʷ θə sténiʔ ʔə kʷθə səplil.
 AUX 1SG bake-ANTIP-CAUS D woman OBL D bread
 ‘I had the woman bake the bread.’
 (Gerds 1984: 195)

In Mandinka, things are less obvious, but as already briefly evoked in footnote 4, there is solid evidence that the long causative suffix *-(di)rindi* illustrated in (25c) above, used exclusively to causativize transitive verbs, can be etymologically decomposed as *-(di)ri-ndi*, where *-(di)ri* is a suffix also found in several derivational operations with a clearly antipassive function, and *-ndi* is the short causative suffix that directly attaches to intransitive stems. See Creissels (2015b) for more details.

12.3.6 Double datives in causative constructions

In French, it is in general impossible to have two distinct participants coded as datives in the construction of the same verb, but this is possible to a certain extent in the analytical causative construction of trivalent verbs such as *donner* ‘give’.

In the causative construction of *donner* ‘give’, it is impossible to have both a dative noun phrase representing the initial dative and a dative noun phrase representing the initial A (41b). However, the causative construction may at the same time include a dative index representing the initial A attached to the causative auxiliary, and a dative NP representing the initial dative, as in (41a).

- (41) French (Italic, Indo-European)
 a *Je=lui=ai fait donner le livre à Jean.*
 I_{S/A}:1SG-I_{D/AT}:3SG-have.PRS.I_{S/A}:1SG make.PtCP give.INF D.SG.M book(M) to PRN
 ‘I made him/her give the book to Jean.’
 b **J’ai fait donner le livre à Jean à Paul.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG make.PtCP give.INF D.SG.M book(M) to PRN to PRN
 intended: ‘I made Paul give the book to Jean.’
 OK: *J’ai fait donner le livre à Jean par Paul*

Similarly, in Basque, the construction of simplex verbs cannot include more than one dative term. Moreover, in most Basque varieties (including Standard Basque), dative NPs are

obligatorily cross-referenced by a dative index attached to the verb. The construction of derived causative verbs such as *eman-arazi* < *eman* ‘give’ is exceptional in that, as illustrated in (42), it may include both a dative NP representing the initial dative and a dative NP representing the initial A. However, the verb form cannot include more than one dative index, and the dative index included in the verb form invariably cross-references the initial A.

(42) Central Basque (Euskaran)

Mikel-i Jon-ek haurr-ei diru-a eman-arazi dio.

PRN-DAT PRN-ERG child-PL.DAT money-SG give-CAUS.CPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG.I_{DAT}:3SG

‘Jon had the money given to the children by Mikel.’

Synchronically, this can be described as partial demotion of the initial dative. Diachronically, as in the case of French, a plausible explanation is the retention of a property of the biclausal source construction, in which the instigator and the recipient belonged to two distinct clauses. Note that there is some evidence that the grammaticalization of the causative suffix *-arazi* is relatively recent in the history of Basque.

12.4 Causative uses of causative markers that do not meet the narrow definition of causativization

12.4.1 Introductory remarks

A broad definition of causativization has been proposed in §12.1.1, according to which causativization *latu sensu* encompasses all kinds of morphologically oriented valency operations in which the referent of the A/S term of the derived construction is more agentive than the referent of the A/S term of the initial construction, without any additional condition on the mapping of semantic roles onto morphosyntactic slots in the initial construction and in the derived construction. The advantage of this definition is that it accounts for the fact that, in the languages that have a voice marker productively used in a way that meets the narrow definition of causativization, it is often possible to find the same voice marker in valency alternations that meet this broad definition but do not meet the narrow definition of causativization as nucleativization of a participant that instigates or control the event denoted by the initial construction. The possibility of analyzing portative constructions involving derived forms of spontaneous motion verbs as meeting the broad definition of causativization has already been discussed in §12.1.1. In this section, further examples of such situations are examined.

12.4.2 Causativization and perspectivization

Some languages attest uses of causative markers or auxiliaries that are not related to a change in the number of participants or in their role in the event, but to an alternation between two possible mappings of participant roles onto syntactic roles that reflects the choice between two possible perspectivizations of the same participant structure. The valency operation marked by this use of causative marking is functionally similar to that expressed by agentful

passive constructions (and in particular by the middle-marked passive constructions discussed in chapter 11 §11.9.1), with just a reverse marking pattern.

In accordance with the general definition of causativization, in the use of causative forms that express a mere change in perspectivization, the participant selected as the A term in the causative construction is more agentive than that selected as A or S in the construction of the base verb.

For example, many languages express ‘frighten’ as the causative form of ‘fear’, even with reference to situations implying a participant structure <experiencer, stimulus> identical to that expressed by ‘fear’ (i.e., without any implication of volitionality for the participant encoded as if it were the causer in a typical causative construction). What is relevant here is the involvement of the stimulus in the causality chain.

In Mandinka, cf. example (43), ‘fear’ is an underived verb occurring in a construction with the experiencer in S role and the stimulus coded as if it were an adjunct, whereas the causative form of the same verb expresses the same participant structure with the experiencer in P role, and the stimulus in A role.

(43) Mandinka (Central Mande, Mande)

- a *Díndíńó kà sílá sàâ lá.*
 child.D ICPL be.afraid snake.D POSTP
 ‘The child is afraid of the snake.’
- b *Sàâ kà díndíńò sílá-ndì.*
 snake.D ICPL child.D be.afraid-CAUS
 ‘The snake frightens the child.’

Similarly, in Akhvakh, the underived verb *λūruλa* ‘fear’ (whose root is underlyingly *λib-*) occurs in the case frame <ZER, ABL>, in which the experiencer is encoded as an NP in the zero case, and the stimulus as an ablative oblique, whereas the derived causative verb *λibōruλa* ‘frighten’ (whose stem is underlyingly *λib-aj-*, where *-aj-* is a causative marker) occurs in the case frame <ERG, Ø> with the stimulus and the experiencer encoded as the A and P terms of a transitive construction, respectively, cf. example (44).

(44) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Mik’e ek’^wa-šū-gune λēri.* (*λēri* < *λi(b)-ari*)
 child man-OF-ABL fear.CPL
 ‘The child feared the man.’
- b *Ek’^wa-š^w-e mik’e λib-āri.* (*λibāri* < *λib-a(j)-ari*)
 man-OF-ERG child fear-CAUS.CPL
 ‘The man frightened the child.’

A similar explanation can be put forward for the coding of ‘sell’ as the causative form of ‘buy’, attested among others in Tswana. Interestingly, in Tswana, *rékísá* ‘sell’ is morphologically the causative form of *réká* ‘buy’, cf. example (45), but its syntactic behavior departs in some respects from that of regular causative verbs. In Tswana, the causative forms of transitive verbs normally have double-P constructions with the initial A in the role of primary object, whereas ‘sell’, like ‘buy’, is syntactically a monotransitive verb. This means that, in the construction of *rékísá* ‘buy’, contrary to what could be expected from the presence

of the causative suffix, the buyer can only be encoded as the applied P in an applicative construction. In (45d), the verb form obligatorily includes an applicative marker realized as *-ets-*.

(45) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mà-tl^hàbèlò á-rék-á dí-q^hò:mó.*
 PL-slaughterhouse(cl6) I_{S/A}:cl6-buy-FV PL.cow(cl10)
 ‘The slaughterhouses buy cows.’
- b *Bàrúí ¹bá-rék-ís-á dí-q^hò:mó.*
 PL-farmer(cl2) I_{S/A}:cl2-buy-CAUS-FV PL.cow(cl10)
 ‘The farmers sell cows.’
- c **Bàrúí ¹bá-rék-ís-á má-tl^hàbèlò dì-q^hò:mó.*
 PL-farmer(cl2) I_{S/A}:cl2-buy-CAUS-FV PL-slaughterhouse(cl6) PL.cow(cl10)
 intended: ‘The farmers sell cows to the slaughterhouses.’
- d *Bàrúí ¹bá-rék-ís-éts-à mà-tl^hàbèlò dì-q^hò:mó.*
 PL-farmer(cl2) I_{S/A}:cl2-buy-CAUS-APPL-FV PL-slaughterhouse(cl6) PL.cow(cl10)
 ‘The farmers sell cows to the slaughterhouses.’

This treatment of ‘sell’ and ‘buy’ is cross-linguistically widespread and can be explained by the fact that, in a selling/buying event, the seller outranks the buyer in terms of control. This explanation is confirmed by the existence of languages in which ‘buy’ is morphologically the middle form of ‘sell’, cf. chapter 11 §11.6.

12.4.3 Causativization and agentivization

Causative derivation may encode a mere increase in the agentivity of the A term of a transitive construction or of the S term of an intransitive construction without any other change in the participant structure. This phenomenon is analyzed in detail by Kittilä (2009), who designates it as AGENTIVIZATION.

For example, in Bambara, the prefix *lá-*, which straightforwardly meets the usual definition of a causative marker in most of its occurrences, is also used to derive ‘listen’ from ‘hear’ without any apparent change in the construction, since the Bambara verb *mén* is transitive.

(46) Bambara (Central Mande, Mande)

- a *Sékù yé kìbàró ¹mén.*
 PRN CPL news.D hear
 ‘Sékou heard the news.’
- b *Sékù yé cèkòròbá ¹lá-mén.*
 PRN CPL oldman.D CAUS-hear
 ‘Sékou listened to the oldman.’

A possible explanation of this use of causative derivation is that it combines causativization and covert reflexivisation, since ‘listen’ can be paraphrased as ‘make (oneself) hear’. The same explanation applies to the following examples.

It may also happen that causative derivation expresses the same semantic manipulation on the S term of bivalent intransitive verb. For example, in East Uvean, cf. example (47), *-i* is a

suffix typically used add a causer to the participant frame of monovalent intransitive verbs, but in *sio* ‘see’ / *sio-’i* ‘look at, observe’, causative derivation marks an increase in the degree of agentivity of the participant that can be characterized as an experiencer in the construction of the base verb ‘see’.

(47) East Uvean (Oceanic, Austronesian)

- a *Sio ia Paulo ki tona ’ohoaná.*
 see ABS PRN OBL his wife
 ‘Paulo saw his wife.’
- b *Sio-’i e Paulo ia tona ’ohoaná.*
 see-CAUS ERG PRN ABS his wife
 ‘Paulo observed his wife.’
 (Claire Moyse, pers.com.)

Example (48) illustrates the same phenomenon with a monovalent intransitive verb in Finnish.

(48) Finnish (Finnic, Uralic)

- a *Henkilö laihtu-i.*
 person lose.weight-PST.I_{S/A}:3SG
 ‘A person lost (some) weight.’
- b *Henkilö laihtu-tt-i.*
 person lose.weight-CAUS-PST.I_{S/A}:3SG
 ‘A person (purposefully) lost some weight.’
 (Kittilä 2013: 127)

In Akhvakh, three verbs have a causative form that does not encode the introduction of an additional participant, but modify the semantic role of a nuclear participant of the non-derived verb in the same way as in the preceding examples: *beq’uruʎa* ‘know’, *hidičuruʎa* ‘forget’, and *mičunuʎa* ‘find’.

In their non-derived form, *beq’uruʎa* ‘know’, *hidičuruʎa* ‘forget’ and *mičunuʎa* ‘find’ select the case frame <DAT, Ø>, the dative NP representing an animate participant who knows, forgets, or finds something / someone. The corresponding causative verbs are found in the case frame <ERG, Ø> with the meanings ‘learn’, ‘forget by negligence’, and ‘obtain as the result of one’s efforts’, cf. examples (49) to (51).

(49) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Hu-š^w-a ʒara mič’i b-eq’-id-e.*
 DIST-OF.M-DAT Arabic language(N) I_S:N-know-ICPL-I_S:N
 ‘He knows Arabic.’
- b *Hu-š^w-e ʒara mič’i b-eq’-āri.*
 DIST-OF.M-ERG Arabic language(N) I_P:N-know-CAUS.CPL¹⁴²
 ‘He learnt Arabic.’

¹⁴² *-āri* results from the reduction of the underlying sequence *-aj-ari*, where *-aj-* and *-ari* are the causative marker and the completive marker, respectively.

(50) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Raʃe-ṣe miʃ'e hidič-e-wudi di-ʒa.*
 last.night-ADJZ dream(N) forget-I_S:N-CPL 1SG-DAT
 'I have forgotten the dream I had last night.'
- b *Di-be iši hidič-ōba me-de!*
 1SG.GEN-N task(N) forget-CAUS.PROH¹⁴³ 2SG-ERG
 'Don't forget the assignment I gave you!'

(51) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Hu-ṣ^w-a ači m-ič-ani.*
 DIST-OF.M-DAT money(N) I_S:N-find-CPL
 'He found money.'
- b *Hu-ṣ^w-e ači m-ič-āni.*
 DIST-OF.M-ERG money(N) I_P:N-find-CAUS.CPL¹⁴⁴
 'He earned money.'

In Andi (a language belonging to the same branch of Nakh-Dagestianian as Akhvakh) a similar behavior of 'know' and 'forget' is signaled by Rochant (2018: 88-90), who glosses the causative form of 'forget' as 'refuse to remember'. As in all the other examples quoted in this section, an explanation in terms of covert reflexivization can be considered.

12.5 Causative markers co-expressing other types of valency operations

12.5.1 The passive-causative polysemy, the decausative-causative polysemy and the use of causative morphology in involuntary agent constructions

In some languages, for example, Korean, cf. example (52), the same markers can be found in passive and causative function.

(52) Korean (Koreanic)

- a *Ai-ka pihayngki-lul po-ass-ta.*
 child-SBJ plane-ACC see-PST-DECL
 'The child saw the plane.'
- b *Pihayngki-ka ai-eykey po-y-ess-ta.*
 plane-SBJ child-DAT see-PASS-PST-DECL
 'The plane was seen by the child.'
- c *Emeni-ka ai-eykey pihayngki-lul po-y-ess-ta.*
 mother-SBJ child-DAT plane-ACC see-CAUS-PST-DECL
 'The mother made the child see the plane.'
- (Sohn 1999: 367)

¹⁴³ *-ōba* results from the reduction of the underlying sequence *-aj-uba*, where *-aj-* and *-uba* are the causative marker and the prohibitive marker, respectively.

¹⁴⁴ *-āni* results from the reduction of the underlying sequence *-aj-ani*, where *-aj-* is the causative marker, and *-ani* is an allomorph of the completive marker *-ari*.

Synchronically, a possible analysis is that, in (53), the suffix *-y-* encodes nothing more than A denucleativization, leaving open two possibilities: the denucleativization of A can be compensated, either by converting the initial P into the S term of an intransitive clause (passive), or by the introduction of a causer taking over the A role.

As already discussed in chapter 9 §§9.5.2-3, the passive-causative polysemy has at least two possible diachronic explanations. A first possible explanation, already discussed in chapter 9 §9.5.2, is a semantic shift affecting a reflexive-causative construction. This semantic shift, attested in French, consists in that the participant playing simultaneously the roles of causer and patient is reinterpreted as playing a purely passive role, schematically ‘ X_i lets (Y) V self_i’ > ‘X gets V-ed (by Y)’. In particular, in languages in which causative-from-transitive constructions with a null P (something like ‘X lets (Y) V \emptyset ’) lend themselves to a reflexive reading (‘ X_i lets (Y) V self_i’), a semantic shift similar to that affecting the reflexive-causative construction of French directly results in the possibility that a causative marker acquires a passive function.

The same explanation can also account for the quasipassive use of causative verbs signaled by Aikio & Ylikoski (2010: 163) in North Saami. In this language, the verbs have distinct passive and causative forms (for example *borrat* ‘eat’ > passive *borrojuvvot* or *borahallat*, distinct from causative *borahit*), but with some verbs, for example ‘eat’, it is the causative form that is found in quasipassive function, as in *Dát láibi gal boraha* ‘This bread is edible’, where *boraha* is an inflected form of the causative verb *borahit*. Here again, it seems reasonable to explain this use of causative morphology as involving covert reflexivization: *This bread_i lets (people) eat (itself_i)*. Note that, in French, *Ce pain se laisse manger*, literally ‘This bread lets eat itself’, is a usual way of expressing ‘This bread is not bad (i.e. is good enough to be eaten)’.

A second possible explanation of the passive-causative polysemy, discussed in chapter 9 §9.5.3, is the parallel grammaticalization of two periphrases using the same acquisitive verb in the role of valency operator, such as English *I got hit by a car* (passive) / *I got the kids to go to bed* (causative).

Unsurprisingly, given the tight relationship between decausative and passive (see chapter 9, section 9.4), the decausative-causative polysemy is also attested, in particular in Japanese, where the same suffix *-e* is used to causativize some intransitive verbs and to decausativize some transitive verbs, cf. example (53).

(53) Japanese (Japonic)

a causative use of the suffix *-e*

<i>ak(u)</i>	‘open (intr.)’	<i>ak-e(ru)</i>	‘open (tr.)’
<i>sizum(u)</i>	‘sink (intr.)’	<i>sizum-e(ru)</i>	‘sink (tr.)’
<i>tuk(u)</i>	‘become attached’	<i>tuk-e(ru)</i>	‘attach’

b decausative use of the suffix *-e*

<i>yak(u)</i>	‘burn (tr.)’	<i>yak-e(ru)</i>	‘burn (intr.)’
<i>war(u)</i>	‘break (tr.), split (tr.)’	<i>war-e(ru)</i>	‘break (intr.), split (intr.)’
<i>kudak(u)</i>	‘smash’	<i>kudak-e(ru)</i>	‘become smashed’

(Jacobsen 2016: 22)

As discussed by Frellesvig & Whitman (2016), in Japanese, this polysemy pattern can be analyzed as the result of the parallel grammaticalization of periphrases involving the Old

Japanese verb *e-* ‘get, acquire’, similar to the *get*-periphrases found in English and other languages. According to this hypothesis, decausative *-e* results from the grammaticalization of *e-* ‘get, acquire’ in a construction similar to the so-called *get*-passive of English (which is in fact ambiguous between a passive and a decausative reading), whereas causative *-e* results from the grammaticalization of the same verb in a construction similar to the *get*-causative of English.

The decausative-causative polysemy is also found in Ainu (Zúñiga & Kittilä 2019: 244). Bugaeva (2015) analyzes it as a case of parallel development of causative and decausative functions out of a verb ‘do’. See Bahrt (2021: 107-110) for additional illustrations of the decausative-causative polysemy.

The use of causative morphology in involuntary agent constructions, analyzed by Kittilä (2013) and illustrated in (54), can also be mentioned here, since, cross-linguistically, the marking of involuntary agent constructions typically involves decausative morphology.

(54) Finnish (Finnic, Uralic)

- a *Henkilö tappo-i. kissa-n-sa.*
 person kill-PST.I_{S/A}:3SG cat-ACC-I_{ADP}:3
 ‘A person killed his/her cat (on purpose).’
- b *Henkilö tappa-tt-i. kissa-n-sa.*
 person kill-CAUS-PST.I_{S/A}:3SG cat-ACC-I_{ADP}:3
 ‘A person had his/her cat killed (by someone else).’
 OR ‘A person killed his/her cat accidentally.’
 (Kittilä 2013: 120)

As in the use of causative derivation discussed in §12.4.3, an explanation in terms of covert reflexivization in a permissive causation construction can be considered: X_i lets (*self*_{*i*}) kill $Y > X_i$ is unable to prevent (*self*_{*i*}) from killing $Y > X$ inadvertently kills Y .

12.5.2 The antipassive-causative polysemy

As already discussed in chapter 10 §10.9.3, some languages have identical or formally very similar causative and antipassive markers, and at least in some cases, a plausible explanation of this homonymy or quasi-homonymy is that verbs ‘do’ can be found not only in causative-like periphrases, but also in antipassive-like periphrases, and consequently have the potential to grammaticalize, not only as causative auxiliaries, but also as antipassive auxiliaries. Subsequently, the conversion of such auxiliaries into voice markers may result in the creation of formally similar or even identical antipassive and causative markers.

12.5.3 The causative-applicative polysemy

Examples of voice markers found both in causative and applicative function abound cross-linguistically, and a number of studies have been devoted to the analysis of this polysemy, whose historical implications are, however, not entirely clear.

Some languages have a morphological derivation predominantly used in causative function, with however a limited number of verbs for which the same morphological formation has an applicative function. Jóla Fóni (Atlantic) and Soso (Mande) are typical

illustrations of this configuration. For example, in Soso (Shluinsky 2014), most of the verbs in which a prefix *rà-* can be isolated are functionally causatives, but in *rà-sáli* ‘bless’ < *sáli* ‘pray’, the function of *rà-* is unambiguously applicative, since ‘bless s.o.’ can be paraphrased as ‘pray for s.o.’. In Jóola Fóoñi, the suffix *-en* ~ *-en* is productive in causative function, but is also found in applicative function with a limited number of verbs that all refer to bodily excretions (such as *puus* ‘spit’ > *puus-en* ‘spit on s.o. or s.th.’)

Some other languages have a morphological derivation equally productive in causative and applicative function, with a distribution of the two uses lending itself to semantic generalizations. For example, in Fijian, most verb roots are intransitive, and most transitive verbs result from derivation involving a transitivity suffix whose two allomorphs (*-va* and *-a*) are conditioned phonologically. As can be seen in (55) the relationship between Fijian intransitive verbs and derived transitive verbs may meet the definition of applicativization, as in (55a-b), where the initial S is maintained as A, and P represents a second participant towards which the activity of A is directed, but it may also meet the definition of causativization, as in (55c-d), where the initial S is maintained as P, and a causer is introduced in A role. The obvious regularity is that the transitivity suffix of Fijian tends to be used in causative function with intransitive verbs assigning a patientive role to their core argument (‘unaccusatives’), and in applicative function with those assigning an agentive role (‘unergatives’), which is consistent with the cross-linguistic observations on the distribution of morphological causatives.¹⁴⁵

(55) Boumaa Fijian (Oceanic, Austronesian)

- a *E-la'o a marama.*
 I_{S/A}:3SG-go D woman
 ‘The woman (S) is going.’
- b *E-la'o-va a suka a marama.*
 I_{S/A}:3SG-go-APPL D sugar D woman
 ‘The woman (A) is going for sugar (P).’
- c *E-lo'i a kaukamea yai.*
 I_{S/A}:3SG-get.bent D iron DEM
 ‘This piece of metal (S) is bent.’
- d *E-lo'i-a a kaukamea a cauravou.*
 I_{S/A}:3SG-get.twisted-CAUS D iron D youth
 ‘The youth (A) is bending the piece of metal (P).’
 (Dixon 1988: 45)

As discussed by Evans (2003), transitivity suffixes showing similar properties are common among Oceanic languages.

The question of the causative-applicative polysemy and of its possible sources will be discussed in more detail in chapter 14 §14.6.1 and §14.8.5.

¹⁴⁵ Note that the constituent order in the transitive construction of Fijian is VPA.

12.5.4 The causative-reciprocal polysemy

The causative-reciprocal polysemy is not common cross-linguistically. It was mentioned in the Arawakan language Yine by Nedjalkov & Silnitsky (1973), and a few other illustrations are provided by Bahrt (2021: 105-107). Given the particular relationship between pluractionality and reciprocity (already discussed in chapter 11 §11.3.2) and the existence of polysemous causative-pluractional markers in some languages (see §12.6.10 below), it is reasonable to think that pluractionality plays a role in the emergence of the causative reciprocal polysemy, but the available data are not sufficient to be more precise on this point.

12.6 Special uses of causative markers

12.6.1 Introductory remarks

This section deals with uses of causative markers that do not meet the narrow definition of causativization, and whose relationship to the broader definition of causativization put forward in §12.1.1, or even to the general notion of valency operation, is less obvious than in the cases discussed in §§12.4-5. In the situations described in §§12.6.2-10, it is sometimes difficult to distinguish between possible semantic regularities and lexicalization phenomena that hardly lend themselves to generalization, as can be seen from detailed accounts such as Newman's (2000: 651-660) description of the Hausa suffix *-r̃*, or Shluinsky's (2014) description of the Soso prefix *rà-*.

12.6.2 Causative markers in intensive function

The use of causative derivation to mark an increase in the agentivity of a participant, presented in §12.4.3 above, can be viewed as a particular case of the use of causative markers in intensive function evoked in this section. Given the natural link between the intensity of an action and the agentivity of its instigator/controller, there is in fact no clear-cut distinction between the use of causative markers to express an increase in agentivity and uses related to other nuances of the notion of intensity of action.

The use of causative markers to convey intensity of action without any change in the number of participants, their semantic roles or their coding is well-attested cross-linguistically, in particular among Bantu languages. It was mentioned by Nedjalkov & Silnitsky (1973: 19) with examples from Zulu, Swahili, and Armenian, and by Kulikov (2001: 894) with an example from Arabic.

In Tswana, as illustrated in (56), the intensive reading of the causative marker *-is-* (already amply illustrated above in uses meeting the narrow definition of causativization) is sometimes conditioned by its reduplication, as in *bàt̃t̃sìsà* 'investigate' < *bàtlà* 'look for'. Note that the interpretation of causative marker stacking in (56) is different from those mentioned in §12.3.2, since in the cases evoked in §12.3.2, one of the causative markers has its usual effect of adding a participant, whereas here, no extra participant is added.

- (56) Tswana (Bantu, Benue-Congo, Niger-Congo)
Ǫ-nè à-bàtl-ìs-ìs-à mó 'ínt^hànéte-ŋ
 I_{S/A}:cl1-PST I_{S/A}:cl1-look.for-CAUS-CAUS-FV LOC Internet(cl9)-LOC
mmí á-sì-ká à-bón-à sî-pè.
 but I_{S/A}:cl1-NEG-SEQ I_{S/A}:cl1-see-FV cl7-any
 ‘S/he did a thorough search on the Internet but couldn’t find anything.’

Rochant (2018: 91) mentions an intensive use of the causative form of ‘unstitch’ and a few other transitive verbs in Andi (Nakh-Daghestanian).

In Manambu (Sepik), according to Aikhenvald (2011a), the prefix *kay-* attaches to intransitive verbs with the valency-increasing effect expected from a causative marker. By contrast, with ambitransitive or transitive verbs, no additional participant is introduced, but the presence of *kay-* implies “increase in manipulative effort, intentionality, volitionality and control”, and may also be motivated by the fact that the referent of P requires particular effort (for example, because of its unusual size).

12.6.3 Causative marking in constructions referring to actions involving bodyparts

In Andi, the verb ‘touch’ in its base form has an intransitive construction with the toucher in S role and the thing being touched encoded as an oblique in a spatial case (superessive), as in (57a). In many languages (including English), the bodypart involved in a touching event can be specified as an instrumental adjunct (‘touch with the hand’), but a different strategy is found in Andi, where ‘touch with the hand’ is expressed by a construction in which the person and the hand are encoded as if they were the causer and the causee in a typical causative construction (57b). However, this cannot be viewed as an instance of causativization, even in the broad sense of this term, since (57b) just specifies the bodypart directly involved in the event, without implying any change in the agentivity of the participant.

- (57) Andi (Avar-Andic-Tsezic, Nakh-Daghestanian)
 a *Den obi r-ek':ub čajnik'u-ɔa.*
 1SG touch.CPL N-hot teapot(N)-LOC
 ‘I touched the hot teapot.’
 b *Den-ni reɔa oboɔi r-ek':ub čajnik'u-ɔa*
 1SG-ERG hand touch.CAUS.CPL N-hot teapot(N)-LOC
 ‘I touched the hot teapot with the hand.’
 lit. ‘I made the hand touch the teapot.’
 (Rochant 2018: 85-86)

Interestingly, in some languages, similar constructions can be used even in situations that do not imply volitionality on the part of the person encoded as the causer. For example, in Latvian, ‘His teeth sparkled’ can be expressed literally as ‘He made his teeth shine’, as in (58).

(58) Latvian (Baltic, Indo-European)

Puisis spīdināja balt-us zob-us
 boy shine.CAUS.PST.I_{S/A}:3 white-PL.M.ACC tooth-PL.ACC
 ‘The boy flashed his white teeth.’
 (Holvoet 2015: 156)

12.6.4 The abilitative use of causative markers

Jacques (2015) describes the use of the same suffix *su-* with a causative function (59a) and an abilitative function (59b) in Rgyalrong languages (Tibeto-Burman). In its abilitative function, *su-* yields derived verbs that can be glossed as ‘be able to V’, without any modification of the participant structure of the base verb or of the mapping of participant roles onto syntactic roles. In (59b), *z-* is a regular allomorph of *su-*.

(59) Japhug (Na-Qiangic, Sino-Tibetan)

a *Nɣ-pi ni ku nu lɣ-wy-su-tɛat-a-ndzi ɛti.*
 I_{ADP}:2SG-elder.sibling DU ERG DEM CPL-INF-CAUS-take.out-1SG-DU be.EMPH:FACT
 ‘Your two elder sisters forced me to spit it out.’

b *Tɛeri tɣ-mu nu ku maka mu-pjɣ-z-nɣɛqa.*
 but I_{ADP}:IDF-mother DEM ERG at.all NEG-IFR-ABIL-bear
 ‘But the old woman was not able to resist (couldn’t help) (and told them).’
 (Jacques 2015: 7, 20)

Jacques (2015) puts forward a grammaticalization path ‘from causative to abilitative’ based on the observation that the abilitative use of *su-* is mainly found in combination with negation. The first step in this grammaticalization path is the routinization of the use of the negative form of causative verbs as expressing a preventive meaning: ‘X does not make/let Y V’ > ‘X prevents Y from V-ing’. The following step (facilitated by the lack of restriction on core term elision in Rgyalrong languages) is that clauses projected by the negative form of causative verbs in which no causer is explicitly mentioned are reanalyzed as expressing a participant structure from which the causer has been deleted;:

- an unspecified causer prevents Y from V-ing
- > an unidentified force prevents Y from V-ing (i.e. Y is unable to V)

Finally, the possibility of an abilitative reading extends to the corresponding positive forms.

12.6.5 Causative and efferential

As already mentioned above, Hausa has a verbal suffix *-ĩ* that may act as a causative marker, as in (28) above or (60) below, although its syntactic behavior is atypical in that the initial A/S is coded like a comitative adjunct even when the base verb is intransitive.

(60) Hausa (West Chadic, Chadic, Afroasiatic)

- a *Sarkii yaa san làabaaɾɿn.*
 chief I_{S/A}:3SG.M.CPL know news.D
 ‘The chief knows the news.’
- b *Naa sana-ɾɿ dà sarkii làabaaɾɿn.*
 I_{S/A}:1SG.CPL pour-out.and.away with chief news.D
 ‘I informed the chief of the news.’
 (Newman 2000: 655)

However, with many verbs, the use of *-ɾɿ* has no obvious link with causativization, even in the broad sense of this term. For example, in (60), the semantic contribution of *-ɾɿ* has nothing to do with the chain of causality implied by the pouring event, and exclusively concerns the spatial orientation of the action. No change in either syntactic or semantic transitivity can be detected between (60a) and (60b), which differ only in direction of action.

(61) Hausa (West Chadic, Chadic, Afroasiatic)

- a *Taa zubà madaɾaa cikin kwaryaa.*
 I_{S/A}:3SG.F.CPL pour milk in calabash
 ‘She poured the milk in the calabash.’
- b *Taa zuba-ɾɿ dà madaɾaa*
 I_{S/A}:3SG.F.CPL pour-out.and.away with milk
 ‘She poured out the milk.’
 (Newman 2000: 655)

Newman (1963, 2000) takes the extreme view that *-ɾɿ* is not a causative marker, but an “efferential” marker whose all uses (including those involving a change in valency) can be explained with reference to a basic meaning of “action directed out and away”. However, it is difficult to contest that *-ɾɿ* also has uses that meet the usual definition of causativization, as in (28) or (60) above. Moreover, the explanatory value of the notion of efferentiality is limited by the fact that, by definition, efferentiality is in some sense present in any semantically transitive event. In fact, Newman’s argumentation that *-ɾɿ* is not a causative marker largely relies on his decision to restrict the notion of causativization to indirect causativization and to designate direct causativization as ‘transitivization’). Taking ‘causative’ with its usual meaning, the only reasonable position is that Hausa *-ɾɿ* is a polysemous causative-efferential marker, which in addition to its uncontroversial causative and efferential uses also has a wealth of more or less lexicalized uses whose relationship to causativization and/or efferentiality is often unclear. Readers are referred to Jaggar (2017) for a review of the controversy about the meaning and function(s) of Hausa *-ɾɿ*, and additional references on this topic.

12.6.6 Causative and estimative

Estimative (sometimes also called ‘tropative’) is a derivational operation converting adjectives or stative verbs into transitive verbs expressing the meaning ‘X estimates that Y has the property Z’, where Z is the quality expressed by the adjective or stative verb from which the verb expressing estimation is formed, as in Turkish *garip* (adj.) ‘strange’ >

garip-se- (tr. verb) ‘consider strange’. Jacques (2023) discusses estimative constructions in cross-linguistic perspective. Estimative constructions may involve dedicated markers or markers also found in other functions, including causative.

In Arabic, estimative is a possible function of the derived verb form traditionally labeled form 4 (*ʔaffʔala*), whose formation involves prefixation of *ʔa-*. The expression of causativization (as in *ǧalasa* ‘sit’ > *ʔaǧlasa* ‘make s.o. sit’) is commonly analyzed as the basic function of this form, both synchronically and diachronically. The polysemy of this form can be illustrated by *ʔaḥsana* (from *ḥasuna* ‘be good’) ‘make good’ or ‘deem to be good’. It is not difficult to explain the estimative reading of such forms as derived from their causative reading, as already observed by Arabic grammarians, who propose to gloss for example *ʔaḥsantuhu* ‘I found him good’ as ‘I made him good in my belief’ (Larcher 2003: 60-61).

Japhug (Rgyalrong) has not only a dedicated estimative marker *nr-*, but also a causative marker *su-* / *suy-* / *z-* used in estimative function with a limited number of verbs (Jacques 2013). According to Jacques (2023: 176), the Japhug estimative prefix *nr-* (and its cognates in other Gyalrong languages) results from the reanalysis of a transitive denominal verbalizing derivation (*nu-/nr-*) operating on nominalized verb forms.

The causative-estimative polysemy is also found in Kwaza (Amazonian isolate), cf. (Van der Voort 2004: 368).

12.6.7 Causative and simulative

In Zulu, the verb forms derived by means of *-is-* are normally interpreted as causative, but example (62) illustrates the possibility of a simulative (or ‘imitative’) reading.

(62) Zulu (Bantu, Benue-Congo, Niger-Congo)

U-hamb-is-e okoonwabu.

I_{S/A}:clA-walk-CAUS-FV chameleon

‘S/he walks like a chameleon.’ lit. ‘S/he makes a chameleon walk.’

(Schadeberg 2003: 73)

In fact, this construction can be analyzed as an applicative construction, since A in (62) expresses the same semantic role (walker) as the S of the underived verb *hamba* ‘walk’, and P can therefore be analyzed as an applied P expressing the role of standard of comparison. However, I am aware of no other use of the causative marker *-is* as an applicative marker in Zulu.

12.6.8 Causative, simulative and allegative

Jacques (2022) discusses simulative constructions (i.e. constructions that can be glossed as ‘X pretends to V’) in cross-linguistic perspective. Simulative constructions may involve dedicated markers or markers also found in other functions. In particular, as already mentioned in chapter 8 §8.4.3.2, in some languages, reflexive-causative constructions may have a simulative reading, as in (63).

(63) Mandinka (Central Mande, Mande)

Kèè yè à fâŋ nè fà-ndí.

man.D CPL.TR 3SG self FOC die-CAUS

‘The man pretended to be dead.’ lit. ‘The man made himself die.’

In Wolof, the same meaning is expressed by verb forms combining reduplication (which by itself plays no role in the voice alternations of Wolof) and addition of a causative suffix.

An ALLEGATIVE interpretation of a causative construction, according to which the participant encoded as if it were a causer does not make a causee do something, but pretends that the participant encoded as if it were a causee does something, is possible in French, and is particularly usual with the verb *dire* ‘say’, as in (64).

(64) French (Italic, Indo-European)

Ne= me= fais pas dire des choses que je=

NEG I_{DAT} make.IMP.SG NEG say.INF IDF.PL thing(F).PL REL I_{S/A}:1SG

n’ai pas dites.

NEG-have.PRS.IS/A:1SG NEG say.PTCP.PL.F

‘Don’t put words in my mouth!’

lit. ‘Don’t make me say thing that I didn’t say.’

12.6.9 Causative and the expression of psychological / physiological states

The use of causative marking presented in this section has been described in Uralic languages. It concerns causative verb forms expressing a participant structure consisting of a single essential participant in the role of experiencer. The constructions in question can be characterized as transpersonal constructions in which the verb is in the causative form with an expletive third person singular S/A index, and an experiencer is coded as if it were the causee in a causative construction.

Finnish has a construction expressing unmanageable desire, illustrated in (65b) and (65d), in which verb forms derived by means of the causative suffix *-tta-* (already illustrated in (34) above in a typical causative construction) are interpreted as expressing an internally caused mental state of an experiencer encoded as if it were the causee in a causative construction. In this construction, no causer is specified, and the verb expresses default 3rd person singular agreement.

(65) Finnish (Finnic, Uralic)

a *Minä laula-n.*

1SG sing-I_{S/A}:1SG

‘I sing.’

b *Minu-a laula-tta-a.*

1SG-PRTV sing-CAUS-I_{S/A}:3SG_{EXPL}

‘I feel like singing.’ lit. ‘It makes me sing.’

c *Hän kirjoitt-i kirje-n.*

3SG write-PST.I_{S/A}:3SG letter-ACC

‘S/he wrote a letter.’

- d *Hän-tä kirjoitu-tt-i.*
 3SG-PRTV write-CAUS-PST.I_{S/A}:3SG_{EXPL}
 ‘S/he felt like writing.’ lit. ‘It made him/her write.’
 (Nelson 2000:171)

F. Gulyás (2013) mentions the existence of a similar construction, in which a person affected by a physiological state is encoded as if it were the causee in a null-causer causative construction, in some other Finno-Ugric languages. For example, in Udmurt, the voice marker *-kt-* marking the presence of an accusative-marked experiencer in (66) acts in other constructions as a causative marker.

- (66) Udmurt (Permic, Uralic)
Ataj-ez berj-kt-e.
 father-ACC vomit-CAUS-I_{S/A}:3SG_{EXPL}
 ‘The father feels like vomiting.’ lit. ‘It_{nSP} makes the father vomit.’
 (F. Gulyás: 2013)

12.6.10 Causative and iterativity/pluractionality

Iterativity (one of the components of the more general notion of pluractionality) is an aspectual notion that has no obvious link with valency-changing operations, but is expressed by markers also used to mark causativization (and sometimes also intensity) in quite a few languages.

Indo-European verbal formations of the shape **CoC-éye/o-*, traditionally labeled as causatives/iteratives, are a case in point, since in addition to their causative function, they express iterativity, and sometimes also intensity (Bozzone 2020).

In Ganja (Atlantic), two distinct morphological derivations share the property of having a causative function with some verbs, and an iterative function with others. One of them (67a) involves suffixation, whereas the other one (67b) involves reduplication.

- (67) Ganja (Balanta, Atlantic, Niger-Congo)
 a *sib* ‘cut’ > *sib-ir* ‘cut into small pieces’ (iterative)
 hab ‘kill’ > *hab-ir* ‘make kill’ (causative)
 b *θiir* ‘write’ > *θiθ-θiir* ‘write repeatedly’ (iterative)
 baay ‘play’ > *bab-baay* ‘make play’ (causative)

Similarly, in Latvian, the suffixes *-(d)ī* and *-(d)inā* have a causative function with some verbs, and an iterative function with others.

- (68) Latvian (Baltic, Indo-European)
 a *snig-t* ‘snow’ > *snidz-inā-t* ‘snow intermittently’ (iterative)
 dzer-t ‘drink’ > *dzir-dinā-t* ‘make drink’ (causative)
 b *šau-t* ‘shoot’ > *šau-dī-t* ‘shoot, fire repeatedly’ (iterative)
 dzer-t ‘drink’ > *dzir-dī-t* ‘make drink’ (causative)
 (Nau 2015: 161)

According to Gluckman (2011), K'ichee' has a verbal suffix *-isa-* lending itself to causative and iterative uses with the following distribution: as illustrated in (69), *-isa-* acts as a causative marker with intransitive verbs only and has an iterative meaning with transitive verbs. Gluckman (2011) also mentions that this suffix is found with some verbs in intensive function.

(69) K'ichee' (Mayan)

- a *X-Ø-kam ri tz'i'*.
 CPL- I_{S/P}:3SG-die D dog
 'The dog died.'
- b *X-Ø-u-kam-isa-j ri tz'i' la a Xwan.*
 CPL- I_{S/P}:3SG-I_A:3SG-die-CAUS-TR D dog D M PRN
 'Juan killed the dog.'
- c *X-Ø-u-q'at la kexu.*
 CPL- I_{S/P}:3SG-I_A:3SG-cut D cheese
 'S/he cut the cheese.'
- d *X-Ø-u-q'at-isa-j la kexu.*
 CPL- I_{S/P}:3SG-I_A:3SG-cut-ITER-TR D cheese
 'S/he cut the cheese many times.'
- (Gluckman 2015: 157, 170, 171)

The situation of Arabic is particularly interesting to examine here. Arabic has a derived verb form, traditionally designated in Arabic grammars as form 2 (*faʿʿala*), productively used in causative function, but also in intensive function and in various types of pluractional functions. It is built on form 1 (*faʿala*) by doubling the middle radical, which suggests that reduplication played a role in the history of this form. Its causative function can be illustrated by *xaraġa* 'go out' > *xarraġa* 'make (s.o.) go out', or *ʕalima* 'know' > *ʕallama* 'inform'. Its intensive function can be illustrated by *daraba* 'beat' > *darraba* > 'beat violently'. Its pluractional function, referred to by Arabic grammarians as *takṭīr* 'multiplication' (Larcher 2003: 34), is traditionally described as encompassing iteration, as in (70a), plurality of subjects, as in (70b), and plurality of objects, as in (71c).

(70) Classical Arabic (Semitic, Afroasiatic)

- a *Ṭawwaf-tu.*
 go.around.PLAC-I_{S/A}:1SG
 'I went round again and again.'
- b *Mawwat-a l-ibil.*
 die.PLAC-I_{S/A}:3SG D-camel.PL
 'Many camels died.'
- c *Ġallaq-tu l-ṭabwāba.*
 close.PLAC-I_{S/A}:1SG D-door.PL
 'I closed many doors'.
- (Larcher 2003: 34)

The possible connection between causation and pluractionality is discussed at length by Larcher (2003: 36-43) for Arabic. No firm conclusion emerges from the discussion, but two

observations rather support the hypothesis that the pluractional function of this suffix is more ancient than its causative function. The first one is that the form in question is formed by doubling the second consonant of the root, and precisely, the use of reduplication as an iconic way of expressing pluractionality is widespread cross-linguistically. The second piece of evidence is that, in the other Semitic languages, the pluractional use of the cognates of the form 2 of Arabic verbs is more widespread than their causative use.

However, the data of Kejom (Grassfields Bantu) suggest the possibility of the opposite direction of change, since the iterative suffix of Kejom is the reflex of the Proto-Bantu causative suffix (Nguendjio 1989: 243).

As regards Indo-European, Kuryłowicz (1956: 86ff) states that Old Indic and Germanic *-ey-e-* verbs were originally iterative but became reanalyzed as causatives when middle voice forms originally providing the intransitive counterparts in correlational pairs went out of use. In a similar vein, Ostrowski (2006: 28–32) argues that the specifically Latvian causatives with the suffix *-ē-* were originally duratives or iteratives that were reanalyzed as causatives when their transitive base verbs were lost or underwent semantic changes obscuring the derivational relationship (Holvoet 2015: 149). However, according to Bozzone's (2020) analysis, the oldest function of Indo-European formations **CoC-éye/o-* was not to derive iterative verbs, but rather to form the causative present of unaccusative verbs, as well as of some transitive verbs with an affected subject; the development of the iterative meaning was secondary and language-specific.

12.7 Lexicalized causatives

As a rule, the voice markers that have a more or less a productive causative use are also found in lexicalized causative verbs whose meaning cannot be completely predicted from the lexical meaning of the base verb and the general meaning of the causative marker. In some cases, the initial motivation of the derivation may be difficult if not impossible to reconstitute.

The tendency of derived causative verbs to lexicalize is certainly favored by the fuzziness of the limit between prototypical and less typical uses of causative markers.

For example, in Mandinka, *kùmù-ndí* < *kùmú* 'be/become acid' may express the compositional meaning 'acidify (tr.)', but also the lexicalized meaning 'digest', and *kúmá-ndí* < *kúmà* 'speak, emit a sound' may express the compositional meaning 'make speak, make resound', but also the lexicalized meaning 'call'.

Turkish has a suffix *-Vr* used with a clear causative function with a limited number of verbs such as *düş-* 'fall' > *düş-ür-* 'make fall' or *iç-* 'drink' > *iç-ir-* 'make drink', but mainly found in derived verbs more or less transparently analyzable as lexicalized causatives. Example (71) illustrates two lexicalized uses of *kaç-ır-* < *kaç-* 'escape'.

(71) Turkish (Turkic, Altaic)

- a *Ucağ-ın-ı* *kaç-ır-dı.*
 plane-CSTR-ACC escape-CAUS-CPL.I_{S/A}:3SG
 'S/he missed his plane.' lit. 'let his/her plane escape'

- c *İki kişi bir uçağ-ı kaç-ır-dı-lar*
 two person one plane-ACC escape-CAUS-CPL-1_{S/A}:3PL
 ‘Two persons hijacked a plane.’ lit ‘made a plane escape’

The lexicalization of causative constructions can also be illustrated by French *faire mentir*, lit. ‘make lie’, also interpretable as ‘defy’, ‘confound’, ‘fault’ (e.g. predictions, statistics, critics, theories, etc.). Interestingly, the same lexicalization of ‘make lie’ is found in Soninke, and Soninke *gàaràndí* lit. ‘make lie’ may also express ‘accuse of being false’, as illustrated in (72c-d), to be compared with (72b) illustrating *gàaràndí* ‘make lie’ in its literal meaning,

(72) Soninke (Soninke-Bozo, Mande)

- a *À wá gàarà-ná wáxátì sú.*
 3SG ICPL lie-GER time all
 ‘S/he lies all the time.’
- b *Máxà ín gàarà-ndí!*
 PROH 1SG lie-CAUS
 ‘Don’t oblige me to lie!’
- c *Sèré sú rà ntá qíhàaròn dígàamú-n gàarà-ndì-ní.*
 person any POT ICPL.NEG prophet.PL-D word.PL-D lie-CAUS-GER
 ‘Nobody can defy the prophets’ predictions.’
 lit. ‘Nobody can make the prophets’ words lie.’
- d *À dà ín dígàamé-n gàarà-ndí.*
 3SG CPL.TR 1SG word-D lie-CAUS
 ‘S/he accused me of lying.’
 lit. ‘S/he made my word lie.’

12.8 Possible sources of causative markers

12.8.1 The grammaticalization path *causation verb* > *causative auxiliary* > *causative marker*

It seems reasonable to assume that all languages have the possibility of encoding the causation relationship between a causing event and a caused event by means of biclausal constructions. As discussed among others in (Song 1996: chapter3), which constitutes more generally an important reference on the grammaticalization of causatives, such constructions may evolve toward more tightly integrated clause combinations, and eventually give rise to complex predicates in which the causativized verb combines with a causative auxiliary. The final stage of the evolution is the univerbation of the complex predicate, the former causative auxiliary being converted into a derivational affix.

This explains why so many languages all around the world have causative markers analyzable as cognate with a verb ‘do’, or with another verb commonly used as expressing causation in causative-like periphrases (‘give’, ‘put’, ‘send’, etc.). For example, as already mentioned in §12.1.4, Avar (Nakh-Daghestanian) has a causative suffix *-iza* resulting from the univerbation of an analytical causative construction in which the causativized verb in the infinitive (marked by the suffix *-ize*) was followed by *ha-* ‘do’:

V-ize + ha- > V-iza-
 INF do CAUS

Among the other verbs that can be used as causative auxiliaries, the grammaticalization of ‘send’ as a causative marker in the languages of South Asia is discussed by Coupe (2018).

As already mentioned in §§12.5.2-3, the parallel grammaticalization of the same verb in causative and decausative/passive or antipassive periphrases is a possible source of the polysemy patterns causative-passive, causative-decausative and causative-antipassive. Similarly, as will be discussed in chapter 14 §14.8.5, the parallel grammaticalization of ‘give’ verbs is a possible source of the causative-applicative polysemy.

12.8.2 The grammaticalization path *light verb / verbalizer* > *causative marker*

In an article in which he analyzes the causative-abilitative polysemy in Japhug, Jacques (2015) observes that the same prefix *suu-* also has a verbalizing function, as in *suy-ts^hwi* ‘dye’ < *ts^hwi* ‘colour’, and proposes to analyze the verbalizing function of *suu-* as its original function. The idea is that the verbalizing suffix *suu-* was also able to combine with action nominalizations, and this was the source of its use as a causative prefix.

This analysis is supported by observations on light-verb constructions fulfilling the same function as verbalizing affixes. For example, in French, it is not difficult to find light-verb constructions in which the combination of a light verb with a noun derived from an intransitive verb expresses causation, and it is easy to imagine that, diachronically, such light-verb constructions might grammaticalize as derived causative verbs.

(73) French (Italic, Indo-European)

intr. verb	event noun	light-verb construction
<i>vivre</i>	<i>vie</i>	<i>donner vie (à)</i>
‘live’	‘life’	‘make live’, lit. ‘give life (to)’
<i>mourir</i>	<i>mort</i>	<i>donner la mort (à)</i>
‘die’	‘death’	‘kill’, lit. ‘give the death (to)’
<i>briller</i>	<i>brillant</i>	<i>donner du brillant (à)</i>
‘shine’	‘shiny aspect’	‘make shine’, lit. ‘give some gloss (to)’

Since light verbs are the most plausible source of verbalizing affixes, it is reasonable to assume that the grammaticalization path from verbalizer to causative marker proposed by Jacques (2015) is a mere variant of a more general path from light verb to causative marker.

12.8.3 The grammaticalization path *locational noun* > *causative marker*

Several West Mande languages (Soso, Jalonke and most Manding varieties, including Bambara) have a verbal prefix that is not exclusively used with a causative meaning but whose causative function is particularly prominent, and for which there can be little doubt that it results from the grammaticalization of a locational noun that also grammaticalized as a postposition. The causative function of the prefix in question (*lá-* in several Manding varieties, *rà-* in Soso-Jalonke) is illustrated in (74).

(74) Bambara (Central Mande, Mande)

Misigènná 'yé misí-'ú lá-bó fàlá 'kónó.
 herdsman.D CPL cow.CD-PL CAUS-go.out ricefield.D in
 'The herdsman had the cows go out from the ricefield.'

This suffix is a member of a set of 2, 3 or 4 verbal prefixes (depending on the individual languages) that are in many respects comparable to the so-called preverbs of Indo-European languages, Hungarian, or Georgian. The verbal prefixes in question are homonymous with postpositions which, in all likelihood, are reflexes of the same former locational nouns. In particular, there is every reason to believe that *lá-* (Bambara) / *rà-* (Soso) and the cognate postpositions are cognate with a nominal lexeme still found for example in Bambara as *dá* 'mouth, opening, edge, etc.'.¹⁴⁶ However, the details of a possible grammaticalization scenario have never been discussed, and I am aware of no simple way of accounting for the grammaticalization of a locational noun into a causative marker.

12.8.4 Reanalysis of TAM morphology

According to Kortlandt (1999), the causative suffix of Classical Armenian *-ujc^han-* (*-uc^han-*) "results from a reanalysis of the TAM morphology of some verbs with causative semantics, including 'show', with subsequent spread to other verbs as a regular causativization device." (Daniel & Khurshudian 2015: 487).

¹⁴⁶ For a full account of the possible meanings of this polysemous noun, see Dumestre (2011: 184-185).

Chapter 13

Non-causative A/S-nucleativization

The recognition of the voice alternations for which I propose the general term of NON-CAUSATIVE A/S NUCLEATIVIZATION as a distinct type of voice is one of the original aspects of the typology of voice put forward in this book.

13.1 Introductory remarks on non-causative A/S-nucleativization

As already commented and briefly illustrated in chapter 8 section 8.3.4, the voice alternations subsumed under the term of non-causative A/S nucleativization have in common with causativization the nucleativization of a participant taking over the role of A or S in the derived construction. They differ from it in that the nucleativized participant does not outrank the initial A or S in agentivity. As in causativization, there is variation in the way the initial A or S is treated in the derived construction: it may be either converted into the P term of a transitive construction, or denucleativized.

Several varieties of non-causative A/S-nucleativization can be distinguished, depending on the syntactic and/or semantic role of the nucleativized participant:

- A-nucleativization of instrumental obliques (§13.2)
- A-nucleativization of dative obliques (§13.3);
- A/S-nucleativization of concernees, or concernativization (§13.4);
- A/S-nucleativization of affected participants other than concernees (§13.5);
- S-nucleativization of persons, things or places affected by a meteorological event (§13.6);

Finally, the last section of this chapter discusses constructions whose analysis in terms of non-causative A/S-nucleativization is problematic, although at first sight possible.

13.2 A-nucleativization of instrumental obliques

13.2.1 A -nucleativization of instrumental obliques involving dedicated verb forms

Derived verb forms used exclusively to code A-nucleativization of instrumental obliques are not common cross-linguistically. However, such a verb form is attested in Laalaa (Atlantic).

Interestingly, Laalaa has two distinct verbal suffixes (*-oh* and *-ah*) that share the ability to nucleativize instrumental obliques. The suffix *-oh* is an applicative suffix licensing the expression of various semantic roles (including the role of instrument) as applied objects, whereas *-ah* licenses the expression of instruments in the syntactic role of A (A-nucleativization). In example (1), sentence (a) illustrates the encoding of instruments as prepositional obliques, sentence (b) illustrates the encoding of instruments as applied objects,

whereas sentence (c) illustrates the encoding of instruments in A role licensed by the A-nucleativizer *-ah*. In the applicative construction, the initial A is maintained in A role, whereas in the A-nucleative construction, the initial A cannot be expressed in the derived construction, and must be understood as non-specific.

(1) Laalaa (Cangin, Atlantic, Niger-Congo)

- a *Me ñam na kúdí.*
1SG eat with spoon
'I eat with a spoon.'
 - b *Me ñam-oh kúdí.*
1SG eat-APPL spoon
'I eat with a spoon.'
 - c *Fetal-aa ap-ah-an paloom.*
gun-D kill-NuclA-FUT antelope
'The gun will be used to kill antelopes.'
- Dieye (2010: 206)

In the languages that have both an applicative construction licensing instruments as applied objects and a passive construction (which is the case of Laalaa), constructions such as that in (1c) can be expected to involve the combination of an applicative marker licensing an applied P with the semantic role of instrument and a passive marker converting the applied P into the A or S term of an applicative-passive construction. However, in Laalaa, *-ah* can hardly be decomposed as *-oh* (applicative marker) + *-uu* (passive marker). Unfortunately, nothing similar is evoked in the descriptions of the other Atlantic languages (even in the other languages of the Cangin group), and consequently, there are no comparative data that could suggest a possible relationship between the two verbal suffixes of Laalaa involved in the nucleativization of the semantic role of instrument.

13.2.2 A-nucleativization of instrumental obliques involving verb forms also used to code applicativization

In Tswana, the voice marker *-el* is mainly found in applicative constructions in which the initial S or A is maintained as A, and a participant that cannot be mentioned in the initial construction is nucleativized as P (see chapter 14 for a detailed description of the polysemy of the Tswana voice marker *-el*). Moreover, in Tswana, instrumental adjuncts are commonly coded as prepositional phrases whose presence does not require voice marking on the verb. However, instruments can also be nucleativized in a construction involving the same voice marker *-el*. The difference with the other uses of the voice marker *-el* is that, as illustrated in (2), nucleativized instruments do not take the role of P in a construction that would meet the definition of applicativization, but of A. As in the Laalaa construction discussed in §13.2.1, the initial A cannot be expressed in the derived construction, and must be understood as non-specific.

(2) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-àpèì ò-fáb-á bò-χóbé 'ká nâ.mà.*
 SG-cook(c11) I_{S/A}:c11-flavor-FV SG-porridge(c114) with meat(c19)
 ‘The cook flavors the porridge with meat.’
- b *Nàmà í-fáb-él-à bò-χô:bè.*
 meat(c19) I_{S/A}:c19-flavor-NuclA-FV SG-porridge(c114)
 ‘Meat is used to flavor to the porridge.’

13.3 A-nucleativization of dative obliques

In the languages that have double P constructions, it is common that recipients coded like monotransitive Ps can be manipulated in passivization in the same way as the P term of monotransitive construction. In the languages where recipients are coded as dative obliques, the definition of passivization adopted in this book excludes the very possibility of a passive construction with an A/S term corresponding to an oblique term of the initial construction. However, at least in some of the languages that have a grammatical role ‘dative’, passive morphology can also be found in a voice alternation meeting the definition of non-causative A-nucleativization in which an initial dative (recipient or other) is converted into the A term of the derived construction

In French, in addition to a use in which it is equivalent to the ‘*être* + past participle’ passive, the ‘*se-faire* + infinitive’ construction is also available to code a variety of A-nucleativization in which the A of the derived construction corresponds to a dative oblique in the initial construction, most commonly (but not only) a recipient, as in (3). In (3b), the denucleativized A is treated exactly in the same way as in passivization, but the initial P undergoes no change, and the role of A is taken over by the recipient encoded as a dative in the initial construction.

(3) French (Italic, Indo-European)

- a *Le client a donné un faux*
 D.SG.M customer(M) have.PRS.I_{S/A}:3SG steal.PTCP IDF.SG.M counterfeit.M.SF
billet au vendeur.
 banknote(M) to.D.SG.M salesman(M)
 ‘The customer gave a counterfeit banknote to the salesman.’
- b *Le vendeur s’est fait donner un*
 D.SG.M salesman(M) REFL-be.PRS.I_{S/A}:3SG make.PTCP give.INF IDF.SG.M
faux billet (par le client).
 counterfeit.M.SF banknote(M) by D.SG.M customer(M)
 ‘The salesman was given a counterfeit banknote (by the customer).’

The same possibility exists in French and in Italian for the construction with the middle form of ‘see’ in the role of voice auxiliary, whose passive use has been described in chapter 9 §9.2.6. Examples (4) and (5) illustrate the possible use of the middle form of ‘see’ in voice alternations meeting the definition of A-nucleativization of dative obliques.

(4) Italian (Italic, Indo-European)

Ne deriva che le amministrazioni locali si vedono assegnare fondi che non esistono.
 from.that derive.PRS.I_{S/A}:3SG that D.PL.F administration(F).PL local.PL REFL
 see.PRS.I_{S/A}:3PL assign.INF fund(M).PL REL collar(M).PL exist.PRS.I_{S/A}:3PL
 ‘As a result, local governments are assigned funds that do not exist.’
 (Giacalone Ramat 2020: 260)

(5) French (Italic, Indo-European)

Il s’est vu confier deux missions.
 I_{S/A}:3SG.M REFL-be.PRS.I_{S/A}:3SG see.PTCP.SG.M assign.INF two task(F).PL
 ‘He was assigned two tasks.’

In addition to the fact that it involves voice auxiliaries that also have a passive use, the valency operation illustrated in examples (3) to (5) has obvious analogies with passivization, and is considered by many authors as a variety of passivization. However, such an analysis is incompatible within the terminological framework adopted in this book.

German also has a voice alternation of this type, discussed in the German grammatical literature under the name of ‘Rezipientpassiv’, and designated by Cysouw (2023: 525) as ‘dative passive’, with *bekommen* ‘get’ in the role of auxiliary.

(6) German (Germanic, Indo-European)

- a *Ich baue dir ein Haus.*
 1SG build.PRS.I_{S/A}:1SG 2Sg.DAT IDF.SG.N house(N)
 ‘I am building you a house.’
- b *Du bekommst (von mir) ein Haus gebaut.*
 2SG get.PRS.I_{S/A}:2SG by 2SG IDF.SG.N house(N) build.PTCP
 lit. ‘You get built a house by me.’
 (Cysouw 2023: 525)

13.4 A/S nucleativization of concernees (concernativization)

13.4.1 Concernee-concern constructions and concernativization

As already announced in chapter 2 §2.1.4.2, in this book, I adopt Mark Van de Velde’s proposal to replace the notion of external possession construction by the notion of concernee-concern construction. Two NPs in the construction of the same verb form a concernee-concern construction if the involvement of the referent of one of them (the concern) in the event denoted by the verb is determined by its syntactic role in the construction of the verb, whereas the involvement of the referent of the other one (the concernee) is simply a consequence of a relationship it has with the concern independently of the particular event referred to. As illustrated in (7), where the concernee (the first person singular index) is in the syntactic role of dative oblique and the concern (the noun phrase ‘the hair’) in P role, whole-part relationships constitute the semantic core of concernee-concern constructions, whose extension to other types of relationships is variously regulated in individual languages.

(7) French (Italic, Indo-European)

La pluie m'a mouillé les cheveux.
 D.SG.F rain(F) I_{DAT}:1SG-have.PRS.I_{S/A}:3SG wet.PTCP D.PL hair.PL
 'My hair got wet from rain.' lit. 'The rain has wet the hair to me.'

Concernee-concern constructions are not equally common in all languages. Some languages make a very wide use of such constructions, whereas in others, they are severely restricted, or even inexistent. Moreover, they are very diverse cross-linguistically in their formal characteristics, and in addition to monoclausal constructions that fully meet the definition formulated above, the notions of concerne and concern may be relevant for the analysis of some biclausal constructions. For example, (8) illustrates a type of construction quite common in French. Contrary to (7) above, (8) is a biclausal construction in which the the A and P terms of the higher verb 'have' can be analyzed as a concerne and a concern, the event or situation in which the concern is involved being denoted by the verb of the relative clause.

(8) French (Italic, Indo-European)

Ce livre a une page qui manque.
 DEM.SG.M book(M) have.PRS.I_{S/A}:3SG ID.F.SG.F page(F) REL miss.PRS.I_{S/A}:3SG
 'A page of this book is missing.' lit. 'This book has a page which is missing.'

In non-periphrastic concerne-concern constructions (i.e., in concerne-concern constructions involving no other verb than the one expressing the event in which the concern is involved), there is variation in the syntactic role taken over by the concerne. Moreover, the fact that two terms in the construction of a verb have this special kind of relationship does not necessarily imply verbal coding. We will have to return to concerne-concern constructions in the following chapters. In this chapter, we just examine a type of voice alternation in which a derived form of the verb signals that the referent of the initial A or S is converted into P or denucleativized, and is assigned the additional semantic role of concern, whereas the syntactic role of A or S is taken over by a concerne, i.e. by a term that is not assigned a semantic role by the verb itself, and whose involvement in the denoted event follows from the relationship it has with the initial S (if the initial construction is intransitive) or with the initial P (if the initial construction is transitive), independently from the events in which these two entities may be involved. This type of voice alternation is designated in this book as CONCERNATIVIZATION.

In example (9), the suffixation of the voice marker *-i*, called 'adversative' by Miyaoka (2015), converts the intransitive verb 'sink' into a transitive verb whose P represents the same participant as the S of the initial construction (with, however, the additional role of concern), whereas the A of the derived construction represents a concerne that plays no active role in the sinking event but is negatively affected by it by virtue of its relationship to the concern.

(9) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

a Kicaq kit'-uq
 anchor.SG sink-IND.I_s:3SG
 'The anchor sank.'

- b *Kit'-i-aqa* *kicaq.*
 sink-CCN-IND.I_A:1SG.I_P:3SG anchor.SG
 'I had the anchor sunk (me negatively affected).'
 (Miyaoka 2015: 1192)

From a purely syntactic point of view, concernativization is similar to causativization in the sense that the A/S slot of the derived construction is used to code a participant that is not coded as a term of the initial construction. The difference is in the semantic role expressed by the noun phrase taking over the syntactic role of A/S: in causativization, the participant taking over the A slot outranks the initial A/S in agentivity, whereas in concernativization, the participant taking over the A/S role plays no role in the causality chain.

Depending on the individual languages, the mechanisms meeting the definition of concernativization may involve various semantic restrictions. For example, in the Central Alaskan Yupik derivation illustrated in (8), the participant encoded as the A of the derived verb (the concerne) can only be negatively affected. This is however not always the case. There is also variation in the polysemy patterns in which the voice markers available for concernativization may be found, and in the treatment of the initial A/S in the concernative construction.

13.4.2 Concernativization as the combination of applicativization and passivization

In some languages, concernativization is expressed compositionally, by combining applicativization and passivization.

Such a way of marking that the A/S term of a verbal clause fulfills the role of concerne can be found in the languages that encode beneficiaries as applied Ps in applicative constructions, and in which applied Ps can be promoted to A/S role via passivization.

In the languages that encode beneficiaries as applied Ps, concernees may be encoded as applied Ps, since, as discussed in chapter 2 §2.1.4.2, they can be viewed as a particularly kind of beneficiaries: in some sense, concernees are INHERENT BENEFICIARIES whose semantic role, instead of being conditioned by the willingness of the agent, is an automatic consequence of their inherent relationship to another participant.

As illustrated by example (10), in the languages that have benefactive applicatives and in which applicative constructions lend themselves to passivization, the passivization of an applicative construction with a concerne as the applied P results in a construction that meets the definition of concernativization, except that it is not marked by a single voice marker, but by the combination of two voice markers.

(10) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ni-c-cui* *in tomin.*
 I_{S/A}:1SG-I_P:3SG-take D money
 'I am taking the money.'
- b *Ni-mitz-cuī-lia* *in tomin.*
 I_A:1SG-I_P:2SG-take-APPL D money
 'I am taking your money.' litt. 'I am taking.APPL you the money.'

- c *Ni-cuī-lī-lō-c* *in no-mīl.*
 I_S:1SG-take-APPL-ACP D IADP:1SG-field
 ‘Someone took my field.’ lit. ‘I was taken.APPL my field.’
 (Launey 1981: 192)

The derivation of (9c) can be schematized as follows:

- X_A *take* Y_P
- > X_A *take.APPL* $Z_{\text{applied P, concernee}}$ $Y_{\text{initial P, concern}}$
- > $Z_{A, \text{concernee}}$ *take.APPL.PASS* $Y_{\text{initial P, concern}}$

Example (11) illustrates this kind of construction in Tswana with intransitive verbs. *-el* and *-w* are the voice markers used for applicativization and passivization, respectively. The difference with the Nahuatl example (10) is that the concern (‘houses’ in (a), ‘children’ in (b)) is the S of the initial construction, and the coding of the concernee as S is accompanied by the denucleativization of the initial S. Note that, quite regularly, the preposition *kí* that flags the denucleativized S is the same as that used with oblique agent phrases in passivization.

- (11) Tswana (Bantu, Benue-Congo, Niger-Congo)
- a *Bà-t^hò* *bá-f-él-w-à* *kí má-̀n:tlò.*
 PL-person(c12) I_{S/A}:c12-burn-APPL-PASS-FV by PL-house(c16)
 ‘The people have their houses burning.’
 lit. ‘People are burnt.for by houses.’
- b *Mò-sádí* *’ò-lwál-él-w-à* *kí b-à:ná.*
 SG-woman(c11) I_{S/A}:c11-get.sick-APPL-PASS-VF by PL-child(c12)
 ‘The woman has her children sick.’
 lit. ‘The woman is sickened.for by children.’

For example, the derivation of (10b) can be schematized as follows:

- $X_{S, \text{experiencer}}$ *get.sick*
- > $X_{S, \text{experiencer, concern}}$ *get.sick.APPL* $Y_{\text{applied P, concernee}}$
- > $Y_{S, \text{concernee}}$ *get.sick.APPL.PASS* $X_{kí\text{-oblique, experiencer, concern}}$

13.4.3 Concernativization involving the same marking as passivization

The ‘adversative passive’ of Japanese is the best-known and most-quoted case of concernativization involving derived verb forms identical to those used for passivization.

In Japanese, this construction is equally available for transitive and intransitive verbs. The participant encoded as A or S in the initial construction is denucleativized, but nothing changes in the coding of the other participants (in particular, if the initial construction is transitive, the initial P is maintained in P role). In the derived construction, the role of A or S

(marked as such by the particle *ga*, glossed ‘S/A’) is occupied by a noun phrase representing a person that plays no active role in the event encoded by the verb, but is negatively affected by it because of its relation to the initial S (if the initial construction is intransitive) or to the initial P (if the construction is transitive). Note that the case marker *ni* flagging the oblique representing the initial A or S, commonly described as a dative marker in Japanese grammars, is typically used to flag recipients or goals, and is also used to flag agent phrases in passive constructions.

In example (12), sentence (a) illustrates passivization. (12b) illustrates the concernativization of an intransitive construction, with S and the *ni*-oblique in the roles of concerne and concern, whereas (12c-e) illustrate the concernativization of transitive constructions, with A and P in the roles of concerne and concern.

(12) Japanese (Japonic)

- a *Kodomo-ga otoosan-ni yob-are-ta.*
 child-S/A father-DAT call-PASS-PST
 ‘The child was called by [his] father.’
- b *Kodomo-ga otoosan-ni shin-are-ta.*
 child-S/A father-DAT die-CCN-PST
 ‘The child was affected by the death of his father.’
 lit. ‘The child was dead by [his] father.’
- c *Taroo-ga Ziroo-ni saihu-o nusum-are-ta.*
 PRN-S/A PRN-DAT purse-ACC steal-CCN-PST
 ‘Taroo had his purse stolen by Ziroo.’
 lit. ‘Taroo was stolen the purse by Ziroo.’
- d *Taroo-ga Reiko-ni kao-o tatak-are-ta.*
 PRN-S/A PRN-DAT face-ACC hit-CCN-PST
 ‘Taroo was hit in the face by Reiko.’
 lit. ‘Taroo was hit the face by Reiko.’
- e *Taroo-ga sensei-ni kodomo-o sikar-are-ta.*
 PRN-S/A teacher-DAT child-ACC scold-CCN-PST
 ‘Taroo had his child scolded by the teacher.’
 lit. ‘Taroo was scolded the child by the teacher.’

The passive-concernative polysemy is also attested in Even with verb forms derived by means of an ‘adversative’ suffix *v-*. Syntactically, this suffix is found in constructions meeting the definition of passivization, as in (13), but also in constructions meeting the definition of concernativization, as in (14). In both cases, the clause is interpreted as denoting an action/event unfavorable for the referent of the S/A term of the derived construction.

(13) Even (Tungusic, Altaic)

- a *Nugde etike-m ma-Ø-n.*
 bear old.man-ACC kill-nFUT-*I*_{S/A}:3SG
 ‘The bear killed the old man.’
- b *Etiken nugde-du ma-v-ra-n.*
 old.man bear-DAT kill-PASS-nFUT-*I*_{S/A}:3SG
 ‘The old man was killed by the bear.’

(Malchukov 1993: 370)

(14) Even (Tungusic, Altaic)

- a *Nugde etiken gia-va-n ma-Ø-n.*
 bear old.man friend-ACC-I_{ADP}:3SG kill-nFUT-I_{S/A}:3SG
 ‘The bear killed the old man’s friend.’
- b *Etiken nugde-du gia-j ma-v-ra-n.*
 old.man bear-DAT friend-I_{ADP}:3SG.REFL kill-PASS-nFUT-I_{S/A}:3SG
 ‘The old man had his friend killed by the bear.’
 lit. ‘The old man was killed his friend by the bear.’

(Malchukov 1993: 370)

As discussed by Malchukov (1993), although the relationship to causitivation is not obvious at first sight, the passive-concernative polysemy found in Japanese and Even must be analyzed in connection with the causative-passive polysemy, and more specifically with the possibility of a nonvolitional permissive use of causative forms/constructions. The semantic shift from permissive causative to unwilling permission (‘A person cannot prevent an event from occurring’) has been mentioned in chapter 9 §9.5.2 as the first step in the development of a passive interpretation of causative constructions with no overt causee. In the presence of an overt causee, the shift from ‘A person cannot prevent an event from occurring’ to ‘A person is negatively affected by an event beyond his/her control’ can be analyzed as combining the semanticization of a pragmatic inference (one normally tries to prevent undesired events) and the deletion of a semantic feature (a potentially active participant is reinterpreted as having no possible role in a situation that affects him/her).

Concernativization involving an analytical verb form also used in passivization is attested in French. As already mentioned in chapter 8 (§8.4.3.1) and chapter 9 (§9.5.2), in French, the ‘*se faire* + infinitive’ construction is ambiguous between its original reflexive-causative reading and a passive reading in which it is semantically equivalent to the ‘*être* + past participle’ passive. Unsurprisingly, the passive reading is preferred with verbs denoting events that affect negatively the referent of A, as in (15b).

(15) French (Italic, Indo-European)

- a *Elle a été tuée dans un accident.*
 I_{S/A}:3SG.F have.PRS.I_{S/A}:3SG be.PTCP kill.PTCP.SG.F in IDF.SG.M accident(M)
 ‘She was killed in an accident.’ (‘*être* + past participle’ passive.construction)
- b *Elle s’est fait tuer dans un accident.*
 I_{S/A}:3SG.F REFL-be.PRS.I_{S/A}:3SG make.PTCP kill.INF in IDF.SG.M accident(M)
 ‘She was killed in an accident.’ lit. ‘She_i made Ø kill herself_i in an accident.’
 (passive reading of the ‘*se-faire* + infinitive’ construction)

However, as illustrated in (16) and (17), in addition to its passive function (and to its function as marking A-nucleativization of datives, cf. §13.3), this construction can also be used to license a concernee in A role. In the concernative use of the ‘*se faire* + infinitive’ construction, the initial P is maintained in P role, whereas the initial A is treated in the same way as in passivization.

(16) French (Italic, Indo-European)

a *Des voleurs ont cambriolé ma maison.*
 IDF.PL thief(M).PL have.PRS.I_{S/A}:3PL burgle.PTCP my.SG.F house(F)
 ‘Thieves burgled my house.’

b *Je me suis fait cambrioler ma maison.*
 I_{S/A}:1SG REFL be.PRS.I_{S/A}:1SG make.PTCP burgle.INF my.SG.F house(F)
 ‘I had my house burgled.’

(17) French (Italic, Indo-European)

a *La voiture a écrasé le pied de l'enfant.*
 D.SG.F car(F) have.PRS.I_{S/A}:3SG run.over.PTCP D.SG.M foot(M) of
 D.SG.M-child(M)
 ‘The car ran over the child’s foot.’

b *L'enfant s'est fait écraser le pied par la voiture.*
 D.SG.M-child(M) REFL-be.PRS.I_{S/A}:3SG make.PTCP run.over.INF D.SG.M foot(M)
 by D.SG.F car(F)
 same denotative meaning as (a)

13.4.4 Concernativization involving dedicated marking: the ‘possessive voice’ of Wolof

Wolof (Atlantic) has a verbal suffix *-le* encoding a valency operation designated in (Nouguier Voisin 2002) and (Voisin Nouguier 2010) as ‘possessive voice’, whose characteristics are as follows:

- the initial construction is intransitive, and the derived construction is transitive,
- the initial S is encoded as P in the derived construction,
- the A term in the derived construction refers to a person that could be encoded as an adnominal possessor of S in the initial construction.

As illustrated in (18), the derived ‘possessive’ verbs of Wolof occur in a transitive construction A *V-le* P that can be glossed as ‘A is concerned by the fact that P has the property expressed by V’. In other words, this is an instance of concernativization in which the initial S converted into P cumulates the role of concern and the semantic role expressed by S in the initial construction.

(18) Wolof (Wolof, Atlantic, Niger-Congo)

a *Woto b-i gaaw na.*
 car CLb-D be.fast PRF.I_{A/S}:3SG
 ‘The car is fast.’

b *Sàmba gaaw-le na woto.*
 PRN be.fast-CCN PRF.I_{A/S}:3SG car
 ‘Samba has a fast car.’
 (Voisin Nouguier 2002: 383)

In Wolof, the productivity of this derivation is limited to a class of intransitive verbs assigning non-agentive roles to their S argument, such as *dee* ‘die’ or *réer* ‘get lost’. It is particularly common with verbs expressing meanings that, cross-linguistically, tend to be encoded by adjectives, such as *rafet* ‘be beautiful’, *baax* ‘be good’. In comparison with other languages, it is remarkable that the meaning of this construction is not necessarily ‘adversative’. As further illustrated in (19), the fact that the concernees is interpreted as affected positively (a) or negatively (b-c) entirely depends on the lexical meaning of the verb.

- (19) Wolof (Wolof, Atlantic, Niger-Congo)
- a *Baax-le na ay tééré.*
 be.good-CCN PRF.I_{A/S}:3SG IDF.PL book
 ‘S/he has good books.’
- b *Góor g-ii, moo dee-le jabar.*
 man(clG) clG-DEM FOC. I_{S/A}:3SG I_{A/S}:die-CCN wife
 ‘This man’s wife is dead.’
 (cf. French: ‘Cet homme a sa femme qui est morte’)
- c *Maa réer-le xar.*
 FOC:A/S.I_A:1SG be.lost-CCN sheep
 ‘A sheep of mine got lost.’
 (French: ‘J’ai un mouton de perdu’)
 (Nouguier-Voisin 2002: 384)

Moreover, this construction has a particularity that seems to contradict an otherwise robust generalization about concernees-concern constructions. As already mentioned, whole-part relationships can be viewed as the semantic core of concernees-concern constructions. By contrast, in the possessive voice of Wolof, the concern is typically an object or animal owned by the concernees. The same construction can also be used for kin relationships, as in (19b), but does not seem to be available for whole-part relationships.

13.4.5 Concernative periphrases with the concernees encoded as the A of a ‘have’ verb in auxiliary function

English has a concernative periphrasis whose syntactic structure can be described in terms of raising-to-object: *have* or *get* in the role of higher verb assigns the role of concernees to its A, whereas the concern, which is normally the P term in clauses projected by the dependent verb, is encoded as the P term of *have* or *get*: *I had my money stolen*, *He had his nose broken*.

Interestingly, in English, this construction is ambiguous between a concernative reading in which the referent of the A of the higher verb plays no role in the causality chain and is just a concernees in relation to P, and a causative reading in which the referent of the A of the higher verb is the instigator of the event denoted by the subordinate clause, as in *I had my car washed*, or *He had his hair cut yesterday*.

As illustrated by example (20), to be compared with the transitive clause *Un incendie a détruit sa maison*, a similar concernative periphrasis exists in French.

(20) French (Italic, Indo-European)

- a *Un incendie a détruit sa maison*
 IDF.SG.M fire(M) have.PRS.I_{S/A}:3SG destroy.PTCP his.SG.F. house(F)
 ‘A fire destroyed his house.’
- b *Il a eu sa maison détruite par un incendie*
 I_{S/A}:3SG.M have.PRS.I_{S/A}:3SG have.PTCP his.SG.F. house(F) destroy.PTCP.SG.F
 by IDF.SG.M fire(M)
 ‘He had his house destroyed by a fire.’

However, in French, contrary to English, the only possible reading of this construction is the concernative reading in which the referent of the A of ‘have’ plays no role in the causality chain.

13.4.6 Back to Central Alaskan Yupik ‘adversative’

In §13.4.1 above, the so-called adversative derivation of Central Alaskan Yupik has been used to introduce the notion of concernativization. In example (8), reproduced here as (21), the initial S of the intransitive verb ‘sink’ is converted into the P term of a transitive construction whose A term fulfills the role of concernee in relation to the initial S converted into P.

(21) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

- a *Kicaq kit'-uq*
 anchor.SG sink-IND.I_S:3SG
 ‘The anchor sank.’
- b *Kit'-i-aqa kicaq.*
 sink-CCN-IND.I_A:1SG.I_P:3SG anchor.SG
 ‘I had the anchor sunk (me negatively affected).’
 (Miyaoka 2015: 1192)

However, the constructions involving the ‘adversative’ marker *-i-* meet the definition of concernativization with intransitive verbs only. With transitive verbs, as illustrated in (22), the construction in which the same marker *-i-* expresses the same adversative meaning is an applicative construction, with the initial A maintained in A role, denucleativization of the initial P (encoded as an ablative oblique), and coding of the concernee as the applied P.

(22) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

- a *Neqe-m neqcaq ner-aa*
 fish-ERG.SG bait.SG eat-IND.I_A:3SG.I_P:3SG
 ‘The fish ate the bait.’
- b *Ner-i-anga neqe-m neqca-mnek*
 eat-APPL-IND.I_A:3SG.I_P:1SG fish-ERG.SG bait-ABL.I_{ADP}:1SG
 ‘The fish ate my bait (on me).’
 (Miyaoka 2015: 1190)

Moreover, with transitive verbs, the same suffix *-i-* also has an antipassive function, as in (23).

- (23) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)
- a *Arna-m allg-aa 'lumarraq.*
 woman-ERG tear-DECL.I_A:3SG.I_p:3SG shirt
 ‘The woman tears the shirt.’
- b *Arnaq allg-i-uq 'lumarra-mek.*
 woman tear-ANTIP-DECL.I_S:3SG shirt-ABL
 ‘The woman tears a shirt.’
 (Mather & al. 2002:101, 103)

The applicative and antipassive uses of this suffix have in common that they involve denucleativization of P, which led Malchukov (2017) to analyze it as an originally applicative suffix that has developed an antipassive function. As regards the concernative use of this suffix with intransitive verbs, implicit passivization of an originally applicative construction is a possible explanation.

13.5 A/S-nucleativization of affected participants other than concernees

Cross-linguistically, the bivalent verbs whose participant structure consists of an experiencer and a stimulus have a wide variety of possible coding frames and are variously involved in voice alternation (see chapter 16 §16.3 for the particular case of psych verbs).

Hernández-Green & López-Nicolás (2024) describe a Northern Zapotec voice alternation meeting the definition of non-causative A-nucleativization in which the derived construction is a transitive construction with an experiencer in A role and a stimulus in P role. In this voice alternation, the derived construction involves a dedicated clitic marker =*d*. The A term of the derived construction represents an experiencer that cannot be expressed in the initial construction, whereas the P of the derived construction corresponds to the initial S. For example, as illustrated in (24), an intransitive verb such as ‘be necessary’ is converted into a derived transitive verb glossable as ‘need’.

- (24) Northern Zapotec
- a *Dx-yàxhgh bárrét=nhà?*
 ICPL-be.necessary wrench=D
 ‘A wrench is necessary.’
- b *Dx-s⁺-yàxhgh=d béné?=ká? mēdxoh=nhà?*
 ICPL-I_{A/S}:3PL-be.necessary=NuclA person=PL.DIST money=D
 ‘People need the money.’
 (Hernández-Green & López-Nicolás 2024: 706, 707)

A-nucleativization of affected participants other than concernees is a possible function of the adversative suffix of Even already presented in §13.4.3 above in its two functions of passive marker and concernative marker. In (25b), the initial A is expressed as a dative oblique (as in passivization and concernativization) and the role of A is taken over by a participant coded in

the initial construction according to its role in the denoted event (here the role of destination of motion).

(25) Even (Tungusic, Altaic)

- a *Arisag mut-tule em-re-n.*
ghost 1PL-LOC come-nFUT-I_{S/A}:3SG
‘A ghost came to us.’
- b *Mut arisag-du eme-v-re-p.*
1PL ghost-DAT come-NuclA-nFUT-I_{S/A}:1PL
‘A ghost came to us (and we were negatively affected).’
lit. ‘We were come by a ghost.’
(Malchukov 1993: 370)

Cross-linguistically, S-nucleativization of persons, things or places concerned by a meteorological event is relatively common. Example (26) illustrates this kind of voice alternation with a meteorological expression that has the form of a canonical intransitive clause.

(26) German (Germanic, Indo-European)

- a *Die Sonne strahlt auf das Haus.*
D.SG.F. sun(F) shine.PRS.I_{S/A}:3SG on D.SG.N house(N)
‘The sun is shining on the house.’
- b *Das Haus er-strahlt in der Sonne.*
D.SG.N house(N) NuclS-shine.PRS.I_{S/A}:3SG in D.SG.F.DAT. sun(F)
‘The house sparkles under the sun.’
(Cysouw 2023: 389)

Similar alternations are common with avalent meteorological verbs. As already discussed in chapter 8 section §8.3.6, the languages that have avalent meteorological verbs may have a voice alternation by which a derived form of meteorological verbs occurs in an intransitive construction whose S represents a person, thing or place affected by the meteorological event. Semantically, like the other voice alternations discussed in this section, this mechanism has an obvious similarity with concernativization, but the participant it introduces cannot be analyzed as a concerne in relation to an initial S or P, given the avalent nature of the base verb.

The coding of this voice alternation may be the same as for passivization or involve a dedicated voice marker.

Example (27) illustrates the coding of this particular variety of S-nucleativization by means of forms identical to those encoding passivization.

(27) Dutch (Germanic, Indo-European)

- a *Ik ben nat geregend door een tropische onweersbui.*
1SG be.PRS.I_{S/A}:1SG wet rain.PTCP through IDF tropical thunderstorm
‘I got wet (lit. I was rained wet) because of a tropical thunderstorm.’

- b *Het balkon is onder gesneeuwd.*
 D balcony be.PRS.I_{S/A}:3SG under snow.PTCP
 ‘The balcony is covered with snow (lit. got snowed).’
 (Eriksen & al. 2015: 225)

In Even, S-nucleativization of aivalent meteorological verbs is marked by the verbal suffix -v already illustrated in §13.4.3 in passive and concernative constructions.

- (28) Even (Tungusic, Altaic)
 a *(Imanra) iman-ra-n.*
 snow snow-nFUT-I_{S/A}:3SG
 ‘It is snowing.’
 b *Etiken (imanra-du) imanav-v-ra-n.*
 old.man snow-DAT snow-NuclS-nFUT-I_{S/A}:3SG
 ‘The old man is caught by the snowfall.’
 (Malchukov 1993: 369)

Example (29) illustrates a V>V derivation described by Valijärvi & Kahn (2017) as specifically used in North Saami with aivalent verbs that denote weather conditions or natural processes, whose function is to license a referential S phrase interpreted as denoting the victim of unpleasant circumstances. In this example, *dálvui* is an inflected form of *dálvot* ‘to be caught unprepared for winter’ < *dálvat* ‘to become winter’.

- (29) North Saami (Saami, Uralic)
Hánsa vikkai ceahkkut dan stobu,
 PRN try.PST.I_{S/A}:3SG build.INF DEM cabin.ACC
 ‘Hánsa tried to build the cabin,
muhto dálvui.
 but become.winter.NuclS.PST.I_{S/A}:3SG
 but he was caught unprepared by the winter.
 (Valijärvi & Kahn 2017: 257)

In English, it is not possible to convert *It rained at/in/on X* into an intransitive construction in which *X* would be simply the subject of (a derived form of) *rain*. However, the derived verb *outrain* can be found in a transitive construction expressing a complex valency operation by which two names of places interpreted as affected by rain are simultaneously nucleativized as A and P, the one nucleativized as A being characterized as outranking the other in its degree of affectedness by rain, as in (30b).¹⁴⁷

- (30) English (Germanic, Indo-European)
 a *It rained in Atlanta more than in Seattle.*
 b *Atlanta outrained Seattle.*
 (Ahn Forthcoming)

¹⁴⁷ As discussed in detail by Ahn (Forthcoming), the English prefix *out-* has uses in which it can be straightforwardly characterized as a P-applicative marker, but also a variety of uses, such as the one mentioned here, in which it cannot be analyzed as marking an elementary valency operation.

13.6 Some problematic cases

13.6.1 A/S-nucleativization of obliques and oblique voices in Philippine-type voice systems

As discussed in chapter 8 §8.5.4, the analysis of some voices as passive voices or as patient voices in variable-pivot transitive constructions may be problematic, and it may happen that voice mechanisms described in the literature as transitive-passive alternations are best analyzed in terms of an agent voice vs. patient voice contrast operating within a variable-pivot transitive construction. Similarly, it may happen that voices discussed in the literature in a way that suggests an analysis in terms of A/S-nucleativization of obliques are in fact best analyzed as oblique voices in a symmetrical voice system of the Philippine-type. For example, the terminology used by Keenan in his publications on Malagasy voice, as for example (Keenan & Manorohanta 2001) suggests an analysis of the voice in (31b) as a bona fide passive voice, and of the voice in (30c) as a voice promoting an oblique to S/A role. However, in the recent literature on Western Austronesian languages, it is commonly admitted that Malagasy has a Philippine-type voice system in which the patient voice illustrated in (31b) marks the selection of P as the pivot, and the instrumental voice in (31c) marks the selection of an instrumental adjunct as the pivot.

(31) Malagasy (Barito, Austronesian)

- a *Manasa lamba amin' ny savony Raso.*
 AV.PRS.wash cloth with D soap PRN
 'Raso is washing clothes with the soap.'
- b *Sasan-dRaso ny lamba.*
 PV.PRS.wash-nPIV.A.Raso D cloth
 'The clothes are washed by Raso.'
- c *Anasan-dRaso lamba ny savony.*
 IV.PRS.wash-nPIV.A.Raso cloth D soap
 'The soap is used by Raso to wash clothes.'

13.6.2 The English 'prepositional passive'

The English construction commonly designated as 'prepositional passive', illustrated in (31), involves verb forms identical to those used in constructions that fully meet the definition of passivization. It is commonly described in a way suggesting that, within the framework defined in this book for the analysis of valency alternations, it should be identified simply as an instance of S-nucleativization of an initial oblique. However, a more thorough observation reveals particularities that cast some doubts about the validity of this analysis, and may suggest alternative analyses.

(32) English (Germanic, Indo-European)

- a *This bed has been slept in.* cf. *Someone has slept in this bed.*
 b *The problem was talked about.* cf. *We talked about this problem.*

An obvious problem with the analysis in terms of S-nucleativization of an initial oblique is that, in this alternation, the conversion of the initial oblique into the S term of the derived construction does not only require passive morphology, but also the maintenance of the preposition flagging the initial oblique converted into the S of the derived construction. Nothing similar occurs in uncontroversial instances of A/S nucleativization of obliques such as those presented in the previous sections.

As rightly observed by Tseng (2006), who analyzes this construction in the perspective of a formal account, there is consensus that, in the ‘prepositional passives’ of English, the verb and the preposition “form a kind of compound, an intuitive notion that is open to many formal interpretations”.

An interesting observation is that, as shown in (33), in prepositional passives, the insertion of adverbs or other material between the verb and the preposition is generally disallowed, whereas the same elements can be inserted between a verb and a prepositional phrase.

(33) English (Germanic, Indo-European)

a *David can be relied on.* cf. *You can rely on David.*

b **David is relied increasingly on.* cf. *We rely increasingly on David*

(Tseng 2006)

However, the data analyzed by Tseng (2006) show that adjacency between the verb and the preposition does not constitute an absolute requirement.

Within the frame of a typological analysis of valency operations, a possible account of the prepositional passives of English is that, under conditions that are not very well understood (but in any case do not include strict adjacency to the verb as an absolute requirement), the complement of a preposition may be reanalyzed as an applied P in an applicative construction in which the preposition does not act as a preposition, but as an applicative marker:

You can [rely]_V [on_{PREP} David]_X > You can [rely on_{APPL}]_V [David]_P

According to this hypothesis, in the valency alternation commonly designated as prepositional passive, the initial construction is ambiguous between two possible analyses, and the derived construction is simply the passive construction made possible by the reanalysis of the preposition as an applicative marker and of its complement as an applied P.

13.6.3 An uncommon type of construction involving passive morphology in Jóola languages

According to Pierre Sambou (pers.com.), some Jóola languages (Atlantic) have an unusual type of construction involving the same verb forms as passivization, for which, at first sight, an analysis in terms of S-nucleativization of obliques can be considered. As far as I know, this type of construction has not been mentioned so far in the literature on passives. It is illustrated in (34b), where *e-bool-yu* ‘the bowl’ in S role governs verb agreement, but is also resumed by a pronoun in the position it would occupy in a clause projected by the base form of the verb (34a). In (34b), the formative *-ee-* results from the fusion of the verb focalization marker *-a-* and a voice marker glossed NuclS in this example, but also found in passive constructions.

- (34) Kuwaataay (Joola, Atlantic, Niger-Congo)
- a *Sana a-ñoofo-a-ñoofo ti e-bool-yu.*
 PRN(cIA) I_{S/A}:clA-eat-FocV-eat in SG-bowl(cIE)-clE.D
 ‘Sana has eaten in the bowl.’
- b *E-bool-yu e-ñoofo-ee-ñoofo ti e-yo.*
 SG-bowl(cIE)-clE.D I_{S/A}:clE-eat-FocV.NuclS-eat in clE-PRO
 lit. ‘The bowl_i has been eaten in it_i.’
 (Pierre Sambou, pers.com.)

This is certainly not a common type of construction, and its analysis is problematic, since the fact that the preposition is followed by a pronoun resuming the oblique converted into S prevents an analysis similar to that proposed above for the prepositional passive of English. However, it is not difficult to imagine a diachronic scenario leading to this situation.

As mentioned in chapter 9, in obligatory A-coding languages, it is common that the derived verb forms marking passive constructions are also used in I-passive constructions (i.e., in constructions in which the denucleativization of A is not accompanied by a change in the coding of any other participant). One can imagine that the source of the construction illustrated in (34b) was an I-passive construction with an expletive S/A index, something like *It_{EXPL}-has been eaten in this bowl*, with a non-referential reading of *it*. In such a construction, the topicalization of the oblique phrase may give something like *This bowl_i, it_{EXPL}-has been eaten in it_i*. Subsequently, one can imagine that the topicalized phrase was reinterpreted as occupying the S/A position, and the invariable expletive index prefixed to the verb in the I-passive construction was accordingly replaced by a variable index expressing agreement with the NP to its left: *This bowl_i it_i-has been eaten in it_i*.

Chapter 14

Applicativization

In this book, applicativization is defined as encompassing all types of oriented voice alternations meeting the following two conditions:

- the participant encoded as S or A in the initial construction appears as S or A in the derived construction;
- the derived construction includes a noun phrase (the APPLIED PHRASE) in a role other than S or A referring to a participant that either can be expressed in the initial construction with a non-core coding different from its coding in the derived construction, or cannot be expressed at all in the initial construction.

In the literature, applicativization is often defined as yielding derived constructions in which a special form of the verb assigns the syntactic role of P to a noun phrase referring to a participant in the event that cannot be coded as a core syntactic term in the construction of the base verb. According to the definition of applicativization adopted in this book, this is a particular case of the broader notion of applicativization, designated as P-APPLICATIVIZATION with reference to the syntactic role of the applied phrase in the derived construction. According to the syntactic role of the applied phrase, two other varieties of applicativization can be distinguished: D-APPLICATIVIZATION and X-APPLICATIVIZATION. D-applicativization, with the applied phrase in the syntactic role of dative oblique, can only be found in the languages for which the notion of dative oblique is relevant. X-applicativization, with the applied phrase in the syntactic role of (non-dative) oblique, like P-applicativization, is not limited to languages having a particular type of organization of grammatical relations.

14.1 P-applicativization, D-applicativization and X-applicativization

14.1.1 P- applicativization

P-applicativization is a type of voice alternation in which the derived construction shows the following two characteristics:

- it includes a P term (the APPLIED P) referring to a participant that cannot be coded as a core term in clauses projected by the base verb;
- the initial A/S is maintained with the role of A in the derived construction.

Mechanisms meeting this definition are quite common cross-linguistically, and can be found with greater or lesser productivity in languages traditionally described without reference to the notion of applicativization, such as Arabic or German.

In Arabic, the marking of P-applicativization is one of the possible functions of the so-called verb form III (*fāʿala*), as illustrated by the two pairs of sentences in (1), where the

applied Ps are *ʔabū* ‘his father’ in (1b) and *Məntáxab Bērūt* ‘the Beirut all-stars’ (1d). Sentences (1a) and (1c) show that, with the same verbs in their underived form (the so-called form *I faʕala*), the same participants can only be expressed as prepositional obliques.

(1) Syrian Arabic (Semitic, Afroasiatic)

- a *Katab* *maktūb la-ʔabū.*
 write.CPL.I_{S/A}:3SG.M letter to-his.father
 ‘He wrote a letter to his father.’
- b *Kātab* *ʔabū.*
 write.APPL.CPL.I_{S/A}:3SG.M his.father
 ‘He wrote his father.’
- c *Lʕabna maʕ Məntáxab Bērūt.*
 play.CPL.I_{S/A}:1PL with PRN
 ‘We played against the Beirut all-stars.’
- d *Lāʕabna Məntáxab Bērūt.*
 play.APPL.CPL.I_{S/A}:1PL PRN
 ‘We played the Beirut all-stars.’
 (Cowell 1964: 247)

As illustrated by the two pairs of sentences in (2), P-applicativization can also be illustrated by some of the uses of the German verbal prefix *be-*. In this example, (2c) and (2d) are not completely synonymous (we will return to this point in §14.2.1.1), but they imply the same participant roles, and the semantic role expressed by the P phrase in the coding frame of the derived verb *besprühen* can only be expressed by means of an oblique prepositional phrase in the coding frame of the base verb *sprühen*.

(2) German (Germanic, Indo-European)

- a *Bernd steigt auf die Mauer*
 PRN climbs on the wall
 ‘Bernd is climbing onto the wall.’
- b *Bernd be-steigt die Mauer*
 PRN APPL-climbs the wall
 lit. ‘Bernd is be-climbing the wall.’
- c *Sie sprühte Farbe an die Wand.*
 she sprayed paint on the wall
 ‘She sprayed paint on the wall.’
- d *Sie be-sprühte die Wand (mit Farbe).*
 she APPL-sprayed the wall (with paint)
 lit. ‘She be-sprayed the wall with paint.’
 (Wechsler 2015: 305)

In obligatory A-coding languages such as Arabic and German, as illustrated in (1) and (2), the P-applicativization of intransitive verbs does not modify the coding characteristics of the initial S converted into A. By contrast, as illustrated in (3), in obligatory P-coding languages, the P-applicativization of intransitive verbs triggers a change in the coding characteristics of the initial S converted into the A term of a transitive construction.

(3) Kalkatungu (Northern Pama-Nyungan, Pama-Nyungan)

- a *Thuku nuu-mi kulapuru-thi.*
 dog lie-FUT blanket-LOC
 ‘The dog will lie on the blanket.’
- b *Thuku-yu nu-nti-mi kulapuru.*
 dog-ERG lie-APPL-FUT blanket
 ‘The dog will lie on the blanket.’
 (Blake 1979: 69)

In the typological literature, a narrower definition of P-applicativization is often put forward, according to which this notion is restricted to constructions in which the applied P corresponds to an oblique in the initial construction. Examples (1), (2) and (3) above meet the narrow definition of P-applicativization. This is also the case for example (4), in which the same participant is encoded as a noun phrase in the benefactive case in the initial construction (a), and as an unflagged P phrase in the applicative construction (b).

(4) Guarijío (Tarahumaran, Uto-Aztecan)

- a *María rebosa nete-ré ahpó ye[?]yé-ičió.*
 PRN shawl make-CPL 3SG mother-BEN
 ‘María wove a shawl for her mother.’
- b *María nethe-ke-ré pílepi rebosa ahpó ye[?]yé.*
 PRN make-APPL-CPL IDF shawl 3SG mother
 ‘María wove a shawl for her mother.’
 (Ávila Enríquez 2012: 117)

This narrow definition of P-applicativization excludes situations in which the construction of a derived verb form includes a P phrase referring to a participant that cannot be mentioned at all in clauses projected by the base verb, in languages in which no adposition or non-core case marker has the ability to assign the semantic role assigned to the P phrase by the derived verb form. For example, the use of the Tswana voice marker *-el* in (5b) and (5d) meets the broad definition of P-applicativization adopted in this book, but not the narrow definition, since in Tswana, it is absolutely impossible to express the beneficiary of *-béréká* ‘work’ or the recipient / beneficiary of *-kwálá* ‘write’ as obliques within the frame of monoverbal constructions involving *-béréká* or *-kwálá* in their underived form.

(5) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-bérék-á màitsibò:á.*
 I_{S/A}:1SG-FUT-work-FV evening(cl6)
 ‘I’ll work this evening.’
- b *Kì-tlàà-bérék-él-à Kítsó màitsibò:á.*
 I_{S/A}:SG-FUT-work-APPL-FV PRN(cl11) evening(cl6)
 ‘I’ll work for Kitso this evening.’
- c *Kì-tlàà-kwál-á lò-kwá:lò.*
 I_{S/A}:1SG-FUT-write-FV SG-letter(cl11)
 ‘I’ll write the letter.’

- d *Kì-tlàà-kwál-él-á* [!]*Kítsó* *lò-kwâ:lò.*
 I_{S/A}:1SG-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 ‘I’ll write the letter to/for Kitso.’

The same situation is found for example in Nahuatl, which incidentally was the first language for the description of which the term ‘applicative verb’ was introduced, as early as in 16th century grammars.

In fact, in descriptions of individual languages as well as in the typological literature, a considerable proportion of the valency alternations commonly described as involving an applied phrase in P role do not meet the narrow definition of P-applicativization. An advantage of a definition of P-applicativization leaving open the question of a possible alternative coding of the applied P is that it is consistent with this widespread use of the term ‘applicative’. In other words, the definition of P-applicatives adopted here encompasses two subtypes referred to here as OPTIONAL and OBLIGATORY P-applicatives (see §14.2.1).

Another advantage of the broad definition of P-applicativization is that it encompasses applicative constructions with an applied P in the semantic role of concerne, as in (6b). This use of P-applicative constructions, very common cross-linguistically, is problematic for the narrow definition of applicativization.

(6) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ni-c-cui* *in tomin.*
 I_{S/A}:1SG-I_P:3SG-take D money
 ‘I am taking the money.’
- b *Ni-mitz-cuī-lia* *in tomin.*
 I_{S/A}:1SG-I_P:2SG-take-APPL D money
 ‘I am taking your money.’
 (Launey 1981: 192)

Another restriction in the definition of P-applicativization put forward by some authors (for example, Lehmann & Verhoeven 2006) is that, in the constructions meeting their definition of P-applicativization, the referent of the applied P cannot be an essential participant in the event/situation described by the base verb. For example, this restriction excludes the construction in (7b) from applicativization, since in (7b), the referent of the applied P is one of the two essential participants of *inu* ‘drink’.

(7) Fagauvea (Oceanic, Austronesian)

- a *Gu de inu veli e vevela.*
 1SG TAM drink because TAM be.hot
 ‘I am drinking (something) because it is hot.’
- b *Gu de inu-mia dogu mā tai malie.*
 1SG TAM drink-APPL my CLF water fresh
 ‘I am drinking my fresh water.’
 (Djoupa 2012: 193-194))

Nothing in the definition adopted here prevents the analysis of (7b) as a P-applicative construction, since the only condition it implies is that the semantic role of the applied P

14.1.2 P-applicativization as a particular case of a more general type of voice alternation

P-applicativization as defined in 14.1.1 is viewed in this book as a particular case of a more general type of voice alternation by which a derived verb form assigns a syntactic role other than A or S to a non-nuclear participant that could not be coded in the same way (or could not be coded at all) in clauses projected by the base verb.

For example, in (10b), the suffix *-it-* has a function similar to those fulfilled by some of the voice suffixes illustrated in §14.1.1, since in Seereer, spatial adpositions are not sensitive to the distinction between source of motion, location, and destination of motion, and there is no possibility of expressing the source of motion in clauses projected by the base verb *-ret* ‘go’. The phrase *na marse* in (10b), like the applied Ps in examples (1b) and (4b), refers to a semantic role (source of motion) that cannot be expressed in a clause projected by the base verb. However, the NP expressing the semantic role licensed by the suffixation of *-it* to the verb does not show P-like characteristics, and is even less P-like than the destination phrase in the construction of the base verb, since with *-ret* ‘go’, the locative preposition flagging the destination phrase is optional, whereas with the derived verb *-ret-it*, it obligatorily flags the source phrase.

(10) Seereer (Fula-Seereer, Atlantic, Niger-Congo)

- a *A-ret-a* (*na*) *marse*.
 I_{S/A}:3SG-go-CPL (PREP) market
 ‘S/he went to the market.’
- b *A-ret-it-a* *na* *marse*.
 I_S:3SG-go-APPL-CPL PREP market
 ‘S/he left the market.’
 (Renaudier 2012: 183)

Terminologically, a possible solution would be to maintain the current definition of applicativization as a valency operation licensing P phrases referring to participants that cannot be assigned the syntactic role of P in the construction of the base verb, and to introduce a term (‘generalized applicativization’ or other) for valency operations such as that illustrated in (10). The alternative solution, which I decided to put forward in this book, is to take the term ‘applicativization’ with a broad definition that does not restrict it to the licensing of P phrases, and to distinguish subtypes according to the syntactic status assigned to the participant on the expression of which applicativization operates.

14.1.3 D-applicativization

The mechanism I propose to designate as D-applicativization concerns languages that have indirective alignment in the construction of trivalent verbs, and a syntactic function ‘dative’ whose semantic prototype is the goal of transfer verbs and whose syntactic properties are at least in some respects more similar to those of core terms in the narrowest sense of this term than to those of ordinary obliques (see chapter 1 §1.3.3.6).

For example, Georgian and the other Kartvelian languages have voices, traditionally designated as ‘objective version’ and ‘locative version’, which assign dative coding to

participants encoded as ordinary obliques in the construction of the base verb. Example (11) illustrates the conversion of locative adjuncts into datives ('locative version'), and (12) illustrates the conversion of benefactive adjuncts into datives ('objective version'). Readers are referred to (Tuite 2024) for a detailed discussion of Kartvelian D-applicatives.

(11) Georgian (Kartvelian)

- a *Sk'am-ze zi-s.*
 chair-on sit-I_{S/A}:3SG
 'S/he is sitting on a chair.'
- b *Sk'am-s a-zi-s.*
 chair-DAT APPL-sit-I_{S/A}:3SG
 'S/he is sitting on a chair.'
- c *K'edel-ze sit'q'v-eb-s c'er-s*
 wall-on word-PL-DAT write-I_{S/A}:3SG
 'S/he is writing words on the wall.'
- d *K'edel-s sit'q'v-eb-s a-c'er-s*
 wall-DAT word-PL-DAT APPL-write-I_{S/A}:3SG
 'S/he is writing words on the wall.'

(12) Georgian (Kartvelian)

- a *C'eril-s v-c'er čemi megobr-isatvis.*
 letter-DAT I_{S/A}:1SG-write my friend-for
 'I am writing a letter for/on behalf of my friend.'
- b *C'eril-s v-u-c'er čem-s megobar-s.*
 letter-DAT I_{S/A}:1SG-APPL-write my-DAT friend-DAT
 'I am writing a letter for/on behalf of my friend.'

D-applicatives are also found in North West Caucasian languages, cf. (Arkadiev & al. 2024) for a detailed discussion.

Among sub-Saharan languages, D-applicatives can be found in Hausa (Chadic) and in Kanuri (Saharan). In this chapter, an example of P-applicative in Hausa will be given in §14.2.2.3, but the two examples of Hausa applicatives quoted in chapter 8 (examples (5) & (57)) are both D-applicatives. Example (13) illustrates a D-applicative construction in Kanuri.

(13) Kanuri (Western Saharan, Saharan)

- Bintu am-nzə-ro bəri déjiwo.*
 PRN people-I_{ADP}:3SG-DAT food cook.APPL.I_{S/A}:1SG
 'Bintu cooked food for her people.'
 (Cyffer 1991: 192)

Sporadic cases of D-applicativization can also be found in German. Several examples in §14.1.1 have illustrated the P-applicative function of German preverbs. Although much less common, it may also happen in German that preverbatation modifies the valency properties of verbs in a way that meets the notion of D-applicativization, as in (14).

(14) German (Germanic, Indo-European)

- a *Ich stamme von einem Adelsgeschlecht.*
 1SG originate.PRS.I_{S/A}:1SG from IDF.SG.N.DAT noble.family(N)
 ‘I originate from a noble family.’
- b *Ich ent-stamme einem Adelsgeschlecht.*
 1SG APPL-originate.PRS.I_{S/A}:1SG IDF.SG.N.DAT noble.family(N)
 same meaning as (a)
 (Cysouw 2023: 98)

In French, some words otherwise used as prepositions may behave in combination with some verbs in a way that departs from the normal behavior of prepositions and can be analyzed as an instance of D-applicativization. This concerns for example *après* ‘after’ in combination with *crier* ‘yell’. When the complement of *après* ‘after’ is a pronoun denoting an animate referent (and only in that case), an alternative construction is possible, in which the referent normally encoded as the complement of *après* ‘after’ is not expressed as a pronoun following *après*, but as a dative index proclitic to the verb. For example, (15a) illustrates *crier après* ‘yell at’ with a lexical NP as its complement. (15b) illustrates the same construction with the 3rd person feminine singular pronoun *elle*, whereas (15c) illustrates the alternative construction, in which *après* rather acts as a D-applicative marker. Crucially, in (15c), the coding of the participant encoded as the complément of the préposition *après* in (15a-b) can only be explained by positing that, in certain conditions, *après* may be reanalyzed as an applicative marker licensing a D-applicative construction.

(15) French (Italic, Indo-European)

- a *J’ai crié après la femme.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG yell.PTCP PREP D.SG.F woman(F)
 ‘I yelled at the woman.’
- b *J’ai crié après elle.*
 I_{S/A}:1SG-have.PRS.I_{S/A}:1SG yell.PTCP PREP 3SG.F
 ‘I yelled at her.’
- c *Je= lui= ai crié après.*
 I_{S/A}:1SG I_D:3SG have.PRS.I_{S/A}:1SG yell.PTCP APPL
 ‘I yelled at her.’

Similar constructions are found in some other Romance varieties, in particular Catalan (16) and Italian (17). In both these examples, a word acting in other constructions as a preposition or adverb (*davant / davanti* ‘in front’) can be analyzed as fulfilling the role of applicative marker in a D-applicative construction, since the participant coded as a dative index proclitic to the verb could not be coded in the same way in the absence of *davant* (in the Catalan example) or *davanti* (in the Italian example).

(16) Catalan (Italic, Indo-European)

- M’ha passat davant un discapacitat.*
 I_D:1SG- have.PRS.I_{S/A}:3SG pass.PTCP APPL IDF.SG.M disabled.person(M)
 ‘A disabled person passed in front of me.’

(17) Italian (Italic, Indo-European)

Mi= è passato un gatto nero davanti.
 I_P:1SG be.PRS.I_{SA}:3SG pass.PTCP.SG.M ID.F.SG.M cat(M) black.SG.M APPL
 ‘A black cat passed in front of me.’

14.1.4 X-applicativization

In X-applicativization (or oblique applicativization), a term coded as an ordinary oblique in clauses projected by the derived verb expresses a semantic role that could not be expressed in the construction of the base verb. For example, in example (18), sentence (a) illustrates the use of the Jóola Fóoñi applicative marker *-um* in P-applicative constructions, whereas in (b), the same applicative marker licenses a phrase expressing the semantic role of means that cannot be analyzed as an applied P. In Jóola Fóoñi, P phrases are not flagged and are in complementary distribution with P indexes attached to the verb, whereas the phrase expressing the semantic role of means (mediative) in (18b) is introduced by a preposition and could not be substituted by an index attached to the verb.

(18) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *É-jala-a-y ɔ-y-ε, y-ɔɔ ni-sof-um-e-m si-wɔl-a-s.*
 SG-net(cIE)-D-clE DEM-clE-PROX clE-PRO I_{SA}:1SG-catch-APPL-ICPL-FOC PL-fish(clS)-D-clS
 ‘This net, it’s with it that I catch fishes.’ (P-applicative)
- b *Fɔɔca-a-y, di ba-wol-a-b e-jɛw-um-e-uu-m.*
 malaria(cIE)-D-clE with SG-mosquito(cIB)-D-clB I_{SA}:clE-go-APPL-ICPL-VEN-FOC
 ‘Malaria, it’s through mosquitoes that it comes.’ (X-applicative)

In most of the cases of X-applicatives I came across, as in (18b), the voice marker found in constructions meeting the definition of X-applicativization can also be found in P-applicative constructions. In Jóola Fóoñi, the P- or X-applicative nature of the constructions involving *-um* depends on the semantic role expressed by the applied phrase.

However, voice markers used exclusively in X-applicativization are also attested. As discussed by Lockwood & Macaulay (2024), Algonquian languages have dedicated X-applicative markers (traditionally designated as ‘relative roots’ by Algonquianists) that are distinct from the P-applicative markers also found in Algonquian languages, and occupy a distinct slot in the structure of verb forms.

14.1.5 Ambiguous applicative markers: the case of Amharic

Amharic illustrates the possible existence of constructions or markers for which it is not immediately obvious to what extent the use of the label ‘applicative’ is justified, because the same markers are found with the same verbs in two different constructions that are synonymous (at least as regards their denotative meaning), one of them meeting the definition of P-applicativization, whereas the other is clearly not an applicative construction.

Amharic has two verbal suffixes *-bb-* and *-ll-* occurring in two distinct constructions, illustrated for *-bb-* in (19b-c), and for *-ll-* in (20b-c).

(19) Amharic (Semitic, Afroasiatic)

- a *Aster bə-mət'rəgiya-w dəjǰ t'ərrəgə-čč.*
 PRN with-broom-D doorway sweep.CPL-I_{S/A}:3SG.F
 'Aster swept a doorway with the broom.'
- b *Aster bə-mət'rəgiya-w dəjǰ t'ərrəgə-čč-ibb-ət.*
 PRN with-broom-D doorway sweep.CPL-I_{S/A}:3SG.F-BB-I:3SG.M
 'Aster swept a doorway with the broom.'
- c *Aster mət'rəgiya-w-in dəjǰ t'ərrəgə-čč-ibb-ət.*
 PRN broom-D-ACC doorway sweep.CPL-I_S:3SG.F-BB-I:3SG.M
 'Aster swept a doorway with the broom.'
- (Amberber 2001: 321, 322)

(20) Amharic (Semitic, Afroasiatic)

- a *Dañña-w lə-Aster fərrəd-ə.*
 judge-D.M for-PRN judge.CPL-I_{S/A}:3SG.M
 'The judge judged in Aster's favor.'
- b *Dañña-w lə-Aster fərrəd-ə-ll-at.*
 judge-D.M for-PRN judge.CPL-I_{S/A}:3SG.M-LL-I:3SG.F
 'The judge judged in Aster's favor.'
- c *Dañña-w Aster-in fərrəd-ə-ll-at*
 judge-D.M PRN-ACC judge.CPL-I_{S/A}:3SG.M-LL-I:3SG.F
 'The judge judged in Aster's favor.'
- (Amberber 1997: 4)

The constructions in (19c) and (20c) meet the definition of P-applicativization. In (19c), 'broom' shows the accusative flagging characteristic of P-phrases, whereas in the absence of the verbal suffix *-bb-*, the P term in the coding frame of 'sweep' cannot express the semantic role of instrument. Similarly, in (20c), 'Aster' shows the coding characteristics of P-phrases, whereas in the absence of the verbal suffix *-ll-*, the P term in the coding frame of 'judge' cannot express the semantic role of beneficiary.

What is, however, problematic, is the analysis of the synonymous constructions in (19b) and (20b). The crucial observation is that, in (19b) and (20b), the suffixes *-bb-* and *-ll-* can be deleted, provided the suffixed index representing the broom in (19b) and Aster in (20b) is also deleted, cf. (19a) and (20a). This deletion affects neither the grammaticality nor the meaning of the clause, which rules out an applicative analysis.

In fact, the only simple and consistent analysis is that the sequences *-ibb-ət* and *-ll-at* do not have the same status in (19-20b) and (19-20c):

- in (19c) and (20c), the sequences *-ibb-ət* and *-ll-at* can be decomposed into a voice marker (*-ibb-*, *-ll-*) and a P index (*-ət*, *-at*)
- by contrast, in (19b), *-ibb* and *-ət* taken together constitute an optional index cross-referencing the prepositional phrase *bə-mət'rəgiya-w*. Similarly, in (20b), *-ll* and *-at* taken together constitute an optional index cross-referencing the prepositional phrase *lə-Aster*.

Historically, it seems plausible that the applicative constructions illustrated in (19c) and (20c) developed from the constructions illustrated in (19b) and (20b). Since the prepositions flagging the instrument phrase in (19b) and the beneficiary phrase in (20b) are copied in the index cross-referencing the prepositional phrase, they constitute a redundancy, and this redundancy can be eliminated by replacing the oblique coding of the phrases in question by P-like coding, which automatically converts the copy of the preposition into an applicative marker.

14.2 Variation in P-applicative constructions

14.2.1 Optional vs. obligatory P-applicatives

14.2.1.1 Optional P-applicatives

In optional P-applicatives, the applied P can be analyzed as a nucleativized oblique, since the semantic role it encodes also has the ability to be expressed as an oblique in the construction of the base verb, as in several of the examples above, or in example (21).

(21) Wolof (Wolof, Atlantic, Niger-Congo)

a *Mu séy ak doom-u nijaay-am.*

I_{S/A}:3SG marry with child-CSTR uncle-I_{ADP}3SG

‘He married his uncle’s daughter.’

b *Doom-u nijaay-am la séy-al.*

child-CSTR uncle-I_{ADP}3SG FOC.I_{S/A}:3SG marry-APPL

‘He married HIS UNCLE’S DAUGHTER.’

(Nouguier-Voisin 2002)

Example (21) illustrates a possible function of optional P-applicatives: making participants normally encoded as obliques accessible to operations to which obliques do not have access. In Wolof, focalization of comitative obliques is dispreferred, whereas the core terms of the transitive construction lend themselves to focalization without any restriction. Converting a comitative oblique into the applied P of an applicative construction is therefore a way around the problem.

Example (22) illustrates the use of optional P-applicatives to allow peripheral semantic roles to head a relative clause in Nasal, a language with a symmetrical voice system of the Indonesian type (cf. chapter 8 §8.5.1) in which relativization is restricted to pivots. (22a) shows that, when P is relativized, the verb in the relative clause is simply in the patient voice, whereas in (22b), the applicative suffix *-kun* licenses an applied P expressing the role of instrument, the initial P being then converted into a prepositional oblique. Instrument relativization becomes thus possible if patient voice gives the status of pivot to the instrument in the role of applied P.

- (22) Nasal (Nasal, Austronesian)
- a *Manuk [sai ku=panggul jenu] lijung.*
 chicken REL 1SG.nPIV=PV.hit earlier flee
 ‘The chicken that I hit earlier ran away.’
- b *Tungkuk [sai ku=panggul-kun khan manuk jenu] patuh.*
 staff REL 1SG.nPIV=PV.hit-APPL with chicken earlier break
 ‘The staff that I used to hit the chicken broke.’
 (McDonnell & Truong 2024: 999, 1000)

German *be*-applicatives illustrate the possibility that an optional P-applicative construction, although meeting the crucial condition of being synonymous with the corresponding non-applicative construction as regards the participant roles it expresses, may differ from it semantically in other respects. At least with some verbs, as illustrated in (23), applied Ps corresponding to locative adjuncts in the initial construction are interpreted as wholly affected (‘holism’). “(23b) suggests that the speaker traveled all over China, while (23a) would be true if s/he had merely passed through it; sentence (23d), but not (23c), suggests that the whole plot is covered with houses.” (Wechsler 2015: 308)

- (23) German (Germanic, Indo-European)
- a *Ich reiste in China.*
 I traveled in PRN
 ‘I traveled in China.’
- b *Ich bereiste China.*
 I APPL-traveled PRN
 lit. ‘I be-traveled China.’
- c *Die Firma baute neue Häuser auf das Grundstück.*
 The company built new houses on(to) the plot of land
 ‘The company built new houses on the plot.’
- d *Die Firma bebaute das Grundstück mit neuen Häusern.*
 The company APPL-built the plot of land with new houses
 lit. ‘The company be-built the plot with new houses.’
 (Wechsler 2015: 308)

However, the precise nature of the holism effect in German *be*-applicatives is not a simple question. In fact, similar holism effects can be observed in morphologically unmarked alternations, which suggests that, in (23b) and (23d), the holism effect is not the consequence of applicativization *per se*, but more generally of the P-coding of a noun phrase denoting a place, whatever the way P-coding is licensed. Moreover, the holism effect is certainly bound to semantic conditions, since it is not always observed in apparently identical constructions, as in (24b).

- (24) German (Germanic, Indo-European)
- a *Kann man (in diesem Fluss) frei angeln?*
 can.I_{S/A}:3SG one in this.DAT river freely fish.INF
 ‘Can one fish in this river?’

- b *Kann man diesen Fluss frei be-angeln?*
 can.I_{S/A}:3SG one this.ACC river freely APPL-fish.INF
 same meaning as (a)
 (Zúñiga & Kittilä 2019: 54))

According to Gerdts (1988), in Halkomelem, with optional applicatives, animacy plays a crucial role in the selection of the applicative construction. The rule is that the applicative construction must be selected if the participant having the potential to be encoded as the applied P is animate, whereas applicative constructions with inanimate applied Ps are often unacceptable. A similar tendency has been observed in many languages. For example, according to Álvarez González & Estrada Fernández (2024), the Uto-Aztecan language Yaqui has applicative marking in the equivalent of ‘I spread mud on your face’, but not in ‘Goyo spread butter on the bread’.

A discursive conditioning of optional applicatives is also frequently evoked in analyses of applicative constructions. Mithun (2024) argues that, in Eskimo-Aleut languages, the referents of applied phrases are in general topical within the discourse, and a similar relationship between applicativization and topicality has been proposed by other authors describing languages with optional applicatives. For example, Álvarez González & Estrada Fernández (2024) state that, in the Uto-Aztecan languages they analyze, optional applicativization “can be used as a topicalization device for referential discourse continuity”.

14.2.1.2 Obligatory P-applicatives

In obligatory P-applicatives (which many authors exclude from what they consider as ‘prototypical’ applicativization), the participant encoded as the applied P cannot feature in a monoclausal construction projected by the base verb. For example, in Tswana, the recipient of *kwálá lèkwáló* ‘write a letter’ can only be encoded as the applied P of the derived applicative verb *kwálélá*; it cannot be encoded as one of the two P terms of a double-P construction, and there is no possibility of encoding it as an prepositional oblique in the construction of the base verb *kwálá* either. The applicative construction in (25b) is ambiguous, since the applied phrase can also be interpreted as representing a beneficiary, but this does not put into question its analysis as an obligatory P-applicative construction, since in Tswana, it is equally impossible for beneficiaries to be encoded as obliques in monoclausal constructions of underived verbs.

(25) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lòrátó ’ó-tláà-kwál-á lè-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-FV SG-letter(c11)
 ‘Lorato will write a letter.’
- b *Lòrátó ’ó-tláà-kwál-él-á ’Kítsó lè-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-FV PRN(c11) SG-letter(c11)
 ‘Lorato will write a letter to Kitso / on behalf of Kitso.’
- c **Lòrátó ’ó-tláà-kwál-á ’Kítsó lè-kwâ:lò.*
 PRN(c11) I_{S/A}:c11-FUT-write-FV PRN(c11) SG-letter(c11)
- d **Lòrátó ’ó-tláà-kwál-á lè-kwáló PREP ’Kî:tsò.*
 PRN(c11) I_{S/A}:c11-FUT-write-FV SG-letter(c11) PRN(c11)

Obligatory P-applicatives are particularly common among the languages of sub-Saharan Africa (in particular, Bantu), but are not rare in other parts of the world either. In example (26), sentences (b) and (d) illustrate applicative constructions that have no non-applicative equivalents in Nahuatl.

(26) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ni-chōca.*
 I_{S/A}:1SG-cry
 ‘I am crying.’
- b *Ni-c-chōqui-lia in no-tlàtlacōl.*
 I_{S/A}:1SG-IP:3SG-cry-APPL D I_{ADP}:1SG-sin
 ‘I am crying on my sins.’
- c *Ni-c-chīwa cē calli.*
 I_{S/A}:1SG-IP:3SG-make one house
 ‘I am making a house.’
- d *Ni-mitz-chīwi-lia cē calli.*
 I_{S/A}:1SG-IP:2SG-make-APPL one house
 ‘I am making a house for you.’
 (Launey 1981: 192, 196)

In languages having a variety of applicative markers, as for example in Hakha Lai (Perterson 2007: 45-46), it may happen that some of them occur in obligatory P-applicative constructions, and others in optional P-applicative constructions.

It is even possible that the same applicative marker occurs in optional and obligatory P-applicative constructions, depending on the semantic role expressed by the applied P. For example, I am aware of no exception to the rule according to which the cognates of the Tswana suffix *-el* in other Bantu languages occur in obligatory P-applicative constructions when they licence an applied P expressing the semantic role of beneficiary. By contrast, as illustrated in (27), in some Bantu languages, the same applicative marker also occurs in optional applicative constructions in which the applied phrase expresses the semantic role of instrument, also expressible by means of a prepositional phrase in the base construction.

(27) Makhuwa (Bantu, Benue-Congo, Niger-Congo)

- a *Aminá o-n-rúw’ eshimá ni nkhóri.*
 PRN(c11) I_{S/A}:c11-PRS.CJ-stir shima(c19) with spoon(c13)
 ‘Amina prepares shima with a spoon.’
- b *Aminá o-n-rúw-él’ eshimá nkhóri.*
 PRN(c11) I_{S/A}:c11-PRS.CJ-stir-APPL shima(c19) spoon(c13)
 ‘Amina prepares shima with a spoon.’
 (van der Wal 2009: 72)

Similarly, Foley (2024) mentions that, in the Papuan language Yimas, the applicative constructions involving the applicative marker *taŋ-* are obligatory if the applied phrase expresses the role of beneficiary, but optional if the applied phrase expresses the role of concomitant.

In a general typology of valency operations, it might make sense to treat optional P-applicatives and obligatory P-applicatives as two distinct types of valency operations, but the still widespread view according to which optional P-applicatives are the canonical variety of a type of valency operation that includes obligatory P-applicatives as a non-canonical variety must definitely be abandoned, since the cross-linguistic distribution of these two varieties of applicatives provides no justification for regarding optional P-applicatives as canonical, and obligatory P-applicatives as non-canonical, rather than the other way round.

14.2.1.3 *Obligatory P-applicative constructions that are not acknowledged as applicatives in the literature*

As mentioned in §14.1.1, mechanisms meeting the definition of P-applicativization can be found in some languages whose descriptions do not use the term ‘applicative’, and this is especially the case for obligatory P-applicatives. Quite a few grammars mention the existence of verbal affixes labeled ‘transitive affixes’ or ‘transitivizing affixes’ acting as obligatory P-applicative markers at least in part of their uses.

For example, in the description of Fagauvea from which example (7) (repeated here as (28)) has been extracted, the term ‘applicative’ does not appear, although in a large proportion of the examples provided by this description, the ‘transitivizing suffix’ can be analyzed as having an applicative function.

(28) Fagauvea (Oceanic, Austronesian)

a *Gu de inu veli e vevela.*

1SG TAM drink because TAM be.hot

‘I am drinking (something) because it is hot.’

b *Gu de inu-mia dogu mā tai malie.*

1SG TAM drink-APPL my CLF water fresh

‘I am drinking my fresh water.’

(Djoupa 2012: 193-194)

Such ‘transitivizing suffixes’ are often mentioned in descriptions of Oceanic languages, and the fact that they are not acknowledged as applicative markers (or as polysemous voice markers fulfilling an applicative function with a large proportion of the verbs with which they combine) is largely due to the fact that they depart in two important respects from what is considered by many authors as prototypical applicativization: they license P phrases whose semantic role cannot be expressed by means of an oblique phrase in a clause projected by the base verb, and in many cases, the P phrases they license express one of the two essential participants in events described by semantically bivalent verbs.

Among the languages that have not been described so far as having applicative derivation, the Kx’a language !Xun can in fact be viewed as an extreme case of a language making a systematic use of an applicative marker, called ‘transitive suffix’ in most descriptions of this language. This suffix differs considerably from the Oceanic ‘transitivizing suffixes’ in some aspects of its use, but shares with them the essential features that justify analyzing it as a voice marker involved in a very productive mechanism of obligatory P-applicativization.

Contrary to the Oceanic languages that make a systematic use of a ‘transitivizing suffix’, !Xun has a large class of underived transitive verbs, and does not use the so-called transitive

suffix in causative function. The so-called transitive suffix of !Xun can be described as an applicative marker systematically used to license the expression of any semantic role that cannot be expressed as A/S or P.

!Xun is an SV / AVP language with neither flagging nor indexation of S/A or P phrases. Compared to most other languages, adpositions play only a minor role in !Xun varieties (Heine & König 2015: 186-193), or even no role at all. According to Dickens (2005), in the Ju|’hoan variety, there are no adpositions, and apart from the ‘instrumental particle’ /xòà (Dickens 2005: 39-40), analyzable as an applicative marker specialized in instrumental function, the only strategy available to express non-nuclear participants within the frame of monoverbal constructions is applicativization by means of the semantically unspecified applicative marker *-a*.

In !Xun clauses, with the exception of the S/A phrase (which obligatorily precedes the verb) and temporal expressions (commonly inserted between the S/A phrase and the verb), the nominal terms of verbal clauses that are neither topicalized nor focalized follow the verb. As illustrated in (29), the general rule is that the presence of a phrase referring to a non-nuclear participant in postverbal position (be it in immediate postverbal position or after another postverbal phrase) must be licensed by the applicative suffix. Note that the applicative suffix is not repeated if two or more phrases referring to non-nuclear participants are simultaneously present in postverbal position, as in (29e). Moreover, at least in the Ju|’hoan variety described by Dickens (2005), if two or more NPs follow the verb, their relative order is free, and regardless of their status as core or non-core and their semantic role, they must be separated from each other by a particle *kó* glossed LK (‘linker’).¹⁴⁸ With transitive verbs, the relative order of the initial P and of the phrase licensed by applicative derivation has no incidence on the use of either the applicative suffix or the linker.

(29) Ju|’hoan (!Xun, Kx’a)

- a *Ha kú ú.*
3SG ICPL go
‘S/he was going.’
- b *Ha kú ú-á Tjùm!kúí.*
3SG ICPL go-APPL PRN
‘S/he was going to Tsumkwe.’
- c *Mi !ú-na’àn !ái*
1SG grandfather die.
‘My grandfather died.’
- d *Mi !ú-na’àn !ái-á /Aotcha.*
1SG grandfather die-APPL PRN
‘My grandfather died at Aotcha.’
- e *Mi !ú-na’àn !ái-á /Aotcha kò /ámà hè.*
1SG grandfather die-APPL PRN LK today
‘My grandfather died at Aotcha today.’
- f *Mi !ú-na’àn !ái-á /ámà hè kò /Aotcha.*
1SG grandfather die-APPL today LK PRN
same meaning as (e)

¹⁴⁸ The status of this ‘linker’ in a typology of grammatical words is discussed in (Creissels 2018: 784-787).

- g *Ha kú //ohm !àihn.*
 3SG ICPL chop tree
 ‘S/he was chopping the tree.’
- h *Ha kú //ohm-a !àihn kò g/úí.*
 3SG ICPL chop-APPL tree LK forest
 ‘S/he was chopping the tree in the forest.’
- i *Ha kú //ohm-a g/úí kò !àihn.*
 3SG ICPL chop-APPL forest LK tree
 same meaning as (h)
- j *Ha gú tjù.*
 3SG build house
 ‘S/he built the house.’
- k *Ha gú-á tjù kò //àìsì.*
 3SG build-APPL house LK grass
 ‘S/he built the house with grass.’
- l *Ha gú-á //àìsì kò tjù.*
 3SG build-APPL grass LK house
 same meaning as (k)
 (Dickens 2005: 37-38)

For more details on the use of this applicative marker across !Xun varieties, see Heine & König (2015: 86-91).

14.2.1.4 *Across-the-board applicativization*

As already mentioned in chapter 1 §1.3.3.7, some languages have very limited possibilities (or even no possibility at all) of using the oblique NP strategy to express semantic roles that cannot be expressed as S, A or P in the coding frame of underived verbs. Some of those languages make systematic use of verb serialization, whereas some others make a systematic use of the obligatory applicativization strategy, a situation that can be characterized as ACROSS-THE-BOARD APPLICATIVIZATION.

In addition to !Xun (see §14.2.1.3 above), the Guaycuruan language Toba provides a perfect illustration of this possibility. However, the details are very different. As described in detail by Censabella (2024), in Toba, applicativization is the only available strategy to encode semantic roles other than those licensed as S, A or P in the coding frame of non-applicative verb forms, but in contrast to !Xun, Toba has a wide array of semantically specific verbal affixes occurring in obligatory applicative constructions.

A situation very close to across-the-board applicativization is also described by Beck (2024) in Upper Necaxa Totonac, a language that does not have locative applicatives and expresses static location by means of a locative proclitic attached to NPs, but in which all the other semantic roles that cannot be coded as S, A or P in the coding frame of non-applicative verb forms can only be introduced via applicativization.

As described by Foley (2024), the Papuan language Barupu shares with Toba the total lack of NP flagging by means of either case affixes or adpositions, and makes extensive use of applicativization. However, in Barupu, the serialization strategy is also productive, and the distinction between serialization and applicativization is not clear-cut, since some of the

applicative markers have an obvious verbal origin and still “very much look like verbs due to their inflections”.

14.2.2 P-applicativization and transitivity

14.2.2.1 Constraints on the transitivity properties of the initial construction

As regards the possible conditioning of P-applicativization by the transitivity properties of the initial construction, all possible configurations are attested cross-linguistically: some applicative markers only operate on intransitive initial constructions, some others only on transitive initial constructions, and still others operate indiscriminately on intransitive and transitive initial constructions. For example, as described in detail by Gerdts (2024), Halkomelem has two P-applicative markers attaching exclusively to intransitive stems and two others attaching exclusively to transitive stems. By contrast, the transitivity properties of the initial construction play no role in the conditioning of P-applicativization in Tswana.

In applicative constructions corresponding to a transitive initial construction, an important parameter of variation is the treatment of the participant encoded as P in the initial construction.

14.2.2.2 Core-expanding P-applicatives

In the languages in which trivalent verbs may have double-P constructions, the presence of an applied P in P-applicatives constructions corresponding to a transitive initial construction does not necessitate denucleativization of the initial P: if the base verb is transitive, the applicative verb may have a double-P construction similar to that of trivalent verbs in the same language, and showing the same symmetries or asymmetries. Such applicative constructions, for which the term CORE-EXPANDING P-APPLICATIVES is proposed here, are commonly characterized as ‘valency-increasing’.

For example, in Tswana, a language which shows very few asymmetries in its double-P constructions, both the initial P and the applied P in a P-applicative construction such as (30a) can be indexed simultaneously, as in (30b), and can equally be converted into the A term of a passive construction, as in (30c-e). The only constraint (also found in the double-P construction of underived verbs such as ‘give’, cf. chapter 7 §7.2.8) is that, in the construction of *kwálélá*, the conversion of the initial P into the A of a passive construction blocks the possibility of indexing the applied P, cf. (30f).

(30) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lòrátó* ¹*ó-tláà-kwál-él-á* ¹*Kítsó* *lò-kwâ:lò*.
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-FV PRN(c11) SG-letter(c111)
 ‘Lorato will write a letter to Kitso.’
- b *Lòrátó* ¹*ó-tláà-ló-mò-kwál-ê:l-à*.
 PRN(c11) I_{S/A}:c11-FUT-P:c111-P:c11-write-APPL-FV
 ‘Lorato will write it to him.’
- c *Kítsó* ¹*ó-tláà-kwál-él-w-á* *lò-kwâ:lò*.
 PRN(c11) I_{S/A}:c11-FUT-write-APPL-PASS-FV SG-letter(c111)
 lit. ‘Kitso will be written.to a letter.’

- d *Lò-kwáló* ¹*lò-tláà-kwál-él-w-á* ¹*Kì:tsò.*
 SG-letter(c111) I_{S/A}:c111-FUT-write-APPL-PASS-FV PRN(c11)
 lit. ‘The letter will be written.APPL Kitso.’
- e *Kítsó* ¹*ò-tláà-ló-kwál-ê:l-w-à.*
 PRN(c11) I_{S/A}:c11-FUT-I_p:c111write-APPL-PASS-FV
 lit. ‘Kitso will be written.to it.’
- f **Lò-kwáló* ¹*lò-tláà-mò-kwál-ê:l-w-à.*
 SG-letter(c111) I_{S/A}:c111-FUT-I_p:c11-write-APPL-PASS-FV

In Tswana, depending on the valency of the base verb, it is even possible to find P-applicative constructions in which three participants have the coding characteristics of the P term of monotransitive construction (in particular, in such constructions, the applicative verb form may incorporate three P indexes), which never occurs in Tswana with underived verbs, cf. example (31).

(31) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-f-il-é* *ɲwánàké* *mà:-dí.*
 I_{S/A}:1SG-give-PRF-FV child(c11).I_{ADP}:1SG PL-money(c16)
 ‘I gave money to my son.’
- b *Kì-f-éts-í* *ɲwánàké* *báìsíkilí* *mà:-dí.*
 I_{S/A}:1SG-give-APPL.PRF-FV child(c11).I_{ADP}:1SG bicycle(c19) PL-money(c16)
 ‘I gave money to my son for a bicycle.’
- c *Kì-á-í-mò-f-ê:ts-ì.*
 I_{S/A}:1SG-I_p:c16-I_p:c19-I_p:c11-give-APPL.PRF-FV
 ‘I gave it to him for it.’
- d *Kì-f-il-é* *dí-q^hòmó* *lì-tswá:ì.*
 I_{S/A}:1SG-give-PRF-FV PL-cow(c110) SG-salt(c15)
 ‘I gave salt to the cows.’
- e *Kì-f-éts-í* *màlómé* *dí-q^hòmó* *lì-tswá:ì.*
 I_{S/A}:1SG-give-APPL.PRF-FV uncle(c11).I_{ADP}:1SG PL-cow(c110) SG-salt(c15)
 ‘I gave salt to the cows for my uncle.’
- f *Kì-lí-dí-mò-f-ê:ts-ì.*
 I_{S/A}:1SG-I_p:c15-I_p:c110-I_p:c11-give-APPL.PRF-FV
 ‘I gave it to them for him.’

Among the languages that have P-applicatives from transitives in which the initial P is maintained in P role, it may even occur that the stacking of applicative and causative markers yields constructions with up to five phrases coded like monotransitive Ps, as described by Beck (2024) in Upper Necaxa Totonac.

Note, however, that languages may have arbitrary restrictions on this kind of construction. For example, according to Machobane (1989: 109), in Southern Sotho (a very close relative of Tswana), the applicativization of monotransitive verbs results in double-P constructions similar to those found in Tswana, but with ditransitive verbs, constructions similar to (30e) above are not acceptable.

As already mentioned in chapter 7 §7.2.8, double-P constructions are rarely if ever perfectly symmetrical as regards the behavioral properties of the two terms coded like

monotransitive Ps, and this also applies to double-P constructions resulting from P-applicativization. However, there is cross-linguistic variation in the extent to which, in double-P constructions resulting from P-applicativization, initial Ps and applied Ps manifest the properties typical for monotransitive Ps (such as accessibility to the role of S/A in passive constructions). Situations in which initial Ps are treated as less-privileged Ps in applicative double-P constructions, the applied P taking the role of syntactically privileged P, seem to be particularly frequent, and this can be related to a widespread preference for animate applied Ps, but a more systematic investigation of this question would be necessary before trying to put forward cross-linguistic generalizations.

14.2.2.3 Redirecting P-applicatives

In the applicative constructions of the languages that do not have double-P constructions, if the base verb is transitive, the introduction of an applied P is incompatible with the maintenance of the initial P in P role. P-applicatives from transitives in which the participant expressed as P in the initial construction is expressed as an oblique are commonly characterized as REDIRECTING (sometimes also ‘remapping’, ‘redirective’, or ‘valency-neutral’), as opposed to the CORE-EXPANDING (or ‘valency-increasing’) P-applicatives converting single-P initial constructions into double-P constructions.

For example, in the applicative construction illustrated by example (32b), the beneficiary is coded as the P term of a transitive construction, whereas the initial P can only be expressed as an oblique in the ablative case.

(32) Central Alaskan Yupik (Eskimo, Eskimo-Aleut)

- a *Taqukaq tuqut-aa angute-m*
 bear kill-DEcl.I_A:3SG.I_p:3SG man-ERG
 ‘The man is killing the bear.’
- b *Arnaq tuquy-ut-aa angute-m taquka-mek.*
 woman kill-APPL-DEcl.I_A:3SG.I_p:3SG man-ERG bear-ABL
 ‘The man is killing the bear for the woman.’
 (Mather & al.: 105)

Similarly, in (33b), in the presence of the applied P *lə steni?* ‘(for) the woman’, the initial P *k^wθə səplil* ‘the bread’ is converted into an oblique introduced by the catch-all preposition *ʔə*.

(33) Halkomelem (Central Salish, Salishan)

- a *Ni? q^wəl-ət-əs lə-nə ten k^wθə səplil.*
 AUX cook-TR-I_{S/A}:3 DIST-I_{ADP}:1SG mother DIST bread
 ‘My mother baked the bread.’
- b *Ni? q^wəl-əlc-t-əs lə-nə ten lə steni? ʔə k^wθə səplil.*
 AUX cook-APPL-TR-I_{S/A}:3 DIST-I_{ADP}:1SG mother DIST woman OBL DIST bread
 ‘My mother baked the bread for the woman.’
 (Gerds 2010: 566)

In example (34), the conversion of the initial *with*-phrase into an applied P is accompanied by the conversion of the initial P into a dative.

(34) Hausa (West Chadic, Chadic, Afroasiatic)

- a *Yaa jèefi kàree dà duutsèe.*
 I_{S/A}:3SG.M.CPL throw dog with stone
 ‘He threw a stone at the dog.’ lit. ‘He threw the dog with a stone.’
- b *Yaa jeeḞaa wà kàree duutsèe.*
 I_{S/A}:3SG.M.CPL throw.APPL to dog stone
 same meaning as (a)
 (Newman 2000: 635)

In such situations, P-applicativization of transitive verbs involves a denucleativization mechanism identical to that found in antipassivization. Interestingly, Austin (2024) mentions that, in the Australian language Yidiny and in some dialects of Dyirbal, transitive verbs must be overtly detransitivized via antipassivization before being applicativized.

14.2.2.4 *P-applicatives from transitives in Algonquian languages*

In Algonquian languages, applicatives from transitives can be analyzed as redirecting applicatives, which however, specificities that follow from the particular type of organization of grammatical relations found in Algonquian languages, where the bivalent verbs that do not behave syntactically like the prototypical transitive verbs select a coding frame that can be characterized as quasitransitive in the sense given to this term in chapter 3 §3.4.2.

As already mentioned in chapter 3 §3.4.2.3, the term ‘object’ as used in descriptions of Algonquian languages conflates two distinct grammatical relations labeled O1 and O2 in Lockwood & Macaulay’s (2024) survey of Algonquian applicatives. O1 encompasses the P term of monotransitive constructions and the G term in the coding frame of trivalent verbs, whereas O2 encompasses the T term in the coding frame of trivalent verbs and the term expressing one of the two essential participants of a class of bivalent verbs that inflect like semantically monovalent verbs and do not select the transitive construction as their coding frame. In Algonquian P-applicatives from transitives, the O1 role is taken over by the applied phrase, whereas the initial P (= O1) is demoted to O2, which can be viewed as a particular type of redirecting applicative.

A similar mechanism is described by Zúñiga (2024) for Mapudungun.

14.2.2.5 *P-applicatives from transitives in which the initial P cannot be expressed*

Cysouw (2023: 355-356) give a list of German transitive verbs with P-applicative constructions in which the initial P cannot be expressed, as in (35).

(35) German (Germanic, Indo-European)

- a *Ich klopfe den Staub von dem Mantel.*
 1SG knock.PRS.I_{S/A}:1SG D.SG.M.ACC dust(M) from D.SG.M.DAT cloak(M)
 ‘I am knocking the dust off the cloak.’
- b *Ich klopfe den Mantel aus*
 1SG knock.PRS.I_{S/A}:1SG D.SG.M.ACC cloak(M) APPL
 ‘I am cleaning the cloak (by knocking it).’

(Cysouw: 2023: 356)

The obligatory dropping of the initial P is systematic in the P-applicative constructions of the Gaycuruan language Toba (Censabella 2024), already mentioned for having the situation characterized in § 14.2.1.4 above as across-the-board applicativization. Toba doesn't have oblique NPs at all, and double-P constructions are extremely marginal in Toba, since apart from 'give', no Toba verb (either derived or underived) can be found in a double-P construction. Toba doesn't have a grammatical relation 'secondary object' either. Consequently, in applicatives from transitives, the participant coded as the P of the initial construction cannot be expressed at all in the applicative construction, and can only be expressed alongside with the applied P by means of a clause chain in which the verb is repeated in its base form and in its applicative form. For example, the allative-applicative form of 'throw' licenses an applied phrase expressing the place toward which something is thrown, but cannot combine directly with a noun phrase referring to the thing being thrown, and 'X throws Y to Z' is expressed literally as *X throws Y throws.APPL Z*.

14.2.3 Semantically specialized and semantically unspecified P-applicatives

14.2.3.1 Semantically specialized P-applicatives

The markers involved in P-applicative constructions may specify the semantic role of the applied P. For example, K'ichee' has applicative verb forms used exclusively to nucleativize instrumental adjuncts, cf. example (36).

(36) K'ichee' (Mayan)

- a *X-Ø-u-paxiij ri b'o'j r-uuk' ab'aj ri ali.*
 CPL-I_{S/P}:3SG-I_A:3SG-break D pot 3SG-with stone D girl
 'The girl broke the pot with a stone.'
- b *Ab'aj x-Ø-u-paxib'eej r-eech ri b'o'j ri ali.*
 stone CPL-I_{S/P}:3SG-I_A:3SG-break.APPL 3SG-for D pot D girl
 'The girl broke the pot with a stone.'
 (López Ixcoy 1997: 374)

Laalaa (Atlantic) has two distinct applicative markers: *-ed* licenses applied Ps representing beneficiaries, as in (37b) (where *-iʔ* is an allomorph of *-ed*), whereas *-oh* licenses applied Ps representing instruments, as in (37d), or source of motion, as in (37f). This configuration is common among Atlantic languages.

(37) Laalaa (Cangin, Atlantic, Niger-Congo)

- a *Nafi eyaa tík cóoc.*
 PRN I_{S/A}:cIY.PROG cook breakfast
 'Nafi is cooking the breakfast.'
- b *Nafi eyaa tík-iʔ sagaccaa cóoc.*
 PRN I_{S/A}:cIY.PROG cook-APPL guests.D breakfast
 'Nafi is cooking the breakfast for the guests.'

- c *Mi ñam na kúdú.*
 1SG eat with spoon
 ‘I eat with a spoon.’
- d *Mi ñam-oh kúdú.*
 1SG eat-APPL spoon
 ‘I eat with a spoon.’
- e *Nafi hac-en*
 PRN come-CPL
 ‘Nafi has come.’
- f *Nafi hac-oh Teroh.*
 PRN come-APPL PRN
 ‘Nafi is from Teroh.’
 (Dieye 2011: 211, 233-234, 205)

Some languages may thus have a whole range of distinct P-applicative markers, each of them encoding the assignment of a particular semantic role to the applied P. Peterson (2007: 15-22) identifies seven distinct applicative markers in Hakha Lai, each of them licensing applied Ps with particular semantic roles:

- *piak* ‘benefactive/malefactive’, as in (38a),
- *tse?m* ‘additional benefactive’, as in (38b),
- *pü* ‘comitative’, as in (38c),
- *hno?* ‘malefactive/allative’, as in (38d),
- *ka?n* ‘prioritive’, as in (38e),
- *taak* ‘relinquitive’, as in (38f),
- *naak* ‘instrumental’, as in (38g).

- (38) Hakha Lai (Kuki-Chin, Sino-Tibetan)
- a *Tsewmaŋ=ni? door=?a? ?a-ka-kal-piak.*
 PRN=ERG market=ALL/LOC I_{S/A}:3SG-I_P:1SG-go-APPL
 ‘Tsewmaŋ went to the market for me.’
- b *Thij ?a-ka-laak-tse?m.*
 wood I_{S/A}:3SG-I_P:1SG-carry-APPL
 ‘He carried wood for me (in addition to carrying wood for himself).’
- c *Ka-law ?an-ka-thlo?-pii.*
 I_{ADP}:1SG-field I_{S/A}:3PL-I_P:1SG-weed-APPL
 ‘They weeded my field (together) with me.’
- d *Rul=ni? ka-?in=?a? ?a-ka-lu?-hno?.*
 snake=ERG I_{ADP}:1SG-house=ALL/LOC I_{S/A}:3SG-I_P:1SG-enter-APPL
 ‘A snake came into my house on me.’
- e *Booy ?a-ka-toon-ka?n.*
 chief I_{S/A}:3SG-I_P:1SG-meet-APPL
 ‘He met the chief ahead of/before me.’
- f *?a-law ?a-ka-thlo?-taak.*
 I_{ADP}:3SG-field I_{S/A}:3SG-I_P:1SG-weed-APPL
 ‘He left me and weeded his field.’

- g *Tiilooy khaa tivaa kan-Ø-tan-naak.*
 boat TOP river I_{S/A}:1PL-I_p:3SG-cross-APPL
 ‘We used the boat to cross the river.’
 (Peterson 2007: 41)

According to Valenzuela (2016), who describes a system including seven distinct applicative markers in Shiwilu (Kawapanan), prolific applicative systems are common in the languages of eastern Peru.

However, it may also happen that the only semantic indication provided by the verb form involved in a P-applicative construction is that the semantic role expressed by the applied P cannot be expressed in a clause projected by the same verb in its non-applicative form. In such cases the precise role of the applied P must be inferred from contextual factors (either semantic or pragmatic).

There are also languages in which a default P-applicative marker licensing a variety of semantic roles coexists with other P-applicative markers licensing a specific type of semantic roles each. Donohue (1999) describes such a situation in *Tukang Besi*.

14.2.3.2 *Semantically unspecified P-applicatives: a case study*

Semantically unspecified applicatives are particularly common among Bantu languages. For example, Tswana has just one applicative marker whose variety of possible functions in P-applicative constructions is described in this section.¹⁴⁹

A first series of examples illustrates Tswana P-applicatives with applied Ps representing non-essential participants.

Example (31) above shows that, in Tswana, in the P-applicative construction of ‘give’, the applied P may express the roles of beneficiary or purpose. Applied Ps interpreted as beneficiaries are particularly common in Tswana, but applied Ps with a meaning of cause or purpose (these two meanings being often difficult to distinguish) are also quite common. Example (39) provides another illustration of the possibility of interpreting the applied P of the same applicative verb (here *bilétsá*, applicative form of *bítsá* ‘call’) as expressing beneficiary or purpose.

(39) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-sádí ’ó-bíl-éts-á b-àná dí:-dǒ.*
 SG-woman(c11) I_{S/A}:c11-call-APPL-FV PL-children(c12) PL-food(c110)
 ‘The woman is calling the children to eat.’
- b *Mò-sádí ’ó-bíl-éts-á b-àná ñâ:kà.*
 SG-woman(c11) I_{S/A}:c11-call-APPL-FV PL-children(c12) doctor(c19)
 ‘The woman is calling the doctor for the children.’

Example (40) further illustrates the possibility of a causal or purposive reading of applied Ps. Note that, in examples (40d) and (40f), the applied phrase is an infinitive.

¹⁴⁹ The suffix *-ets* found in some of the sentences in the remainder of this section is not a distinct applicative suffix, but the result of the fusion of the applicative suffix *-el* with a palatal element that either encodes the TAM value ‘perfect’, or is automatically triggered by some stems in combination with which certain suffixes (including the applicative suffix) undergo automatic palatalization.

(40) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kítsó* ¹*ú-bérék-él-à* *tíê:χò.*
 PRN(c11) I_{S/A}:c11-work-APPL-FV delay(c19)
 lit. ‘Kitso is working for the delay.’ (> in order to make up for lost time)
- b *Mà-χòdù* *á-bólá-éts-í* *mò-íná* *mà:-dí.*
 PL-thieves(c16) I_{S/A}:c16-kill-APPL.PRF-FV SG-man(c11) PL-money(c16)
 ‘The thieves killed the man for money.’
- c *Kì-lèbòχ-èl-à* *Kítsó* *mà:-dí.*
 I_{S/A}:1SG-thank-APPL-FV PRN(c11) PL-money(c16)
 ‘I am thanking Kitso for the money.’
- d *Lò-siá* ¹*lò-líl-él-à* *χò-á:nà.*
 SG-baby(c111) I_{S/A}:c111-cry-APPL-FV INF-suck
 ‘The baby is crying [because s/he wants] to suck.’
- e *Kì-tlàà-bón-él-à* *ntlò* *kái* *mà:-dí?*
 I_{S/A}:1SG-FUT-see-APPL-FV house(c19) where PL-money(c16)
 ‘Where shall I find money for the house?’
- f *Mà-pòdísí* *á-mò-ts^hwár-éts-í* *χò-χát-ís-á* *mó-t^hò*
 PL-policemen(6) I_{S/A}:c16- I_P:c11-arrest-APPL.PRF-FV INF-step.on-CAUS-FV SG-person(c11)
m-mótóròkà:ra.
 PL-car(c13)
 ‘The policemen arrested him for driving over a person with his car.’
 lit. ‘...for letting his car step on a person.’
- g *Mò-sísi* *ó* *kì-tlàà-ú-ápár-él-à* *mò-dì:rò.*
 SG-dress(c13) cl3.DEM I_{S/A}:1SG-FUT-ol:c13-wear-APPL-FV SG-ceremony(c13)
 ‘This dress, I’ll wear it for the ceremony.’

In particular, constructions with the interrogative pronoun *ìj* ‘what’ in the role of applied P are a very common strategy to question about the cause or purpose of an action, as in (41).

(41) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lò-siá* ¹*lò-líl-él-à* *ìj?*
 SG-baby(c111) I_{S/A}:c111-cry-APPL-FV what
 ‘Why is the baby crying?’
- b *Ǿ-rí-tl^hódi-él-à* *ìj* *mó* *χàrí* *χ-á-bò-sí:χò.*
 I_{S/A}:2SG- I_P:1PL-disturb-APPL-FV what LOC middle(c117) cl.17-GEN-SG-night(c114)
 ‘Why do you disturb us in the middle of the night?’

In this particular use of P-applicative constructions, a special rule according to which *ìj* referring to the cause or purpose of an action must immediately follow the verb supersedes the general rule determining the linear order of P terms in multiple-P constructions (Cole 1955: 432), as can be observed by comparing (42a) (where *ìj* denotes the thing being bought) with (42b) (where *ìj* expresses the role of purpose, and the applicative marker must be repeated to license the simultaneous presence of a P term in the role of purpose and a P term in the role of beneficiary).

(42) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Ǫ-rék-él-á* *bàná* *ì.ńj?*
 I_{S/A}:2SG-buy-APPL-FV children(cl2) what
 ‘What are you buying for the children?’
- b *Ǫ-rék-él-él-à* *ìńj* *bàná* *díàpà:rò?*
 I_{S/A}:2SG-buy-APPL-APPL-FV what children(cl2) clothes(cl10)
 ‘Why are you buying clothes for the children?’

We now turn to examples of Tswana P-applicatives with applied Ps in the role of concernee. Since concernees can be viewed as a particular type of beneficiaries, it comes as no surprise that one of the possible functions of applicative derivation in Tswana (as in many other languages) is to license a concernee-concern construction with the concernee in the role of applied P, the concern fulfilling the S or P role in accordance with its role in the event denoted by the verb.

In Tswana, non-applicative constructions with a P phrase expressing the role of concernee are possible if the relationship that motivates the use of a concernee-concern construction is a whole-part relationship, as in (43). Note that *sít^hàrì* in (43a) and *ńwàná* in (43b) cannot be analyzed as adnominal possessors, since the corresponding adnominal possession constructions would be *dikàlà ts-á-sít^hàrì* ‘the branches of the tree’ and *sìàtlà s-á-ńwàná* ‘the child’s hand’.

(43) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-rém-íl-é* *sí-t^hàrì* *dì-kà:là.*
 I_{S/A}:1SG-chop-PRF-FV SG-tree(cl7) PL-branch(cl10)
 lit. ‘I chopped the tree the branches.’ > ‘I chopped off the branches of the tree.’
- b *Mò-ńná* *’ó-ts^hwér-í* *ńw-àná* *sí-à:tlà.*
 SG-man(cl1) I_{S/A}:cl1-seize.PRF-FV SG-child(cl1) SG-hand(cl7)
 lit. ‘The man seized the child the hand.’ > ‘The man seized the child’s hand.’

However, if the semantic relationship between the concernee and the concern is other than a whole-part relationship, the concernee must be encoded as an applied P, as in (44b) and (45b).

(44) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mp^hó* *’ó-dz-íl-é* *dí-nà:wá.*
 PRN(cl1) I_{S/A}:cl1-eat-PRF-FV PL-beans(cl10)
 ‘Mpho ate the beans.’
- b *Mp^hó* *’ó-dz-éts-í* *’Kítsó* *dí-nà:wá.*
 PRN(cl1) I_{S/A}:cl1-eat-APPL.PRF-FV PRN(cl1) PL-beans(cl10)
 lit. ‘Mpho ate.APPL Kitso the beans.’ > ‘Mpho ate Kitso’s beans.’ (i.e., the beans that had been prepared for Kitso)

(45) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-ńóté* *’ó-ńòd-í:l-è.*
 SG-fever(cl3) I_{S/A}:cl3-grow-PRF-FV
 ‘The fever has gone up.’
- b *Mò-ńóté* *’ó-mó-ńòl-è:ts-ì.*

SG-fever(cl3) I_{S/A}:cl3- I_p:cl1-grow-APPL.PRF-FV

lit. ‘The fever has gone.up.APPL him.’ > ‘His fever has gone up.’

Example (46) illustrates the conversion of an applied P representing a concerne into the subject of a passive construction. Such a combination of applicativization and passivization results in constructions functionally similar to the derived construction in the voice alternations for which the term concernativization is used in this book (see chapter 8 §8.3.4.2 and chapter 13 §13.4)

(46) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Rì-f-él-w-à* *kí má-ñ:tlò.*

I_{S/A}:1PL-burn-APPL-PASS-FV by PL-houses(cl6)

lit. ‘We are burnt.APPL by houses.’ > ‘Our houses are burning.’

b *Kítsó* *’ó-sw-éts-w-ì* *kí r̀ràà:χwé.*

PRN(cl1) I_{S/A}:cl1-die-APPL.PRF-PASS-FV by his.father(cl1)

lit. ‘Kitso has been died.APPL by his father.’ > ‘Kitso’s father has died.’

We now turn to a third series of examples illustrating the fact that, in Tswana, applicative derivation does not only license applied Ps expressing semantic roles independent from the lexical meaning of the verb. In many cases, the applied P is in fact best analyzed as a semantic argument of the verb that can only be expressed as an applied P, since its semantic role is hardly definable independently of the lexical meaning of the verb.

For example, the lexical meaning of *dúélá* ‘pay’ implies four participants: the payer, the recipient, the amount being paid and the thing being paid for. However, in Tswana, *dúélá* in its underived form can only be used in a single-P construction whose P term represents the recipient (47a) or the amount paid (47b). The thing being paid for is also an essential participant, but it cannot be expressed in a clause projected by *dúélá*, either as a P phrase or as a prepositional oblique. The only possibility is to code it as the applied P in a clause projected by the derived verb *dúélélà*, as in (47c).

(47) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kì-tlàà-χò-dúél-à* *ká* *’tʰé:kè.*

I_{S/A}:1SG-FUT- I_p:2SG-pay-FV with check(cl9)

‘I’ll pay you by check.’

b *Kì-tlàà-dúél-á* *màdí* *á* *mà-j̀:ni.*

I_{S/A}:1SG-FUT-pay-FV money(cl6) cl6.GEN cl6-small

‘I’ll pay a small fee.’

c *Kì-tlàà-dúél-él-à* *pááká:nò.*

I_{S/A}:1SG-FUT-pay-APPL-FV repair(9)

‘I’ll pay for the repair.’

Example (48) provides further illustrations of applied Ps referring to participants for which an analysis as essential participants in the event denoted by the verb can be considered.

(48) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Q^hósí* ¹*i-át^hól-éts-i* *mò-ńná* *bó-χò:dù.*
king(c19) I_{S/A}:cl9-condemn-APPL.PRF-FV SG-man(c11) SG-theft(c114)
'The king condemned the man for theft.'
- b *Q^hósí* ¹*i-át^hól-éts-i* *mò-ńná* *lò:-sò.*
king(c19) I_{S/A}:cl9-condemn-APPL.PRF-FV SG-man(c11) SG-death(c111)
'The king condemned the man to death.'
- c *Mò-sádì* *jó* ¹*ó-ák-él-à* *rálìbíntlì:lì.*
SG-woman(c11) cl1.DEM I_{S/A}:cl1-tell.lies-APPL-FV shopkeeper(c11)
'This woman is telling lies about the shopkeeper.'
- d *Mà-bèlè* ¹*á-áláf-èl-w-à* *ts^hù:pà.*
PL-sorghum(c16) I_{S/A}:cl6-treat-APPL-PASS-FV SG.tshupa(c19)
'The sorghum is treated against tshupa (a kind of worm).'
- e *Mò-sétsánà* *jó* ¹*ó-fós-éts-à* *sì-tswá:nà.*
girl(c11) cl1.DEM I_{S/A}:cl1-miss-APPL-FV SG-Tswana.customs(c17)
'This girl contravenes Tswana customs.'
- f *Kì-χáq^hámál-èl-à* *bò-pilóq^hálì* *dʒw-á-ηw-áná:* *jò.*
I_{S/A}:1SG-be.impressed-APPL-FV SG-courage(c114) cl14-GEN-SG-child(c11) cl1.DEM
'I am impressed by the courage of this child.'

In this connection, the behavior of *kwálá* 'write' is particularly interesting to analyze. *kwálá* is basically a bivalent verb, but the presence of *lòkwáló* 'letter' in P role implies a third essential participant with the semantic role of recipient, since a letter is intended to be sent to someone. However, the recipient of *kwálá lòkwáló* 'write a letter', contrary to the recipient of the verbs that are inherently verbs of giving, must be encoded as an applied P, with the consequence that, in a clause such as (49b), the applied P can be understood as referring to the recipient (essential participant) or to a beneficiary (non-essential participant). Note that the repetition of the applicative suffix makes it possible to express both roles simultaneously, and then the applied P that immediately follows the verb is unambiguously interpreted as a beneficiary, whereas the applied P in second position is interpreted as the recipient, exactly as in the three-P construction expressing 'give s.th. to s.o. in behalf of s.o.'.

(49) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-kwál-á* *lò-kwá:lò.*
I_{S/A}:1SG-FUT-write-FV SG-letter(c111)
'I'll write a letter.'
- b *Kì-tlàà-kwál-él-á* *Mp^hó* *lò-kwá:lò.*
I_{S/A}:1SG-FUT-write-APPL-FV PRN(1) SG-letter(c111)
'I'll write a letter to Mpho.'
OR 'I'll write a letter on behalf of Mpho.'
- c *Kì-tlàà-kwál-él-él-à* *rè* *Mp^hó* *lò-kwá:lò.*
I_{S/A}:1SG-FUT-write-APPL-APPL-FV my.father(c11) PRN(1) SG-letter(c111)
'I'll write a letter to Mpho on behalf of my father.'

14.3 X-applicatives

X-applicatives are voice alternations in which the only difference between the initial construction and the derived constructions is that a term coded as an ordinary oblique in the derived construction expresses a semantic role that could not be expressed in the initial construction. In principle, the definition of applicativization adopted in this book leaves open the possibility of optional X-applicative constructions in which a participant coded as an oblique in the initial construction would also be coded as an oblique in the applicative construction, but with a different coding. However, I am aware of no language attesting this possibility.

14.3.1 A case study: X-applicatives in Tswana

14.3.1.1 *Introductory remarks*

Bantu languages in general provide many interesting data about constructions involving the same derived verbs as P-applicative constructions, but in which no term meeting the definition of an applied P can be identified. The details vary from one language to another, and the historical explanation of this situation has not been established so far. Most of these constructions meet the definition of X-applicativization, but this is not always the case, as illustrated by some of the examples in §§14.6 and 14.7.

This section offers a relatively detailed description of the types of X-applicatives found in Tswana. In §14.3.2, the situation of Tswana will be briefly compared to that of other Bantu languages.

In Tswana, X-applicative constructions involve a voice marker whose basic form is *-el*. The use of this voice marker in P-applicative constructions has already been illustrated in §14.2.3.2.

In the uses of the voice marker *-el* examined in this section, as in its use in P-applicativization, it licenses a term expressing a particular semantic role that could not be expressed in the construction of the base verb. However, the term in question is not encoded as a P phrase, but as a locative phrase showing no evidence of a syntactic status different from that of ordinary obliques: it cannot be cross-referenced by a P index, or converted into the S term of a passive construction, and more generally, apart from the fact that its deletion results in ungrammaticality, it behaves like obliques in clauses projected by non-applicative verbs.

For a proper understanding of the data commented in this section, it is crucial to keep in mind that in Tswana, as in the vast majority of Bantu languages, locative phrases are not specified for the distinction between location, source and destination.¹⁵⁰ In Tswana, the interpretation of the semantic role of locative phrases in clauses projected by non-applicative verbs is regulated in the following way:

- (a) any Tswana verb that is not lexically specified as assigning the role of source or destination of motion can combine with a locative phrase expressing the location of the event, or of a participant in the event, as in example (50a);

¹⁵⁰ In fact, this particularity in the encoding of spatial relationships is shared by most language families of sub-Saharan Africa.

- (b) in combination with some motion verbs, locative phrases express the semantic role of source, as in example (50b);
 (c) with some other motion verbs, locative phrases express the role of destination, as in example (50c).

(50) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kítsó* *'ó-bérék-à* *kó* *kà:né.*
 PRN(cl1) I_{S/A}:cl1-wotk-FV LOC PRN
 'Kitso is working in Kanye.'
- b *Kítsó* *ó-il-é* *kó* *kà:né.*
 PRN(cl1) I_S:cl1-go.PRF-FV LOC PRN
 'Kitso went to Kanye.'
- c *Kítsó* *'ó-húdúχ-il-è* *kó* *kà:né.*
 PRN(cl1) I_S:cl1-move-PRF-FV LOC PRN
 'Kitso moved from Kanye.'

However, applicative derivation may modify the semantic roles expressed by locative phrases. Three cases must be distinguished.

14.3.1.2 *Verbs of motion whose underived form cannot combine with locatives expressing the roles of source or destination*

The Tswana verb *tábóχá* 'run' is semantically a verb of motion, but in its underived form, its participant frame is limited to the role of runner, which means that the only available interpretation for a locative phrase in a clause projected by *tábóχá* in its underived form is the default interpretation of location of the event. By contrast, the applicative form *tábóχélà* can combine with a locative phrase expressing the role of destination, cf. example (51). As indicated in (51c), in this particular case (but not in those examined in the remainder of this section), a P-applicative construction, with *tsilà* 'road' encoded as the P term of a transitive construction, is possible with the same meaning.

(51) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-tábóχ-à* *kó* *tsilè:-ŋ.*
 I_{S/A}:1SG-FUT-run-FV LOC road(cl9)-LOC
 'I will run on the road.'
- b *Kì-tlàà-tábóχ-él-à* *kó* *tsilè:-ŋ.*
 I_{S/A}1SG-FUT-run-APPL-FV LOC road(cl9)-LOC
 'I will run to the road.'¹⁵¹
- c *Kì-tlàà-tábóχ-él-à* *tsi:là.*
 I_{S/A}1SG-FUT-run-APPL-FV road(cl9)
 'I will run to the road.'

The same behaviour is observed with *àkòfà* 'hurry', *fòfà* 'fly', *fità* 'pass', etc. As regards the possibility illustrated in (51c), there is an obvious relationship with the fact that, in Tswana,

¹⁵¹ See §14.7.1 for another possible interpretation of this sentence.

non-derived verbs of motion whose participant frame includes the role of destination (such as *jà* ‘go’) have an alternative construction in which the destination is encoded as the P term of a transitive construction.

14.3.1.3 *Verbs of motion whose underived form can combine with locatives expressing the role of source*

With verbs of motion whose underived form can combine with locatives expressing the role of source, the applicative form has the same formal valency as the non-derived form, but the locative phrase is interpreted as expressing the role of destination, as illustrated in example (52) by *húdúχá* ‘change one’s residence’. Note that ‘move from X to Y’ can only be expressed by means of a clause chain with the underived form of *húdúχá* introducing the source of motion in the first clause, and the applicative form of the same verb introducing the destination in the second clause, as in (52c). More generally, in Tswana, as is commonly the case in the languages of sub-Saharan Africa, it is impossible to specify both the source and the destination of motion events within the frame of monoverbal constructions.

(52) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-tlàà-húdúχ-à* *kó* *Kà:jé.*
I_{S/A}:1SG-FUT-move-FV LOC PRN
 ‘I will move from Kanye.’
- b *Kì-tlàà-húdúχ-él-à* *kó* *χàbórô:nì.*
I_{S/A}:1SG-FUT-move-APPL-FV LOC PRN
 ‘I will move to Gaborone.’
- c *Kì-tlàà-húdúχ-à* *kó* *Kàjé* *kì-húdúχ-él-ì* *kó* *χàbórô:nì.*
I_{S/A}:1SG-FUT-move-FV LOC PRN I_S:1SG-move-APPL-FV LOC PRN
 ‘I will move from Kanye to Gaborone.’

14.3.1.4 *Verbs that do not express motion*

Verbs that do not express motion freely combine with locatives expressing the location of the event or of a participant, as already illustrated by example (50a) above, but the use of the applicative form is obligatory to license locative expressions whose semantic role departs more or less from the mere indication of a location. For example, Tswana syntax is sensitive to the difference in the semantic role of *in the yard* and *in the big pot* in *She is cooking porridge in the yard / She is cooking porridge in the big pot*. In the first sentence, *in the yard* expresses nothing more than the location of the event, whereas in the event represented by the second sentence, the pot contains the porridge, which justifies to code it as a locative, but it also plays the role of an instrument in the cooking event. In other words, the spatial relationship between the pot and the porridge is not accidental; it follows from the role they play in the cooking event. This explains why, in the Tswana equivalent of *She is cooking porridge in the yard*, the verb *cook* can remain in its underived form, whereas in the equivalent of *She is cooking the porridge in the big pot*, the verb *cook* must be in the same *él-* form as when, for example, a noun phrase referring to a beneficiary is added to the construction of this verb, and the applicative derivation must be reiterated in order to make it

possible to mention both the vessel used to cook the porridge and the beneficiary of the cooking event, cf. example (53).¹⁵²

(53) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lòráátó 'ó-tláá-àpàj-à mò-tò:χó.*
 PRN(c11) I_{S/A}:c11-FUT-cook-FV SG-porridge(c13)
 ‘Lorato will cook the porridge.’
- b *Lòráátó 'ó-tláá-àpè-èl-à b-àná mó-tò:χó.*
 PRN(c11) I_{S/A}:c11-FUT-cook-APPL-FV PL-child(c12) SG-porridge(c13)
 ‘Lorato will cook the porridge for the children.’
- c *Lòráátó 'ó-tláá-àpè-èl-à mò-tòχó*
 PRN(c11) I_{S/A}:c11-FUT-cook-APPL-FV SG-porridge(c13)
mó pìtsé-ḡ é 'tò:nà.
 LOC pot(c19)-LOC (c19)LK (c19)big
 ‘Lorato will cook the porridge in the big pot.’
- d *Lòráátó 'ó-tláá-àpè-èl-èl-à b-àná mó-tòχó*
 PRN(c11) I_{S/A}:c11-FUT-cook-APPL-APPL-FV PL-child(c12) SG-porridge(c13)
mó pìtsé-ḡ é 'tò:nà.
 LOC pot(c19)-LOC c19.LK (c19)big
 ‘Lorato will cook the porridge for the children in the big pot.’

Example (54) provides additional illustrations of the obligatory use of *el*-forms of Tswana verbs that do not express motion combined with a locative phrase referring to a participant whose role implies a spatial relationship with another participant, or more generally, a locative phrase whose semantic role is not limited to mere location.

(54) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Dì-q'òmó 'dí-nw-él-à mó mò-kórò:-ḡ.*
 PL-cow-cl10) I_{S/A}:c110-drink-APPL-FV LOC SG-mokoro(c13)-LOC
 ‘Cows drink from a *mokoro*.’ (a tree trunk carved in the shape of a canoe)
- b *Rì-kwál-él-à mó pámpírí:-ḡ.*
 I_{S/A}:1PL-write-APPL-FV LOC paper(c19)-LOC
 ‘We write on paper.’

14.3.2 X-applicatives in other Bantu languages

In Bantu languages, X-applicatives involving locative phrases show much more variation than P-applicatives. The variation concerns in the first place the conditions of use of the applicative form of non-motion verbs when they combine with locatives expressing location of the event. Some Bantu languages have been described as having a sub-class of non-motion verbs that require applicative derivation to combine with a locative phrase expressing location of the event, and another subclass of non-motion verbs that are compatible with locative

¹⁵² Interestingly, Beck (2024) signals the existence of a dedicated applicative marker for the role of containing instrument (distinct from that used for ordinary instruments) in Upper Necaxa Totonac.

adjuncts in their base form. For example, in Nyambo, as illustrated in (55), the applicative marker *-ir-* is required to express location with ‘speak’, but not with ‘find’.

(55) Nyambo (Bantu, Benue-Congo, Niger-Congo)

- a *gamb-ir-á omu-nju*
 speak-APPL-FV LOC-house(cl9)
 ‘speak in the house’
- b **gamb-á omu-nju*
 speak-FV LOC(cl18)-house(cl9)
- c *A-ka-mu-sang-á omu-nju.*
 I_{S/A}:cl1-PST-I_P:cl1-find-FV LOC(cl18)-house(cl9)
 ‘S/he found him/her in the house.’
- d **A-ka-mu-sang-ir-á omu-nju*
 I_{S/A}:cl1-PST-I_P:cl1-find-APPL-FV LOC(cl18)-house(cl9)
 (Rugemalira 1993: 71)

The explanation suggested by Rugemalira (1993) is that this contrast is related to the semantic distinction between location of the event as a whole and location of a specific participant. A similar explanation is proposed for Shona by Cann & Mabugu (2007) on the basis of examples such as (56).

(56) Shona (Bantu, Benue-Congo, Niger-Congo)

- a *Patrick a-ka-on-a va-sikana mu-gomo.*
 PRN I_{S/A}:cl1-PST-see-FV PL-girl(cl2) LOC(cl18)-mountain(cl5)
 ‘Patrick saw the girls [while they were] on the mountain.’
- b *Patrick a-ka-on-er-a va-sikana mu-gomo.*
 PRN I_{S/A}:cl1-PST-see-APPL-FV PL-girl(cl2) LOC(cl18)-mountain(cl5)
 ‘Patrick saw the girls [while he was] on the mountain.’
 (Cann & Mabugu 2007: 18)

Interestingly, this leads to contrasts with Tswana such as the following one: as illustrated above in (53), in Tswana, the applicative marker *-el* is required in ‘cook in the pot’ (*àpè-èl-à mó pìtsé-ñ*), but not in ‘cook in the yard’ (*àpàj-à kó jàràtè-ñ*), whereas in Nyambo, the applicative marker *-er-* is required in ‘cook in the house’ (*teec-er-á omu-nju*), but not in ‘cook in the pot’ (*teek-á omu-nyungu*).

Moreover, according to Rugemalira (1993), in Nyambo, with non-motion verbs that do not require the applicative to combine with a locative phrase expressing location, the applicative marker *-ir-* can be used to express a “temporal locative reading”.

(57) Nyambo (Bantu, Benue-Congo, Niger-Congo)

- a *biik-á X omu-nju*
 store-FV X LOC(cl18)-house(cl9)
 ‘store X in the house’

- b *biik-ir-á* *X omu-nju*
 store-APPL-FV X LOC(cl18)-house(cl9)
 ‘store X while being in the house’
 (Rugemalira 1993: 80)

With motion verbs, in some Bantu languages (but not in Tswana), a possible function of X-applicative constructions is to license locative phrases expressing the role of source of motion or the role of path, as in (58).¹⁵³

(58) Rwanda (Bantu, Benue-Congo, Niger-Congo)

- a *N-di* *kw-injir-a* *mu* *nzu.*
 I_{S/A}:1SG-be INF-enter-FV LOC(cl18) house(cl9)
 ‘I am entering the house.’
- b *N-di* *kw-injir-ir-a* *mu* *nzu* *mu* *mu-ryango.*
 I_{S/A}:1SG-be INF-enter-APPL-FV LOC(cl18) house(cl9) LOC(cl18) SG-door(cl3)
 ‘I am entering the house through the door.’
 (Jerro 2016: 293)

To conclude with X-applicatives in Bantu, it is worth mentioning that, in the Bantu languages in which locative expressions have access to core syntactic roles, it may happen that locative phrases that are semantically adjuncts expressing location have the status of applied Ps in P-applicative constructions, cf. (Misago & al. (2024).

14.3.3 X-applicatives in Atlantic languages

As already illustrated for Seereer in §14.1.2 (example (10), reproduced here as (59)), X-applicative constructions are found in several Atlantic languages.

(59) Seereer (Fula-Seereer, Atlantic, Niger-Congo)

- a *A-ret-a* (*na*) *marse.*
 I_{S/A}:3SG-go-CPL (PREP) market
 ‘S/he went to the market.’
- b *A-ret-it-a* *na* *marse.*
 I_{S/A}:3SG-go-APPL-CPL PREP market
 ‘S/he left the market.’
 (Renaudier 2012: 183)

Depending on the individual languages, the applied phrases in X-applicative constructions commonly express semantic roles such as instrument, source of motion, cause, or manner, but X-applicatives with an applied phrase expressing the role of beneficiary are exceptional. In most Atlantic languages, the role of beneficiary can only be assigned within the frame of a P-applicative construction, and even in Jóola languages, which do not have benefactive applicatives, beneficiaries are treated syntactically exactly like the patients of prototypical transitive verbs, cf. example (63) in §14.4.

¹⁵³ In Tswana, the role of path is commonly coded by means of the instrumental preposition *ká*.

14.3.3.1 X-applicatives in Jóola languages

Jóola applicatives are typologically interesting, since the Jóola languages for which the relevant information is available have just one voice marker whose productive uses meet the definition of applicativization, and this voice marker is not used to licence applied phrases representing beneficiaries, since in Jóola languages, beneficiaries can be freely expressed as P phrases without any special marking on the verb.

In Jóola Fóoñi, in addition to more or less lexicalized uses that need not be examined here, the applicative marker *-um* is productively used to encode the following four types of participant roles: instrument, as in (60a), cause, as in (60b), perlative (place through which or along which a figure is moving), as in (60c), and mediative (‘by means of’), as in (60d).

(60) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *Ka-ser-a-k* *ɔ-k-ε* *ni-ri-um~rium-kɔ*.
 SG-spoon(cIK)-D-clK DEM-clK-PROX I_{S/A}:1SG-eat-APPL~ASRT-IP:clK
 ‘This spoon, I ate with it.’
- b *Hama-a-y* *ɔ-yɔ* *nɛ-pur-um-mi* *sindɛ-ɛ-y*.
 project(cIE)-D-clE DEM-clE I_{S/A}:clA-leave-APPL-FOC home(cIE)-D-clE
 ‘It’s because of this project that s/he left home.’
- c *V-kuutɛ-ɛ-w*, *dɪ* *ε-palantɛɛr-ε-y* *nɛ-nocen-um-mi*.
 SG-thief(clA)-D-clA by SG-window(cIE)-D-clE I_{S/A}:clA-enter-APPL-FOC
 ‘It’s through the window that the thief came in.’
- d *Dɪ* *ma-lilla-a-m* *m-ɔɔl-a* *nɛ-pɛk-um-mi*.
 by SG-intelligence(cIM)-D-clM clM-POSS-I_{ADP}:clA I_{S/A}:clA-escape-APPL-FOC
 ‘It’s by means of his intelligence that s/he escaped.’

As can be seen from the presence of a preposition with the applied phrase in (60c-d), but not in (60a-b), in Jóola Fóoñi, instrumental applicatives and causal applicatives are P-applicatives, whereas perlative applicatives and mediative applicatives are X-applicatives. Moreover, instrumental applicatives and causal applicatives are optional applicatives, since the same semantic roles can be expressed by means of instrumental and causal obliques in non-applicative constructions, whereas the semantic roles of perlative and mediative can only be expressed by means of the X-applicative constructions illustrated in (60c-d).

For a more detailed description of Jóola Fóoñi applicatives, readers are referred to (Creissels & Bassène 2024).

14.3.3.2 X-applicatives in Noon

In Noon, NPs expressing the semantic role of instrument are introduced by the comitative preposition *nɛ* ‘with’, which is cross-linguistically very common. What is less common is that the instrumental reading of *nɛ*-phrases requires that a verbal suffix *-oh* is simultaneously present. In the absence of this suffix, *nɛ*-phrases can only have a comitative reading, as in (61a). In (61b), neither the preposition *nɛ* nor the verbal suffix *-oh* can be suppressed. Consequently, this construction meets the definition of an X-applicative construction.

(61) Noon (Cangin, Atlantic, Niger-Congo)

a *Ami hay-ën nē yâal-le.*
 PRN come-PRF with husband-I_{ADP}:3SG
 ‘Ami has come with her husband.’

b *Mii ngúr-oh kohnoh-kii nē njëpël.*
 I_{S/A}:1SG.PROG.PROX cut-APPL meat-clK.DEM.PROX with knife.
 ‘I am cutting the meat with a knife.’
 (Wane 2017: 115)

Interestingly, in Laalaa (the closest relative of Noon), a suffix *-oh* is also used in instrumental applicative function, but in Laalaa, as illustrated in (37) above, reproduced here as (62), the construction in which it occurs meets the definition of optional P-applicativization.

(62) Laalaa (Cangin, Atlantic, Niger-Congo)

a *Mi ñam na kúdú.*
 1SG eat with spoon
 ‘I eat with a spoon.’

b *Mi ñam-oh kúdú.*
 1SG eat-APPL spoon
 ‘I eat with a spoon.’
 (Dieye 2011: 233-234)

14.4 Cross-linguistic variation in the semantic roles expressed by applied phrases in applicative constructions

As regards the cross-linguistic variation in the semantic roles expressed by applied phrases in applicative constructions, the following generalizations can be put forward:

- in the languages that have semantically specialized applicative markers, applicative constructions with a beneficiary in the syntactic role of applied phrase seem to be particularly common;
- in the languages that have semantically unspecified applicative markers, the general rule seems to be that the role of beneficiary is the default choice in contexts that do not suggest another interpretation.

However, these generalizations are not without exceptions. For example, the Australian language Murrinhpatha has a single applicative construction with the semantics of source/malefactive, but never benefactive (Nordlinger 2019, Austin 2024). Jóola languages (Atlantic) have a single applicative marker which is not involved in the coding of beneficiaries (see §14.3.3). In Jóola languages, as illustrated in (63), P phrases expressing the semantic role of beneficiary can simply combine with any verb without triggering a change in the coding of the other participants, and without necessitating the use of a special verb form either.

(63) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

a *N̄-mam~maŋ man ɔ-bɔj-ɔɔl.*
 I_{S/A}:1PL-want~ASRT CSC I_{S/A}:2SG-kill-I_P:clA
 ‘We want you to kill him.’

b *N̄-mam~maŋ man u-buj-oli-ool.*
 I_{S/A}:1PL-want~ASRT CSC I_{S/A}:2SG-kill- I_P:1PL.EXCL-I_P:clA
 ‘We want you to kill him for us.’

In the concluding chapter of a collective volume bringing together case studies on applicative constructions in the world’s languages, Creissels & Zúñiga (2024) indicate that, in addition to the semantic role of beneficiary, applied phrases expressing the following roles are common among the surveyed languages: maleficiary (commonly licensed by the same applicative markers as beneficiary),¹⁵⁴ instrument, concomitant (alias companion), and the semantic roles related to space: location, source, path (perlative) and destination of motion. Applied phrases expressing the semantic roles of cause and stimulus are also relatively common.

Creissels & Zúñiga (2024) also give an impressive list of semantic roles, sometimes very specific, attested in just one of the languages of the sample, or in a small group of languages. For example, English is one of the few language of the sample having an applicative construction (marked by the verbal prefix *out-*) with an applied phrase expressing the role of exceeded threshold / surpassed competitor, as in *He outsells all our other salespeople* or *A bear can outsmell even a bloodhound* (Ahn Forthcoming).

In this connection, it is interesting to mention the uses of the existential verb *gè* ‘there be, exist’ and its applicative form in !Xun. In most of the languages having existential verbs, no verbal marking is required to license the addition of a phrase expressing location, the S term in the construction of the existential verb being then interpreted as the figure in a ground-figure relationship, but in !Xun, *gè* in its underived form cannot combine with a phrase expressing location, and its use in clauses expressing a ground-figure relationship requires applicative marking. Moreover, in some varieties of !Xun, the applicative form *gèā ~ gèà* projects clauses that constitute the usual way of expressing not only locational predication, but also predicative possession (Heine & König 2015: 80-84, 233-235). In (64b), the applied phrase expresses the ground in a figure-ground relationship, whereas in (64c), the applied phrase is interpreted as the possessee in a possessive relationship, which can be viewed as the lexicalization of a comitative applicative.¹⁵⁵

(64) !Xun (!Xun, Kx’a)

a *Ts̄r̄i(-s̄i) rē gè.*
 chair-PL Q there.be
 ‘Are there chairs?’

¹⁵⁴ Malefactive applicatives involving a marker that does not lend itself to a benefactive interpretation are, however, attested. The Australian language Murrinhpatha has already been mentioned as having an applicative whose only possible interpretations are malefactive and ablative. Yukuna (Japurá-Colombia, Arawakan) is another case in point, with an applicative that can only be interpreted as malefactive or “relinquitive” (‘leaving behind’) (Van Gijn 2024).

¹⁵⁵ Synchronically, *gèā* does not seem to be productively used with the meaning ‘be with’, but Heine & König (2015: 83) quote an example from an old description of a !Xun variety in which *gèā* unquestionably expresses a comitative meaning.

b *Tsìrì m̄ gè-à tc'ū n'íj*
 chair TOP there.be-APPL house inside
 'The stool is in the house.'

c *Nā gè-ā gùmì*
 1SG there.be-APPL cattle
 'I have a cow.'

(Heine & König 2015: 82, 83, 233)

14.5 Applicative markers and the coding of complex valency operations

14.5.1 Multiple applicatives

There is cross-linguistic variation in the possibility of stacking applicative markers in the same verb form, each of them licensing a corresponding applied phrase. As illustrated by examples (42b), (49c) and (53d) above, multiples applicatives are found among others in Tswana. However, on the whole, the prevailing tendency in the world's languages is that multiple applicatives are either impossible or at least dispreferred. A possible explanation is that constructions with several non-essential participants encoded as NPs whose coding characteristics provide no indication about their possible semantic role may be more difficult to process than sequences of adpositional phrases (or case-marked NPs) in which a marker adjacent to each nominal term (or the form of the nominal term itself) provides indications about their possible semantic roles.

Interestingly, the languages whose situation can be characterized in terms of across-the-board applicativization as defined in §14.2.1.4 above do not behave uniformly in this respect. Toba (Censabella 2024) has a strict ban on multiple applicatives, which is consistent with the impossibility of expressing the initial P in the Toba applicative constructions corresponding to a transitive initial construction (see §14.2.2.5 above), whereas Upper Necaxa Totonac (Beck 2024) has no restriction on the stacking of applicatives, and still a different situation is found in !Xun, where the semantically unspecified applicative marker cannot be repeated but has the ability to license more than one applied phrase at the same time (see §14.2.1.3 above).

14.5.2 Applicative markers combined with markers of other valency operations

As regards the combinability of applicative markers with markers of other valency operations within the same verb forms, the default situation is the absence of arbitrary ban on semantically plausible combinations, apart from the avoidance of accumulations of voice markers that could make the construction difficult to process by speakers or hearers. However, special combinations of applicative markers and markers of other valency operations are found in some languages.

For example, in Upper Necaxa Totonac (Beck 2024), the combination of reciprocalization and comitative applicativization has the effect of transitivity constructions, converting for example the intransitive construction *A and B love each other* into a transitive construction that can be glossed as *A is.in.mutual.love.with B*.

The combination of applicativization and causativization in Northwestern Caucasian languages and in the Atlantic language Laalaa is another example. Cross-linguistically,

applicativization of causative constructions is common with the function of introducing a beneficiary, but an additional function of the applicativization of causative constructions is found in Northwestern Caucasian languages, where causees can only be coded as the applied phrase in a D-applicative construction formed from a causative initial construction (Arkadiev & al. 2024).

A similar phenomenon occurs in Laalaa with a special type of causeeless causative construction whose meaning is that the causer is at the same time the beneficiary of the action performed by an unmentioned causee. As illustrated in (65), the construction in question is marked by a verbal suffix *-elok* whose addition to transitive verbs does not change anything in the syntax, but carries the following implications: in the presence of *-elok*, the referent of the A phrase is not the immediate agent, but a causer, and at the same time the beneficiary of the event denoted by the verb, whereas the causee must remain implicit (65b). However, as illustrated in (65c), the addition of the applicative marker *-oh* (surfacing as *-o* for phonological reasons) licenses an additional P phrase interpreted as expressing the role of causee (or immediate agent). This particular use of *-oh* is consistent with the fact that *-oh* is productively used to license applied Ps expressing the role of instrument, since in the causative construction of transitive verbs, the causee can be viewed as a kind of animate instrument.

(65) Laalaa (Cangin, Atlantic, Niger-Congo)

a *Oomah-c-aa soob-en too-t-aa.*

child-clC-D pound-PRF millet-clT-D

‘The children pounded the millet.’

b *Clotilde soob-elok-en too-t-aa.*

PRN pound-CAUS.AUTOB-PRF millet-clT-D

‘Clotilde_i had the millet pounded for her_i.’

c *Clotilde soob-elok-o-en oomah-c-aa too-t-aa.*

PRN pound-CAUS.AUTOB-APPL-PRF child-clC-D millet-clT-D

‘Clotilde_i made the children pound the millet for her_i.’

(Dieye 2010: 231, 245)

Some languages also attest the possibility of arbitrary limitations on the combination of applicative markers with markers of other valency operations. For example, the possibility of combining applicativization and antipassivization is widely attested cross-linguistically, but Gerdtz (2024) notes that, in Halkomelem, applicative verbs do not form antipassives. Gerdtz (2024) also signals that, in Halkomelem, applicatives from intransitives lend themselves to reflexivization and reciprocalization, whereas applicatives from transitives can be reciprocalized but do not lend themselves to reflexivization. A similar restriction is signaled by Jacques & Lahaussais (2024) in the Kiranti language Yakkha, where applicative verbs can undergo reciprocal derivation, but are incompatible with reflexive derivation.

14.5.3. Parasitic applicativization

The term PARASITIC APPLICATIVIZATION is proposed here for situations where a verb form including a single applicative marker is found in a construction including simultaneously two phrases meeting the definition of applied phrases.

As mentioned in 14.2.1.3, the use of a single applicative marker to license the simultaneous expression of more than one semantic role requiring applicative marking is systematic in !Xun.

Other languages have applicative markers whose involvement in parasitic applicativization is observed with some verbs only, and can only be analyzed as a lexical property of the verbs with which this phenomenon is observed. In Tswana, *tšèlà*, applicative form of *tšà* ‘come’, is to the best of my knowledge the only applicative verb allowing for parasitic nucleativization. In example (66), sentence (a) illustrates the regular use of *tšèlà* in a single-P construction with an applied phrase expressing the semantic role of purpose, whereas sentence (b) illustrates the possibility of a double-P construction in which two P terms expressing semantic roles that cannot be expressed in the coding frame of *tšà* (the role of thing being carried and the role of recipient) are simultaneously present.

(66) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Bá-tšáá-tš-èl-à* *dì-jó* *fē:là.*

I_{S/A}:cl2-FUT-come-APPL-FV PL-food(cl10) only

‘They will come only for the food.’

b *Bá-tšáá-tš-èl-à* *b-àná* *dì:-jó.*

I_{S/A}:cl2-FUT-come-APPL-FV PL-child(cl1) PL-food(cl10)

‘They will bring some food to the children.’

Interestingly, when no recipient is mentioned, ‘bring’ is expressed in Tswana as *tšìsà* (causative form of *tšà*), and consequently, ‘bring s.th. to s.o.’ should normally be expressed as *tšìsètšà* (where *-ètš-* is an allomorph of the applicative suffix). In fact, *tšìsètšà* does exist with the expected meaning, but inexplicably, the same meaning can also be expressed as *tšèlà*, with just the applicative suffix.

In German, this phenomenon is found with the intransitive verb *schweigen* ‘be silent’, whose derived form *verschweigen* ‘conceal s.th. from s.o.’ includes a single marker licensing simultaneously an applied P and an applied dative corresponding to prepositional obliques in the initial construction.

(67) German (Germanic, Indo-European)

a *Ich schweige* *zu dir* *über meinen* *Besuch*

1SG be.silent.PRS.I_{S/A}:1SG to 2SG.DAT. on my.SG.M.ACC visit(M)

‘I keep silent before you about my visit.’

b *Ich ver-schweige* *dir* *meinen* *Besuch*

1SG APPL-be.silent.PRS.I_{S/A}:1SG 2SG.DAT. my.SG.M.ACC visit(M)

same meaning as (a)

(Cysouw 2023: 384)

14.6 Polysemy patterns involving applicativization and other valency operations

14.6.1 The causative-applicative polysemy

As already evoked in chapter 12 §12.5.3, and illustrated by an example from Dixon's (1988) description of Boumaa Fijian, some languages have a single morphological operation yielding derived verbs that can be productively used both in causative and applicative constructions.

Similarly, in Tauya, the marker *-fe-* can equally mark causative constructions (68b) or applicative constructions (68d).

(68) Tauya (Rai coast, Trans-New-Guinea)

a *Zumu-a-za.*

die-_{I_{S/A}:3SG-IND}

'He died.'

b *Zumu fei-fe-a-za.*

die I_p:3SG-CAUS-I_{S/A}:3SG-IND

'He killed him.'

c *Wate ezi-i-za.*

house make-I_{S/A}:3PL-IND

'They built a house.'

d *Wate ezi ya-fe-i-za.*

house make I_p:1SG-APPL-I_{S/A}:3PL-IND

'They built a house for me.'

(MacDonald 1990: 196)

Austin (1997) analyzes situations of this type in a variety of Australian languages.

It has been observed that, cross-linguistically, such polysemous causative-applicative markers tend to be used in causative function with unaccusative intransitives, and in applicative function with unergative intransitives and with bivalent verbs. This is, however, just a tendency, not a strict rule, and it may happen that a polysemous causative-applicative marker lends itself to both interpretations with the same verb. For example, in Wolof the same derived form of 'sit' can be used with a causative meaning ('make sit') or with a surrogative meaning ('sit in behalf of s.o.' > 'represent'). Similarly, in Indonesian, Musgrave, Arka & Rajeg (2024) mention that the same derived form of 'sew' can be interpreted as 'make s.o. sew' (causative) or 'sew for s.o.' (applicative).

There are also languages with a voice marker typically used in causative constructions contrasting with another voice marker typically found in applicative constructions, in which, however, the distribution of the two markers is not perfectly consistent with the distinction between causative and applicative constructions.

For example, many Bantu languages have a semantically under-specified applicative voice, but do not use it to encode instruments as applied Ps, and encode instruments by means of a construction involving another type of derived verb forms, typically found in causative constructions. In the languages in question, for example, Rwanda, the semantic role of instrument is thus assigned in constructions that can be viewed as expressing a conceptualization 'Agent makes Instrument act on Patient'. This is certainly made possible by

the involvement of instruments in the causality chain. For example, in (69b), the voice marker *-ish-* might a priori be analyzed as an applicative marker, but *-ish-* is found in unambiguous causative configurations with human causees (69c), and cannot be used in unambiguous applicative configurations in which the referent of the applied P is not involved in the causality chain.

(69) Rwanda (Bantu, Benue-Congo, Niger-Congo)

- a *Umw-arimu y-a-ndits-e in-kuru.*
 SG-teacher(c11) I_{S/A}:c11-PST-write-CPL SG-story(c19)
 ‘The teacher wrote the story.’
- b *Umw-arimu y-a-ndik-ish-ije in-kuru i-karamu.*
 SG-teacher(c11) I_{S/A}:c11-PST-write-CAUS-CPL SG-story(c19) SG-pen(c15)
 ‘The teacher wrote the story with a pen.’
- c *Umw-arimu y-a-ndik-ish-ije umw-ana in-kuru.*
 SG-teacher(c11) I_{S/A}:c11-PST-write-CAUS-CPL SG-child(c11) SG-story(c19)
 ‘The teacher made the child write the story.’
 (Jerro 2017: 756)

Even in a Bantu language like Tswana, in which instruments are standardly encoded as prepositional phrases, without any voice-marker added to the verb form, this kind of construction is marginally possible. For example, it is not obvious at first sight whether (70) should be viewed as a somewhat atypical causative construction (since *-is-* is productively used in unproblematic causative constructions), or as an applicative construction exceptionally marked by the voice marker *-is-* typically used in causative constructions instead of the standard applicative marker *-el*.

(70) Tswana (Bantu, Benue-Congo, Niger-Congo)

- Kítsó 'ó-χát-is-íts-é m'ò-thò ì-m'ótòròkà:rà.*
 PRN(c11) I_{S/A}:c11-crush-CAUS-PRF-FV SG-person(c11) SG-car(c13)
 ‘Kitso drove over a person with his car.’
 lit. ‘Kitso let/made the car crush a person.’

Similarly, Mandinka has no applicative derivation, and the standard way of encoding instruments in Mandinka is the use of a preposition (*lá*) without any verbal coding, but participants that can be characterized as animate instruments may be encoded as causees in a causative construction. (71) is the translation equivalent of English *He hunts with dogs*, but the construction is a causative construction with ‘dogs’ encoded as a causee.

(71) Mandinka (Central Mande, Mande)

- À kà wùlòo-lú dèemà-ndí.*
 3SG ICPL dog.D-PL hunt-CAUS
 ‘He hunts with dogs.’ lit. ‘He makes dogs hunt.’

Two groups of Atlantic languages, Joola and Nyun, attest a configuration with a voice marker productive in causative function but fulfilling an applicative function with a small group of verbs belonging to a particular semantic type (Voisin & Creissels 2024). The verbs in

question denote bodily excretions, for example in Jóola Fóoñi *lac* ‘vomit’ *puus* ‘spit’, *sor* ‘urinate’ and *wɔɔy* ‘fart’; in Gubëeher (Nyun) *sel* ‘urinate’, *reej* ‘defecate’ and *loot* ‘spit/vomit’. With these verbs (and exclusively with them), a suffix otherwise used with a causative function acts as an applicative marker licensing an applied P that denotes the place towards which the excretion is directed, e.g. Gubëeher *reej* ‘defecate > *reej-un* ‘defecate on’.

Interestingly, a similar pattern is found in the Mayan language K’ichee’. According to Gluckman (2015), in K’ichee’, the suffix *-isa*, productive in causative function with intransitive verbs, is also used in iterative/intensive function (see chapter 12 §12.6.10), and also in applicative function with a limited set of intransitive verbs characterized by Gluckman (2015) as verbs of emission, including ‘vomit’, ‘sneeze’, ‘howl’, ‘bleed’, ‘whistle’, ‘cry’. With such verbs, *-isa* creates transitive verbs whose A corresponds semantically to the initial S, and whose P expresses the role of goal, which in the base construction can be expressed as a prepositional oblique. (72a-b) illustrates the causative use of *-isa*, whereas (72c-d) illustrates its applicative use with verbs of emission.

(72) K’ichee’ (Mayan)

- a *X-Ø-kam ri tz’i’*.
 CPL-_{I_{S/P}}:3SG-die D dog
 ‘The dog died.’
- b *X-Ø-u-kam-isa-j ri tz’i’ la a Xwan*.
 CPL-_{I_{S/P}}:3SG-I_A:3SG-die-CAUS-TR D dog D M NPR
 ‘John killed the dog.’
- c *X-Ø-xoj chirij ri mesa*.
 CPL-_{I_{S/P}}:3SG-vomit to.3SG D table
 ‘S/he threw up on the table.’
- d *X-Ø-u-xoj-isa-j ri mesa*.
 CPL-_{I_{S/P}}:3SG-I_A:3SG-vomit-APPL-TR D table
 ‘S/he threw up on the table.’
 Gluckman 2015: 157, 160

14.6.2 The applicative-reciprocal polysemy

In some Bantu languages, the verbal suffix *-an-*, standardly used as a reciprocal marker and also used with other functions involving detransitivization in some Bantu languages (see chapter 11 §11.4.4), also has an applicative function in which it licenses applied phrases expressing manner, as in example (73b).

(73) Rwanda (Bantu, Benue-Congo, Niger-Congo)

- a *Umugabo a-ra-som-a ibaruwa n’ iibyiishiimo*.
 man I_{S/A}:cl1-PRS-read-FV letter with joy
 ‘The man is reading a letter with joy.’
- b *Umugabo a-ra-som-an-a ibaruwa iibyiishiimo*.
 man I_{S/A}:cl1-PRS-read-APPL-FV letter joy
 ‘The man is reading a letter with joy.’
 (Kimenyi 1980: 85)

The applicative-reciprocal polysemy has also been signaled by Nedjalkov in West-Greenlandic (Eskaleut) (Nedjalkov 2007a: 174), and in the Turkic language Yakut (Nedjalkov 2007b: 237).

14.6.3 The applicative-antipassive polysemy

Some languages use the same voice markers in antipassive and applicative constructions. Since the languages in question are among those in which, with transitive verbs, the initial P cannot be maintained in the role of P in the applicative construction, in a synchronic analysis, such voice markers can be defined as encoding the denucleativization of the initial P, with two possible options: either the syntactic role of P is taken by a participant that cannot be encoded as a core term of the base construction (applicativization), or it remains unassigned (antipassivization). Example (74) illustrates such a polysemous applicative-antipassive marker in Chukchi: in this example, where *ine-* and *ena-* are two allomorphs of the same prefix conditioned by vowel harmony, (b) results from the applicativization of (a), whereas (d) results from the antipassivization of (c). In both cases, the initial P is converted into an instrumental oblique, but (b) includes an applied P corresponding to the locative in (a), whereas in (d), the role of P remains unassigned, and the initial A becomes the S of an intransitive construction (as manifested by the deletion of the ergative case marker).

(74) Chukchi (Northern Chukotka-Kamchatkan, Chukotka-Kamchatkan)

- a *Ətləγ-e təkəçʔ-ən utkucʔ-ək pela-nen.*
 father-SG.ERG bait-SG trap-LOC leave.CPL.I_A:3SG.I_P:3SG
 ‘Father left bait in the trap.’
- b *Ətləγ-e təkəçʔ-a utkucʔ-ən ena-pela-nen.*
 father-SG.ERG bait-SG.INS trap-SG APPL-leave.CPL.I_A:3SG.I_P:3SG
 ‘Father left/supplied the trap with bait.’
- c *γəm-nan tə-ret-ərkən kimitʔ-ən (tomγ-etə).*
 1SG-ERG I_A:1SG-transport-PRS.I_P:3SG load-SG friend-DAT
 ‘I transport a load (to a friend/friends).’
- d *γəm t-ine-ret-ərkən kimitʔ-e (tomγ-etə).*
 1SG I_S:1SG-APPL-transport-PRS load-SG.INS friend-DAT
 ‘I transport a load (to a friend/friends).’
 (Malchukov 2017: 15-16, quoting Mel’čuk 2006: 224)

Similarly, in Sliammon (Salishan), the verbal suffix *-aɣam* can be found with the same verbs in either applicative or antipassive function (Watanabe 2015).

In Indonesian, the voice marker *-kan* (commonly described as an applicative marker) can be used to promote a beneficiary with monotransitive verbs, but also occurs with verbs that have a double-P construction as their basic coding frame, in an alternative construction in which the recipient/beneficiary is encoded as a prepositional oblique. This phenomenon, described by Malchukov (2017) as “applicative reversal”, is a particular type of antipassive-applicative polysemy, since the function of *-kan* in (75b) is clearly applicative, whereas in (75d), the same suffix marks the denucleativization of the primary P in a double-P

construction. Note that, in (75a-b), another voice marker is present: *men-*, marker of the agent voice.

(75) Indonesian (Malayo-Sumbayan, Austronesian)

a *Pelayan men-gabil segelas air untuk tamu.*

waiter AV-fetch glass water for guest

‘The waiter fetched a glass of water for the guest.’

b *Pelayan men-gabil-kan tamu segelas air.*

waiter AV-fetch-APPL guest glass water

‘The waiter fetched the guest a glass of water.’

c *Ali beri wanita itu surat.*

PRN give woman D letter

‘Ali gave the woman a letter.’

d *Ali beri(-kan) surat kepada wanita itu.*

PRN give(-APPL) letter to woman D

‘Ali gave a letter to the woman.’

(Malchukov 2017: 18, quoting Sneddon 1996: 81-82 and Wunderlich 2006)

In the Atlantic language Noon (Wane 2017: 130-141), the voice marker *-oh* already presented in §14.3.3.2 is productively used not only in applicative function, but also in antipassive and reciprocal function. Moreover, this suffix also has uses in which it cannot be analyzed as marking a voice alternation (see §14.7.1). Note that, in its applicative function, it licenses applied phrases expressing the semantic role of instrument (see 14.3.3.2 above). In Noon, beneficiaries are encoded as applied Ps in applicative constructions, but with a distinct voice marker (*-ə*).

Applicative-antipassive polysemy is also mentioned for one of the markers analyzed in Valenzuela’s (2016) description of the applicative constructions of the Kawapanan language Shiwilu: the suffix *-tu* has an applicative function in *lamapu* ‘scream’ > *lamapu-tu* ‘scream at someone’, but an antipassive function in *panu* ‘give something as a present to someone’ > *panu-tu* ‘give something as a present’. Moreover, *-tu* also has a verbalizing function, as in *ukladek* ‘blood’ > *ukladek-tu* ‘bleed’.

Applicative-antipassive polysemy is also found in Shiwilu’s sister language Shawi (Hart 1988), Bella Cola (Beck 2000) and Central Alaskan Yupik (Mithun 2000). In Mapudungun, a verbal suffix mainly used as an applicative marker also has an antipassive function with a limited number of verbs (Zúñiga 2024).

14.6.4 Applicative markers also used to mark non-causative A/S nucleativization

In Tswana, instrumental adjuncts are usually expressed as prepositional obliques in the construction of the underived form of verbs, and it is not possible to encode them as applied Ps in an applicative construction. However, as already mentioned in chapter 13 §13.2.2, if no agent is mentioned, they can be encoded as the A term of a construction meeting the definition of A/S-nucleativization of obliques, as in (76b), where the initial A is left unexpressed and interpreted as non-specific, and this construction requires the same voice marker *-el* as applicative constructions.

(76) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Ǫ-nè à-àpàj-à q'háká á-fàbà*
 I_{S/A}:cl1-AUX I_{S/A}:cl1.SEQ-cook-FV guinea-fowl(cl9) I_{S/A}:cl1.SEQ-flavor-FV
bò-χóbé 'ká námà j-á-j-ò:né.
 SG-porridge(cl14) with flesh(cl9) cl9-GEN-cl9-PRO
 'S/he cooked the guinea-fowl and flavored the porridge with its flesh.'
- b *Nàmà í-fáb-él-à bò-χò:bè.*
 flesh(cl9) I_{S/A}:cl9-flavor-NuclA-FV SG-porridge(cl14)
 'Meat gives flavor to the porridge.'

Moreover, as already mentioned above (§14.3.1.4), in Tswana, containing instruments, usually encoded as locative-marked applied phrases in an X-applicative construction, can also take the role of A without necessitating the addition of a second *-el*, as in (77b).

(77) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-sádí Ǫ-nè à-ts'òl-él-à bò-χóbé*
 SG-woman(cl1) I_{S/A}:cl1-AUX I_{S/A}:cl1-dish.out-APPL-FV SG-porridge₁₄
mó m̀-χópò:-ìj.
 LOC PL-wooden.bowl(cl4)-LOC
 'The woman dished out the porridge into the wooden bowls.'
- b *Mò-χópó 'ò-ts'òl-él-à bò-χò:bè.*
 SG-wooden.bowl(cl3) I_{S/A}:cl3-dish.out-NuclA-FV SG-porridge(cl14)
 'The wooden bowl is used to dish out porridge.'

Similarly, 'the *mokoro* used to water cows' is *mòkórò ó 'ónwélàh díq'òmó* lit. 'the *mokoro* that drinks.*el* cows', 'coffee-cup' is *kópi é 'ínwélàh 'kófi* lit. 'the cup that drinks.*el* coffee', 'room used to do the cooking' is *ntlò é 'iápéèlàh* lit. 'the room that cooks.*el*', etc.

Another example of a marker used both as an applicative marker and as a marker of non-causative A-nucleativization (and also as an antipassive marker) has been given in chapter 13 §13.4.6: the central Yupik 'adversative' marker.

Mention can also be made here of Wolof *des* 'remain (somewhere)', an intransitive verb whose combination with a suffix *-e* otherwise acting as an applicative marker yields a derived verb meaning 'still have', cf. example (78).

(78) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Des naa ci kër gi.*
 remain PRF.I_{S/A}:1SG at house(clG) clG.D
 'I remained at home.'
- b *Dese naa tuuti ceeb.*
 still.have PRF.I_{S/A}:1SG some rice
 'I still have some rice.'

Voisin & Creissels (2024) analyze *dese* 'still have' as a lexicalized applicative, because no other Wolof verb lends itself to a similar alternation. However 'X still has Y' can be paraphrased as 'X is a person for whom Y remains', which means that, in its combination

with ‘remain’, the applicative marker can be analyzed as licensing A-nucleativization of an experiencer/possessor.

The use of the same marker in applicative constructions but also in constructions in which it licenses an additional non-agentive participant in subject role is also found in Mapudungun (Zúñiga 2024), where this mechanism concerns avalent meteorological verbs and a subclass of non-agentive monovalent verbs. Similarly, Van Gijn (2014) mentions that in the Kawapanan language Shiwilu, a suffix that also has causative, antipassive and applicative uses converts the avalent/impersonal meteorological verb ‘get cold’ (as in *it gets cold*) into an intransitive verb whose subject expresses the role of experiencer (as in *s/he gets cold*).

In the languages that have both P-applicativization and passivization, non-causative A/S-nucleativization is commonly realized compositionally, by combining P-applicativization and passivization: a phrase representing a non-agentive participant is introduced in P role via P-applicativization, and then takes the role of A/S via passivization of the applicative construction. Consequently, depending on the theoretical framework, the use of an applicative marker to also mark non-causative A/S nucleativization can be analyzed as a case of covert passivization of an applicative construction.

14.6.5 Others

Bahrt (2021: 110-112) mentions languages having what he analyzes as applicative-passive polysemy, but according to the definitions adopted in this book, the illustrations he provides are rather instances of concernative-passive polysemy (see chapter 13 §13.4.3), and I am aware of no language in which the same voice maker would have the ability to code applicativization as defined in this book and passivization.

Bahrt (2021: 114-115) also mentions the possibility of applicative-reflexive polysemy, but in the few languages he quotes as having this co-expression pattern, applicative markers and reflexive markers show only partial resemblance.

Finally, Bahrt (2021: 119-120) has a section on applicative-decausative polysemy, in which he himself acknowledges that none of the two potential illustrations he came across is really convincing.

Foley (2024) signals the existence of verbal affixes found in applicative and decausative function in the Papuan languages of the Tonda sub-family of the Yam family, but argues that comparative data suggest a scenario according to which the applicative-decausative markers in question result from a process of leveling of the allomorphs of two originally distinct markers.

14.7 Uses of applicative markers not related to valency operations

The cross-linguistic recurrence of some valency-neutral uses of markers also found in the role of applicative markers is remarkable. This section briefly discusses the most salient ones. A more detailed list of possible valency-neutral uses of applicative morphology with references is given by Creissels & Zúñiga (2024). Additional data on this topic can also be found in a recently published volume edited by Sara Pacchiarotti and Fernando Zúñiga (Pacchiarotti & Zúñiga 2022).

14.7.1 Applicative derivation and oblique registration

OBLIQUE REGISTRATION CONSTRUCTION is the term proposed by Zúñiga & Creissels (2024) for constructions involving verbal coding of the pragmatic prominence of an oblique (most commonly a locative or instrumental adjunct) without any change in the structure of the clause. The term REGISTERED OBLIQUE can be used for the phrase whose pragmatic status is highlighted by the use of a special verb form. In quite a few languages, oblique registration marking is a possible function of markers also used as applicative markers.

For example, in Tswana clauses in which a locative phrase expresses the location of the event, the suffix *-el*, whose use as an applicative marker has been widely illustrated in the previous sections, may be added to the verb form without any other change in the form of the clause and without any change in the expression of semantic roles, which rules out analyzing it as the marker of some valency operation (applicativization or other). In such cases, the function of *-el* is to mark focalization of the locative expressing the location of the event. This use of *-el*, illustrated in example (79), constitutes an alternative to cleft constructions (which are in Tswana the standard way to express focalization), available if (and only if) the term to be focalized is a locative adjunct.

(79) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mò-ínà w-á-mí ó-nè à-sw-á kó mò-ráfô:-ñ.*
 SG-man(c11) c11-GEN-1SG I_{S/A}:c11-AUX I_{S/A}:c11-die-FV LOC SG-mine(c13)-LOC
 ‘My husband died in the mine.’
- b *Mò-ínà w-á-mí ó-nè à-sw-él-à kó mò-ráfô:-ñ.*
 SG-man(c11) c11-GEN-1SG I_{S/A}:c11-AUX I_{S/A}:c11-die-FocX-FV LOC SG-mine(c13)-LOC
 ‘My husband died IN THE MINE.’

Example (80) provides additional illustrations of the focalizing use of *-el*.

(80) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lòrátó 'ó-ápé-èl-à mó dzáràtê:-ñ.*
 PRN(c11) I_{S/A}:c11-cook-FocX-FV LOC yard(c10)-LOC
 ‘Lorato is doing the cooking IN THE YARD.’
- b *Kì-tsál-éts-w-ì kó Kà:né.*
 I_{S/A}:1SG-give.birth-FocX.PRF-FOC-FV LOC PRN
 ‘I was born IN KANYE.’

Interestingly, this use of the suffix *-el* results in ambiguity in the case of motion verbs that cannot assign the role of source of motion or destination of motion to locatives, since with such verbs, *-el* may also mark an X-applicative construction in which the locative expresses the role of destination of motion. For example, in (51) above, repeated here as (81), the second sentence is in fact ambiguous between an interpretation according to which *-el* marks a change in the participant frame of *tábóχá* (‘I will run TO the road (not ON the road)’), and another interpretation according to which the applicative suffix marks the focalization of a locative phrase without modifying its semantic role of location.

(81) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kì-tlàà-tábóχ-à kó tsilê:-ŋ.*

I_{S/A}:1SG-FUT-run-FV LOC road(c19)-LOC

‘I will run on the road.’

b *Kì-tlàà-tábóχ-él-à kó tsilê:-ŋ.*

I_{S/A}:1SG-FUT-run-APPL/FocX-FV LOC road(c19)-LOC

‘I will run to the road.’ OR ‘I will run ON THE ROAD (and nowhere else).’

As discussed by Pacchiarotti (2020: 144-157), Gunnink & Pacchiarotti (2022) and Pacchiarotti (2024), valency-neutral uses of applicative markers related to location are common in the Bantu language family. In particular, the use of an applicative marker to express focalization of a locative phrase expressing location, without any change in the semantic roles or in the formal aspects of the construction, has been signaled in a number of Bantu languages.

Similar facts can be found in some Atlantic languages. For example, in Noon (Wane 2017: 132), the suffix *-oh* has an applicative function in constructions in which it licenses applied phrases expressing the semantic role of instrument (as in (61) above), but in (82), it is syntactically optional and has no incidence on the expression of semantic roles. As in the Tswana examples above, its presence marks focalization of the locative phrase.

(82) Noon (Cangin, Atlantic, Niger-Congo)

a *Më en ngë kaan lamin.*

1SG be PREP house Lamine

‘I am at Lamine’s place.’

b *Më en-oh ngë kaan lamin.*

1SG be-FocX PREP house Lamine

‘I am AT LAMINE’S PLACE.’

(Wane 2017: 132)

The use of verbal marking to place greater discourse saliency on the referent of an oblique phrase without changing anything in its coding characteristics is relatively common in Mesoamerican languages, and the term ‘registration applicatives’ is commonly used with reference to this phenomenon (Hernández-Green 2016). It is true that the markers that fulfill this function are often also found in constructions that meet the definition of applicativization (as in Tswana and Noon), or are cognate with markers that have an applicative function in related languages (see in particular Smith-Stark 1994 on Mayan languages), but the extension of the term ‘applicative’ to constructions involving no valency alternation is problematic. There is certainly a relationship between optional applicativization as defined in this book and verbal marking of the discourse saliency of non-nuclear participants, and this relationship would certainly deserve further investigation. However, simply including the so-called registration applicatives in the family of applicative constructions (as suggested in part of the literature on Mesoamerican languages) would imply a definition of applicativization encompassing both verbal derivations operating on the discursive status of obliques without implying any valency alternation (the ‘registration applicatives’) and verbal derivations marking valency alternations but devoid of any discursive implication (the obligatory

applicatives as defined in this book), and it is difficult to imagine how such a definition could be formulated.

That said, it has to be noted that the distinction between applicative constructions and oblique registration constructions is sometimes fuzzy. Hernández-Green and López Nicolás (2024) argue that both in Zapotec and Otomi, the constructions marked by applicative morphology can be arranged along a “registration/promotion continuum”, based on how many core morphosyntactic properties (if any) the registered/applied phrase acquires in such constructions. In the same vein, Montgomery-Anderson (2024) shows that the Mayan language Ixil has a construction in which an instrumental phrase whose focalization is marked by a verbal suffix acting as a bona fide applicative marker in other Mayan languages loses the prepositional marking it has in the initial construction but does not acquire the possibility of being indexed in the verb form that characterizes the core terms of Ixil clauses.

14.7.2 Applicative derivation and the expression of aspect

In Tswana clauses in which a locative phrase expresses the location of the event, the applicative marker *-el* can be used not only to mark the focalization of the locative phrase without any change in the assignment of semantic roles, but also to express the aspectual notion of habituality of action at the place referred to by the locative phrase, without any change in the formal aspects of the construction or in the assignment of semantic roles. In examples (79) and (80b) above, a habitual reading cannot be considered, but (80a), repeated here as (83b), is in fact ambiguous between a focalizing and a habitual reading of the verbal suffix *-el* that could also be used with the same verb as an applicative marker licensing an applied P expressing the role of beneficiary (‘cook for s.o.’).

(83) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Lòráátó* ¹*ó-ápáj-à* *mó* *džáràtê:-ṅ*.
 PRN(c11) I_{S/A}:c11-cook-FV LOC yard(c10)-LOC

‘Lorato is doing the cooking in the yard.’

b *Lòráátó* ¹*ó-ápé-èl-à* *mó* *džáràtê:-ṅ*.
 PRN(c11) I_{S/A}:c11-cook-FocX/HAB-FV LOC yard(c10)-LOC

‘Lorato does the cooking IN THE YARD.’

OR ‘Lorato habitually cooks in the yard.’

The same ambiguity in the interpretation of applicative verb forms combined with locative adjuncts has been noted in other Bantu languages, such as Swahili (Marten 2003: 10) and Shona (Cann & Mabugu 2007).

More generally, purely aspectual uses of markers also acting as applicative markers are not uncommon cross-linguistically. Examples illustrating the use of the Hungarian preverb *ki* as an applicative marker and as a purely aspectual marker, reproduced here as (84) and (85), have already been given in chapter 8.

(84) Hungarian (Ugric, Uralic)

a *Péter* *nevet-ett-Ø* *János-on*.
 PRN laugh-PST-I_{S/A}:3SG PRN-SUPESS

‘Péter was laughing at János.’

- b *Péter ki-nevet-t-e* *János-t.*
 PRN APPL-laugh-PST-I_{S/A}:3SG-I_P:3D PRN-ACC
 ‘Péter laughed at János.’ (*ki* as an applicative marker)
 (Zúñiga & al. 2024: 457)

(85) Hungarian (Ugric, Uralic)

- a *János takarít-ott-Ø.*
 PRN clean-PST-I_{S/A}:3SG
 ‘János was cleaning.’
 b *János ki-takarít-ott-Ø.*
 PRN PFV-clean-PST-I_{S/A}:3SG
 ‘János did the cleaning.’ (*ki* as a purely aspectual marker)
 (Zúñiga & al. 2024: 465)

Since the grammaticalization of directionals into aspectual markers is cross-linguistically common, it is tempting to speculate that the applicative markers showing this type of polysemy have a directional origin, as is indeed the case for the Hungarian preverb *ki*. In this respect, as discussed by Payne (2024), Nilotic languages show particularly interesting data about the possible extension of directionals into the domains of aspect and applicative marking (and also person indexation).

14.7.3 Applicative derivation and the expression of intensity

It is very common in Bantu languages that the verbal suffix acting as a marker of applicative constructions also has a use in which it expresses intensity of the action (completeness, persistency, effort, iterativity) without any change in the construction or in the expression of semantic roles. As illustrated in (86), in most cases, this use implies reduplication of the applicative marker.

- (86) Tswana (Bantu, Benue-Congo, Niger-Congo)
- | | | | |
|--------------|--------------|--------------------|---------------------------------|
| <i>χán-á</i> | ‘refuse’ | <i>χán-él-él-à</i> | ‘refuse completely, be adamant’ |
| <i>óm-á</i> | ‘become dry’ | <i>óm-él-él-à</i> | ‘become completely dried out’ |
| <i>lib-á</i> | ‘look at’ | <i>lib-él-él-à</i> | ‘examine’ |
| <i>fít-à</i> | ‘pass’ | <i>fít-él-él-à</i> | ‘go too far, exaggerate’ |

The syntax-neutral uses of applicative markers to express aspectual distinctions or intensity can be viewed as particular cases of a more general possibility of using applicative markers to mark syntax-neutral V>V derivations of various semantic types for which the expression of directionality can be considered as a historical source. This hypothesis is supported by the fact that such uses are common for the European directional preverbs that also have acquired applicative marking as one of their possible functions (Zúñiga & al. 2024).

14.7.4 Applicative derivation and the expression of effort

In Arabic, the so-called verb form III (*fāʕala*) sporadically has an applicative use illustrated in §14.1.1 above, but a particularly prominent use of this form is the use commonly designated

as CONATIVE in Arabic grammars, glossable as ‘strive to V’. This use involves no change in the construction of the verb and is traditionally illustrated by *qatala* ‘kill’ > *qātala* ‘try to kill’.

14.7.5 Applicative derivation and the semantic role of viewpoint holder

The semantic role of viewpoint holder (alias *judicans*) is not strictly speaking a participant role (see chapter 1 §1.2.1), and consequently the introduction of phrases expressing this role cannot be analyzed as a valency operation, but the use of applicative verb forms to license phrases expressing the role of viewpoint holder is attested in Northwestern Caucasian languages, cf. (Arkadiev & al. 2024). In fact, this is not very surprising, since phrases expressing the role of viewpoint holder are commonly flagged by adpositions also involved in the expression of bona fide participant roles, cf. for example English *for* in *For me, he is nothing more than a liar*.

14.8 The origin of applicative markers

14.8.1 Adpositions and adverbs as possible sources of applicative markers

Data from a wide variety of languages, such as the pair of Mandinka sentences quoted in (87), suggest that adposition incorporation may be a source of applicative markers. Mandinka has no productive pattern of applicativization, but in (87), the same participant is encoded as an oblique in the intransitive clause (87a) and as the P term of the transitive clause (87b), and the verb in this transitive clause is a compound verb incorporating the postposition used to flag the oblique noun phrase in the corresponding intransitive construction.

(87) Mandinka (Central Mande, Mande)

- a *Bándíy-òo-lú bùyí-tá jùl-òo-lú kâŋ.*
 bandit-D-PL fall-CPL.ITR merchant-D-PL on
 ‘The bandits attacked the merchants (lit. fell on the merchants).’
- b *Bándíy-òo-lú yé jùl-òo-lú bùyì-ŋ-kâŋ.*
 bandit-D-PL CPL.TR merchant-D-PL fall-EP-on
 ‘The bandits attacked the merchants.’

Example (88) illustrates the same phenomenon in Swedish. Note that, in (88b), the compound verb has a double-P construction in which the primary P corresponds to the prepositional oblique in (88a), as evidenced by the passive construction in (88c), where *-s* is a middle marker in passive function.

(88) Swedish (Germanic, Indo-European)

- a *De tog chefskap-et från honom.*
 they took headship-D from him
 ‘They took the headship from him.’

- b *De från-tog honom chefskap-et.*
 they from-took him headship-D
 ‘They deprived him of the headship.’
- c *Han från-tog-s chefskap-et.*
 he from-took-PASS headship-D
 ‘He was deprived of the headship.’
 lit. ‘He was from-taken the headship.’
 (Wechsler 2015: 307)

Diachronically, in languages in which either prepositional obliques follow the verb or postpositional obliques precede the verb, the process of adposition incorporation suggested by pairs of sentences such as those can easily be explained as the result of a simple rebracketing process by which ‘V + [PREP + NP]_X’ sequences are reanalyzed as ‘V-APPL + NP_P’, as in (89), or ‘[NP + POSTP]_X + V’ sequences are reanalyzed as ‘NP_P + APPL-V’.

(89) Bijogo (Bijogo, Atlantic, Niger-Congo)

- a *Ni-mes ni-dendək ta nɔ-ɔgɔ.*
 SG-knife I_{S/A}:cINV.ICPL-sharpen.DECAUS with SG-stone
 ‘A knife can be sharpened with a stone.’
- b *Ni-mes ni-dendək-at nɔ-ɔgɔ.*
 SG-knife I_{S/A}:cINV.ICPL-sharpen.DECAUS-APPL SG-stone
 same meaning as (a)
 (Segerer 2002: 219)

It is less easy to imagine how adposition incorporation can develop in languages in which this is not the case, such as Mandinka (87) or Swedish (88), but the re-verbalization of compounds that initially were nominal compounds, evoked in chapter 17 §17.3 as a possible source of noun incorporation, is also a plausible scenario for such cases of adposition incorporation.

There is no difficulty in imagining that, at some stage in the history of a language, analogical extension of sporadic cases of incorporated adpositions might lead to the emergence of a relatively productive pattern of applicativization, and that the use of an applicative marker cognate with an adposition may extend to the nucleativization of obliques that are not necessarily flagged by the same adposition, as in (90), where the German prefix *be-* cognate with the preposition *bei* ‘near, at’ acts as an applicative marker licensing the nucleativization of an oblique flagged by the preposition *für*.¹⁵⁶

(90) German (Germanic, Indo-European)

- a *Er kochte für die ganze Gruppe.*
 he cooked for the whole group
 ‘He cooked for the whole group.’

¹⁵⁶ For a detailed analysis of the functions of this construction in German, see (Michaelis & Ruppenhofer 2000).

- b *Er be-kochte die ganze Gruppe.*
 he APPL-cooked the whole group
 ‘He cooked for the whole group.’
 (Maylor 2002: 68)

It is worthwhile here recalling that, in chapter 13 §13.6.2, it has been suggested that the behavior of English prepositions in so-called prepositional passive constructions (such as *This bed has been slept in*) is best analyzed as the consequence of the reanalysis of prepositions as applicative markers, in spite of the fact that, in English, the prepositions reanalyzed as applicative markers are not morphologically attached to the verb. A similar observation has been made about the Romance prepositions found in constructions in which they can be analyzed as acting as D-applicative markers (cf. §14.1.3 above). For example, the possibility of inserting adverbs between the verb and the preposition acting as a D-applicative marker, as in (91c), rules out an analysis in terms of morphological compounding.

(91) French (Italic, Indo-European)

- a *Il crie après moi.*
 I_{S/A}:3SG.M yell.PRS.I_{S/A}:3SG PREP 1SG
 ‘He is yelling at me.’
- b *Il me= crie après.*
 I_{S/A}:3SG.M I_D:1SG yell.PRS.I_{S/A}:3SG APPL
 ‘He is yelling at me.’
- c *Il me= crie souvent après.*
 I_{S/A}:3SG.M I_D:1SG yell.PRS.I_{S/A}:3SG often APPL
 ‘He often yells at me.’

However, data from ancient Indo-European languages show that applicative markers cognate with adpositions may be the result of a more complex scenario that cannot be straightforwardly analyzed in terms of adposition incorporation, as the preverbal and the adpositional functions emerged independently from what in origin were likely adverbs (in particular, directional adverbs), as discussed by Zanchi (2019), and specifically on applicative preverbs by Romagno (2008). In fact, this is consistent with the observation that some of the European preverbs that have developed an applicative function are cognate with adverbs still attested as such in the same language, but not with adpositions or case markers. For example, among the Hungarian preverbs acting as applicative markers in combination with some verbs, *le* is cognate with the adverb *lenn* ‘down’ but bears no resemblance to any semantically related postposition or case marker.

14.8.2 Verbal clitics cross-referencing obliques as a possible source of applicative markers

As discussed in §14.1.5 above, Amharic has two verbal suffixes, *-bb-* and *-ll-*, cognate with the prepositions *bə-* and *lə-* respectively, acting as applicative markers in one of the two constructions in which they may occur. As already explained in §14.1.5, the probable origin of their use as applicative markers is the reanalysis of a construction in which a prepositional phrase was cross-referenced by a complex enclitic ‘*-bb-/-ll-* + person marker’.

A similar phenomenon can be observed in some of the Bantu languages that have a set of verbal enclitics cross-referencing oblique NPs, cf. (Marten & Kula 2014), (Riedel & Marten 2009). For example, in Rwanda, as observed by Jerro (2016: 39), there is variation in the distribution of the locative enclitics *-mo* ‘in it’, *-ko* ‘at it’ and *-ho* ‘on it’, but at least in some Rwanda varieties, such as that described by Kimenyi (1980), they are in complementary distribution with the locative marking of the corresponding NPs, and consequently can be analyzed as acting as applicative markers, as indicated in the gloss of example (92b).

(92) Rwanda (Bantu, Benue-Congo, Niger-Congo)

a *Umwaana yataaye igitabo mu maazi.*

child I_{S/A}:clA.threw book in water
 ‘The child has thrown the book in the water.’

b *Umwaana yataaye-mo amaazi igitabo.*

child I_{S/A}:clA.threw-in.it>APPL water book
 ‘The child has thrown the book in the water.’

(Kimenyi 1980: 89)

14.8.3 Applicative periphrases as a possible source of applicative markers

Applicative periphrases are biverbal constructions functionally comparable to monoverbal applicative constructions. One of the verbs (the lexical verb) determines the type of event encoded by the applicative periphrasis, and the other verb acts as a valency operator whose contribution to the construction is limited to licensing the expression of an additional participant fulfilling a given semantic role in the event encoded by the lexical verb, without modifying the morphosyntactic treatment of the other participants.

14.8.3.1 Instrumental applicative periphrases

In some languages, instruments are commonly encoded by means of biverbal constructions involving a verb ‘take’ in the function of valency operator. In example (93), the etymology of the construction is still obvious, but the obligatory repetition of the negation marker shows that a process of clause union is already engaged. Crucially, it is only ‘with the left hand’ that is negated, not ‘eat’, whereas in a biclausal construction, ‘eat’ could only be interpreted as negated.

(93) Baule (Tano, Kwa, Niger-Congo)

Bé fá'à bé sá bê bé dí'à likě.

3PL take-NEG 3PL hand left 3PL eat-NEG thing
 ‘One does not eat with the left hand.’

lit. ‘They don’t take their left hand they don’t eat.’

Such periphrases are a possible source of instrumental applicatives.

14.8.3.2 *Benefactive applicative periphrases*

Applicative periphrases licensing beneficiaries are very common in the world's languages. As illustrated by examples (94) and (95), 'give' is particularly common in the function of valency operator in such periphrases.

(94) Yoruba (Defoid, Benue-Congo, Niger-Congo)

- a *Rà á fún mi.*
 buy 3SG give 1SG
 'Buy it for me.'
- b *Ó jísé fún mi.*
 3SG go.on.an.errand give 1SG
 'S/he went on an errand for me.'
- (Rowlands 1969: 83, Abraham 1962: 348)

(95) Ecuadorian Highland Spanish (Italic, Indo-European)

- a *Me dio cocinando.*
 I_{DAT}:1SG give.CPL.I_{S/A}:1SG cook.GER
 'S/he cooked for/instead of me.'
 lit. 'She provided service for me by cooking.'
- b *Él me da haciendo el pan mientras yo lavo.*
 3SG.M I_{DAT}:1SG give.PRS.I_{S/A}:3SG make.GER DEF.SG.M bread(M)
 while 1SG wash.PRS.I_{S/A}:1SG
 'He bakes the bread for/instead of me while I wash.'
- c *Él me dio dando el cuchillo a la María.*
 3SG.M I_{DAT}:1SG give.CPL.I_{S/A}:1SG give.GER DEF.SG.M knife(M) to DEF.SG.F PRN
 'He gave the knife to María instead of me.'
- (Haboud 1994: 216, 217)

According to Peterson (2007), in Hakha Lai (Tibeto-Burman), the benefactive/malefactive applicative suffix *-piak*, seen in (96a), closely resembles the 'give' verb seen in (96b), "reflecting a grammaticalization path already well established for this verb".

(96) Hakha Lai (Kuki-Chin, Sino-Tibetan)

- a *Tsewman=ni? door-?a? ?a-ka-kal-piak.*
 PRN=ERG market-ALL/LOC I_{S/A}:3SG-1p:1SG-go-APPL
 'Tsewman went to the market for me.'
- b *Tsewman=ni? ?aar-saa ?a-ka-peek.*
 PRN=ERG chicken-meat I_{S/A}:3SG-1p:1SG-give
 'Tsewman gave me chicken meat.'
- (Peterson 2007:131-2)

This grammaticalization path is attested historically in Nubian, since Old Nubian had benefactive applicative periphrases involving the verbs *den-* 'give (to me/us)' and *tř-* 'give (to you/him/them)', whereas modern Nubian languages have benefactive applicative markers

resulting from the grammaticalization of these verbs, for example *-dèen-* and *-tir-* in Kunuz Nubian, cf. example (97).

- (97) Kunuz Nubian (Nubian, Eastern Sudanic)
Id ay-gi baab-ki alle-deen-s-u.
 man 1SG-ACC door-ACC repair-APPL-PST-I_{S/A}:3SG
 ‘The man repaired the door for me.’
 (Abdel-Hafiz 1988:231)

In Mandarin Chinese *gěi* occurs as the independent lexical verb ‘give’ (98a), but can also act as a preposition ‘to, for’ (98b-c) and as an applicative suffix (98d).

- (98) Mandarin Chinese (Sinitic, Sino-Tibetan)
- a *Wǒ gěi-le Mǎlì yī-ge shǒubiǎo.*
 1SG give-CPL PRN one-CLF watch
 ‘I gave Mali a watch.’
- b *Wǒ mài-le yī-ge shǒubiǎo gěi Mǎlì.*
 1SG sell-CPL one-CLF watch to PRN
 ‘I sold Mali a watch.’
- c *Tā gěi wǒ dāng fānyì.*
 3SG for 1SG watch to
 ‘S/he serves as an interpreter for me.’
- d *Wǒ mài-gěi-le Mǎlì yī-ge shǒubiǎo.*
 1SG sell-APPL-CPL PRN one-CLF watch
 ‘I sold Mali a watch.’
 (Paul & Whitman 2010: 264)

Similar facts can be observed in many languages all around the world, which leads to the conclusion that the grammaticalization of ‘give’ verbs in benefactive applicative periphrases is a major source of applicative markers (Creissels 2010).

14.8.4 Other possible sources of applicative markers

It is commonly admitted that adpositions and verbs are possible sources for applicative markers. By contrast, the possibility of nominal sources is generally considered dubious. Discussing the Halkomelem dative applicative suffix *-as* (which has been claimed to come from the reanalysis of a lexical suffix meaning ‘face’) and the Ngan’gityemerri applicative prefix *mi-* (which has been claimed to be a reduced form of *muy* ‘eye’), Peterson (2007: 140-141) argues that the grammaticalization path from nouns to applicative markers always requires some intermediate stage. For example, the noun grammaticalizes first into an adposition or a directional before grammaticalizing further into an applicative marker.

According to Nordlinger (2019), Murrinhpatha (non-Pama-Nyungan, Australia) attests another possible scenario. Her proposal is that, in Murrinhpatha, a source/malefactive applicative marker developed from an incorporated bodypart noun meaning ‘hand’ via reanalysis of a concernee-concern (or ‘external possession’) construction.

Still another scenario is put forward by Rose (2019) for Mojeño Trinitario (Arawak, Bolivia). She argues that, in Mojeño Trinitario, classifiers located on verbs, whose typical function is the categorization of nominal referents, have developed an applicative function. For example, in comparison with (99a), (99b) can be analyzed as an applicative construction, in which, however, the function of applicative marker is fulfilled by a suffix (-*je*) whose primary function is to categorize entities as ‘interior of a bounded entity’.

(99) Mojeño Trinitario (Bolivia-Paraná, Arawakan)

- a *T-junopo te to smeno.*
 I_{S/A}:3-run PREP D.N woods
 ‘S/he runs in/to/from the woods.’
- b *Ñi-jumpo-je-cho to smeno.*
 I_{S/A}:3M-run-CLF/APPL-ACT D.N woods
 ‘He runs inside the woods.’
 (Rose 2019: 450)

The scenario proposed by Rose (2019) is that, in a first stage, the categorizing function of classifiers located on verbs was extended from NPs in P role to prepositional obliques. In a second stage, the preposition introducing obliques categorized by a classifier attached to the verb was deleted, which resulted in an applicative construction with a classifier acting as an applicative marker.

14.8.5 The possible origins of the causative-applicative polysemy

As already mentioned, the causative-applicative polysemy is widespread cross-linguistically and has been widely discussed in the literature.

As observed by Peterson (2007: 135), parallel grammaticalization of causative periphrases and applicative periphrases involving the same verb ‘give’ in the role of valency operator is a first possible explanation of the applicative-causative polysemy. The use of verbs ‘give’ in the role of valency operator in applicative periphrases is particularly common, but verbs ‘give’ can also be found in causative periphrases (‘give s.o. s.th. to do’ > ‘make s.o. do s.th.’).

As mentioned by Bruce (1979: 254), the parallel grammaticalization of the verb ‘give’ is the plausible explanation of the homonymy observed in Alamlak (Sepik) between the verb *hay* ‘give’, the prefixed causative marker *hay-*, and the suffixed applicative marker *-hay*, as in *noh* ‘die’ > *hay-noh-hay* kill s.o. affecting s.o. else’ (Bruce 1979: 358). The fact that *hay* as a causative marker is prefixed, whereas *hay* as an applicative marker is suffixed, probably has to do with the fact that they grammaticalized in different source constructions.

Quite a few authors have suggested that the causative-applicative polysemy might have its origin in the fact that some events may be ambiguous between the kind of conceptualization reflected in causative constructions, and that reflected in applicative constructions. This concerns in the first place the treatment of participants with the semantic role of instrument or companion, which may be coded as causees in causative constructions or applied phrases in applicative constructions.

There is an inherent ambiguity in the semantic role of instrument, in that an instrument can be conceived as the immediate cause of the action, and the agent that manipulates it, as a more distant instigator/controller. This explains a possible conceptualization of instruments

reflected in constructions in which an instrument and the agent that manipulates it are coded in the same way as a causee and a causer in a typical causative construction.

As already mentioned above, in Rwanda and some other Bantu languages, a construction analyzable as reflecting the conceptualization ‘Agent makes Instrument act on Patient’ is the standard way to encode instruments. Example (69), reproduced here as (100), illustrates this kind of use of a voice marker which is also found in unambiguous causative configurations with human causees, but not in unambiguous applicative configurations in which the referent of the applied phrase is not involved in the causality chain.

(100) Rwanda (Bantu, Benue-Congo, Niger-Congo)

- a *Umw-arimu y-a-ndits-e in-kuru.*
 SG-teacher(c11) I_{S/A}:c11-PST-write-CPL SG-story(c19)
 ‘The teacher wrote the story.’
- b *Umw-arimu y-a-ndik-ish-ije in-kuru i-karamu.*
 SG-teacher(c11) I_{S/A}:c11-PST-write-CAUS-CPL SG-story(c19) SG-pen(c15)
 ‘The teacher wrote the story with a pen.’
- c *Umw-arimu y-a-ndik-ish-ije umw-ana in-kuru.*
 SG-teacher(c11) I_{S/A}:c11-PST-write-CAUS-CPL SG-child(c11) SG-story(c19)
 ‘The teacher made the child write the story.’
 (Jerro 2017: 756)

As Jerro (2017: 751) puts it, the explanation is that “both causation and the introduction of an instrument are analyzable as two outgrowths of the same semantic notion of introducing a new link into the causal chain described by the verb. The different causative and instrumental readings derive from underspecification of the position of the new link in the causal chain, although its placement is restricted via general constraints on possible event types as well as constraints on verb meaning and argument realization.”

Sociative causation can also be viewed as blurring the limit between causative and applicative, as in example (101), where the voice marker is otherwise a typical causative marker which is never found in unambiguous applicative constructions.

(101) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Bà-sádí 'bá-líd-ís-à mò-tl'òláχâ:dì.*
 PL-woman(c12) I_{S/A}:c12-cry-CAUS-FV SG-widow(c11)
 ‘The women are crying with the widow.’
- b *Kì-tlàà-bú-ís-á tàútóná kámò:só.*
 I_{S/A}:1SG-FUT-speak-CAUS-FV president(c11) tomorrow
 ‘I’ll talk with the president tomorrow.’

Guillaume & Rose (2010) conclude their analysis of sociative causative markers by discussing the question of whether the causative-applicative polysemy is best explained by a grammaticalization path *plain causation* > *sociative causation* > *applicativization* (as suggested by Shibatani & Pardeshi 2002) or *applicativization* > *sociative applicativization* > *causation*. However, the fact that events of a particular type are equally compatible with the type of conceptualization reflected in causative constructions or with that reflected in applicative constructions does not necessarily imply that the systematic coding of such

situations by means of a causative construction might constitute the starting point for the extension of the same construction to the coding of events that unambiguously call for the type of conceptualization reflected in applicative constructions, or vice-versa.

Portative constructions, discussed in chapter 8 §8.3.7, may also play a role in the development of the causative-applicative polysemy, since they share commonalities with both causative and applicative constructions, without, however, being analyzable straightforwardly as a mere variety of either causativization or applicativization. Crucially, as already mentioned in chapter 8 §8.3.7, portative constructions rarely involve dedicated verbal marking, and the use of causative or applicative morphology to mark portative derivation are equally common. In example (102), the same verbal suffix marks causativization in (a) and portative derivation in (b), whereas in example (103), the same verbal suffix marks applicativization in (a) and portative derivation in (b).

(102) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Ǫ-tlàà-lid-ìs-à* *ŋw-à.ná.*
 I_{S/A}:2SG-FUT-cry-CAUS-FV SG-child(c11)
 ‘You’ll make the child cry.’
- b *Kì-tlàà-tl-ìs-à* *Ø-m:pʰs.*
 I_{S/A}:1SG-FUT-come-PORT-FV SG-gift(c19)
 ‘I’ll bring a gift.’

(103) Datooga (Western Nilotic, Nilotic, East Sudanic)

- a *Góo-ŋòol-á* *màttíngòodà.*
 I_{S/A}:3SG-stir.PLAC-APPL cooking.stick
 ‘S/he always stirs with a cooking stick.’
- b *Qá-fwáj-á* *ŋùtta.*
 I_{S/A}:3SG-run.away-PORT spear
 ‘S/he runs away with a spear.’
 (Payne 2024 : 811)

Still another possible explanation of the causative-applicative polysemy that would be worth being explored is parallel grammaticalization of locational nouns. On the one hand, applicative markers may be cognate with adpositions, and locational nouns are a common source of adpositions. On the other hand, as discussed in chapter 12 §12.8.3, there is strong evidence that the causative prefix found in some West Mande languages results from the grammaticalization of a locational noun that has also grammaticalized as a postposition. It should come as no surprise, then, that a locational noun might be the source of a polysemous causative-applicative marker.

14.9 Lexicalized applicatives

Lexicalized applicatives (or pseudo-applicatives) are verbs that look like derived applicative verbs, whose meaning suggests the possibility of an etymological relationship with the verb they seem to derive from, but whose relationship with the base verb cannot be analyzed synchronically as an instance of applicativization.

For example, in Tswana, *lálélá* ‘have dinner’ is probably cognate with *lálá* ‘lie down, go to bed, spend the night’. Having dinner is precisely what one normally does before going to bed, and consequently, there is no difficulty in analyzing a semantic shift from ‘lie down’ to ‘have dinner’ as a case of metonymy. Morphologically, as widely illustrated in the previous sections, *-el* is an applicative marker. However, the details of the evolution that led to the present situation are unclear. The only sure thing is that, in present-day Tswana, *lálélá* and *lálá* are equally intransitive, and *ká díq^hòbbè* in (104b) shows no evidence of being anything else than an ordinary adjunct.

(104) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Rì-tlàà-lál-à mó náχè:-ḡ.*

I_{S/A}:1PL-FUT-lie.down-FV LOC bush(cl9)-LOC

‘We will lie down / spend the night in the bush.’

b *Rì-tlàà-lálél-à ká dí-q^hò:bè.*

I_{S/A}:1PL-FUT-have.dinner-FV with SG-maize.and.beans₁₀

‘We will have maize-and-beans for dinner.’

lit. ‘We will have dinner with maize-and-beans.’

Similarly, Tswana *ilèlà* ‘revere’ is certainly a reflex of the same Proto-Bantu root **gid* ‘abstain from, avoid’ as *ilà* ‘hate’, since it is easy to imagine how ‘revere’ and ‘hate’ may have developed as two diverging specializations of the meaning ‘abstain from, avoid’ reconstructed for this root. What is much less clear is the role that the applicative marker *-el* might have played in this process, since synchronically, both *ilèlà* ‘revere’ and *ilà* ‘hate’ are plain transitive verbs.

(105) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Kí ìḡ ’ó-mó-î:l-à?*

it.is what I_{S/A}:2SG-IP:clA-hate-FV

‘Why do you hate him/her?’

b *Bá-ilél-à mò-dí:mò.*

I_{S/A}:cl2-revere-FV SG-god(cl3)

‘They revere God.’

An in-depth analysis of the lexicalized applicatives of Tswana can be found in (Pacchiarotti 2020), to which readers are referred for more details.

The lexicalization of applicative verbs is a cross-linguistically common phenomenon. To quote just two additional examples, in Jóola Fóoñi, the applicative form of *kaan* ‘make, do’ can be used with the lexicalized meaning ‘pay attention to, be careful with, remark, observe’, and in the Australian language Diyari (Austin 2024), the applicative form of ‘sit’, whose etymological meaning can be glossed as ‘sit with’, has lexicalized as a transitive verb of possession (‘have’).

Chapter 15

Flexivalency alternations

There is an obvious imbalance between the seven chapters of this book dealing with voice alternations and the single chapter devoted to flexivalency alternations. The reason is simply that it is much more difficult to gather cross-linguistic data on flexivalency alternations than on voice alternations, due to the fact that even very succinct sketch grammars provide some information on voice morphology, whereas even relatively detailed grammatical descriptions rarely provide detailed accounts of flexivalency alternations. Books providing an encyclopedic description of flexivalency alternations are available for English (Levin 1993) and German (Cysouw 2023), but many similar studies on a variety of languages would be necessary before trying to expand significantly the succinct typological account of flexivalency alternations put forward here.

15.1 Introductory remarks on flexivalency alternations

15.1.1 Flexivalency alternations and unexpressed nuclear participants

Before discussing flexivalency alternations, some precisions are in order about the question of unexpressed nuclear participants (i.e., participants that can be encoded as core nominal terms of clauses).

A first observation is that the notion of ‘pro-drop language’ as used by generativists creates some confusion concerning the question of unexpressed nuclear participants, since it conflates languages (such as Mandarin Chinese) in which the referent of noun phrases in A/S role may remain completely unexpressed, and languages (such as Italian) in which noun phrases in A/S role are not syntactically obligatory, but the participant that can be expressed as an A/S phrase is nevertheless obligatorily expressed in the form of an index. The point is that, in the absence of a conominal, indexes are functionally equivalent to pronouns, which makes problematic the notion of pronoun dropping.

Languages greatly differ in the way they regulate the possibility of leaving nuclear participants completely unexpressed, either with an anaphoric or unspecified reading, without changing anything else in the construction.¹⁵⁷ Moreover, in this respect, the definitions found in most elementary handbooks, according to which an essential property of ‘arguments’ is their ‘obligatoriness’, are quite misleading. What is really characteristic of typical nuclear participants as opposed to non-nuclear participants is rather that they are semantically present even if they are not expressed, so that the absence of a core term may be interpreted as an instruction to identify the corresponding participant to some contextually salient referent.

It is true that, in some languages, there is a total ban on unexpressed nuclear participants. This is in particular the case in Mandinka (Creissels 2015b) and most other Mande languages.

¹⁵⁷ In a finer-grained approach, it would be useful to distinguish indefinite anaphoric readings (in which the context only provides a categorization of the understood referent) from definite ones. In English, *one* is used for indefinite anaphora, as in *Would you like a drink? –I already had one.*

However, in the languages of the world, this situation is rather exceptional, and some languages (for example, Japanese) are extremely liberal about the possibility of leaving nuclear participants unexpressed, either with an anaphoric or unspecified reading.

The cross-linguistic variation in the regulation of unexpressed nuclear participants can be illustrated by the contrast between Turkish and European languages such as English or French as regards the interpretation of missing P phrases in the construction of transitive verbs. In European languages, the mere omission of the P term of a transitive clause is a common strategy for leaving the corresponding participant unspecified, whereas in Turkish, as illustrated in (1), null Ps are regularly found with an anaphoric rather than arbitrary reading, in contexts in which, in English or French, a pronoun would be obligatorily used.

(1) Turkish (Turkic, Altaic)

- a *–Bu ev-i bir gün mutlaka el-de ed-eceğ-im.*
 DEM house-ACC one day certainly hand-LOC do-FUT-I_A:1SG
 ‘–I will certainly get this house one day.’
–Ne-den bu kadar çok ist-iyor-sun?
 what-ABL DEM like much want-PRS-I_A:2SG
 ‘–Why do you want (it) so much?’
- b *Ayşe’yi gör-dü-m ve çok sev-di-m.*
 PRN-ACC see-CPL-I_A:1SG and much like-CPL-I_A:1SG
 ‘I saw Ayşe and liked (her) very much.’
 (Göksel & Kerslake 2005:140-1, 537-8)

By contrast, Turkish makes a wide use of the cognate-P strategy to encode unspecific Ps, as for example *örgü örmek* lit. ‘knit the knitting’ > ‘knit (an unspecified thing)’, *dikiş dikmek* lit. ‘sew the sewing’ > ‘sew (an unspecified thing)’, etc.

Similarly, in Mandarin Chinese, a null P in the construction of *chī* ‘eat’ can only be interpreted as anaphoric, whereas *chī fàn* lit. ‘eat rice’ is the usual way of referring to an eating event without specifying the thing being eaten.

As illustrated by example (2), in Basque, with some transitive verbs at least, an anaphoric reading and an unspecified reading of a missing P phrase are equally possible. In Basque, the use of third person indexes with no corresponding noun phrase constitutes the usual strategy to encode that a nuclear participant must be identified anaphorically, but in the case of participants encoded as NPs in the zero case (including P phrases), the third person singular index may be ambiguous between an anaphoric and an unspecified reading.

(2) Central Basque (Euskaran)

- a *Bilbon ikasi dut.*
 PRN.LOC learn.CPL have.PRS.I_{ERG}:1SG.I_{ZER}:3SG
 ‘I learnt it in Bilbao.’ OR ‘I studied in Bilbao.’
- b *Jonek erretzen du.*
 PRN.ERG burn.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:3SG
 ‘Jon burns/smokes it.’ OR ‘Jon smokes (= is a smoker).’

In a general account of valency alternations, it is important to distinguish between unexpressed nuclear participants interpreted anaphorically, and unexpressed nuclear

participants interpreted as unspecified. The position explicitly adopted in this book is that anaphoric zeros are part of the pronominalization system, and consequently must be excluded from the notion of valency alternation, whereas the possibility of expressing unspecified nuclear participants by simply omitting the corresponding NP, as in English *The child ate (the cake)*, is a particular type of valency alternation. Semantically, this decision is consistent with the fact that, contrary to arbitrary zeros, anaphoric zeros in clauses projected by transitive verbs do not involve a decrease in semantic transitivity, quite on the contrary, since they imply the possibility of identifying a well-individuated participant as the referent of the missing phrase. It is also consistent with the fact that a possible function of passive constructions is to avoid specifying the referent of the A term of transitive constructions, and a possible function of antipassive constructions is to avoid specifying the referent of the P term of transitive constructions.

15.1.2 Flexivalency, lability and ambitransitivity: a terminological clarification

As already commented in chapter 1 §1.1.3, in this book, the term FLEXIVALENCY (proposed by Martin Haspelmath) is used as a general term referring to the ability of verbs to lend themselves to uncoded valency alternations of any kind. AMBITRANSITIVITY is used with reference to uncoded valency alternations involving a change in transitivity, as in *The child broke the glass (transitive) / The glass broke (intransitive)*. The term ‘lability’ is not used in this book, because its extension varies from one author to another in a way that makes it potentially confusing. The etymology of ‘lability’ suggests a definition encompassing all possible types of flexivalency, and some authors have used it with this broad meaning. In particular, Polinskaja (1986: 44) defined lability as the “ability to be used in several constructions of the sentence without special marking of diathesis change in the verb”. However, most authors use it with the meaning unambiguously expressed by ‘ambitransitivity’, or even restrict it to the particular type of ambitransitivity that will be referred to in this book as P-ambitransitivity.

Dixon (1994) introduced a distinction between what he proposed to call ‘P-lability’ (or ‘patient-preserving lability’), cf. example (3), and ‘A-lability’ (or ‘agent-preserving lability’), cf. example (4), which unquestionably constitute two important types of flexivalency. They will be discussed in detail in §§15.3-4. Since they involve a change in transitivity, in conformity with the terminology used in this book, I will designate them rather as A-AMBITRANSITIVITY and P-AMBITRANSITIVITY.

(3) English (Germanic, Indo-European)

- a *I broke the stick.*
- b *The stick broke.*

(4) English (Germanic, Indo-European)

- a *John is drinking tea.*
- b *John is drinking.*

§§15.5-6 are devoted to unproblematic types of flexivalency alternations involving no change in transitivity, whereas §§15.7-10 discuss some particular types of flexivalency alternations whose analysis is less obvious.

15.1.3 Flexivalency and polysemy

In the case of polysemous verbs, it is important (although not always easy) to distinguish flexivalency proper from the use of different coding frames for each of the meanings of the polysemous verb. With polysemous verbs, it only makes sense to evaluate the property of being flexivalent or not separately for each possible meaning.

For example, whatever may be the historical motivation of this situation and the details of the semantic shifts from which it results, the fact that the French verb *prendre* ‘take’ is used intransitively in (5) does not justify considering it as flexivalent. Rather, *prendre* ‘take’ is transitive in some of its possible meanings (in particular, in the meaning commonly analyzed by lexicographers as its primary meaning), but intransitive in some others.

(5) French (Italic, Indo-European)

Le feu a pris.
 D.SG.M fire(M) have.PRS.I_{S/A}:3SG take.PTCP
 ‘The fire started.’

15.2 A typology of ambitransitivity

15.2.1 Introductory remarks

The typology of ambitransitivity I propose in this book differs in some respects from that proposed by Letuchiy in a paper that constitutes an important milestone in the typological study of ambitransitivity (Letuchiy 2009). It is based on three parameters that are at least partially independent from each other:

- a first (semantic) distinction between A-ambitransitivity, P-ambitransitivity, reflexive ambitransitivity, and reciprocal ambitransitivity,
- a second (semantic) distinction between participant structure preserving and participant structure modifying ambitransitivity,
- a third (formal) distinction between strong ambitransitivity and weak ambitransitivity.

15.2.2 A-ambitransitivity, P-ambitransitivity, reflexive ambitransitivity, reciprocal ambitransitivity, and underspecified ambitransitivity

The distinctions discussed in this section concern the relationship between the semantic role of the participant encoded as S in the intransitive use of an ambitransitive verb and the semantic roles expressed by A and P in the transitive use of the same verb: the semantic role expressed by S in the intransitive use of the ambitransitive verb may coincide with that of A (A-AMBITRANSITIVITY), cf. example (4) above, or with that of P (P-AMBITRANSITIVITY), cf. example (3) above, but it may combine both roles, with two possibilities: either the ambitransitive verb in its intransitive use represents an event conceived as reflexive, as in (6) (REFLEXIVE AMBITRANSITIVITY), or an event conceived as reciprocal, as in (7) (RECIPROCAL AMBITRANSITIVITY).

(6) English (Germanic, Indo-European)

- a *The mother washed the child.*
- b *The child washed.*

(7) English (Germanic, Indo-European)

- a *John kissed Mary.*
- b *John and Mary kissed.*

Example (8) illustrates reflexive ambitransitivity in an obligatory P-coding language.

(8) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Ak̄'o-de mik'e čab-e godi.*
 woman(F)-ERG child(N) wash-CVB.N I_{S/P}:N.COP
 'The woman washed the child.'
- b *Mik'e čab-e godi.*
 child(N) wash-CVB.N I_{S/P}:N.COP
 'The child washed.'

There may also be ambitransitive verbs, such as the Soninke verb *m̄n* 'drink' illustrated in (9), the Samoan verb '*ai* 'eat' in (10), or the Minyanka verb *gà* 'drink' in (11), which can be used in three different ways without any specific morphological marking: transitively (a), intransitively with the S term corresponding to the A term of the transitive construction (b), or intransitively with the S term corresponding to the P term of the transitive construction (c). I propose the term **UNDERSPECIFIED AMBITRANSITIVITY** to characterize such situations.

(9) Soninke (Soninke-Bozo, Mande)¹⁵⁸

- a *Léminèn ḡá qátìn m̄nní bà?*
 child.D ICPL milk.D drink.GER Q
 'Is the child drinking the milk?'
- b *Léminèn ḡá m̄nní bà?*
 child.D ICPL drink.GER Q
 'Is the child drinking?'
- c *Jí ké wá m̄nní bà?*
 water DEM ICPL drink.GER Q
 'Is this water safe to drink?' lit. 'Does this water drink?'

(10) Samoan (Oceanic, Austronesian)

- a *Sā 'ai e le teine le i'a.*
 PST eat ERG D girl D fish
 'The girl ate the fish.'
- b *Sā 'ai le i'a.*
 PST eat D fish
 'The fish ate.' OR 'The fish was eaten.'

¹⁵⁸ In this example, *ḡá* and *wá* are phonologically conditioned allomorphs of the same incompletive marker.

(Mosel & Hovdhaugen 1992: 718, 108)

(11) Minyanka (Senufo, Gur, Niger-Congo)

a *Nù yà yòfòyì gà.*
 cow.D(cIW) CPL water.D(cIK) drink
 ‘The cow drank water.’

b *Nù yà gà (yòfòyì ní).*
 cow.D(cIW) CPL drink water.D(cIK) in
 ‘The cow drank (water).’

c *Yòfòyì yà gà (nù mà).*
 water.D(cIK) CPL drink cow.D(cIW) by
 ‘The water was drunk (by the cow).’
 (Coulibaly 2020: 269)

Judging from the examples I came across, unspecified ambitransitivity seems to be typically found with ingestive verbs.

15.2.3 Participant structure preserving vs. participant structure modifying ambitransitivity

The semantic distinction between participant structure preserving and participant structure modifying ambitransitivity is defined as follows:

- in PARTICIPANT STRUCTURE PRESERVING AMBITRANSITIVITY, the verb in its intransitive use implies exactly the same participant roles as in its transitive use, but in the intransitive use, either one of the participant roles can only be expressed by an oblique phrase, or is necessarily left unexpressed, or both roles are cumulated by the S term of the intransitive construction;
- in PARTICIPANT STRUCTURE MODIFYING AMBITRANSITIVITY, the ambitransitive verb in its intransitive use implies only one of the two participant roles it implies in its transitive use.

In other words, participant structure preserving ambitransitivity is semantically similar to voice alternations such as passivization and antipassivization, which do not modify the participant structure of the verb, whereas participant structure modifying ambitransitivity is semantically similar to voice alternations that modify the participant structure of the verb, such as decausativization and causativization.

By definition, reflexive ambitransitivity and reciprocal ambitransitivity, illustrated in examples (6) and (7) above, can only be participant structure preserving, since the intransitive use of the verbs showing this type of ambitransitivity implies the same semantic roles as the transitive use of the same verbs. By contrast, the distinction between A-ambitransitivity and P-ambitransitivity is orthogonal to the distinction between participant structure preserving and participant structure modifying ambitransitivity. English has participant structure modifying P-ambitransitivity, as in *The child broke the vase / The vase broke*, and participant structure preserving A-ambitransitivity, as in *The child ate (the cake)*, but as will be developed in §§15.3-4, participant structure preserving P-ambitransitivity and participant structure modifying A-ambitransitivity are also attested cross-linguistically.

15.2.4 Weak ambitransitivity vs. strong ambitransitivity

The formal distinction between weak and strong ambitransitivity is defined as follows:

- in WEAK AMBITRANSITIVITY, the sole nuclear participant of the intransitive construction is encoded exactly like the participant with a similar or identical role in the transitive construction, and superficially, the two constructions show no other formal distinction than the presence vs. absence of a noun phrase (as in English *John is drinking tea / John is drinking*);
- in STRONG AMBITRANSITIVITY, the two constructions differ formally in other respects than the mere presence vs. absence of a nominal term, either because the intransitive construction involves a change in the coding of the participant encoded as A or P in the transitive construction (for example, in English, *the vase* does not occupy the same position in *The vase broke* and *The child broke the vase*), or for other reasons.

For example, (12) is an instance of strong ambitransitivity, in spite of the fact that *mòólú* ‘the people’ shows the same coding properties in (12a) and (12b). What happens here is that the use of two distinct markers for exactly the same TAM-polarity value ‘completive positive’ marks the distinction between the transitive use of *těe* ‘cross’ in (12a) and the intransitive use of the same verb in (12b).

- (12) Mandinka (Central Mande, Mande)
- a *Mòólú yè baa tée.*
 people.D.PL CPL.TR river.D cross
 ‘The people crossed the river.’
- b *Mòólú tée-tà.*
 people.D.PL cross.CPL.ITR
 ‘The people crossed.’

Weak ambitransitivity must be carefully distinguished from the possibility of an anaphoric interpretation of unexpressed arguments, especially as there is important cross-linguistic variation in the possibility of leaving nuclear participants unexpressed and in the interpretation of unexpressed nuclear participants.

Note that the examples given above show the independence of the two parameters ‘participant structure preserving vs. modifying ambitransitivity’ and ‘weak vs. strong ambitransitivity’: the English example *John drinks (tea)* and the Mandinka example *Mòólú tée-tà / Mòólú yè baa tée* are two instances of participant structure preserving ambitransitivity, but *John drinks (tea)* is a case of weak ambitransitivity, whereas *Mòólú tée-tà / Mòólú yè baa tée* illustrates strong ambitransitivity.

In fact, the distinction between weak ambitransitivity and strong ambitransitivity is conditioned by the alignment system of the language and the existence of transitivity marking:

- In the languages in which the distinction between transitive and intransitive clauses is overtly marked (for example, by the choice between two distinct sets of TAM markers

in transitive and intransitive clauses, as in Mandinka), weak ambitransitivity simply cannot exist.

- In the absence of overt transitivity marking, obligatory A-coding ('accusative') languages (like English) may have weak A-ambitransitivity, but not weak P-ambitransitivity (since in such languages, the conversion of P into S modifies its coding characteristics).
- In the absence of overt transitivity marking, obligatory P-coding ('ergative') languages may have weak P-ambitransitivity, but not weak A-ambitransitivity (since in such languages, the conversion of A into S modifies its coding characteristics).

Examples (13) and (14) show that, in obligatory P-coding languages such as East Uvean and Niuean, the intransitive use of A-ambitransitive verbs triggers a change in the flagging of A converted into the S term of an intransitive clause, which excludes the possibility of weak A-ambitransitivity. Note that the participant expressed as the P term of the transitive construction is not expressed in the intransitive construction (13b), whereas in (14b), it is expressed as an oblique.

(13) East Uvean (Oceanic, Austronesian)

a 'E huo e Soane tana gāue'aga 'ufi.
 NPST weed ERG PRN his field yam
 'Soane is weeding his yam field.'

b 'E huo ia Soane
 NPST weed S/P PRN
 'Soane is weeding.'
 (Claire Moyse, pers.com.)

(14) Niuean (Oceanic, Austronesian)

a Fakalilifu e ia a tau momotua.
 respect ERG 3SG S/P PL old.PL
 'S/he respects the old people.'

b Fakalilifu a ia ke tau momotua.
 respect S/P 3SG to PL old.PL
 same meaning: 'S/he respects the old people.'
 (Seiter 1980: 336)

Example (15) illustrates weak P-ambitransitivity in an obligatory P-coding language. In Akhvakh, core arguments are not obligatorily expressed, and a transitive clause looks like an intransitive clause to which an ergative-marked noun phrase representing the agent would simply have been added without any other modification. In such a language, as illustrated in (15), the mere omission of the noun phrase in A role in a transitive clause may constitute the functional equivalent of English agentless passives.

(15) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

a Wašo-de ri[̄]i b-uq'-ari.
 boy(M)-ERG meat(N) I_{S/P}:N-cut-CPL
 'The boy cut the meat.'

- b *Riḷ'i* *b-uq̄'-ari*.
 meat(N) I_{SP}:N-cut-CPL
 'The meat was cut.'

A problem with weak ambitransitivity is that, in the obligatory A-coding languages that have weak A-ambitransitivity (such as English or French), and in the obligatory P-coding languages that have weak P-ambitransitivity (such as Akhvakh), it may be difficult to classify verbs as rigidly transitive or ambitransitive. For example, the ambitransitivity of verbs such as English *eat* and French *manger* is obvious, but in the same languages, it is not uncommon that verbs for which elicitation data could suggest a classification as rigidly transitive occasionally occur in spontaneous speech with null Ps interpreted as expressing the lack of specification of the referent of the P term of the transitive construction. This suggests that discourse factors may condition the possibility of leaving non-specific nuclear participants unexpressed, which is hardly compatible with the hypothesis of a strict separation between rigidly transitive verbs and ambitransitive verbs.

15.3 Semantic types of P-ambitransitivity

P-ambitransitive verbs are verbs that can be used in their underived form either transitively, or intransitively with an S term whose referent undergoes the same process as the referent of the P term of the transitive construction. Two main semantic varieties of P-ambitransitivity can be distinguished:

- in NONCAUSAL-CAUSAL AMBITRANSITIVITY, the S term of the intransitive construction represents a participant undergoing a process that does not necessarily result from the action of an agent, whereas in the transitive construction, the same process affects the referent of P as the result of the action of an agent encoded as A;
- in PASSIVE AMBITRANSITIVITY, the participant encoded as the A term of the transitive construction is semantically implied, although not expressed, in the intransitive construction.

However, some languages attest cases of P-ambitransitivity that cannot be classified as either noncausal-causal ambitransitivity or passive ambitransitivity. Two such cases are evoked in §15.3.4.

15.3.1 Noncausal-causal ambitransitivity

Noncausal-causal ambitransitivity, also known as 'causative alternation' (Levin 1993: 26-31), extremely common in English (cf. *break, melt, stop, improve*, etc.) is quite widespread cross-linguistically, and its existence has long been widely acknowledged in typological investigations of valency changes. For example, Wolof *toj* 'break' behaves in this respect exactly like its English equivalent.

- (16) Wolof (Wolof, Atlantic, Niger-Congo)
- a *Xale bi toj na weer bi.*
 child(cIB) cIB.D break PRF.IS/A:3SG glass(cIB) cIB.D
 ‘The child broke the glass.’
- b *Weer bi toj na.*
 glass(cIB) cIB.D break PRF.IS/A:3SG
 ‘The glass broke.’

The question of noncausal-causal ambitransitivity will be resumed in chapter 16 §16.2, within the frame of a general analysis of all possible formal types of noncausal-causal alternations.

15.3.2 Passive ambitransitivity

Until not long ago, the very possibility of passive ambitransitivity was either ignored or even explicitly denied by typologists working on valency alternations (Haspelmath 1990). Winford (1993: 117-154) on Caribbean English Creoles and LaCharité & Wellington (1999) on Jamaican Creole were among the first published works that have explicitly argued the case for the recognition of zero-coded passives (aka bare-passives).

- (17) Caribbean English Creoles (P/C)
- a *Jan kot di trii.*
 PRN cut the tree
 ‘John has cut the tree.’
- b *Di trii kot.*
 the tree cut
 ‘The tree has been cut.’
 (Winford 1993: 117)

However, the recognition of passive ambitransitivity was implicit in many previously published descriptions of languages belonging to various families. Other important references on zero-coded passives include (Arka & Kosmas 2005) on Manggarai (Austronesian), (Reineke & Miehe 2005) on Gur languages, (Lüpke 2005) on Jalonke (Mande), and for a review (Cobbinah and Lüpke 2009). Example (18) illustrates passive ambitransitivity in a Gur language.

- (18) Byali (Oti-Volta, Gur, Niger-Congo)
- a *Bīrā pwóns(ā) yīā.*
 child pound.CPL millet
 ‘The child has pounded the millet.’
- b *Yīā pwóns(ā).*
 millet pound.CPL
 ‘The millet has been pounded.’
 (Reineke & Miehe 2005: 344)

According to Luraghi & al. (2021), passive ambitransitivity was also attested in Classical Armenian.

The Mande language family shows a particular concentration of languages with more or less productive zero-coded passives, or passive ambitransitivity, cf. (Lüpke 2007), (Cobbinah & Lüpke 2009). As discussed in (Creissels 2015b) for Mandinka, Manding languages illustrate the extreme case of languages which do not have strictly transitive verbs, and have a very restricted class of A-ambitransitive verbs, but in which all the verbs that have a transitive use can also be used intransitively in their underived form with a passive reading.¹⁵⁹

In language description, the analysis of ambitransitivity is conditioned not only by the alignment properties of the languages, but also by the existence of a more or less clear-cut distinction between transitive and intransitive clauses, cf. (Creissels 2014a). In Mandinka and other Mande languages, the analysis of ambitransitivity is facilitated by the rigidity of the APVX / SVX constituent order and the total ban on null core arguments: in most Mande languages, a single NP in preverbal position in assertive or interrogative clauses can only be the S term of an intransitive construction. Moreover, some TAM-polarity markers may have variants conditioned by the transitive vs. intransitive nature of the clause.

For example, in (19b), the absence of any specific passive marking might suggest positing a null A with an arbitrary reading. However, if *kúlúnò* were the P term of a transitive construction with a null A, the TAM-polarity marker would be *yè* preceding *kúlúnò* rather than *-tá* suffixed to the verb, as in the ungrammatical sequence (19c).

(19) Mandinka (Central Mande, Mande)

- a *Kèê yè kúlúnò dádâa.*
 man.D CPL.TR boat.D repair
 ‘The man repaired the boat.’
- b *Kúlúnò dádâa-tá.*
 boat.D repair-CPL.ITR
 ‘The boat was repaired.’
- c * \emptyset *yè kúlúnò dádâa.*
 CPL.TR boat.D repair

Consequently, (19b) is not a transitive construction with a null A, but an intransitive construction expressing the same participant structure, in which the S term (*kúlúnò*) has the same semantic role as the P term of the transitive construction (19a), whereas the participant expressed as A in the transitive construction is understood as non-specified. In other words, this is a zero-coded passive.

A decisive proof of the passive nature of the intransitive constructions involved in this transitive-passive alternation is their ability to include agent-oriented adverbs, such as *fèerètòò-* ‘cleverly’ in example (20b), since agent-oriented adverbs are impossible in decausative constructions with inanimates in S role, or in resultative constructions.

(20) Mandinka (Central Mande, Mande)

- a *Kàmbàanôo yè násóo fèerètòò-bónj kòlónò kónò.*
 boy.D CPL.TR magic.water.D cleverly-pour well.D inside
 ‘The boy cleverly poured the magic water into the well.’

¹⁵⁹ Manding languages (among which Bambara is particularly prominent in terms of sociological and political status) constitute a dialect cluster included in the Central branch of West Mande.

- b *Násóo fèerètò-bôn-tá kòlónò kónò.*
 magic.water.D cleverly-pour-CPL.ITR well.D inside
 ‘The magic water was cleverly poured into the well.’

In spite of the absence of any specific passive morphology, the construction illustrated by sentences (19b) & (20b) is passive in the sense that the term corresponding to the P of the transitive construction is the S term of an intransitive construction in which the referent of A is syntactically DENUCLEATIVIZED without however being semantically DELETED from participant structure.

In Mandinka, the passive reading of such intransitive clauses is not bound to any particular condition on aspect, mood, or referentiality. Mandinka speakers use them in the same conditions, with the same freedom, and with the same semantic implications, as agentless passive clauses in languages that have a canonical and fully productive passive voice.

However, there is an interesting difference between Mandinka and most other Manding languages in the syntactic properties of the zero-coded passive construction. In Bambara and most other Manding languages, intransitive clauses constituting the passive counterpart of a transitive clause may include an oblique interpretable as expressing the same participant as the A of the transitive construction, as in example (21), which makes more obvious the passive nature of the construction.

- (21) Bambara (Central Mande, Mande)
 a *Wùlú má sògò dún.*
 dog.D CPL.NEG meat.D eat
 ‘The dog did not eat the meat.’
 b *Sògò má dún (wùlú fê).*
 meat.D CPL.NEG eat dog.D beside
 ‘The meat was not eaten (by the dog).’

This possibility does not exist in Mandinka. Interestingly, the passive clauses of Mandinka may include obliques flagged by the same postpositions (i.e. postpositions which basically refer to the personal sphere of an individual), but in the passive clauses of Mandinka, such obliques can only be interpreted as referring to a person who has some link with the event but does not play an active role in it, or to an involuntary agent, as in example (22).

- (22) Mandinka (Central Mande, Mande)
Kódòo dómò-tá ñ fèe.
 money.D spend-CPL.TR 1SG beside
 ‘The money was spent without my knowing.’
 OR ‘I spent the money, but I did not do it on purpose.’

Interestingly, Minyanka (Gur) has zero-coded passive constructions in which an oblique phrase can be interpreted as referring to a participant corresponding to the A of the transitive construction, or to a beneficiary.

(23) Minyanka (Senufo, Gur, Niger-Congo)

- a *Pí wá nù gò.*
 they(cIP) CPL cow(cIW) kill
 ‘They killed a cow.’
- b *Nù wà gò pí 'má.*
 cow(cIW) CPL kill they(cIP) for
 ‘A cow was killed by them OR for them.’
 (Coulibaly 2020: 270)

Such observations suggest that the oblique agent phrases sometimes found in zero-coded passive constructions may result from the reanalysis of causal adjuncts in a construction that was originally an agentless passive construction.

Interestingly, noncausal-causal ambitransitivity, which is cross-linguistically a much more widespread type of P-ambitransitivity, is also found in the languages that have passive ambitransitivity, for example, Manding languages. However, in Manding languages, contrary to passive ambitransitivity, which is a property shared by all potentially transitive verbs irrespective of their lexical meaning, noncausal-causal ambitransitivity is a lexical property of individual verbs conditioned by the possibility of conceiving the event they denote as occurring more or less spontaneously. As illustrated by example (24), with the verbs that have this property, the intransitive construction is potentially ambiguous between a decausative-like and a passive-like reading: sentence (24b) can be equally found in contexts unambiguously triggering a decausative interpretation, and in others suggesting a passive interpretation.

(24) Mandinka (Central Mande, Mande)

- a *Kèé yè sàajiyóo fāa.*
 man.D CPL.TR sheep.D kill/die
 ‘The man killed the sheep.’
- b *Sàajiyóo fāa-tà.*
 sheep.D kill/die-CPL.ITR
 ‘The sheep died.’ OR ‘The sheep was killed.’

15.3.3 The quasipassive reading of P-ambitransitive verbs

As already discussed in chapter 9 §9.4.3, and in chapter 11 §11.1.2, even in the languages that have distinct voice markers for decausativization and passivization, it is common that the use of decausative markers extends to quasipassivization, characterized by the fact that the referent of the A term of the transitive construction is not suppressed from the participant structure of the clause, but its expression is bound to conditions implying a decrease in semantic transitivity. Quasipassivization encompasses the expression of inadvertent actions (‘be V-ed inadvertently’), generic passive (‘be usually V-ed’), and facilitative (‘lend itself to being V-ed’). For example, Tswana has a decausative marker *-εχ-* distinct from the passive marker *-(i)w-*, but *-εχ-* is also found in sentences for which a true decausative reading is not conceivable, and the only possible interpretations are a facilitative (as in (25)) or generic passive reading.

- (25) Tswana (Bantu, Benue-Congo, Niger-Congo)
Lò-kwálò ló 'lò-bál-éχ-à mòt^hò:fò.
 SG-book(c111) c111.DEM I_{S/A}:c111- DECAUS-read-FV easily
 ‘This book reads easily.’

Unsurprisingly, the same phenomenon can be observed with P-ambitransitive verbs that have a noncausal reading in their intransitive use. As illustrated by the English translation of example (25) (*This book reads easily*), in the languages that have productive noncausal-causal ambitransitivity but do not have true passive ambitransitivity, even transitive verbs referring to events that can hardly be conceived without the intervention of an agent may have an intransitive use with quasipassive readings. (26) is another illustration of P-ambitransitivity with a facilitative reading of the intransitive construction.

- (26) English(Germanic, Indo-European)
 a *The butcher cut the meat.*
 b *The meat cuts easily.*

In the literature, e.g. in Levin’s (1993) survey of flexivalency alternations in English, this alternation is commonly discussed as ‘middle alternation’.

Diachronically, it seems reasonable to think that the development of such uses of transitive verbs in languages in which noncausal-causal ambitransitivity is widespread results from the fact that, even if the participant encoded as the A of the transitive construction is suppressed from the participant structure of the intransitive construction, it remains present in the semantic structure of the verbal lexemes. It is also plausible that the quasipassive use of verbs lending themselves to noncausal-causal ambitransitivity may constitute the starting point for the development of passive ambitransitivity (in the same way as the quasipassive use of morphologically marked decausative forms may constitute the starting point for their reanalysis as passive forms).

15.3.4 Other semantic types of P-ambitransitivity

Although this seems to be relatively uncommon, it may happen that the A term in the transitive construction of verbs that meet the definition of P-ambitransitivity does not represent the instigator of the process undergone by the referent encoded as the S of the intransitive construction. A first possibility is that the A term of the transitive construction represents an entity interested in this process by virtue of its relation with the referent of S/P. This kind of flexivalency alternation can be designated as CONCERNATIVE FLEXIVALENCY.

For example, Wolof has a ‘possessive voice’, which in the framework proposed in this book is an instance of the type of voice alternation labeled concernativization, briefly presented in chapter 13 §13.4.4, by which the derived transitive construction can be glossed as ‘The personal sphere of A includes an element, encoded as P, having the property predicated on the S term of the initial intransitive construction’, as in (27).

- (27) Wolof (Wolof, Atlantic, Niger-Congo)
- a *Woto b-i gaaw na.*
 car(c1B) c1B-D be.fast PRF.I_{A/S}:3SG
 ‘The car is fast.’
- b *Sàmba gaaw-le na woto.*
 PRN be.fast-CCN PRF.I_{A/S}:3SG car(c1B)
 ‘Samba has a fast car.’
 (Nouguier-Voisin 2002: 383)

However, with at least one verb (*bare* ‘be in abundance’, glossable as ‘have in abundance’ in its transitive use), as illustrated in (28), exactly the same semantic type of valency alternation does not involve suffixation of *-le* to an intransitive verb, but two possible constructions (one intransitive, the other transitive) of the same verb.

- (28) Wolof (Wolof, Atlantic, Niger-Congo)
- a *Ndox m-i dafa bare.*
 water(c1M) c1M-D FocV.I_{S/A}:3SG be/have.in.abundance
 ‘There is much water.’ lit. ‘The water is abundant’
- b *Limoŋ j-i dafa bare ndox.*
 lemon(c1J) c1J-D FocV.I_{S/A}:3SG be/have.in.abundance water(c1M)
 ‘The lemon is very juicy.’ lit. ‘The lemon has water in abundance.’

Similarly, in his description of Ovamboland !Xun, Heikkinen’s (1987) mentions that the intransitive verb *‡hí* ‘be many’ also has a transitive use in which it can be glossed as ‘have many’, as in (29).

- (29) Ovamboland !Xun (!Xun, Kx’a)
- Hä ‡hí tsí-hǽ*
 PRO:c11 be/have.many thing(c14)-PL
 ‘S/he has many things.’
 (Heikkinen 1987: 79)

However, I am aware of no language in which this kind of flexivalency alternation would be relatively productive for a semantic class of verbs.

Another rare type of P-ambitransitivity has already been mentioned in chapter 7 §7.3.5 and illustrated by a Bambara example, reproduced here as (30). In this alternation, a verb that otherwise can only be used intransitively occurs in a transitive construction whose A is semantically a temporal adjunct.

- (30) Bambara (Central Mande, Mande)
- a *Sékù má nà b̀.*
 PRN CPL.NEG come today
 ‘Sékou did not come today.’
- b *B̀ má Sékù nà.*
 today CPL.NEG PRN come
 lit. ‘Today did not come Sékou.’ > ‘It is not today that Sékou came (but long before).’

15.4 Semantic types of A-ambitransitivity

15.4.1 Participant structure preserving A-ambitransitivity

15.4.1.1 Participant structure preserving A-ambitransitivity with semantically bivalent verbs

Participant structure preserving A-ambitransitivity concerns mainly semantically bivalent verbs that can be used transitively, but also have an intransitive construction in which the referent of the A term of the transitive constructions is encoded as A, and the referent of P encoded as an oblique.

Example (31) illustrates this kind of A-ambitransitivity, since the meaning of *těe* ‘cross’ cannot be defined without mentioning a portion of space being crossed, and the intransitive construction can include an oblique corresponding semantically to the P term of the transitive construction.

- (31) Mandinka (Central Mande, Mande)
- a *Mòôlú yè baa tĕe.*
 people.D.PL CPL.TR river.D cross
 ‘The people crossed the river.’
- b *Mòôlú tĕe-tà (baa lá).*
 people.D.PL cross.CPL.ITR river.D POSTP
 ‘The people crossed (the river).’

In this kind of alternation, the semantic relationship between the transitive and intransitive uses of the A-ambitransitive verbs is similar to the relationship between a transitive construction and its antipassive counterpart. The kind of construction illustrated in (31b) can therefore be characterized as zero-coded antipassive (or bare-antipassive), or as an instance of antipassive ambitransitivity, by analogy with the passive ambitransitivity discussed in §15.3.2.

As discussed by Levin (1993: 41-45), several subtypes of this kind of alternation, illustrated in (32), can be distinguished in English.

- (32) English (Germanic, Indo-European)
- a *Paula hit (at) the fence.*
- b *Martha climbed (up) the mountain.*
- c *Jill met (with) Sara.*

Dargwa languages (Nakh-Daghestanian) are an interesting example of obligatory P-coding languages with an uncoded transitive-antipassive alternation whose analysis is made difficult by the polyfunctionality of the morphological case labeled ‘ergative’, which in Dargwa languages is used to flag not only A in the transitive construction, but also some types of obliques, such as instrumental adjuncts. The ‘ergative’ case is also the case used in the intransitive construction of A-ambitransitive verbs to flag the oblique term corresponding to

the P term of the transitive construction, which may give the (false) impression that the two essential participants exchange their syntactic roles, as in example (33).

(33) T'ant'i Dargwa (Dargwic, Nakh-Daghestanian)

- a *Murad-li T'ant'i-d qul-re d-irq'-u-le=sa-j.*
 PRN-ERG PRN-NPL(LOC) house-PL I_{S/P}:N.PL-make.IPF-PRS-CVB=COP-I_{S/A}:M
 'Murad is building houses in T'ant'i.' (basic transitive construction)
- b *Murad T'ant'i-w qul-ra-li w-irq'-u-le=sa-j.*
 PRN PRN-M(LOC) house-PL-INS I_{S/P}:M-make.IPF-PRS-CVB=COP-I_{S/A}:M
 'Murad is building houses in T'ant'i.' (intransitive variant of (a))
 (Sumbatova & Lander 2014: 270)

In fact, the observation of agreement is decisive for a correct analysis of A-ambitransitivity in Dargwa languages. As illustrated by example (33a), where the ergative/instrumental case is glossed ERG, in the transitive construction, both A and P act as agreement controllers: in the glosses, M (masculine) indicates agreement with the agent *Murad*, whereas N.PL (non-human plural) indicates agreement with the patient *qul-re* 'houses'. By contrast, morphologically identical obliques do not intervene in agreement mechanisms, and in the intransitive construction of A-ambitransitive verbs, all agreement marks refer to the unique nuclear participant. Consequently, in (33b) (where the ergative/instrumental case is glossed INS), the fact that all the agreement marks are masculine shows that the patient phrase is syntactically an oblique, and that the zero-marked NP corresponding to the A phrase of the transitive construction is the S term of an intransitive clause.

Interestingly, as illustrated by example (34), some descriptions of zero-coded antipassives mention the possibility of functions quite similar to those commonly found with verb-coded antipassive constructions, for example reference to incomplete action (see chapter 10 §10.3.4) or to 'partial agents' (see chapter 10 §10.3.5).

(34) Minyanka (Senufo, Gur, Niger-Congo)

- a *Ísá wá yàdìkì dìi.*
 PRN CPL food.D(cIK) eat
 'Issa ate the food (and finished it).'
- b *Ísá wá dìi yàdìkì ní.*
 PRN CPL eat food.D(cIK) in
 'Issa ate part of the food.' lit. '...ate in the food.'
- c *Wú yá gèṇì túkú.*
 3SG(cIW) CPL well.D(cIK) dig
 'He digged the well.'
- d *Wú yá túkú gèṇì nì.*
 3SG(cIW) CPL dig well.D(cIK) in
 'He took part in the digging of the well.' lit. '...digged in the well.'
 (Coulibaly 2020: 263)

15.4.1.2 Participant structure preserving A-ambitransitivity with semantically monovalent verbs

We now turn to constructions that meet the broad definition of participant structure preserving A-ambitransitivity, without, however, being analyzable as instances of antipassive ambitransitivity, because the verb involved in the alternation is semantically monovalent, and its transitive construction is atypical in the sense that its P term does not represent a participant.

Two such types of constructions have been evoked in the sections of chapter 7 devoted to transitive constructions of monovalent verbs:

- the use of semantically monovalent verbs in cognate-P constructions, as in examples (35) to (37) (see chapter 7 §7.3.3);
- the use of semantically monovalent verbs in transitive constructions in which their single argument is encoded as A, and a semantic adjunct is encoded as P, as in (38) (see chapter 7 §7.3.4).

(35) Degema (Edoid, Benue-Congo, Niger-Congo)

Kó ɔkar nó mu=ká'ár.
 NEG strength that I_{S/A}:1SG=be.strong.CPL
 'I did not carry out a manly action.'
 lit. 'It is not strength that I stronged.'
 (Kari 2017: 47)

(36) Minyanka (Senufo, Gur, Niger-Congo)

Wú yá sèlifànô sèlí.
 3SG(clW) CPL noon.prayer pray
 'S/he prayed the noon prayer.'
 (Coulibaly 2020: 261)

(37) German (Germanic, Indo-European)

Er läuft den Marathon.
 3SG.M run.PRS.I_{S/A}:3SG D.SG.M.ACC marathon(M)
 'He runs marathons.'
 (Cysouw 2023: 103)

(38) Soninke (Soninke-Bozo, Mande)

Ŋ dà qású-báané wàtí.
 1SG CPL.TR month-one be.sick
 'I was sick during a whole month.'

15.4.2 Participant structure modifying A-ambitransitivity

In participant-structure modifying A-ambitransitivity, a verb used intransitively with reference to a one-participant event also has a transitive use in which A expresses the same semantic role as the S of the intransitive construction, whereas P represents an additional

participant towards which the activity of the single argument is directed, or to a person concerned by the event to which the verb refers.

For example, the French verb *pleurer* ‘cry’, although unquestionably monovalent, is also used transitively with the meaning ‘lament someone’s death’. Mandinka *jélè* ‘laugh’, used transitively with the meaning ‘make fun of someone’, is another good example, cf. example (39).

(39) Mandinka (Central Mande, Mande)

- a *Díndínò jélè-tá.*
 child.D laugh-CPL.ITR
 ‘The child laughed.’
- b *Díndínò yè í jélè.*
 child.D CPL.TR 1SG laugh
 ‘The child made fun of me.’

This kind of ambitransitivity may constitute a lexical property of verbs, as in the cases just evoked, but it may also be productive in the languages in which, regardless of the participant structure of verbs, no verbal marking is required to licence phrases that have the same coding characteristics as the patients of prototypical transitive verbs, but represent beneficiaries (BENEFACTIVE FLEXIVALENCY). With transitive verbs, benefactive flexivalency manifests itself as an alternation between a single-P construction and a double-P construction (see §15.6.3), but with intransitive verbs, it constitutes a particular type of participant structure modifying A-ambitransitivity.

For example, in Nawdm, the verb ‘come (speaking of the night)’ can be found not only in the intransitive construction illustrated in (40a), but also in the transitive construction illustrated in (40b), whose meaning is that the nightfall prevented the farmers from finishing their work.

(40) Nawdm (Oti-Volta, Gur, Niger-Congo)

- a *Nyingu nyin weem.*
 night(cIKU) come.CPL quickly
 ‘The night came quickly.’
- b *Nyingu nyin kpamb kpaadba weem.*
 night(cIKU) come.CPL field(cIB) cultivate.AgNMZ(cIBA) quickly
 ‘This night came too quickly for the farmers.’
 lit. ‘The night came the farmers quickly.’
 (Nicole 2017: 137)

Similarly, in Jóola Fóoñi, the verb *jɔn* ‘set (speaking of the sun)’ can be found not only in the intransitive construction illustrated in (40a), but also in the transitive construction illustrated in (41b).

(41) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *Ba-la-a-b bɔ-jɔn-ɔɔrvɔt.*
 SG-sun(B)-D-clB I_{S/A}:clB-set-not.yet
 ‘The sun has not yet set.’

- b *A-ñul-a-w* *ɔ-m-ε*, *ba-la-a-b* *lεε* *bɔ-jɔn-ɔɔ*.
 SG-child(cIA)-D-clA DEM-clA-PROX SG-sun(B)-D-clB FUT.NEG I_{S/A}:clB-set-I_p:clA
 ‘This child, the night will not set for him.’ > ‘The child will die by this evening.’
 lit. ‘This child, the sun will not set him.’

A similar alternation with a transitive constructions of monovalent verbs in which the P term expresses the role of concerne, is mentioned by Nicole (2017) in Nawdm (42) and by Payne (1997) in Maa (43).

(42) Nawdm (Oti-Volta, Gur, Niger-Congo)

- a *Bugee* *goora* *hɔm*.
 child(clKA).D sleep.CPL well
 ‘The child slept well.’
- b *Bugee* *goora-ma* *hɔm*.
 child(clKA).D sleep.CPL-I_p:1SG well
 ‘My child slept well (and I am benefitted thereby).’
 lit. ‘The child slept me well.’
 (Nicole 2017: 136)

(43) Maa (Eastern Nilotic, Nilotic, East Sudanic)

- a *É-ishú* *en=kíne*.
 I_S:3-be.alive SG.F=goat.SBJ
 ‘The goat is alive.’
- b *Áa-ishú* *en=kíne*.
 I_A:3.I_p:1SG-be.alive SG.F=goat.SBJ
 ‘My goat is /will be alive (and I am benefitted thereby).’
 lit. ‘The goat lives / will live me.’
 (Payne 1997: 104)

In Amharic, persons negatively affected by an event are regularly expressed as applied phrases in an applicative construction, as in (44b), but the applicative marker can sometimes be dropped, resulting in an unmarked transitive construction of inherently intransitive verbs in which the P term expresses the semantic role of maleficiary, as in (44c). According to Amberber (2024), this is possible when the event in question is construed as “obviously adversative”.

(44) Amharic (Semitic, Afroasiatic)

- a *Zəməd* *mot-ə*.
 relative die.CPL-I_{S/A}:3SG.M
 ‘A relative died.’
- b *Aster(-in)* *zəməd* *mot-ə-bb-at*.
 PRN-ACC relative die.CPL-I_{S/A}:3SG.M-APPL-I_p:3SG.F
 ‘Aster was affected by the death of a relative.’
 lit. ‘A relative died.APPL Aster’

- c *Aster(-in) zəməd mot-at.*
 PRN-ACC relative die.CPL.I_{S/A}:3SG.M-APPL-I_p:3SG.F
 same meaning as (b), lit. ‘A relative died Aster’
 (Amberber 2024: 264)

As already described in chapter 14 §14.2.3.2, in Tswana, the addition of a P phrase expressing the semantic role of concernee must be licensed by applicative marking if the relationship that motivates the use of a concernee-concern construction is not a whole-part relationship, but does not necessitate verbal marking in the case of whole-part relationships. A similar pattern is mentioned by Foley (2024) in the Papuan language Yimas.

15.5 Flexivalency alternations involving two intransitive constructions (S-X flexivalency)

S-X FLEXIVALENCY is the term put forward here for a type of flexivalency alternations discussed in detail by Levin (1993) for English, in which the same verb can be found in two intransitive constructions differing in that the same participant is expressed as the S term of one of the two constructions, but as an oblique term of the other. Cases such as those illustrated in example (45), with a perfect symmetry between the two alternating constructions, can be referred to as S-X REVERSAL.

- (45) English (Germanic, Indo-European)
 a *This city abounds with art museums. / Oil abounds in this region.*
 b *The garden is swarming with bees. / Bees are swarming in the garden.*
 c *Acorns grow into oak trees. / Oak trees grow from acorns.*

In some other cases, as in (46) the expression of one of the participants may be dispreferred or even impossible in one of the alternative constructions.

- (46) English (Germanic, Indo-European)
 a *Water leaks from the dam. / The dam leaks.*
 b *Clouds cleared from the sky. / The sky cleared.*

This kind of flexivalency alternation is found in Basque with some psych verbs. For example *urrikitu* ‘regret’ has two possible coding frames, both intransitive, one with the experiencer coded as S and the stimulus as an instrumental oblique (47a), the other with the stimulus as S and the experiencer as a dative oblique (47b).

- (47) Central Basque (Euskaran)
 a *Urrikitzen naiz nire hutsez.*
 regret.ICPL be.PRS.I_{ZER}:1SG 1SG.GEN mistake.INS
 ‘I regret my mistake.’
 b *Nire hutsa urrikitzen zait.*
 1SG.GEN mistake.SG regret.ICPL be.PRS.I_{ZER}:3SG.I_{DAT}:1SG
 same meaning as (a)

15.6 Flexivalency alternations involving two transitive constructions

In this section, I have brought together several types of flexivalency alternations in which, either both constructions are single-P constructions, or one of the constructions is a single-P construction, and the other a double-P construction.

15.6.1 A-X flexivalency

A-X FLEXIVALENCY is the term I propose for a type of flexivalency alternation in which both alternative constructions are transitive, one of them including an A phrase referring to an agent or force and an oblique phrase referring to an entity also involved in the causality chain, whereas in the alternative construction, the agent/force is left unexpressed, and the role of A is taken over by the other entity involved in the causality chain. In example (48), this entity is an instrument. The agentive participant encoded as A in (48a) is still semantically present in (48b), but cannot be expressed, and can only be interpreted as non-specific.

- (48) English (Germanic, Indo-European)
- a *I opened the front door with this key.*
 - b *This key opens the front door.*

In (49), sentence (b) refers to a reflexive event, but the role of A is taken by an instrumental adjunct, and consequently the participant fulfilling the roles of both the (involuntary) agent and the patient is only mentioned as P.

- (49) Minyanka (Senufo, Gur, Niger-Congo)
- a *Músà yá cìkì h́ ní kácéréki ní.*
PRN CPL tree.D(cIK) cut with axe.D(cIK) with
'Moussa cut the tree with an axe.'
 - b *D̀̀ni yà Músà h́.*
knife.D(cIL) CPL Moussa cut
'Moussa cut himself with a knife.' lit. 'A knife cut Moussa.'
(Coulibaly 2020: 167, 243)

(50) illustrates the same formal type of alternation with a similar although not entirely identical meaning, since it involves a mediative adjunct (i.e., an adjunct whose meaning can be glossed as 'by means of ...').

- (50) English (Germanic, Indo-European)
- a *He will establish his innocence with this letter.*
 - b *This letter will establish his innocence.*

In (51), the same type of alternation involves an adjunct referring to an entity created by the activity of the referent of A which is the immediate cause of the process affecting the referent of P.

(51) German (Germanic, Indo-European)

- a *Der Zug ärgert mich mit seinem Lärm.*
 D.SG.M train(M) annoy.PRS.I_{S/A}:3SG 1SG.ACC with his.SG.M.DAT noise(M)
 ‘The train annoys me with its noise.’
- b *Der Lärm des Zuges ärgert mich*
 D.SG.M noise(M) D.SG.M.GEN train(M).GEN annoy.PRS.I_{S/A}:3SG 1SG.ACC
 ‘The noise of the train annoys me.’
 (Cysouw 2023: 199)

15.6.2 P-X flexivalency

In the kind of flexivalency alternations I propose to designate as P-X FLEXIVALENCY, the same verb has two distinct transitive constructions in which the same agentive participant is encoded as the A term, but another participant is encoded as an oblique in one of the two constructions, and as the P term of the other construction. Functionally, pairs of constructions analyzable in terms of P-X flexivalency are similar to optional P-applicatives, since the same participant is encoded as an oblique in one of the alternating constructions, and as P in the other. Three subtypes of this kind of flexivalency can be distinguished.

15.6.2.1 Symmetric P-X flexivalency (P-X reversal)

This kind of flexivalency alternation has already been illustrated in chapter 7 by the !Xun verb |à’ā ‘give’. In the Western variety of !Xun analyzed by König & Heine (2010), this verb occurs indifferently in an indirective construction (52a) or in a secundative construction (52b). Moreover, the same multifunctional preposition *kē* flags the goal in the indirective construction and the transferee in the secundative construction.

(52) Western !Xun (!Xun, Kx’a)

- a *Mí má kē |à’ā càūn kē dàbà.*
 1SG TOP PST give porridge PREP child
 ‘I gave the child porridge.’
- b *Mí má kē |à’ā dàbà kē càūn.*
 1SG TOP PST give child PREP porridge
 ‘I gave the child porridge.’
 (König & Heine 2010: 80, 81)

The so-called ‘locative alternation’ is another example of P-X reversal, in which two non-agentive participants can alternatively be encoded as the P term or as an oblique term. In English, several semantic subtypes of locative alternation, illustrated in example (53), are distinguished by Levin (1993: 49-53).

(53) English (Germanic, Indo-European)

- a *John smeared the paint on the wall. / John smeared the wall with paint.*
 b *Henry cleared dishes from the table. / Henry cleared the table of dishes.*
 c *Helen wiped the fingerprints off the wall. / Helen wiped the wall.*

Example (54) illustrates several other semantic subtypes of P-X reversal listed by Levin (1993: 65-70):

(54) English (Germanic, Indo-European)

- a *The judge presented a price to the winner. / The judge presented the winner with a price.*
- b *The jeweller inscribed the name on the ring. / The jeweller inscribed the ring with the name.*
- c *The man hit the stick against the fence. / The man hit the fence with the stick.*
- d *Alison pierced the needle through the cloth. / Alison pierced the cloth with the needle.*
- e *Mira blamed the accident on Terry. / Mira blamed Terry for the accident.*

In (55), the two constructions of a flexivalent verb lending itself to P-X reversal express the meanings expressed in English as *borrow* and *lend*.

(55) Minyanka (Senufo, Gur, Niger-Congo)

- a *Mè yá wàrù cí mý má.*
1SG CPL money.D(cIW) borrow/lend 2SG from
'I borrowed money from you.'
 - b *Mè yá mý cí ní wàrù ní.*
1SG CPL 2SG borrow/lend with money.D(cIW) with
'I lent you money.'
- (Coulibaly 2020: 247)

P-X reversal is quite widespread cross-linguistically, at least in the languages that have relatively rich inventories of cases or adpositions. Example (56) provide two additional illustrations in Mandinka. Interestingly, in Mandinka, when the goal is encoded as P, the transferee encoded as an oblique is invariably flagged by the instrumental postposition *lá*, but when the goal is encoded as an oblique, the postposition varies according to its precise semantic role.

(56) Mandinka (Central Mande, Mande)

- a *Kèê yè bàtáyò sáfée à díhò yé.*
man.D CPL letter.D write 3SG son.D to
'The man wrote a letter to his son.'
- b *Kèê yè à díhò sáfée bàtáyò lá.*
man.D CPL 3SG son.D write letter.D with
'The man wrote a letter to his son. (lit. wrote his son with a letter)'
- c *Kèê yè tìyò sòlí bòtò kónò.*
man.D CPL peanut.D stuff bag.D in
'The man stuffed the peanuts into the bag.'
- d *Kèê yè bòtò sòlí tìyò lá.*
man.D CPL bag.D stuff peanut.D with
'The man stuffed the bag with peanuts.'

15.6.2.2 *P-X flexivalency with a double-P construction as one of the alternating constructions*

The alternation known as ‘dative-shift’ in English grammar, in which a double-P construction alternates with a single-P construction in which an oblique corresponds to one of the two P terms of the double-P construction, is a typical example of asymmetric P-X flexivalency.

(57) English (Germanic, Indo-European)

a *John gave the book to Mary.*

b *John gave Mary the book.*

Levin (1993: 45-49) makes a distinction between ‘dative alternation’, where the participant encoded as the primary P in a double-P construction is the recipient of a semantically trivalent verb, as in (57), and ‘benefactive alternation’, where it is a benefactive adjunct, as in (58).

(58) English (Germanic, Indo-European)

a *Mary carved a toy for the baby.*

b *Mary carved the baby a toy.*

15.6.2.3 *P-X flexivalency with one of the participants left unexpressed in one of the alternating constructions*

Example (59) illustrates a type of P-X flexivalency in which a participant expressed as P in one of the alternating constructions is left unexpressed in the other.

(59) German (Germanic, Indo-European)

a *Ich wasche meine Hose.*
 1SG wash.PRS.I_{S/A}:1SG my.SG.F trousers(F)
 ‘I am washing my trousers.’

b *Ich wasche den Fleck aus meiner Hose.*
 1SG wash.PRS.I_{S/A}:1SG D.SG.M.ACC stain(M) from my.SG.F.DAT trousers(F)
 ‘I am washing away the stain from my trousers.’

(Cysouw 2023: 110)

15.6.3 Benefactive flexivalency with transitive verbs

Benefactive flexivalency has been defined above as the ability for verbs to combine with a P term representing a beneficiary without changing their form. With intransitive verbs, this flexivalency alternation is an instance of A-ambitransitivity (§15.4.2), whereas with transitive verbs, a transitive construction with two essential participants encoded as A and P alternates with a double-P construction whose primary P representing a beneficiary, as in (60).

(60) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

A-seek-a-w pan ø-siil (a-jaaburoŋ-a-w) ε-lɪw-ε-y.
 SG-woman(cIA)-D-clA FUT IS/A:clA-cook SG-guest(cIA)-D-clA SG-meat(cIE)-D-clE
 ‘The woman will cook the meat (for the guest).’

With trivalent verbs, benefactive flexivalency may result in alternations between a double-P construction and a triple-P construction, as in (61), where the beneficiary is encoded as a P index.

(61) Nawdm (Oti-Volta, Gur, Niger-Congo)

Bugee sira(-ma) nidba daam.
 child(cIKA).D serve.CPL-IP:1SG people(cIBA) millet.beer(cIM)
 ‘The child served millet beer to the people (for me).’
 (Nicole 2017: 136)

15.6.4 Causative flexivalency

As already discussed in chapter 11 §11.9.2, in some languages at least, the A term of plain transitive constructions involving no causative marking may be interpreted as an instigator rather than an immediate agent. This type of flexivalency is not equally productive in all the languages in which it can be found. However, as illustrated by example (62), a common restriction is that the verbs lending themselves to this particular type of flexivalency must denote actions typically performed by professionals. This can easily be explained by the fact that, with such verbs, the risk of ambiguity is limited, since the causative reading is the default reading in situations where the referent of A does not have the required professional skills.

(62) Spanish (Italic, Indo-European)

Operé a mi hijo.
 operate.CPL.IS/A:1SG ACC my son(M)
 ‘I operated on my son.’ OR ‘I sent my son to surgery.’

15.6.5 A-P reversal

It goes without saying that the two core NPs in clauses projected by symmetric transitive verbs such as *meet* can always exchange their coding characteristics without any change in the denotative meaning of the clause. A-P reversal with non-symmetric transitive verbs is not very common. However, uncontroversial examples of this alternation can be found e.g. in Basque with some psych verbs such as *higuindu* ‘disgust’, cf. example (63).

(63) Central Basque (Euskaran)

a Hori higuintzen dut.
 DEM.SG disgust.ICPL have.PRS.IERG:1SG.IZER:3SG
 ‘That disgusts me.’

- b *Horrek higuintzen nau.*
 DEM.SG.ERG disgust.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:1SG
 same meaning as (a)

Examples (64) and (65) illustrate possible instances of A-P reversal in Akan with the verb ‘smell’ and in Ewe with the verb ‘intoxicate’. However, the articles from which these examples have been extracted do not contain sufficient information to decide whether the alternating constructions are really transitive, or perhaps one of the two is a quasitransitive construction whose resemblance to transitive constructions is only superficial, as in the case of the Bantu P inversion discussed in §15.10.4.

(64) Akan (Tano, Kwa, Niger-Congo)

- a *Bókìtsì nó mú bòn kràèsíìn.*
 bucket 3SG.POSS inside smell.CONT kerosene
 ‘The bucket (lit. the inside of the bucket) smells kerosene.’
 b *Kràèsíìn bòn bókìtsì nó mú.*
 kerosene smell.CONT bucket 3SG.POSS inside
 same meaning as (a)
 (Osam 2008 : 54-55)

(65) Ewe (Gbe, Kwa, Niger-Congo)

- a *Aha mú Kofí.*
 alcohol intoxicate PRN
 ‘The drink intoxicated Kofi.’
 b *Kofí mú aha.*
 PRN intoxicate alcohol
 ‘Kofi got intoxicated with alcohol.’
 (Bobuafor & al. 2006/07: 120-121)

Example (66) is an uncontroversial instance of A-P reversal in Nawdm. It differs from the previous examples in that the alternation affects the denotative meaning of the construction. In this example, when the agentive participant in the event denoted by a transitive verb is coded as P and the patientive participant as A, the interpretation is that the agentive participant is positively affected by its own action.

(66) Nawdm (Oti-Volta, Gur, Niger-Congo)

- a *Mà jul burgu hɔm.*
 1SG eat.ICPL goat(clKU) well
 ‘I eat goat meat readily.’
 b *Burgu jul-ma hɔm.*
 goat(clKU) eat.ICPL-I_P:1SG well
 ‘I enjoy eating goat meat.’ lit. ‘The goat eats me well.’
 (Nicole 2017: 138)

As observed by Nicole (2017: 137-138) and illustrated in (67), given that Nawdm has both productive passive ambitransitivity and productive benefactive flexivalency, the A-P reversal

illustrated in (66) can be analyzed as an instance of benefactive flexivalency involving a zero-marked passive construction.

(67) Nawdm (Oti-Volta, Gur, Niger-Congo)

a *Nidbee nyira daam hɔm.*

people(clBA).D drink.CPL millet.beer(clM) well

‘The people drank the millet beer readily.’

b *Daam nyira hɔm.*

millet.beer(clM) drink.CPL well

‘The millet beer was drunk readily.’ lit. ‘The millet beer drank well.’

c *Daam nyira nidbee hɔm.*

millet.beer(clM) drink.CPL people(clBA).D well

‘The people enjoyed drinking the millet beer.’

lit. ‘The millet beer drank the people well.’

(Nicole 2017: 137)

Although the meanings are not exactly identical, this A-P reversal resulting from the combination of transitive-passive and benefactive flexivalency is comparable to the dative-experiencer middles found in Baltic and Slavic languages, cf. chapter 11 §11.7.

15.7 Symmetric verbs and coordinative flexivalency

Bivalent verbs such as ‘agree (with X)’ or ‘divorce (from X)’, and trivalent verbs such as ‘separate (X from Y)’ or ‘compare (X with Y)’, have the particularity that the noun phrases representing two participants can switch without affecting the truth value of the clause. Such verbs are commonly involved in an alternation for which I propose the term of COORDINATIVE FLEXIVALENCY, characterized as follows:

- either an intransitive construction with a coordination of noun phrases ‘NP₁ and NP₂’ in S role alternates with a construction with NP₁ in S role and NP₂ encoded as an oblique, as in (68),
- or a transitive construction with a coordinations of noun phrases ‘NP₁ and NP₂’ in P role alternates with a construction with NP₁ in P role and NP₂ encoded as an oblique, as in (69).

(68) English (Germanic, Indo-European)

a *John and Peter agree.*

b *John agrees with Peter.*

(69) English (Germanic, Indo-European)

a *He is not able to distinguish truth and falsehood.*

b *He is not able to distinguish truth from falsehood.*

A difficulty with the notion of coordinative flexivalency is that, in the languages that use the same grammatical word or clitic as the equivalent of English *with* and *and*, the analysis of the

precise syntactic status of the *with*-phrase in constructions superficially similar to (68a-b) or (69a-b) may be problematic.

Note also that symmetric verbs may be involved in both reciprocal and coordinative flexivalency, giving rise to threefold alternations such as *John fought Peter / John and Peter fought / John fought with Peter*.

15.8 Impersonal and anti-impersonal flexivalency

Some of the types of impersonal constructions analyzed in chapter 6 are involved in alternations with canonical transitive or intransitive constructions that imply no change in the verb form. Although such alternations are not commonly analyzed as instances of flexivalency, there is no reason not to consider them as a particular type of flexivalency, given the broad definition of flexivalency adopted in this book. This is in particular the case for the presentational inversion construction of French illustrated in (70).

(70) French (Italic, Indo-European)

- a *Deux femmes sont venues.*
 two woman(F).PL be.PRS.I_{S/A}:3PL come.PTCP.PL.F
 ‘Two women came.’ (canonical intransitive clause)
- b *Il est venu deux femmes.*
 I_{S/A}:3SG.M_{EXPL} be.PRS.I_{S/A}:3SG_{EXPL} come.PTCP.SG.M two woman_F.PL
 ‘There came two women.’ (impersonal construction)

Similarly, in languages with predominant P-alignment, anti-impersonal constructions may be involved in alternations with canonical transitive or intransitive constructions that imply no change in the verb form. For example, in Akhvakh, *q̄’eleč’uruḷa* ‘bite’ can be found in the transitive construction, characterized by the case frame <ERG, ZER>, but this choice implies that the physical integrity of the patient is affected significantly (‘bite in order to tear a piece’); if the physical integrity of the second participant is not really affected, the same verb occurs in an anti-impersonal construction with the case frame <ERG, LOC>, cf. example (71).

(71) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Wašo-de řeče q̄’eleč’-ari.*
 boy(M)-ERG apple(N) bite-CPL
 ‘The boy bit into the apple.’ (lit. ‘bit the apple’)
- b *řibi-de di-ge q̄’eleč’-ari.*
 mosquito(N)-ERG 1SG-LOC bite-CPL
 ‘The mosquito bit me.’ (lit. ‘bit on me’)

15.9 Avalent verbs and flexivalency

As discussed in chapter 8 §8.3.6, the languages that have avalent meteorological verbs may have a voice alternation involving either dedicated coding or a coding identical to that used

for passivization, in which the verb is an avalent meteorological verb, and the derived construction is an intransitive construction whose S refers to a person, thing or place affected by the meteorological phenomenon. In some languages, the same valency alternation is found as a flexivalency alternation. For example, Wolof *ngelaw* ‘be windy’, like its English equivalent, can be used as an avalent meteorological verb with an expletive S index and no S phrase, and as a canonical intransitive verb with the place affected by wind in the role of S.

(72) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Bu xale y-i génn, dafa ngelaw.*
 PROH child(B/Y) clY-D go.out FocV.I_{S/A}:3SG_{EXPL} be.windy
 ‘Let the children not go out, it’s windy.’
- b *Tey, dëkk b-i dafa ngelaw.*
 today town(B/Y) clB-D FocV.I_{S/A}:3SG be.windy
 ‘Today the town is windy.’

15.10 Atypical flexivalency alternations: the Bantu ‘inversion constructions’

The so-called ‘inversion constructions’ found in Bantu languages illustrate the possible existence of flexivalency alternations that hardly fit in the general typology of flexivalency alternations put forward in the preceding sections, mainly based on the literature on flexivalency in English on the one hand, and on my own experience of language description on the other hand. Given that flexivalency has not been so far the object of systematic typological investigation, the Bantu ‘inversion constructions’ are presented here to draw attention to the fact that some languages or language families may attest phenomena so far passed unnoticed in the general literature on valency alternations, which, however, would deserve being taken into account in a comprehensive typology of flexivalency alternations.

15.10.1 General characteristics of the Bantu ‘inversion constructions’

The types of valency alternations described in Bantu grammars as involving ‘inversion constructions’ are variously attested across Bantu languages. They have in common that one of the two alternating constructions is a plain transitive or intransitive construction with the AVPX / SVX constituent order, whereas the alternant designated as an ‘inversion construction’ meets the following conditions:¹⁶⁰

- Inversion constructions involve nothing that could be analyzed as voice marking.
- In inversion constructions, the A/S role (characterized in Bantu languages by default immediate preverbal position and obligatory indexation by means of a set of verbal prefixes) is taken over by a participant encoded as P or as an oblique in the corresponding plain transitive or plain intransitive construction.
- In inversion constructions, the NP expressing the semantic role expressed by the A or S term of the corresponding plain transitive or plain intransitive construction, designated

¹⁶⁰ (Zeller 2012), (Van der Wal & Marten 2014) and (Marten & Gibson 2015) are the main references on the typology of Bantu inversion constructions.

here by the non-committal term ‘inverted A/S’, invariably occurs in immediate postverbal position.

The problem with the Bantu inversion constructions is that there is no obvious way to analyze the syntactic status of the inverted A/S. For example, in (73), verbal agreement in the inversion construction (73b) is controlled by *ñtʰó* ‘wound’, which uncontroversially has the status of locative oblique in the plain intransitive construction (73a), but can only be analyzed as A or S in (73b). What is, however, problematic, is the syntactic status of *màdí* ‘blood’ in (73b).

(73) Tswana (Bantu, Benue-Congo, Niger-Congo)

a *Mà-dí á-tsw-à mó ñtʰó:-ŋ.*
 PL-blood(cl6) I_{S/A}:cl6-come.from-FV in wound(cl9)-LOC
 ‘The blood is flowing out from the wound.’

b *Ñtʰó ′i-tsw-á mà:-dí.*
 wound₉ I_{S/A}:cl9-come.from-FV PL-blood(cl6)
 ‘The wound is bleeding.’ lit. ‘The wound flows out blood.’

At first sight, the post-verbal position of *màdí* ‘blood’ in (73b) and the absence of flagging might suggest to analyze it as fulfilling the syntactic role of P in a transitive construction. However, as discussed in detail by Marten & Gibson (2015) for the various subtypes of Bantu inversion constructions, the post-verbal NP in such constructions (including the particular variety illustrated in (73)) cannot be represented by a P index prefixed to the verb, and cannot be converted into the S term of a passive construction. Moreover, it has unique properties in that it is absolutely impossible to omit it, to move it, or to separate it from the verb, which might suggest the possibility of a pseudo-incorporation analysis (see chapter 17 §17.1.2). However, to the best of my knowledge, this possibility has never been evoked, let alone discussed, in the literature on Bantu languages. In any case, a pseudo-incorporation analysis would be difficult to reconcile with the fact that the postverbal NP in inversion constructions can be a proper name, as in example (77) below.

In fact, the only thing that is absolutely certain is that the inverted A/S has a special syntactic status that has no exact equivalent in plain transitive or intransitive clauses. Within the theoretical framework put forward in this book, a possible analysis is that the Bantu inversion constructions are quasitransitive constructions as defined in chapter 3 §3.4.2, with the particularity that they only occur in alternation with plain transitive or intransitive constructions.

As regards the function of the inversion constructions (and this applies not only to the locative inversion illustrated in (73), but also to the other types of inversion constructions that will be presented in the following sections), there is consensus among Bantuists that it has to do with information structure, and that the inversion construction is a discursively marked option whose function it to cancel the default-topic status of the participant encoded as A or S in plain transitive or intransitive constructions

15.10.2 Two subtypes of locative inversion

Example (73) above illustrates a subtype of Bantu locative inversion in which the locative oblique converted into the A/S term of the inversion construction loses locative marking. (74) and (75) illustrate the same variety of locative inversion.

(74) Mongo (Bantu, Benue-Congo, Niger-Congo)

a *Balóngó bǎolóla ndá mpótá.*

blood(cl6) I_{S/A}:cl6.go.out LOC wound(cl9)

‘The blood is flowing out from the wound.’

b *Mpótá ǎolól(a) (b)alóngó.*

wound(cl9) I_{S/A}:cl9.go.out blood(cl6)

‘The wound is bleeding.’ lit. ‘The wound flows out blood.’

(Hulstaert 1966: 448)

(75) Zulu (Bantu, Benue-Congo, Niger-Congo)

Lezi zin-dlu zi-hlal-a aba-ntu aba-dala kuphela.

DEM.cl10 PL-house(10) I_{S/A}:cl10-stay-FV PL-person(cl2) cl2-old only

‘Only old people live in these houses.’

(Buell 2007: 108)

A remarkable property of many Bantu languages (not found, however, in Tswana and other Southern Bantu languages such as Zulu) is that they also have a type of locative inversion construction in which locative expressions take the role of A/S without losing their locative marking, verb agreement being then governed by the locative marker, as in (76b), where the verb does not express agreement with *mu-dzi* (class 3), but with the locative prefix traditionally designated as prefix of class 17.

(76) Chewa (Bantu, Benue-Congo, Niger-Congo)

a *A-lendô-wo a-na-bwérá ku-mu-dzi.*

PL-visitor(cl2)-cl2.DEM I_{S/A}:cl2-RECPST-come LOC(cl17)-SG-village(cl3)

‘Those visitors came to the village.’

b *Ku-mu-dzi ku-na-bwérá a-lendô-wo.*

LOC(cl17)-SG-village(cl3) I_{S/A}:cl17-RECPST-come PL-visitor(cl2)-cl2.DEM

‘To the village came those visitors.’

(Bresnan and Kanerva 1989: 2)

(77) and (78), in which verb agreement is governed by the locative prefix of class 18, are other examples of this variety of locative inversion.

(77) Nsenga (Bantu, Benue-Congo, Niger-Congo)

M-nándà mù-wéléngél-à Kátishà.

LOC(cl18)-house(cl9) I_{S/A}:cl18-read-FV PRN(cl1)

‘In the house Katisha is reading.’

(Marten, Kula & Thwala 2007: 227)

- (78) Herero (Bantu, Benue-Congo, Niger-Congo)
M-òn-jíwó mw-á hití é-rùngà.
 LOC(cl18)-SG-house(cl9) I_{S/A}:cl18-PST enter SG-thief(cl5)
 ‘Into the house entered a/the thief.’
 (Möhlig, Marten & Kavari 2002: 102)

15.10.3 Instrument inversion

In instrument inversion, illustrated in (79), the role of A/S is taken over by an instrumental adjunct.

- (79) Zulu (Bantu, Benue-Congo, Niger-Congo)
 a *Um-fundi u-bhal-a nge-peni*
 SG-student(cl1) I_{S/A}:cl1-write-FV with-pen(cl5)
 ‘The student is writing with a pen.’
 b *I-peni li-bhal-a um-fundi.*
 SG-pen(cl5) I_{S/A}:cl5-write-FV SG-student(cl1)
 ‘The student is using a pen to write.’ lit. ‘A pen is writing the student.’
 (Zeller 2012: 135)

In this alternation, the instrument is treated in the same way as in the instrumental flexivalency alternation illustrated by English *I opened the front door with this key / This key opens the front door*, but the treatment of the agentive participant is very different. In *This key opens the front door*, the agentive participant is syntactically absent and semantically backgrounded, whereas in the Bantu instrument inversion, the agentive participant is obligatorily expressed with a special syntactic role not found in other clause types, and is interpreted either as focalized, or as part of athetic statement.

15.10.4 P inversion

In P inversion (misleadingly designated as ‘subject-object reversal’ in many descriptions of Bantu languages), the A/S term in the inversion construction corresponds semantically to the P term of a transitive construction, as in (80) and (81).

- (80) Luguru (Bantu, Benue-Congo, Niger-Congo)
 a *Imw-ana ka-tul-a ici-ya.*
 SG-child(cl1) I_{S/A}:cl1-break-FV SG-pot(cl7)
 ‘The child broke the pot.’
 b *Ici-ya ci-tul-a mw-ana.*
 SG-pot(cl7) I_{S/A}:cl7-break-FV SG-child(cl1)
 ‘The child broke the pot.’ lit. ‘The pot broke the child.’
 (Mkude 1974: 133)

(81) Mongo (Bantu, Benue-Congo, Niger-Congo)

a *Njɔku* *yǔtɔ́ka* *lisála*.
 PL.elephant(c110) I_{S/A}:c110.trample.CPL SG.field(c15)
 ‘The elephants trampled the field.’

b *Lisála* *jǔtɔ́ka* *njɔku*.
 SG.field(c15) I_{S/A}:c15.trample.CPL PL.elephant(c110)
 ‘The elephants trampled the field.’ lit. ‘The field trampled the elephants.’
 (Hulstaert 1966: 447)

In this alternation, as in passive ambitransitivity as discussed in §15.3.2 above, one of the two alternative constructions has all the coding and behavioral properties of a canonical transitive construction with the agentive participant in A role. The difference with canonical passive ambitransitivity is that, in the alternative construction, the term corresponding to the A of the transitive construction has special syntactic properties that preclude analyzing it either as the P term of a transitive construction or as an oblique in a plain intransitive construction.

However, given the superficial similarity between the inverted A and the P term of a transitive construction, it is not surprising that, in the Bantu languages that have P inversion, the productivity of this uncoded valency alternation is always limited to transitive constructions in which the meaning of the verb and the semantic nature of the protagonists are such that the semantic roles can be retrieved regardless of syntactic structure. (82) is a borderline case: a situation in which (82b) would be used as a plain transitive clause with the meaning ‘I bit a/the snake’ is not totally unconceivable, but for obvious extra-linguistic reasons, (82b) is rather found as a P-inversion construction used in contexts in which an English speaker would say *I have been bitten by a snake*.

(82) Mongo (Bantu, Benue-Congo, Niger-Congo)

a *Njwá* *ǎombámba*.
 SG.snake(c11) I_{S/A}:c11.I_P:1SG.bit.CPL
 ‘The snake has bitten me.’

b *Njóámba* *njwá*.
 I_{S/A}:1SG.bit.CPL snake(c11)
 ‘I have been bitten by a snake.’ lit. ‘I have bitten a snake.’
 (Hulstaert 1966: 447)

15.10.5 Concernative inversion

The type of construction presented in this section has not been discussed in general accounts of Bantu inversion constructions, although some descriptive grammars (such as Hulstaert’s description of Mongo) clearly describe it as a construction in which a noun in immediate postverbal position corresponding semantically to the S term of a plain intransitive construction, as ‘the handle’ in (83b), has the same properties as the post-verbal NP in the constructions commonly designated as inversion constructions. The difference with the other inversion constructions is that the participant encoded as the S term in the inversion construction, as ‘the knife’ in (83b), corresponds to an adnominal possessor included in the NP in S role in the corresponding plain intransitive construction (83a).

(83) Mongo (Bantu, Benue-Congo, Niger-Congo)

a *Boala w'ifaká bǒolímana.*
SG.handle(c13) c13.GEN.knife(c19) I_{S/A}:c13.pop.out.CPL
'The handle of the knife popped out.'

b *Ifaká yǒlímana boala.*
SG.knife(c19) I_S:c19.pop.out.CPL SG.handle(c13)
'The handle of the knife popped out.' lit. 'The knife popped out the handle.'
(Hulstaert 1966: 449)

In his typology of concernee-concern constructions in Bantu languages, Van de Velde (2020) quotes two examples of this alternation, without, however, relating them to the question of inversion constructions.

(84) Mwiini (Bantu, Benue-Congo, Niger-Congo)

Maana vund-ish-ile kuulu.
SG.child(c11) I_{S/A}:c11.break-RES-PST SG.leg(c19)
'The child's leg is broken.' lit. 'The child is broken the leg.'
(Henderson 2014, quoted by Van de Velde 2020: 85)

(85) Orungu (Bantu, Benue-Congo, Niger-Congo)

Èrêrè zápóswì kidyâvì.
SG.tree(c17) I_{S/A}:c17.CPL.fall PL.leaf_(c110)
'The tree's leaves have fallen.' lit. 'The tree has fallen the leaves.'
(Van de Velde 2020: 86)

Chapter 16

The noncausal-causal alternation, the psych-alternation and the undirected-directed alternation

In this chapter, we examine the cross-linguistic variation in the coding of three functional types of alternations which play an important role in the structuration of the domain of transitivity. Most of the data used in this chapter to illustrate the discussion have already been quoted and discussed in the previous chapters, but in a different perspective.

16.1 Introductory remarks

The following three functional types of alternations play an important role in the structuration of the domain of transitivity, and may variously involve voice alternations and flexivalency alternations:

- the NONCAUSAL-CAUSAL ALTERNATION, in which the causal verb projects a transitive construction whose P term corresponds semantically to the A or S term in the construction of the noncausal verb, whereas A in the construction of the causal verb represents the instigator/controller of the event described by the noncausal verb;
- the PSYCH-ALTERNATION, defined as the relationship between verbs expressing psychological processes triggered by stimuli with the stimulus as the perspectival center, and verbs expressing the same psychological processes with the experiencer as the perspectival center;
- the UNDIRECTED-DIRECTED ALTERNATION, in which the directed verb projects a transitive clause whose A term corresponds semantically to the A or S term in the construction of the undirected verb, whereas P in the construction of the directed verb represents an additional participant towards which the activity of the referent of A is directed.

In the typological literature, much attention has been devoted to the noncausal-causal alternation, and more specifically to the UNACCUSATIVE-TRANSITIVE ALTERNATION, which constitutes a particular case of the noncausal-causal alternation especially interesting because of the important cross-linguistic variation in its formal manifestations. By contrast, the undirected-directed alternation has been relatively neglected. As regards the psych-alternation, the problem is a widespread tendency to treat it as if it were a mere particular case of the noncausal-causal alternation.

16.2 The noncausal-causal alternation

16.2.1 The notion of noncausal-causal verb pair

Noncausal-causal verb pairs are pairs of verbs in which one of the two verbs (the causal member of the pair) projects transitive clauses whose P term corresponds semantically to the A or S term in the construction of the other verb (the noncausal verb), whereas A in the construction of the causal verb represents the instigator of the event described by the noncausal verb.

This definition calls for the following two remarks:

- (a) The definition of the noncausal-causal alternation is formulated so as to exclude constructions in which an instigator/controller is coded as a causal oblique (for example, *The glass broke / The child broke the glass* meets the definition of the noncausal-causal alternation, but not *The glass broke / The glass broke through the fault of the child*).
- (b) The notions of noncausal and causal are relative rather than absolute. A verb is not noncausal or causal in itself, but only in relation to another verb. For example, *show* is causal in relation to *see* (*The child saw the elephant / The mother showed the elephant to the child*) but noncausal in relation to *make show* (*They will show you your room / I will make them show you your room*).

In the remainder of this section, it is also important to keep in mind that, in the terminology adopted here, the labels ‘noncausal’ and ‘causal’ (abbreviated as nC and C) refer to syntactic relationships between constructions regardless of their possible orientation, as opposed to ‘causative’ (which implies orientation from nC to C) and ‘decausative’ (or ‘anticausative’, which implies orientation from C to nC).

16.2.2 Possible formal relationships between noncausal and causal verbs

Five types of strategies may be involved in the coding of noncausal-causal pairs:¹⁶¹

- the SUPPLETIVISM STRATEGY, symbolized as $nC \neq C$, in which either the noncausal verb and its causal counterpart are completely different, or they differ in a way that cannot be analyzed as a particular instance of some more or less regular pattern;
- the AMBITRANSITIVITY STRATEGY, symbolized as $nC = C$, in which there is no formal difference between the noncausal verb and its causal counterpart;
- the MARKED-CAUSAL STRATEGY, symbolized as $nC > C$, in which the causal verb is formally more complex than its noncausal counterpart;
- the MARKED-NONCAUSAL STRATEGY, symbolized as $nC < C$, in which the noncausal verb is formally more complex than its noncausal counterpart;
- the EQUIPOLLENCE STRATEGY, symbolized as $nC \sim C$, in which the noncausal verb and the causal verb are formally related, but the relationship cannot be oriented morphologically from nC to C or from C to nC; this definition embraces several

¹⁶¹ A recent interesting overview of earlier work on the coding of the noncausal-causal alternation is offered by Tubino-Blanco (2020).

subtypes that Nichols & al. (2004) designate as double derivation, conjugation class change, auxiliary change, and ablaut.

Note that the notions of marked-causal and marked-noncausal are more restricted than the notions of causativization and decausativization, respectively, since they imply morphological orientation, and consequently exclude instances of causativization or decausativization involving the default voice and a non-default voice in an inflectional voice system.

Examples (1) and (2) illustrate the suppletivism strategy.

(1) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Tàú í-sù:-l-é.*
 lion(cl9) I_{S/A}:cl9-die-PRF-FV
 ‘The lion died.’
- b *Mò-tsómí ’ó-bólá-íl-é tà:ú.*
 SG-hunter(cl1) I_{S/A}:cl1-kill-PRF-FV lion(cl9)
 ‘The hunter killed the lion.’

(2) Russian (Slavic, Indo-European)

- a *Rebënok prosnulsja.*
 child(M) wake.up.PFV.PST.I_{S/A}:SG.M
 ‘The child woke up.’
- b *Mat’ razbudila rebënka.*
 mother(F) awaken.PFV.PST.1_{S/A}:SG.F child(M).ACC
 ‘The mother awakened the child.’

Examples (3), (4) and (5) illustrate the ambitransitivity strategy.

(3) Mandinka (Central Mande, Mande)

- a *Jàtòo máŋ fãa.*
 lion.D CPL.NEG die
 ‘The lion did not die.’
- b *Dánòo máŋ jàtóo fãa.*
 hunter.D CPL.NEG lion.D kill
 ‘The hunter did not kill the lion.’

(4) Wolof (Wolof, Atlantic, Niger-Congo)

- a *Weer b-i toj na.*
 glass(clB/clY) clB-D break PRF.I_{S/A}:3SG
 ‘The glass broke.’
- b *Xale b-i toj na weer b-i.*
 child(clB/clY) clB-D break PRF.I_{S/A}:3SG glass(clB/clY) clB-D
 ‘The child broke the glass.’

(5) Avar (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Mat'u b-ek-ana.*
 mirror(N) I_{S/A}:N-break-CPL
 'The mirror broke.'
- b *Aħmad-i-ca mat'u b-ek-ana.*
 Ahmad(M)-OF-ERG mirror(N) I_{S/P}:N-break-CPL
 'Ahmad broke the mirror.'

Examples (6), (7) and (8) illustrate the marked-causal strategy.

(6) Turkish (Turkic, Altaic)

- a *Aslan öl-dü-Ø.*
 lion die-CPL-I_{S/A}:3SG
 'The lion died.'
- b *Avcı aslan-ı öl-dür-dü-Ø.*
 hunter lion-ACC die-CAUS-CPL-I_{S/A}:3SG
 'The hunter killed the lion.'

(7) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Lórí 'í-tláá-è:m-à.*
 lorry(cl9) I_{S/A}:cl9-FUT-stop-FV
 'The lorry is going to stop.'
- b *Mò-q^hwéétsí 'ó-tláá-è:m-is-à ló:ri.*
 SG-driver(cl1) I_{S/A}:cl1-FUT-stop-CAUS-FV lorry(cl9)
 'The driver is going to stop the lorry.'

(8) Hungarian (Ugric, Uralic)

- a *Forr a víz.*
 boil.I_{S/A}:3SG D water
 'The water is boiling.'
- b *Vizet forr-al-ok.*
 water.ACC boil-CAUS-I_{S/A}:1SG
 'I am boiling water.'

Examples (9), (10) and (11) illustrate the marked-noncausal strategy.

(9) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Mà-í 'á-t^húb-èχ-ì:l-è.*
 PL-egg(cl6) I_S:cl6-break-DECAUS-PRF-FV
 'The eggs broke.'
- b *Dw-àná 'ó-t^húb-il-é mà:-í.*
 SG-child(cl1) I_{S/A}:cl1-break-PRF-FV PL-egg(cl6)
 'The child broke the eggs.'

(10) Russian (Slavic, Indo-European)

- a *Mašina ostanovi-l-a-s'.*
 car(F) stop.PFV-PST-I_{S/A}:SG.F-DECAUS
 'The car stopped.'
- b *Šofër ostanovi-l-Ø mašinu.*
 driver(M) stop.PFV-PST-I_{S/A}:SG.M car(F).ACC
 'The driver stopped the car.'

(11) Yaqui (Cahita, Uto-Aztecan)

- a *U bentaana emo eta-k.*
 D window self close-CPL
 'The window closed.' lit. 'The window closed itself.'
- b *Joan bentaana-ta eta-k.*
 PRN window-ACC close-CPL
 'Juan closed the window.'
 (Álvarez González 2007: 16)

Examples (12), (13) and (14) illustrate the equipollence strategy.

(12) Yaqui (Cahita, Uto-Aztecan)

- a *U-me kuči'i-m poposiw-e-k.*
 D-PL cuchillo-PL rust-ITR-CPL
 'The knife rusted.'¹⁶²
- b *U ba'a kuči'i-m poposiw-a-k.*
 D water knife-PL rust-TR-CPL
 'The water caused the knife to rust.'
 (Álvarez González 2007: 14)

(13) Hungarian (Ugric, Uralic)

- a *Jav-ul-t-Ø a helyzet.*
 good-VBZ. ITR-PST-I_{S/A}:3SG D situation
 'The situation improved.'
- b *Hibákat jav-ít-ott-Ø a tanár.*
 mistake.PL.ACC good-VBZ.TR-PST-I_{S/A}:3SG D professor
 'The professor corrected some mistakes.'

(14) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Sì-émò sá-lò-ápi 'sì-ká-fét-ò:χ-à.*
 SG-state(cl7) cl7.GEN-SG-sky(cl11) I_{S/A}:cl7-POT-change-ITR-FV
 'The weather may change.'
- b *Tiràχàlò é 'í-ká-fét-òl-à mà-tshìlò á-rò:ná.*
 event(cl9) cl9.DEM I_{S/A}:cl9-POT-change-TR-FV PL-life(cl6) cl6.GEN-1PL
 'This event may change our lives.'

¹⁶²162 In Yaqui, 'knife' is a plurale tantum.

As illustrated in (15), for some noncausal-causal pairs of verb meanings at least, the five possible strategies are attested cross-linguistically.

- (15) ‘go out / put out (fire)’ in five sub-Saharan languages
- | | | | |
|---|---|------------------------------|--------|
| a | Koroboro Senni (Songhay) | <i>buu / wii</i> | nC ≠ C |
| b | Minyanka (Senufo, Gur, Niger-Congo) | <i>fúkú / fúkú</i> | nC = C |
| c | Afar (Lowland East Cushitic, Cushitic, Afroasiatic) | <i>bade / bad-ise</i> | nC > C |
| d | Jóola Fóoñi (Joola, Atlantic, Niger-Congo) | <i>fɔk-ɔ / fɔk</i> | nC < C |
| e | Lingala (Bantu, Benue-Congo, Niger-Congo) | <i>kozim-ana / kozim-isa</i> | nC ~ C |

This example shows that there is important cross-linguistic variation in the coding patterns of noncausal-causal pairs. However, there are obvious limits to this diversity, in the sense that not all strategies are attested for all semantic types of noncausal-causal pairs. This question is examined in §16.2.3 before turning to the discussion of the cross-linguistic variation in §16.2.4.

16.2.3 Universal tendencies in the coding of noncausal-causal pairs

Haspelmath (2016) shows that the universal tendencies in the coding of noncausal-causal pairs can be captured by characterizing the noncausal member of the pair along the SPONTANEITY SCALE schematized and illustrated in Table 1.

transitive	>	unergative	>	automatic unaccusative	>	costly unaccusative	>	agentful
+ spontaneous				– spontaneous				
‘cut’		‘talk’		‘freeze (intr.)’		‘break (intr.)’		‘be cut’
‘wash (tr.)’		‘dance’		‘melt (intr.)’		‘split (intr.)’		‘be washed’
‘throw’		‘walk’		‘dry (intr.)’		‘open (intr.)’		‘be thrown’
‘eat’		‘play’		‘wake up’		‘close (intr.)’		‘be eaten’
‘hit’		‘work’		‘sink’		‘change (intr.)’		‘be hit’
‘kill’		‘scream’		‘go out (fire)’		‘gather (intr.)’		‘be killed’

Table 1. The spontaneity scale (Haspelmath 2016)

The labels ‘transitive’, ‘unergative’, ‘automatic’, ‘costly’ and ‘agentful’ as used in this table are defined as follows by Haspelmath (2016: 35-36):

- Transitive verb meanings “are verb meanings where an agent impinges directly on a patient, especially in a physical way (‘break’, ‘kill’, ‘lift’, etc.)”.
- Unergative verb meanings “are verb meanings referring to (typically volitional) human actions that are not directed specifically at another participant and that have no inherent limit”.
- Automatic verb meanings refer to processes “that are easily construed as occurring on their own, without any external energy input”.
- Costly verb meanings refer to processes “that do not so easily occur on their own, but typically involve some energy input”.

- Agentful “is an ad hoc term for (potential) verb meanings that refer to processes such as ‘be cut’, ‘be washed’, ‘be beaten’, ‘be thrown’ which are quite difficult to construe as occurring on their own”.

A particularly interesting aspect of this proposal is the division of the unaccusative intransitives into two subclasses, ‘automatic’ and ‘costly’, which unquestionably helps capture regularities in the coding of noncausal-causal pairs. The main generalizations proposed by Haspelmath (2016) on the basis of this characterization of verb meanings are that

“causative coding [i.e., the marked-causal strategy], especially analytic coding, of a verb pair is more likely when the noncausal verb’s meaning is on the higher end (the left-hand part) of the scale, while anticausative coding [i.e., the marked-noncausal strategy] is more likely when the noncausal verb’s meaning is on the lower end (the right-hand part) of the scale... Thus, to express the idea of ‘making someone talk’, and especially ‘making someone cut something’, languages are quite likely to use causatives, often analytic causatives. To express the idea of ‘breaking (intr.)’ ... languages are quite likely to use anticausatives, i.e. forms with special coding that indicates a non-causal meaning... The implicational generalizations are even stronger: No language that requires an analytic causative to express ‘make someone talk’ will have a synthetic causative for ‘make someone cut something’. And if a language has a causative to express ‘break (tr.)’, it is very likely that it will also have a causative to express ‘freeze (tr.)’, though not the other way round..” (Haspelmath 2016: 34-35)

In this article, Haspelmath discusses and illustrates the following universals:

- The higher the noncausal meaning of a noncausal-causal pair is on the spontaneity scale, the longer and the more analytic any causative marker on the causal verb form will be.
- If a synthetic causative can be used with base verbs of some type, analytic causatives will not be required with base verbs lower on the spontaneity scale. In particular, if a language has synthetic causatives of transitive verbs, it also has synthetic causatives of intransitive verbs, and if a language has synthetic causatives based on unergative verbs, it also has synthetic causal verbs corresponding to unaccusative noncausal verbs.
- Analytic causatives occur only as far down the scale as automatic meanings.
- Decausatives occur only as far up the scale as automatic meanings.
- Ambitransitive verbs occur only as far up the scale as automatic meanings.

Moreover, Haspelmath (2016) analyzes these generalizations as a particular case of the form-frequency correspondence discussed in more general terms in another article (Haspelmath 2021a), according to which, “when two minimally different grammatical patterns (i.e. patterns that form an opposition) occur with significantly different frequencies, the less frequent pattern tends to be overtly coded (or coded with more coding material), while the more frequent pattern tends to be zero-coded (or coded with less coding material).”

An important conclusion following from the universal tendencies in the coding of noncausal-causal pairs discussed by Haspelmath (2016) is that the cross-linguistic variation in the choice between the possible coding strategies concerns mainly (if not exclusively) the pairs whose non-causal member can be characterized as unaccusative (either ‘automatic’ or ‘costly’):

- In noncausal-causal pairs whose noncausal member is unergative or transitive, the variation is limited to the choice between subtypes of the marked-causal strategy.
- In noncausal-causal pairs whose noncausal member is ‘agentful’, the variation is limited to the marked-noncausal strategy (passivization) and the ambitransitivity strategy (passive ambitransitivity).

In the remainder of this chapter, I will use UNACCUSATIVE-TRANSITIVE VERB PAIR as an abbreviation for ‘noncausal-causal pair of verb meanings whose noncausal member is an unaccusative intransitive’.

16.2.4 Language-specific tendencies in the coding of unaccusative-transitive pairs

In the last three decades, many studies have been devoted to the investigation of the relationship between intransitive verbs encoding processes that can be conceptualized as occurring more or less spontaneously, or at least without a clearly identified instigator/controller, and transitive verbs encoding the same processes triggered/controlled by the action of an agent. The main references are (Haspelmath 1993b), (Nichols & al. 2004), (Haspelmath & al. 2014). Although it mainly deals with a particular language (Japanese), (Kageyama & Jacobsen 2016) also deserves to be mentioned here.

As already illustrated by some of the examples given in §16.2.1, individual languages do not systematically use the same strategy for the coding of all unaccusative-transitive pairs. However, they can be characterized in terms of the more or less marked preference they may have for one of the possible strategies. Moreover, cross-linguistically, the proportion of languages selecting a given strategy varies from one unaccusative-transitive pair to another. For example, in the languages of the world, the $nC \neq C$ strategy (suppletivism) is particularly common for the ‘die / kill’ pair, and the $nC < C$ strategy (marked-noncausal) is particularly rare for ‘boil’.

Haspelmath (1993b) proposed a questionnaire consisting of 31 pairs of verb meanings, designed to investigate the cross-linguistic variation in the coding of noncausal-causal pairs. Most of the pairs in Haspelmath’s (1993b) questionnaire are unaccusative-transitive pairs, but not all. This questionnaire is reproduced in Table 2, with the 31 pairs in ascending order of marked-noncausal / marked-causal ratio:

1.	boil
2.	freeze
3.	dry
4.	wake up
5.	go out / put out
6.	sink
7.	learn / teach
8.	melt
9.	stop
10.	turn
11.	dissolve
12.	burn

13.	destroy
14.	fill
15.	finish
16.	begin
17.	spread
18.	roll
19.	develop
20.	get lost / lose
21.	rise / raise
22.	improve
23.	rock
24.	connect
25.	change
26.	gather
27.	open
28.	break
29.	close
30.	split
31.	die / kill

Table 2. 31 noncausal-causal pairs (Haspelmath 1993b)

In (Haspelmath & al. 2014), a paper mainly devoted to the discussion of the relationship between the choice of the marked-causal vs. marked-noncausal strategy and the relative frequency of the noncausal and causal verbs in discourse, the questionnaire is limited to the 20 verbs listed in Table 3. In this table, the right column gives the percentage of marked-causal pairs among the verbs that occur in a marked-causal or marked-noncausal pair (disregarding other kinds of pairs) in the data from 21 languages provided by Haspelmath (1993b).

1.	boil	96
2.	freeze	86
3.	dry	77
4.	wake up	75
5.	go out / put out	71
6.	sink	70
7.	melt	68
8.	stop	62
9.	turn	48
10.	burn	42
11.	fill	38
12.	rise / raise	27
13.	improve	26
14.	rock	25
15.	connect	14
16.	gather	12

17.	open	10
18.	break	7
19.	close	6
20.	split	4

Table 3. 20 noncausal-causal pairs (Haspelmath & al. 2014)

As regards the cross-linguistic variation in the preference for the available strategies, it seems that no language shows a strong preference for the suppletivism strategy.

Languages with a relatively strong preference for the equipollence strategy are not common, but Hungarian has 7.5 equipollent pairs out of 20 in the questionnaire used by Haspelmath & al. (2014). As already mentioned in chapter 8 §8.7.1, the Adamawa languages Pere and Samba Leko are also cases in point. Although data corresponding exactly to the questionnaire are not available for these languages, the following list of noncausal-causal pairs differing only in tone (high-toned noncausal vs. low-toned causal) given by Kastenholz (2018) is sufficient to prove the prominence of the equipollence strategy in Pere, cf. (16).

(16) Pere (Samba-Duru, Adamawa, Niger-Congo)

<i>gál</i>	to go to pieces	<i>gəl</i>	to break s.th. to pieces
<i>nál</i>	to melt (intr.)	<i>nəl</i>	to melt s.th.
<i>pán</i>	to crease (intr.)	<i>pən</i>	to fold, ply s.th.
<i>fil</i>	to change, transform (intr.)	<i>fil</i>	to change s.th.
<i>túl</i>	to collapse, crumble	<i>təl</i>	to demolish s.th.
<i>yú:</i>	to slip out of position	<i>yù:</i>	to withdraw s.th.
<i>yób</i>	to relax (intr.)	<i>yòb</i>	to relax s.th.
<i>búl</i>	to come loose, come off	<i>bəl</i>	to detach s.th.
<i>nìŋ</i>	to awake	<i>nìŋ</i>	to wake s.o. up
<i>nàŋ</i>	to improve (intr.)	<i>nàŋ</i>	to improve s.th.
<i>zùg</i>	to get tangled up	<i>zùg</i>	to muddle s.th. up
<i>tùg</i>	to rest	<i>tùg</i>	to unburden s.o.
<i>nìŋ</i>	to go out (fire, light)	<i>nìŋ</i>	to extinguish, put out
<i>tòb</i>	to get soaked	<i>tòb</i>	to soak s.o.
<i>wéd</i>	to spill over	<i>wéd</i>	to spill s.th.
<i>yód</i>	to protrude	<i>yòd</i>	to stick s.th. out
<i>téd</i>	to heal (intr.)	<i>téd</i>	to heal, cure s.th.
<i>ád</i>	to become, be narrow	<i>əd</i>	to narrow s.th.
<i>ód</i>	to get, be dry	<i>òd</i>	to dry s.th.
<i>íg</i>	to incline, be askew	<i>ìg</i>	to tilt s.th.
<i>gúd</i>	to become, be paralyzed	<i>gúd</i>	to paralyze s.o.
<i>kpál</i>	to roll around, wallow	<i>kpəl</i>	to roll, make a roll
<i>yám</i>	to scatter, to disperse	<i>yàm</i>	to scatter s.th.
<i>kpó:d</i>	to advance skidding on buttocks	<i>kpò:d</i>	to lug, drag s.th.
<i>yúg</i>	to plunge (in)	<i>yùg</i>	to shove s.th. in
<i>nám</i>	to move, stir	<i>nàm</i>	to move s.th.
<i>kúg</i>	to cry	<i>kùg</i>	to cry over s.th.
<i>tá:l</i>	to pass	<i>tà:l</i>	to pass s.th. on

(Kastenholz 2018: 76)

A productive system of purely tonal marking of the noncausal-causal alternation is also reported by Fabre (2002: 144) for Samba Leko, a language belonging to the same branch of the Adamawa family, with the difference being that in Samba Leko, the tonal contrast is not uniform across noncausal-causal pairs, and curiously enough, for some pairs cognate with their Pere equivalent, the tonal contrast is reversed, e.g. *wàd* ‘be dry’ / *wád* ‘dry (tr.)’, probably cognate with Pere *ód* / *òd*.

By contrast, extreme cases of languages with a strong preference for the marked-causal strategy and of languages with a strong preference for the marked-noncausal strategy are well-attested cross-linguistically, and extreme cases of preference for the ambitransitivity strategy are also easy to find.

The language sample analysed by Haspelmath & al. (2014) includes a language with a very strong preference for ambitransitivity (English: 18 ambitransitive pairs out of 20). A strong preference for ambitransitivity in the coding of unaccusative-transitive pairs is also found in Basque, and in many sub-Saharan languages (Creissels 2022b).

The language sample analysed by Haspelmath & al. (2014) includes a language with an extremely strong preference for the marked-noncausal strategy (Romanian: 20 marked-noncausal pairs out of 20). A strong preference for the marked-noncausal strategy is typical of Slavic and Romance languages.

In the language sample analyzed by Haspelmath & al. (2014), the language with the highest proportion of marked-causal pairs is Turkish (12 marked-causal pairs out of 20), but languages with a higher proportion of marked-causal pairs in the same questionnaire are not difficult to find. Among the languages for which I have the relevant data, the strongest preference for the marked-causal strategy in the coding of unaccusative-transitive pairs is found in Northern Akhvakh with, 18 marked-causal pairs out of 20 in the questionnaire used by Haspelmath & al. (2014):¹⁶³

(17) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

boil	<i>ãχ-</i> / <i>ãχ-a(j)-</i>	nC > C
freeze	<i>žaq’i(b)-</i> / <i>žaq’ib-a(j)-</i>	nC > C
dry	<i>buq̄’-</i> / <i>buq̄’-a(j)-</i>	nC > C
wake up	<i>goč’-</i> / <i>goč’-a(j)-</i>	nC > C
go out / put out	<i>biš-</i> / <i>biš-a(j)-</i>	nC > C
sink	<i>geļ’a χēr-</i> / <i>geļ’a χēr-a(j)-</i>	nC > C
melt	<i>miñ-</i> / <i>miñ-a(j)-</i>	nC > C
stop	<i>beκ-</i> / <i>beκ-a(j)-</i>	nC > C
turn	<i>šor-</i> / <i>šor-a(j)-</i>	nC > C
burn	<i>č’a(j)-</i> / <i>č’aj-a(j)-</i>	nC > C
fill	<i>beč’-</i> / <i>beč’-a(j)-</i>	nC > C
rise / raise	<i>heč’-</i> / <i>heč’-a(j)-</i>	nC > C
improve	<i>šoł-</i> / <i>šoł-a(j)-</i>	nC > C
rock	<i>kokor-</i> / <i>kokor-a(j)-</i>	nC > C
connect	<i>miχ-</i> / <i>miχ-a(j)-</i>	nC > C

¹⁶³ In order to facilitate the understanding of the examples, the form given in the second column of this chart is not the infinitive, whose morphological structure is blurred by morphophonological processes occurring at the boundary between the stem and the infinitive ending, but the underlying morphological form of the stem.

gather	<i>biš-</i> / <i>biš-a(j)-</i>	nC > C
open	<i>aχ-</i> / <i>aχ-</i>	nC = C
break	<i>biq'-</i> / <i>biq'-a(j)-</i>	nC > C
close	<i>ec'-</i> / <i>ec'-</i>	nC = C
split	<i>q̄ar-</i> / <i>q̄ar-a(j)-</i>	nC > C

16.2.5 Co-lexification patterns and the coding of unaccusative-transitive pairs

In this section, I briefly discuss a phenomenon which may explain some deviations from the general tendencies in the coding of unaccusative-transitive pairs of verb meanings, but which, to the best of my knowledge, has not been discussed so far in the literature. The idea is that the semantic shifts affecting the lexical meaning of verbs are not necessarily accompanied by changes in their construction, so that verbs that acquire new meanings may maintain a coding of the unaccusative-transitive alternation more consistent with their original meaning than with the newly-developed ones.

For example, in an investigation of 13 unaccusative-transitive pairs in a sample of 30 sub-Saharan languages (Creissels, 2022b), I found that, on the whole, the pairs I investigated showed a distribution of the different possible strategies not very different from that observed by Haspelmath (1993b) in a very different language sample, with, however, a striking exception: in my sample of 30 sub-Saharan languages, for the pair ‘go out / put out (fire)’, the ratio of unoriented (suppletive, ambitransitive or equipollent) vs. oriented (marked-causal or marked-noncausal) pairs (23/7) was much higher than in the sample analyzed by Haspelmath (1993b).

In fact, this very high proportion of unoriented pairs for ‘go out / put out (fire)’ in the sub-Saharan sample has a very simple explanation. It is due to an unusually high number of languages that have a suppletive pair for this verb meaning, and this must be related to the fact that the co-lexification of ‘go out / put out (fire)’ with ‘die / kill’ is a common co-lexification pattern among the languages of sub-Saharan Africa. The point is that, among unaccusative-transitive pairs, the coding of ‘die / kill’ by means of suppletive pairs is particularly common, in sub-Saharan languages as in the languages spoken in other parts of the world. Consequently, the explanation or the high ratio of unoriented ‘go out / put out’ pairs in the sub-Saharan sample is certainly that the ‘go out / put out’ pairs that result from a metaphorical extension of ‘die / kill’ may maintain a type of coding typically found with ‘die / kill’.

The same problem may arise with two pairs such as ‘wake up (intr./tr.)’ and ‘rise/raise’, which occupy very different positions in Haspelmath’s scale but are co-lexified in some languages.

The following co-lexification patterns can also be mentioned as possibly interfering with the evaluation of tendencies in the coding of unaccusative-transitive pairs, since historically, the development of one meaning from another does not necessarily trigger a readjustment of the behavior of the verb with respect to the noncausal-causal alternation:

- the colexification of ‘break’ and ‘split’ (e.g. Soninke *kárá*),
- the colexification of ‘break’ and ‘kill’ (e.g. Tuwuli *kó*)
- the colexification of ‘boil (intr.)’ and ‘rise’ (e.g. Bambara *wúli*),
- the colexification of ‘stop (intr.)’ and ‘stand up’ (e.g. Mandinka *lõo*).

16.3 The psych-alternation

Psych-verbs can be defined as verbs whose lexical meaning refers to psychological processes or states that affect an experiencer in reaction to a stimulus. This relatively restrictive definition excludes several semantic types of verbs often grouped together into a loosely defined class of psychological verbs: cognitive verbs ('believe', 'imagine'), verbs of willing/intention ('want'), etc. Moreover, some verbs meet the definition in some of their uses only. For example, *adore* is a psych-verb in *He adores his wife*, but not in *They do not adore the same gods*. Their valency properties in uses that do not meet the definition of psych-verbs are not considered here.

Psych-verbs are particularly interesting in a general discussion of verbal valency and valency alternations, since they are commonly found in pairs, such as *fear* / *frighten*. The two verbs in such pairs have the same denotative meaning, but express two distinct perspectivizations of a participant structure consisting of an experiencer and a stimulus: from experiencer to stimulus (*fear*) vs. from stimulus to experiencer (*frighten*).

The coding of such pairs of psych-verbs shows the following possibilities:

- the SUPPLETIVISM strategy: in a suppletive pair of psych-verbs, the formal difference between the verb expressing the Exp→Stim perspectivization and its counterpart expressing the Stim→Exp perspectivization cannot be analyzed as a particular instance of some more or less regular pattern, as in English *The child fears the dog* / *The dog frightens the child*;
- the FLEXIVALENCY strategy: a flexivalent psych-verbs has a construction expressing the Exp→Stim perspectivization and another construction expressing the Stim→Exp perspectivization;
- the EQUIPOLLENCE strategy: the two psych-verbs that constitute an equipollent pair are formally related, but they show an equal degree of formal complexity, and their formal relationship cannot be analyzed in terms of either transitivization or detransitivization;
- the TRANSITIVIZATION strategy: in a transitivizing pair of psych-verbs, the verb expressing the Stim→Exp perspectivization is formally the causative verb derived from the verb expressing the Exp→Stim perspectivization;
- the DETRANSITIVIZATION strategy: in a detransitivizing pair of psych-verbs, the verb expressing the Exp→Stim perspectivization is formally the decausative or passive verb derived from the verb expressing the Exp→Stim perspectivization.

Concerning the flexivalency strategy in the psych alternation, it is important to observe that flexivalent psych-verbs are not always ambitransitive, which constitutes a reason for not treating the psych-alternation as a subtype of the unaccusative-transitive alternation, in addition to those discussed below. For example, as already mentioned in chapter 15 §15.5 & §15.6.5, Basque has flexivalent psych-verbs with two intransitive constructions differing in the choice of the S term, as in (18), and also flexivalent psych-verbs with two transitive constructions in which the experiencer and the stimulus interchange the A and P roles, as in (19) (Creissels & Mounole 2020).

(18) Central Basque (Euskaran)

- a *Urrikitzen naiz nire hutsez.*
 regret.ICPL be.PRS.I_{ZER}:1SG 1SG.GEN mistake.INSTR
 ‘I regret my mistake.’
- b *Nire hutsa. urrikitzen zait.*
 1SG.GEN mistake.SG regret.ICPL be.PRS.I_{ZER}:3SG.I_{DAT}:1SG
 same meaning as (a)

(19) Central Basque (Euskaran)

- a *Hori higuintzen dut.*
 DEM.SG disgust.ICPL have.PRS.I_{ERG}:1SG.I_{ZER}:3SG
 ‘That disgusts me.’
- b *Horrek higuintzen nau.*
 DEM.SG.ERG disgust.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:1SG
 same meaning as (a)

Note also, in this connection, that the English suppletive pair *fear / frighten* consists of two transitive verbs.

The following examples illustrate the cross-linguistic variation in the coding of a particular pair of psych-verbs. In English, *fear / frighten* is a suppletive pair, but cross-linguistically, the same meanings can be expressed by a flexivalent verb, as in (20), an equipollent pair, as in (21), a transitivizing pair, as in (22) and (23), or a detransitivizing pair, as in (24).

(20) Central Basque (Euskaran)

- a *Beldurtzen naiz gaueko iluntasunarekin.*
 fear.ICPL be.PRS.I_{ZER}:1SG nocturnal darkness.COM
 ‘I fear the darkness of the night.’
- b *Gaueko iluntasunak beldurtzen nau.*
 nocturnal darkness.ERG fear.ICPL have.PRS.I_{ERG}:3SG.I_{ZER}:1SG
 ‘The darkness of the night frightens me.’

(21) French (Italic, Indo-European)

- a *L'enfant a peur du chien.*
 D.SG.M-child(M) have.PRS.I_{S/A}:3SG fear(F) of.D.SG.M dog(M)
 ‘The child fears the dog.’
- b *Le chien fait peur à l'enfant.*
 D.SG.M dog(M) make.PRS.I_{S/A}:3SG fear(F) to D.SG.M-child(M)
 ‘The dog frightens the child.’

(22) Mandinka (Central Mande, Mande)

- a *Dindinó kà silá wùlôo lá.*
 child.D ICPL fear dog.D POSTP
 ‘The child fears the dog.’

- b *Wùlôo kà dindínò sílá-ndì.*
 dog.D ICPL child.D fear-CAUS
 ‘The dog frightens the child.’

(23) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Mik’e ek’^wa-šū-gune λēri.* (*λēri < λi(b)-ari*)
 child man-OF-ABL fear.CPL
 ‘The child feared the man.’
- b *Ek’^wa-š^w-e mik’e λib-āri.* (*λibāri < λib-a(j)-ari*)
 man-OF-ERG child fear-CAUS.CPL
 ‘The man frightened the child.’

(24) Spanish (Italic, Indo-European)

- a *El niño se asusta del perro.*
 D.SG.M child(M) DECAUS frighten.PRS.I_{S/A}:3SG of.D.SG.M dog(M)
 ‘The child fears the dog.’
- b *El perro asusta al niño.*
 D.SG.M dog(M) frighten.PRS.I_{S/A}:3SG ACC.D.SG.M child(M)
 ‘The dog frightens the child.’

Cross-linguistically, the coding of pairs of psych-verbs expressing two distinct perspectivizations of the same psychological process or state is often similar to the coding of unaccusative-transitive pairs. For example, in Spanish (a language with a strong preference for the marked-noncausal strategy in the accusative-transitive alternation), *asustar-se* ‘fear’ / *asustar* ‘frighten’ (psych-alternation) and *romper-se* ‘break (intr.)’ / *romper* ‘break (tr.)’ (unaccusative-transitive alternation) are formally similar, since the psych-verb expressing the Exp→Stim perspectivization (*asustar-se*) derives from that expressing the Stim→Exp perspectivization (*asustar*) in the same way as the noncausal verb (*romper-se*) from the causal verb (*romper*) in the unaccusative-transitive alternation. Quite symmetrically, in Akhvakh (a language with a strong preference for the marked-causal strategy in the accusative-transitive alternation), *λi(b)-* ‘fear’ / *λib-a(j)-* ‘frighten’ (psych-alternation) and *biq’-* break (intr.)’ / *biq’-a(j)-* ‘break (tr.)’ (unaccusative-transitive alternation) are formally similar, since the psych-verb expressing the Stim→Exp perspectivization (*λib-a(j)-*) derives from that expressing the Exp→Stim perspectivization (*λi(b)-*) in the same way as the causal verb (*biq’-a(j)*) from the noncausal verb (*biq’-*) in the unaccusative-transitive alternation.

The specificity of the psych alternation is implicitly acknowledged by the authors that use the notion of conversive voice or diathesis (see chapter 11 §11.9.1). However, in the literature, the confusion between the psych-alternation and the unaccusative-transitive alternation is common, although they basically differ in that, in the psych-alternation, both verbs express the same bivalent participant structure consisting of an experiencer and a stimulus and differ only in terms of perspectivization, whereas in the unaccusative-transitive alternation, the monovalent participant structure of the noncausal unaccusative verb alternates with the bivalent participant structure of the causal transitive verb. That said, the fact that psych verbs expressing the perspectivization Stim→Exp may show causative marking, whereas psych verbs expressing the perspectivization Exp→Stim may show decausative

marking, is consistent with the fact that in a psychological process, the stimulus is the triggering element, which gives it some affinity with the agent of typical transitive events.

Moreover, the confusion between the psych-alternation and the unaccusative-transitive alternation is certainly favored by the fact that, in many languages, the A term in the construction of verbs such as *frighten* is ambiguous between the semantic role of stimulus (as in *The sound of thunder frightened the child*) and that of instigator of the event (i.e., agent in the strict sense of this term), as in *Don't try to frighten me with such stories*, where the stimulus is expressed as a *with*-phrase). However, interestingly, some languages at least are sensitive to this distinction. For example, in Basque, *beldurtu* is the equivalent of both *fear* and *frighten* with an A phrase in the semantic role of stimulus (as in (22) above), but the equivalent of *frighten* with an A phrase in the semantic role of instigator is rather the derived causative verb *beldurrarazi*.

The question that arises is to what extent the preferences manifested by individual languages in the coding of the psych-alternation correlate or not with their preferences in the coding of unaccusative-transitive pairs.

Spanish, Basque and Akhvakh are among the languages that have a very strong preference for a particular strategy in the coding of unaccusative/transitive pairs (marked-noncausal in Spanish, ambitransitivity in Basque, marked-causal in Akhvakh), and in which data such as those quoted in Table 4 suggest that the same coding strategy is predominant in the psych-alternation.

Spanish	Akhvakh ¹⁶⁴	Basque	
<i>entristecer-se</i> / <i>entristecer</i>	<i>mizatila(j)-</i> / <i>mizatilaj-ut'</i>	<i>muzindu</i> (intr./tr.)	'get sad or angry / annoy'
<i>ofender-se</i> / <i>ofender</i>	<i>maḷeq'-</i> / <i>maḷeq'-a(j)-</i>	<i>gaitzitu</i> (intr./tr.)	'get annoyed / annoy'
<i>enojar-se</i> / <i>enojar</i>	<i>č'ašina(j)-</i> / <i>č'ašinaj-ut'</i>	<i>unatu</i> (intr./tr.)	'get tired/ tire (mentally)'
<i>consolar-se</i> / <i>consolar</i>	<i>rāq̄'as:-</i> / <i>rāq̄'aš-a(j)-</i>	<i>kontsolatu</i> (intr./tr.)	'get comforted / comfort'
<i>impresionar-se</i> / <i>impresionar</i>	<i>tamašatila(j)-</i> / <i>tamašatilaj-ut'</i>	<i>liluratu</i> (intr./tr.)	'get dazzled / dazzle'
<i>divertir-se</i> / <i>divertir</i>	<i>rak'waxela(j)-</i> / <i>rak'waxelaj-ut'</i>	<i>dibertitu</i> (intr./tr.)	'get amused / amuse'
<i>asustar-se</i> / <i>asustar</i>	<i>ḷi(b)-</i> / <i>ḷib-a(j)-</i>	<i>beldurtu</i> (intr./tr.)	'fear / frighten'
<i>alegrar-se</i> / <i>alegrar</i>	<i>beḫ̄-</i> / <i>beḫ̄-a(j)-</i>	<i>poztu</i> (intr./tr.)	'rejoice / delight'
<i>inquietar-se</i> / <i>inquietar</i>	<i>rak'waq̄'warat-</i> / <i>rak'waq̄'warat-a(j)-</i>	<i>kezkatu</i> (intr./tr.)	'worry' (intr./tr.)
<i>avergonzar-se</i> / <i>avergonzar</i>	<i>surila(j)-</i> / <i>surilaj-ut'</i>	<i>lotsatu</i> (intr./tr.)	'be ashamed / shame'

¹⁶⁴ Akhvakh has two causative suffixes in complementary distribution, *-a(j)-* and *-ut'*.

<i>volver-se loco</i> / <i>volver loco</i>	<i>ƶadał-</i> / <i>ƶadar-a(j)-</i>	<i>zoratu</i> (intr./tr.)	'get mad / make mad'
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Table 4. Some pairs of psych-verbs in Spanish, Akhvakh and Basque

However, there are also languages in which the strong preference for a particular strategy observed in the coding of unaccusative/transitive pairs does not extend to the psych alternation. The data I have at my disposal are not sufficient to discuss whether a strong preference for the marked-causal strategy or the marked-noncausal strategy in the unaccusative-transitive alternation correlates with a preference for transitivity or detransitivization in the psych alternation or not. I am sure, however, that among the languages showing a strong preference for ambitransitivity in the unaccusative-transitive alternation, the extension of the preference for ambitransitivity to the psych-alternation that can be observed in Basque is very far from being the general rule. For example, English shows a preference for the ambitransitivity strategy in the unaccusative-transitive alternation comparable to that observed in Basque, but in English, ambitransitive psych-verbs such as *worry* are the exception rather than the rule. In English, the preferred strategy in the psych-alternation is rather detransitivization (*get bored / bore*). In (Creissels, 2022b), I make similar observations on ten languages of sub-Saharan Africa that also show a very strong preference for ambitransitivity in the coding of the unaccusative-transitive alternation, but not in the coding of the psych-alternation.¹⁶⁵

16.4 The undirected-directed alternation

As already mentioned in the introduction of this chapter, contrary to the noncausal-causal alternation, the undirected-directed alternation has not been systematically investigated by typologists.

16.4.1 The notion of undirected-directed verb pair

UNDIRECTED-DIRECTED VERB PAIRS is the term I propose for pairs of verbs in which one of the two verbs (the directed member of the pair) projects transitive clauses whose A term corresponds semantically to the A or S term in the construction of the other verb (the undirected verb), whereas P in the construction of the directed verb represents an additional participant towards which the activity of the referent of A is directed.

The definition of the undirected-directed alternation is formulated so as to exclude constructions in which a participant towards which the activity of the referent of the A/S term is directed is simply coded as an optional oblique (for example, *The child ate / The child ate the cake* meets the definition of the undirected-directed alternation, but not *The woman shouted / The woman shouted at her husband*). Note also that, contrary to the definition of the noncausal-causal alternation, which imposes no condition on the nature of the noncausal verb, the definition of the undirected-directed alternation excludes the possibility of undirected-directed pairs whose undirected member would be an unaccusative verb. In an undirected-

¹⁶⁵ The languages in question are Emai (Edoid, Benue-Congo, Niger-Congo), Sar (Sara-Bongo-Bagirmi, Central Sudanic), Jamsay (Dogon), Minyanka (Senufo, Gur, Niger-Congo), Baule (Tano, Kwa, Niger-Congo), Fon (Gbe, Kwa, Niger-Congo), Bambara (Central Mande, Mande), Kakabe (Central Mande, Mande), Mano (South Mande, Mande), and Gbaya (Gbaya-Manza-Ngbaka).

directed pair, the undirected member can only be a transitive verb or an unergative intransitive.

Another important asymmetry between the noncausal-causal alternation and the undirected-directed alternation is that the additional participant in the construction of the directed member of an undirected-directed pair may a priori express any kind of role characterizable as specifying the orientation of the activity of an agent, whereas in the noncausal-causal alternation, the additional participant in the construction of the causal member of an undirected-directed pair is invariably an agent.

In particular, in the undirected-directed alternation, the additional participant may be not only a semantic adjunct, as in (25) and (26), but also an essential participant left unexpressed in the construction of the undirected verb, as in (27).

(25) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Bà-t^hò* *bá-á-lí:l-à*.
 PL-person(cl2) I_{S/A}:cl2-CJ-cry-FV
 ‘The people are crying.’
- b *Bà-t^hò* *bá-líl-él-à* *!q^hô:sì*.
 PL-person(cl2) I_{S/A}:cl2-CJ-cry-FV chief(cl9)
 ‘The people are mourning the chief.’

(26) Tswana (Bantu, Benue-Congo, Niger-Congo)

- a *Kì-lìm-à* *ts^hi:mò*.
 I_{S/A}:1SG-cultivate-FV field(cl9)
 ‘I am cultivating the field.’
- b *Kì-lìm-èl-à* *řé* *!ts^hi:mò*.
 I_{S/A}:1SG-cultivate-APPL-FV father(cl1).I_{ADP}:1SG field(cl9)
 ‘I am cultivating the field for my father.’

(27) Northern Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Waša* *ũk-õhe* *guļo*.
 boy(M) eat(intr.)-CVB.M COP.NEG.I_{SP}:SG.M
 ‘The boy has not eaten.’
- b *Wašo-de* *riļ’i* *q’am-ēhe* *goļe*.
 boy(M)-ERG meat(N) eat(tr.)-CVB.N COP.NEG.I_{SP}:SG.N
 ‘The boy has not eaten the meat.’

16.4.2 Possible formal relationships between undirected and directed verbs

The coding of undirected-directed pairs shows the same possibilities as the coding of noncausal-causal pairs. The following five types of strategies are attested in the coding of undirected-directed pairs, irrespective of the fact that the undirected verb is a transitive verb or an unergative intransitive verb:

- the SUPPLETIVISM STRATEGY, in which the undirected verb and its directed counterpart are completely different, or differ in such a way that their formal relationship cannot be analyzed as a particular instance of some more or less regular pattern;

- the FLEXIVALENCY STRATEGY, in which the undirected verb and its directed counterpart are formally identical;
- the MARKED-DIRECTED STRATEGY, in which the directed verb is morphologically more complex than the undirected verb;
- the MARKED-UNDIRECTED STRATEGY, in which the undirected verb is morphologically more complex than the directed verb.
- the EQUIPOLLENCE STRATEGY, in which the two members of the pair are formally related, but the relationship cannot be oriented morphologically from undirected to directed or from directed to undirected.

Note that the notions of marked-directed and marked-undirected are more restricted than the notions of applicativization and antipassivization, respectively. On the one hand, the notions of marked-directed and marked-undirected imply morphological orientation, and consequently exclude instances of applicativization or antipassivization involving the default voice and a non-default voice in an inflectional voice system. Moreover, the denucleativized participant in antipassivization and the nucleativized participant in applicativization are not always characterizable in terms of orientation of the activity of the referent of the A/S term.

The suppletivism strategy in the undirected-directed alternation is illustrated in (28). As already mentioned, cross-linguistically, this configuration is relatively common with verbs ‘eat’:

(28) Akhvakh (Avar-Andic-Tsezic, Nakh-Daghestanian)

- a *Riǎ'i q'am-a!*
 meat(N) eat-IMP
 ‘Eat some/the meat!’
- b *Ũk-a!*
 eat-IMP
 ‘Eat!’

The flexivalency strategy in the undirected-directed alternation is illustrated in (29) and (30) with A-ambitransitive verbs. A distinction can be made between cases in which the only difference between the two constructions is the presence vs. absence of the phrase fulfilling the P role in the transitive construction (weak ambitransitivity, as in (29)), and cases in which some additional elements distinguish the two constructions (strong ambitransitivity, manifested for example in TAM marking, as in (30));

(29) French (Italic, Indo-European)

- a *Jean mange un gâteau.*
 PRN eat.PRS.I_{S/A}:3SG IDF.SG.M cake(M)
 ‘Jean is eating a cake.’
- b *Jean mange.*
 PRN eat.PRS.I_{S/A}:3SG
 ‘Jean is eating.’

(30) Mandinka (Central Mande, Mande)

- a *Díndínò jélè-tá.*
 child.D laugh-CPL.ITR
 ‘The child laughed.’
- b *Díndínò yè í jélè.*
 child.D CPL.TR 1SG laugh
 ‘The child made fun of me.’

Example (31) illustrates the case of a language in which beneficiaries are encoded as P phrases without any marking on the verb, and consequently, any verb whose meaning is compatible with the addition of a beneficiary can be the undirected member of an undirected-directed pair involving no verbal marking of the alternation.

(31) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

- a *Nŭ-mam~maŋ man ɔ-buj-ɔɔl.*
 I_{S/A}:1PL-want~ASRT CSC I_{S/A}:2SG-kill-IP:clA
 ‘We want you to kill him.’
- b *Nŭ-mam~maŋ man u-buj-oli-ool.*
 I_{S/A}:1PL-want~ASRT CSC I_{S/A}:2SG-kill- IP:1PL.EXCL-IP:clA
 ‘We want you to kill him for us.’

Example (32) illustrates the marked-directed strategy, already illustrated in (25) and (26) above.

(32) German (Germanic, Indo-European)

- a *Die Kerzen leuchten.*
 D.PL candle(F).PL gleam.PRS.I_{S/A}:3PL
 ‘The candles gleam.’
- b *Die Kerzen er-leuchten den Saal.*
 D.PL candle(F).PL APPL-gleam.PRS.I_{S/A}:3PL D.SG.M.ACC hall(M)
 ‘The candles illuminate the room.’
 (Cysouw 2023: 363)

The marked-undirected strategy is illustrated in (33).

(33) Soninke (Sonine-Bozo, Mande)

- a *Hàré-n dà léminè-n dànbú.*
 donkey-D CPL.TR child-D kick
 ‘The donkey kicked the child.’
- b *Hàré-n dànbù-ndí.*
 donkey-D kick-ANTIP
 ‘The donkey kicked.’

The use of the equipollence strategy in the undirected-directed alternation is uncommon cross-linguistically. However, as illustrated in (34) for Tarahumara with the verb pair *notza*

(intr.) ‘work’ / *notze* (tr.) ‘work for’, it is relatively common in the Uto-Aztecan languages from Northwestern Mexico analyzed by Álvarez González & Estrada Fernández (2024).

(34) Norogachi Tarahumara (Tarahumaran, Uto-Aztecan)

a *Notza-riwa echi.*

work.ITR-DenuclS there

‘People are working (lit. it is worked) over there.’

b *Antresi ne notze.*

PRN 1SG work.TR

‘I work for Andrés.’

(Brambila 1976; 391-392)

Adyghe (Northwest Caucasian) provides another illustration of the use of the equipollence strategy in the undirected-directed alternation, cf. example (35).

(35) Adyghe (Northwest Caucasian)

a *Haləw-jə-blə-r se s-šxə-be.*

bread-LK-seven-ZER 1SG I_A:1SG-eat.TR-PST

‘I ate seven pieces of bread.’

b *A-se-r ma-šxe-xe-me, te-rjə t-e-šxe.*

DEM-PL-ZER DYN-eat.ITR-PL-COND 1PL-too I_{S,P}:1PL-eat.ITR

‘If they eat, we eat, too.’

(Arkadiev & al. 2024: 904)

Note that, in Adyghe, the same vowel alternation $e \sim ə$ is used for another semantic type of transitivity alternation, in which verbs of motion are used intransitively with the moving entity coded as S, and transitively with the moving entity coded as A and the path or distance covered by motion coded as P, as in (36).¹⁶⁶

(36) Adyghe (Northwest Caucasian)

a *A-r k^we-be.*

DEM-ZER go.ITR-PST

‘S/he went.’

b *A-š’ B^weg^wə-be ə-k^wə-B.*

DEM-K way-many I_A:3SG-go.TR-PST

‘S/he has traveled many roads.’

(Arkadiev & al. 2024: 903)

Moreover, in Adyghe, the same pattern of ablaut also has a productive use in which it does not mark a transitivity alternation, but “relates the so-called introvert (lative) and extravert (elative) form of verbs denoting real or metaphorical motion” (Arkadiev & al. 2024), as for example *ʒe* ‘throw on’ / *ʒə* ‘throw from’.

¹⁶⁶ In chapter 7 §7.3.4, a similar use of vowel alternation with verbs of spontaneous motion has been mentioned in the Mande language Soninke.

16.4.3 The question of universal tendencies in the coding of undirected-directed pairs

Unsurprisingly, given the asymmetries between the indirected-directed alternation and the noncausal-causal alternation mentioned in §16.4.1, there is no obvious symmetry between the use of the marked-causal or marked-noncausal strategy in the noncausal-causal alternation and the use of the marked-directed or marked-undirected strategy in the undirected-directed alternation, and my impression is that the universals of causative / decausative coding discussed by Haspelmath (2016) do not have equivalents for the undirected-directed alternation. However, in the absence of large-scale typological investigations of the undirected-directed alternation, this question must be left open.

16.5 Markers shared by the unaccusative-transitive alternation and the unergative-transitive alternation

The use of the same detransitivization marker in the unaccusative-transitive alternation and the unergative-transitive alternation, illustrated by example (37), is found in the languages that have a middle voice marker lending itself to antipassive uses (cf. chapter 11 §11.4).

(37) Russian (Slavic, Indo-European)

- a *Čaša razbil-a-s’*.
cup(F) break.PFV.PST-*I_{S/A}*:SG.F-DECAUS
‘The cup broke.’
- b *Rebėnok razbil-Ø. čašu.*
child(M) break.PFV.PST-*I_{S/A}*:SG.M cup.ACC
‘The child broke the cup.’
- c *Sobaka kusaet-sja.*
dog(F) bite.IPFV-PRS.*I_{S/A}*:3SG-ANTIP
‘The dog bites (people).’
- d *Sobaka kusaet rebėnka.*
dog(F) bite.IPFV-PRS.*I_{S/A}*:3SG child(M).ACC
‘The dog is biting the child.’

The use of the same transitivization marker in the unaccusative-transitive alternation and the unergative-transitive alternation, illustrated by example (38) (where *-va* and *-a* are two allomorphs of the same suffix), is found in the languages in which the same voice marker acts as a causative marker with unaccusative intransitives, and as an applicative marker with unergative intransitives (cf. chapter 12 §12.5.3). Note that Boumaa Fijian is among the languages whose situation regarding transitivity in the lexicon can be characterized in terms of across-the-board transitivization (chapter 3 §3.1.4).

(38) Boumaa Fijian (Oceanic, Austronesian)

- a *E-la’o a marama.*
I_{S/A}:3SG-go D woman
‘The woman (S) is going.’

- b *E-la'o-va* *a suka a marama.*
I_{S/A}:3SG-go-APPL D sugar D woman
'The woman (A) is going for sugar (P).'
- c *E-lo'i* *a kaukamea yai.*
I_{S/A}:3SG-get.bent D iron DEM
'The piece of metal (S) is bent.'
- d *E-lo'i-a* *a kaukamea a cauravou.*
I_{S/A}:3SG-get.twisted-CAUS D iron D youth
'The youth (A) is bending this piece of metal (P).'
- (Dixon 1988: 45)

Interestingly, the equipollent marking of the noncausal-causal and undirected-directed alternations by means of identical vowel alternations follows the same distributional pattern in the Uto-Aztecan languages Tarahumara and Guarijío, where the same vowel alternations mark the undirected-directed alternation if the member of the pair ending with *a* or *i* is a transitive verb or an unergative intransitive, and the non-causal alternation if the member of the pair ending with *a* or *i* is an unaccusative intransitive (Álvarez González & Estrada Fernández 2024). For example, in Norogachi Tarahumara, the same vowel alternation marks the undirected-directed alternation in *achi* 'laugh / *ache* 'laugh at', and the noncausal-causal alternation in *waki* 'dry (intr.)' / *wake* 'dry (tr.).

Chapter 17

Noun incorporation, transitivity and valency

17.1 Incorporation and pseudo-incorporation

17.1.1 Incorporation as a morphological operation creating compound verbs

In the terminology adopted in this book, ‘incorporation’ refers to a MORPHOLOGICAL operation creating verbal lexemes by compounding a verbal lexeme and a lexeme belonging to another category (noun, adjective, adverb, ideophone, or adposition).¹⁶⁷ Adposition incorporation has been mentioned in chapter 14 as a possible source of applicatives. However, since the central topic of this book is valency, in this chapter, we will be mainly concerned by noun incorporation, and the relationship between the valency properties of ‘verb + noun’ (or ‘noun + verb’) compounds acting as verbs and those of the verb they include.

Mithun (1984) and Mithun (1986a) are classical references on noun incorporation.

In noun incorporation, the verb that combines with a noun to form a compound verb can be designated as the INCORPORATING VERB, and the noun with which it combines as the INCORPORATED NOUN. For example, in Mandinka *jii-bôŋ* ‘water (a plant)’ is a compound transitive verb in which *bôŋ* ‘pour’ is the incorporating verb, and *jii* ‘water’ the incorporated noun. Note that, in this particular case, evidence of morphological compounding is provided by tone, since the tone of *bôŋ* in *jii-bôŋ* is different from the tone this verb has in isolation. The incorporation construction in (1a) can be compared with (1b), where *jíyòò* (definite form of *jii* ‘water’) is the P term in the construction of *bôŋ* ‘pour’, and an oblique phrase corresponds to the phrase acting as P in the construction of the compound verb. Passivization (1c-d) makes apparent the difference in the status of *jii* ‘water’, component of the verb stem in (1a), nucleus of the noun phrase in P role in (1b).

(1) Mandinka (Central Mande, Mande)

a *Kèè yè yíróò jii-bôŋ.*
man.D CPL.TR tree.D water-pour
‘The man watered the tree.’

lit. ‘The man water-poured the tree.’

b *Kèè yè jíyóò bôŋ yíróò kâŋ.*
man.D CPL.TR water.D pour tree.D on
‘The man poured water on the tree.’

¹⁶⁷ Complex incorporation, i.e., the formation of verbs by compounding a verbal lexeme with two other lexemes belonging to other categories, is also attested. For example, Manding languages have a relatively productive pattern of formation of verbal lexemes by compounding a verbal lexeme with a nominal lexeme and a postposition. In Mandinka, *kán-ná-sóo* is a transitive verb that can be glossed as ‘act as an interpreter for s.o.’, whose components are the noun *kâŋ* ‘voice’, the verb *só* ‘provide (s.o. with s.th.)’, and the postposition *lá* (whose initial *l* is nasalized in contact with the final nasal of *kâŋ*) which flags the transferee phrase in the coding frame of *só* : X Y *só* Z *lá* ‘X provides Y with Z’.

- c *Yíròò jii-bòn-tá.*
 tree.D water-pour-CPL.ITR
 ‘The tree was watered.’
 lit. ‘The tree was water-poured.’
- d *Jíyóo bǎn-tà yíròò kâη.*
 man.D pour-CPL.ITR tree.D on
 ‘The water was poured on the tree.’

Example (2a) illustrates another Mandinka verb formed via noun incorporation, with, however, a different correspondence between the coding frame of the compound verb and that of the incorporating verb. As can be seen in (2b), in *kàrà-bùlà*, the incorporated noun *kàrà* ‘dye’ corresponds to an oblique term in the coding frame of the incorporating verb *bùlà* ‘put’.

(2) Mandinka (Central Mande, Mande)

- a *Á yè dèndikóo kàrà-bùlà.*
 3SG CPL.TR cloth.D dye-put
 ‘S/he dyed the cloth.’
- b *Á yè dèndikóo bùlà kàrôo tó*
 3SG CPL.TR cloth.D put dye.D in
 ‘S/he put the cloth in the dye.’

17.1.2 Pseudo-incorporation

The notion of incorporation is sometimes broadened so as to include ‘verb + noun’ combinations that do not show evidence of morphological compounding, but in which the noun behaves, at least to some extent, like a morphologically incorporated noun (reduced mobility, incompatibility with determiners) and not like the nucleus of a full-fledged noun phrase. In order to distinguish this phenomenon from incorporation *stricto sensu*, it can be designated as PSEUDO-INCORPORATION, and this terminology is adopted here.

For example, in Hungarian, ‘bare noun + verb’ sequences “behave very much like compounds: they constitute one single phonological (phrasal) unit and can easily get lexicalized, and the bare noun is nonreferential and nonmodifiable. At the same time, they are not syntactic islands: they can be affected by certain syntactic rules. That is, ‘bare noun + verb’ sequences are Janus-faced. On the one hand, they behave like lexical units and should therefore be accounted for in the lexicon. On the other hand, they are accessible to syntactic (movement) rules, hence they are phrasal constituents from the point of view of syntax”. (Kiefer 1990-91: 149).

Example (3) illustrates pseudo-incorporation in Futunan. (3a) is a transitive clause, with the VAP constituent order, and A flagged by the ergative preposition *e*. In (3b), there is no morphological evidence of compounding, but the semantic role expressed by P in (3a) is expressed by a bare noun in immediate post-verbal position, and the noun phrase expressing the same semantic role as A in (3a) is not flagged, which suggests that it has been converted into the S term of an intransitive construction.

(3) Futunan (Oceanic, Austronesian)

a *E taki e le fafine le motokā kula.*

ICPL drive ERG D woman D car red

‘The woman is driving the red car.’

b *E taki motokā le fafine.*

ICPL drive car D woman

‘The woman is driving.’

(Moyse-Faurie 1997: 148)

Example (4) illustrates the same type of alternation in Niuean.

(4) Niuean (Oceanic, Austronesian)

a *Takafaga tūmau nī e ia a tau ika.*

hunt always EMPH ERG 3SG S/P PL fish

‘S/he is always fishing.’

b *Takafaga ika tūmau nī a ia.*

hunt fish always EMPH S/P 3SG

same meaning: ‘S/he is always fishing.’

(Massam 2001: 157)

As illustrated by examples (3) and (4), quasi-incorporation of a noun fulfilling the semantic role expressed as P in the transitive construction is particularly ‘visible’ in obligatory P-coding languages, due to the change in the coding characteristics of the noun phrase representing the participant encoded as the A term of the corresponding transitive construction.

Margetts (2011) argues that, contrary to a widespread opinion, incorporation *stricto sensu* and pseudo-incorporation may co-exist in the same language. Examples (5) and (6) illustrate the distinction between incorporation (5b) and pseudo-incorporation (6b) in Saliba. In the pseudo-incorporation construction (6b), contrary to the incorporation construction (5b), the noun representing the patient of the transitive verb is in canonical P position, but the verb is morphologically intransitive, since it does not include the voice marker *-i* converting intransitive verbs into transitive ones, and does not express P indexation.

(5) Saliba (Oceanic, Austronesian)

a *Koya se tudai-Ø.*

garden I_{S/A}:3PL dig-I_P:3SG

‘They dig a garden.’

b *Se koya-tudai.*

I_{S/A}:3PL garden-dig

‘They dig a garden.’

(Margetts 2011: 205)

(6) Saliba (Oceanic, Austronesian)

a *Puwaka ta bahe-i-di.*

pig I_{S/A}:1PL.INCL carry-TR-I_P:3PL

‘We carry the pigs.’

- b *Puwaka ta bahe.*
 pig I_{S/A}:1PL.INCL carry
 ‘We carry pigs.’
 (Margetts 2011: 205)

In terms of transitivity and valency, pseudo-incorporation constructions are not different from the constructions dealt with in this chapter under the heading of core-reducing nuclear incorporation. In particular, as already discussed and illustrated by Mayan examples in chapter 10 §10.2.4, like core-reducing nuclear incorporation constructions, pseudo-incorporation constructions may involve detransitivization marking.

It has often been observed that pseudo-incorporation constitutes a challenge for formal theories of syntax. Readers interested by this question are referred to the general discussion of the syntax and semantics of pseudo-incorporation in (Borik & Gehrke 2015) and references therein.

17.2 Noun incorporation and valency

17.2.1 Introductory remarks

As illustrated by examples (1) and (2) above, it would be wrong to imagine a straightforward correspondence between incorporated nouns and a corresponding term in the coding frame of the incorporating verb. This comes as no surprise if one considers that incorporation is basically a LEXICAL operation. English *baby-sit*, glossable as ‘look after (a child or children) during a short absence of the parents’, illustrates situations where the SEMANTIC link between the compound verb and its components is obvious, but it would not make sense to try to derive SYNTACTICALLY the coding frame of the compound verb from a synonymous construction involving the incorporating verb and a noun phrase projected by the incorporated noun.

Consequently, in this section, I don’t pretend to propose an exhaustive list of possible relationships between the coding frame of compound verbs formed via noun incorporation and the coding frame of the incorporating verb, but only to review some patterns that emerge with some degree of regularity in the languages that have relatively productive mechanisms of noun incorporation.

The term NUCLEAR INCORPORATION is proposed here for compound verbs formed via noun incorporation in which the incorporated noun represents a nuclear participant of the incorporating verb. Two varieties of nuclear incorporation: CORE-REDUCING and CORE-MAINTAINING, must be distinguished. CONCERNATIVE INCORPORATION and CLASSIFICATORY INCORPORATION are important subtypes of core-maintaining nuclear incorporation. ADVERBIAL INCORPORATION is another pattern of noun incorporation that may be found with some degree of regularity.

17.2.2 Core-reducing nuclear incorporation

In core-reducing nuclear incorporation, the incorporated noun expresses a semantic role expressed by a core term in the construction of the incorporating verb. In comparison with the

meaning of the incorporating verb, the meaning of the compound verb is restricted to events in which this semantic role is fulfilled by potential referents of the incorporated noun. At the same time, the syntactic slot devoted to the expression of the role in question in the construction of the incorporating verb is suppressed from the coding frame of the verb compound, as in (7c) and (8b).

(7) Classical Nahuatl (Aztecan, Uto-Aztecan)

a *Ni-c-cua in nacatl.*

I_{S/A}:1SG-IP:3-eat D meat

‘I am eating the meat.’

b *Ni-c-cua nacatl.*

I_{S/A}:1SG-IP:3-eat meat

‘I am eating meat.’

c *Ni-naca-cua.*

I_{S/A}:1SG-meat-eat

lit. ‘I am meat-eating.’

(Launey 1981: 166)

(8) Frisian (Germanic, Indo-European)

a *Gurbe treau de karre oerenlang.*

PRN pushed the cart for hours

‘Gurbe pushed the cart for hours.’

b *Gurbe karre-treau oerenlang.*

PRN cart-pushed for hours

‘Gurbe pushed a cart / carts for hours.’

(Dyk 1997:101)

Examples (7) and (8) illustrates core-reducing P-incorporation. This subtype of core-reducing nuclear incorporation is particularly widespread cross-linguistically. S-incorporation is much less common, and A-incorporation even less so.

Core-reducing P-incorporation yields compound intransitive verbs whose S expresses the role expressed by A in the construction of the incorporating verb. Consequently, core-reducing P-incorporation constitutes a type of detransitivizing mechanism that can be characterized as similar to antipassivization, or simply as a particular variety of antipassivization, depending on the precise way the definition of antipassivization has been formulated. According to the definitions adopted in this book, core-reducing P-incorporation is not a variety of antipassivization, since it does not require verbal marking, but it is compatible with antipassivization, since incorporation and pseudo-incorporation are possible treatments of the denucleativized participant in antipassivization, cf. chapter 10 §§10.2.3-4.

In example (7) above, detransitivization is evidenced by the fact that, in Nahuatl, both A and P are obligatorily indexed in the transitive construction, and the compound verb *naca-cua* ‘eat meat’ has just one morphological slot for participant indexation. Note that the analysis of *naca-cua* as a morphological compound is facilitated by the fact that, in Nahuatl, nouns occur as the first formative of compounds in a form that cannot be used by itself as a word.

In example (9), detransitivization is evidenced by the choice of the variant of the completive marker used in intransitive clauses.

(9) Mandinka (Central Mande, Mande)

a *Ñĩŋ kèê yè kúu jámáa lôŋ.*
 DEM man.D CPL.TR thing many know
 ‘The man knows many things.’

b *Ñĩŋ kèê kúu-lòn-tá báaké.*
 DEM man.D thing-know-CPL.ITR very
 ‘The man is very competent.’ lit. ‘thing-knows much’

In the languages that have a productive mechanism of core-reducing P-incorporation (which is the case for Nahuatl and Frisian, but not for Mandinka, where this variety of incorporation is exceptional), the question that arises is that of possible semantic regularities in the choice between the incorporation construction and the use of an indefinite NP in P role. In some languages (for example, Soninke), it is dubious whether there is any semantic distinction at all, although the formal distinction is quite clear-cut (see §17.4.4 below). However, a tendency that has been observed in many languages (including Nahuatl) is that core-reducing P-incorporation is particularly common in reference to activities that can be characterized as socially salient, stereotyped, or ritualized. For example, according to Launey (1981), the compound verb *naca-cua* illustrated in (7c) above does not just refer to meat eating, but for example to meat eating as ritually performed within the framework of some celebration.

Dyk (1997) shows that, in Frisian, durative aspect plays a crucial role in the acceptability of the core-reducing P-incorporation construction.

17.2.3 Core-maintaining nuclear incorporation

In core-maintaining nuclear incorporation, as in core-reducing nuclear incorporation, the incorporated noun expresses a semantic role expressed by a core term in the construction of the incorporating verb, and the meaning of the verb is restricted to events in which this semantic role is fulfilled by potential referents of the incorporated noun. The difference is that the syntactic slot devoted to the expression of the role in question in the construction of the incorporating verb is not suppressed, and can be used to express another participant role.

Example (1), reproduced here as (10), illustrates this type of incorporation. In the incorporation construction (10a), the incorporated noun expresses the semantic role expressed as P in the construction of the incorporating verb (10b), but the construction is not detransitivized, and the P role is taken over by a participant encoded as an oblique in the construction of the incorporating verb.

(10) Mandinka (Central Mande, Mande)

a *Kèê yè yírò jii-bôŋ.*
 man.D CPL.TR tree.D water-pour
 ‘The man watered the tree.’
 lit. ‘The man water-poured the tree.’

b *Kèê yè jíyóo bôŋ yírò kâŋ.*
 man.D CPL.TR water.D pour tree.D on
 ‘The man poured water on the tree.’

As can be seen from this example, core-maintaining P-incorporation results in a valency operation comparable to applicativization, and more precisely to the redirecting variety of P-applicativization, since it yields compound transitive verbs whose A expresses the same role as A in the construction of the incorporating verb, whereas P represents a participant that is not encoded as a core term in the construction of the incorporating verb. However, I am aware of no language making use of applicative marking in this type of incorporation.

Peregrina & al. (2017) quote a case of core-maintaining nuclear incorporation in Husteca Nahuatl very similar to that illustrated in (10), cf. example (11).

(11) Huasteca Nahuatl (Aztecan, Uto-Aztecan)

Ø-Ki-ate-kia nopa temaskalli.

I_{S/A}:3SG-I_p:3-water-pour D oven

‘S/he pours water onto the oven.’, lit. ‘She water-pours the oven.’

(Peregrina & al. 2017: 99)

This kind of incorporation is also mentioned by Mithun (1984: 858), who gives an example from Yucatec Maya, where the compound verb stem *č’ak-če’* /chop-tree/ can be used intransitively with the meaning ‘do chopping’ (core-reducing P-incorporation), but also transitively with the meaning ‘clear (a field)’.

17.2.4 Concernative incorporation

CONCERNATIVE INCORPORATION, commonly designated as ‘possessive incorporation’, is a particular case of core-maintaining nuclear incorporation, in which the syntactic slot made available by the incorporation of a noun expressing the corresponding semantic role is occupied by a noun phrase in a concerne-concern relationship with the incorporated noun.

For example, in (12), the incorporated noun ‘hair’ expresses the role normally expressed by the P phrase in the coding frame of ‘wash’, but the construction does not become intransitive, since the role of P is taken by the noun ‘child’, whose semantic role is that of concerne with respect to the incorporated noun. The presence of two participant indexes in (12b) gives the proof that this is a particular case of core-maintaining nuclear incorporation, in which the mechanism of semantic role assignment is affected, but not the transitivity of the construction.

(12) Classical Nahuatl (Aztecan, Uto-Aztecan)

a *Ni-c-pāca in pilli.*

I_{S/A}:1SG-I_p:3-wash D child

‘I am washing the child.’

b *Ni-c-tzom-pāca in pilli.*

I_{S/A}:1SG-I_p:3-hair-wash D child

lit. ‘I am hair-washing the child.’ > ‘I am washing the child’s hair.’

(Launey 1981: 168)

Example (13) illustrates the same kind of incorporation in the Macro-Jê language Karajá. In this example, sentences (c) and (d) show that the compound verb ‘hair-cut’ whose transitive

construction is illustrated in (13b) lends itself to passivization and antipassivization in the same way as underived transitive verbs.

(13) Karajá (Karajá, Macro-Jê)

- a *Nadı wa-ritʃɔɾe rade Ø-r-I-krɔ=r-ɛɾI.*
 mother I_{ADP}:1SG-offspring hair I_{S/A}:3SG-AND-TR-cut=AND-PROG
 ‘My mother is cutting my child’s hair.’
- b *Nadı wa-ritʃɔɾe Ø-r-I-rade-krɔ=r-ɛɾI.*
 mother I_{ADP}:1SG-offspring I_{S/A}:3SG-AND-TR-hair-cut=AND-PROG
 lit. ‘My mother is hair-cutting my child’ > ‘My mother is cutting my child’s hair.’
- c *Wa-ritʃɔɾe Ø-r-a-rade-krɔ=r-ɛɾI.*
 I_{ADP}:1SG-offspring I_{S/A}:3SG-AND-PASS-hair-cut=AND-PROG
 lit. ‘My child is being hair-cut’ > ‘My child’s hair is being cut.’
- d *Nadı Ø-r-ɔ-rade-krɔ=r-ɛɾI*
 mother I_{S/A}:3SG-AND-ANTIP-hair-cut=AND-PROG
 lit. ‘My mother is hair-cutting (someone)’ > ‘My mother is cutting hair.’
 (Ribeiro 2001: 230, 231)

As in other varieties of concernee-concern constructions, in concernative incorporation, the concernee and the concern are typically in a whole-part relationship, but individual languages may variously extend the use of concernative incorporation to other semantic types of relationships.

Concernative incorporation is quite widespread cross-linguistically. In particular, as a rule, in Romance languages, incorporation is sporadic at best, but concernative incorporation is relatively productive in Catalan. The examples quoted in (14) are among those that have been discussed in the literature, cf. among others (Gràcia & Fullana 1999) and (Padrosa Trias 2007).

(14) Catalan (Italic, Indo-European)

- cama-trencar* leg-break > ‘break someone’s leg’
cor-trencar heart-break > ‘break someone’s heart’
ull-ferir eye-injure > ‘impress someone’

The case of *ull-ferir* ‘eye-injure’ > ‘impress’ illustrates the propensity for compound verbs resulting from this type of incorporation to develop lexicalized meanings. Similar cases of lexicalized concernative incorporation abound, for example, in Manding languages and in Soninke.

17.2.5 Classificatory incorporation

CLASSIFICATORY INCORPORATION is a particular case of core-maintaining nuclear incorporation, in which the syntactic slot corresponding to the semantic role expressed by the incorporated noun may still be occupied by a noun phrase expressing the same semantic role, with the condition that the nucleus of this noun phrase is a hyponym of the incorporated noun. In other words, the incorporated noun specifies a semantic class of nouns to which the noun in P or S role belongs, as in (15).

(15) Cayuga (Northern Iroquoian, Iroquoian)

- a *So:wa:s akh-náhskw-aɛʔ*.
 dog 1SG-domestic.animal-have
 ‘I have a (pet) dog.’
- b *Skitú ake'-trɛht-aɛʔ*.
 skidoo 1SG-vehicle-have
 ‘I have a skidoo.’
 (Mithun 1986b: 387, 388)

Diachronically, the grammaticalization of the classificatory incorporation of nouns is probably the origin of systems of classifiers attached to verbs that categorize the NP in P or S role, as attested in some Amerindian languages (Aikhenvald 2000: 149-172).

17.2.6 Adverbial incorporation

In ADVERBIAL INCORPORATION (sometimes called ‘modifying incorporation’), the incorporated noun restricts the meaning of the verb, but no change occurs in the core syntactic terms and the participant roles they express, exactly as in the case of modification expressed by the adjunction of an adverb or of an adjunct noun phrase in oblique role.

English *breastfeed*, glossable as ‘feed from the breast’, is a good example of adverbial incorporation.

In adverbial incorporation, the incorporation of a noun is in some sense equivalent to the adjunction of an oblique noun phrase projected by the noun. However, an important difference is that, as a rule, the flagging of oblique noun phrases provides some information about their semantic role, whereas in adverbial incorporation, there is no overt indication about the semantic nature of the modification of the meaning of the verb expressed by the incorporated noun.

In (16), the incorporated noun expresses the cause of the event denoted by the incorporating verb, whereas example (17) illustrates similative incorporation, a cross-linguistically widespread variety of adverbial incorporation.

(16) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ø-Huāqui in xōchitl*.
 I_{S/A}:3-fade D flower
 ‘The flower is fading.’
- b *Ø-Tle-huāqui in xōchitl*.
 I_{S/A}:3-fire-fade D flower
 lit. ‘The flower is fire-fading.’ > ‘The flower is fading under the influence of fire.’
 (Launey 1981: 167)

(17) Classical Nahuatl (Aztecan, Uto-Aztecan)

- a *Ø-Cuepōni in xōchitl*.
 I_{S/A}:bloom D flower
 ‘The flower is blooming.’

b *Ø-Xōchi-cuepōni in no-cuīc.*

I_{S/A}:3-flower-bloom D I_{ADP}:1SG-song

lit. 'My song is flower-blooming.' > 'My song is blooming like a flower.'

(Launey 1981: 167)

In Manding languages, several semantic types of incorporation are attested more or less sporadically, but simulative incorporation, illustrated by examples (18b) and (19b), is the only fully productive type of incorporation.

(18) Mandinka (Central Mande, Mande)

a *Kàmbàanôo sàwûn-tá kò sólòo.*

boy.D jump-CPL.ITR like leopard.D

'The boy jumped like a leopard.'

b *Kàmbàanôo sólí-sàwûn-tá.*

boy.D leopard-jump-CPL.ITR

same meaning as (a)

(19) Mandinka (Central Mande, Mande)

a *Mòólú yé sùŋóo fãa kó wùlòo.*

person.D.PL CPL.TR thief.D kill like dog.D

'The people killed the thief like a dog.'

b *Mòólú yé sùŋóo wùlù-fãa.*

person.D.PL CPL.TR thief.D dog-kill

same meaning as (a)

A particularity of this construction, already commented in chapter 1 §1.3.4.3, is that, logically speaking, the similarity relationship is between *JUMP(the boy)* and *JUMP(leopards)*, whereas in (19), it is between *KILL(the people, the thief)* and *KILL(X, dogs)* ('The people killed the thief in the same way as one kills dogs'). Crucially, this construction is not available to express similarity between *KILL(the people, the thief)* and *KILL(dogs, Y)* ('The people killed the thief in the same way as dogs kill'). In other words, in terms of semantic roles, the incorporated noun can be identified to S if the incorporating verb is intransitive, or to P if the incorporating verb is transitive, but not to A, which constitutes an instance of P-alignment (or 'ergative' alignment) in a language in which A-alignment (or 'accusative' alignment) is predominant.

17.3 Noun incorporation in diachrony

As regards the historical origin of noun incorporation, the first explanation that comes to mind is the univerbation of 'noun + verb' or 'verb + noun' sequences in which the noun is originally the nucleus of a noun phrase syntactically related to the verb. This hypothesis is, however, difficult to reconcile with the observation that many languages have incorporation patterns in which the relative order of the verb and the incorporated noun is different from the relative order of the verb and a noun phrase fulfilling the same semantic role.

A plausible explanation, commonly admitted for the sporadic cases of noun incorporation attested in English, is that verbal compounds may also develop from the conversion (or ‘re-verbalization’) of compound event nouns, a phenomenon often analyzed in terms of back-formation by lexicologists. For example, in English, the compound event noun *handwash* is also sporadically attested as a verb, and a compound event noun such as *truck-driving* could easily be ‘re-verbalized’ as *to truck-drive*.

The hypothesis that noun incorporation may develop via re-verbalization of compound event nouns is supported by the fact that, cross-linguistically, nominal compounds (including compound event nouns whose components are a verbal lexeme and a nominal lexeme) are much more common than verbal compounds, and the order of the formatives in nominal compounds whose components are a verbal lexeme and a nominal lexeme is often different from the order of the corresponding constituents in a clause, as in Spanish *traficar (con) narcóticos* ‘trade drugs’ vs. *narcotráfico* ‘drug trading’.

17.4 Noun incorporation and voice marking: the case of Soninke

17.4.1 Introductory remarks

Among the subtypes of noun incorporation presented in §17.2, core-reducing nuclear incorporation differs from all the other subtypes in that it implies detransitivization of transitive verbs. Interestingly, in some of the languages in which core-reducing P-incorporation is relatively productive, this particular subtype of noun incorporation involves voice marking. Soninke (Soninke-Bozo, Mande) is among the languages in which this phenomenon can be observed.¹⁶⁸

In the previous sections, noun incorporation has been widely illustrated by Nahuatl (Uto-Aztecan) examples. In Nahuatl, a language featuring prominently in discussions of noun incorporation, several subtypes of noun incorporation are productive, among which core-reducing P-incorporation. Interestingly, Soninke is in many respects quite different typologically from Nahuatl (in particular, the constituent order in the verbal clauses of Soninke is APVX / SVX, as opposed to the VAPX / VSX constituent order found in Nahuatl, and Soninke does not have participant indexation, as opposed to the obligatory indexation of core constituents found in Nahuatl), but the productive noun incorporation mechanisms of Soninke are strikingly similar to those found in Nahuatl. However, what distinguishes Soninke from Nahuatl is the interaction between noun incorporation and voice marking.

In Soninke, as in Nahuatl, noun incorporation as a morphological operation creates compound verbal lexemes by attaching a non-autonomous form of nominal lexemes (i.e., a form of nominal lexemes that has no independent existence as a word) to the left of verbal lexemes. In Soninke, most nouns have a non-autonomous form distinct from their free form, and this non-autonomous form is used whenever nouns occur as non-final formatives within compound or derived lexemes. For example, the non-autonomous form of *séllinɲé* ‘chicken’ (plural *séllinɲú*) is *séllin-*. In addition to that, the distinction between incorporated nouns and nouns occupying a syntactic position immediately to the left of the verb is made apparent by the tonal inflection of Soninke verbs. As illustrated in (20), in some conditions (for example,

¹⁶⁸ The data presented in this chapter have already been presented and discussed in (Creissels & Dramé 2018).

in combination with some negative markers) the inherent tonal melody of the verb is replaced by an entirely low melody, and this tonal change affects incorporated nouns as part of a compound verb stem, as in (20d), but not nouns occupying a syntactic position immediately to the left of the verb, as in (20b). In example (20), boldface marks the domain of the replacive low tone

- (20) Soninke (Soninke-Bozo, Mande)
- a *Ì wá sèllìnṅû-n gáagà-ná.*
 3PL ICPL chicken.PL-D sell-GER
 ‘They are selling the chickens.’
- b *Ì ntá sèllìnṅû-n **gàagà-nà.***
 3PL ICPL.NEG chicken.PL-D sell-GER^L
 ‘They are not selling the chickens.’
- c *Ì wá sèllin-gáagè-né.*
 3PL ICPL chicken-sell.ANTIP-GER
 ‘They sell chickens.’
- d *Ì ntá **sèllin-gàagè-nè.***
 3PL ICPL.NEG chicken-sell.ANTIP-GER^L
 ‘They don’t sell chickens.’

17.4.2 Functional subtypes of noun incorporation in Soninke

Three productive subtypes of noun incorporation can be found in Soninke: concernative incorporation, core-reducing P-incorporation, and adverbial incorporation:

- in concernative incorporation, the construction with an incorporated noun can be paraphrased by a construction in which the noun in question projects a noun phrase in S role, with an adnominal possessor corresponding to S in the construction of the compound verb, cf. example (21);¹⁶⁹
- in core-reducing P-incorporation, the construction with an incorporated noun can be paraphrased by a construction in which this noun projects a noun phrase in P role, cf. example (22);
- in adverbial incorporation, the verb incorporates either an adverb, or noun that could project a noun phrase in oblique role expressing the same meaning, cf. example (23).

- (21) Soninke (Soninke-Bozo, Mande)
- a *Míusá bùtté-n bí.*
 PRN liver-D burn
 ‘Moussa got furious.’ lit. ‘Moussa’s liver burnt.’

¹⁶⁹ In Soninke, adnominal possessors immediately precede their head, and are morphologically unmarked, whereas nouns in the role of head of the adnominal possession construction are in the construct form, which differs from the free form of nouns by its uniform LH tonal contour. This explains the tonal contrast between ‘liver’ modified by an adnominal possessor (21a) and ‘liver’ as the first formative of a compound verbal lexeme (21b).

- b *Múusá búttí-n-bí.*
 PRN liver-EP-burn
 ‘Moussa got furious.’ lit. ‘Moussa liver-burnt.’

(22) Soninke (Soninke-Bozo, Mande)

- a *Yàxàrú-n dà kónpè-n cèllà.*
 woman.PL-D CPL.TR room-D sweep¹⁷⁰
 ‘The women swept the room.’
 b *Yàxàrú-n kónpó-sèllè.*
 woman.PL-D room-sweep.ANTIP
 ‘The women did room sweeping.’ lit. ‘The women room-swept.’

(23) Soninke (Soninke-Bozo, Mande)

- a *Múusá yàxí qóò qùsô.*
 PRN get.married like girl.D
 ‘Moussa got married like a girl (i.e. very early).’
 b *Múusá qùsù-n-ñàxí.*
 PRN girl-EP-get.married
 ‘Moussa got married like a girl.’ lit. ‘Moussa got girl-married.’

As illustrated by examples (21) to (23), this functional distinction has two morphological correlates:

- in concernative incorporation and adverbial incorporation (but not in P-incorporation) a linking (or epenthetic) *-n-* (glossed EP) occurs between the two formatives of the compound verb;
- in P-incorporation (but not in concernative incorporation or adverbial incorporation), the verbal lexeme that constitutes the second formative of the compound verb is marked as detransitivized.

The presence of the linking *-n-* can only be detected if the non-autonomous form of the incorporated noun does not end with a nasal. The linking *-n-* also occurs in some types of nominal compounds, but as discussed by Diagona (1995), its occurrence cannot be predicted by a general rule.

Interestingly, the presence vs. absence of the linking *-n-* may be the only clue to the distinction between P-incorporation, as in (24b), and the incorporation of an adjunct to the detransitivized form of the same verb interpreted as passive, as in (25b).

(24) Soninke (Soninke-Bozo, Mande)

- a *Múusá dà hàrú-n kátú.*
 PRN CPL.TR donkey.PL-D beat
 ‘Moussa beat the donkeys.’
 b *Múusá hàrì-kátí.*
 PRN donkey-beat.ANTIP

¹⁷⁰ In Soninke, the initial consonants of words undergo automatic changes in contact with a nasal at the end of the preceding word: *s* → *c*, *y* → *ñ*, *w* → *ŋ*, etc.

‘Moussa beat donkeys.’

(25) Soninke (Soninke-Bozo, Mande)

a *Múusá kátí qóò hàrê.*

PRN beat.PASS like donkey-D

‘Moussa was beaten like a donkey.’

b *Múusá hàrì-n-kátí.*

PRN donkey-EP-beat.PASS

‘Moussa was beaten like a donkey.’ lit. ‘Moussa was donkey-beaten.’

17.4.3 Concernative incorporation

In Soninke, concernative incorporation seems to be possible with intransitive verbs only, and in the data I have at my disposal, the incorporated noun is always a bodypart noun. There seems to be no semantic distinction between concernative incorporation constructions and their paraphrases (in particular, they show exactly the same tendency toward lexicalization). Concernative incorporation does not affect the transitivity of the construction either, and does not trigger voice marking.

Morphologically, as can be seen from example (26), the syntactic rearrangement that characterizes concernative incorporation is particularly apparent if a third person pronoun is involved, since in Soninke, third person pronouns have a L tone in core term role (A/S or P), and a H tone in adnominal possessor function. In this example, it is also possible to observe the change in the tone of the noun ‘liver’ already observed above, due to the fact that, in Soninke, nouns modified by an adnominal possessor take a grammatical LH pattern analyzable as marking the construct form of nouns.

(26) Soninke (Soninke-Bozo, Mande)

a *Á bùttê-n bí.*

3SG^H liver-DLH burn

‘S/he got furious.’ lit. ‘His/her liver burnt.’

b *Á búttí-n-bí.*

3SG liver-EP-burn

‘S/he got furious.’ lit. ‘He/she liver-burnt.’

17.4.4 P-incorporation

Core-reducing P-incorporation is very productive in Soninke, and apart from the fact that it implies a non-specific reading of the incorporated noun, it is not bound to any of the semantic restrictions that commonly condition the use of P-incorporation cross-linguistically.

17.4.4.1 P-incorporation and detransitivization marking

Syntactically, all the mechanisms sensitive to transitivity (in particular, the use of *dà* vs. \emptyset as the mark of the completive aspect) unambiguously show that P-incorporation yields intransitive compound verbs, and this is consistent with the detransitivization marking observed in P-incorporation.

However, although P-incorporation has an obvious affinity with antipassivization (since it triggers the conversion of the A term of a transitive clause into the S term of an intransitive clause), detransitivization marking in P-incorporation is not identical to antipassive marking in constructions that do not involve P-incorporation. In the absence of P-incorporation, the general rule is that antipassivization is marked by the dedicated antipassive marker *-ndì ~ -ndí*, and there is only a limited number of transitive verbs whose use in antipassive constructions involves the middle form of the verb (i.e., a form more commonly found in passive or decausative function, characterized by a suffix *-i* that fuses with the last vowel of non-monosyllabic stems). By contrast, in P-incorporation, the middle marker *-i* can be used with all verbs ending with *a*, *o*, or *u*, i.e. with all the verb that have a distinct middle form. With non-monosyllabic verbs ending with *i* or *e*, for which morphophonological processes neutralize the distinction between the base form of the verb and its middle form, the antipassive marker *-ndì ~ -ndí* is sometimes found, but its use is optional, and does not seem to be very frequent.

Example (27) illustrates the case of a transitive verb whose detransitivization is marked differently in antipassive derivation and in P-incorporation, whereas example (28) illustrates the possibility that, with the verbs ending in *-i* or *-e* that do not have a distinct middle form, detransitivization is not overtly marked in P-incorporation..

(27) Soninke (Soninke-Bozo, Mande)

- a *À wá yiràamû-n gáagà-ná.*
 3SG ICPL cloth.PL-D sell-GEN
 ‘S/he sells (the) clothes.’
- b *À wá yiràn-gáagè-né. (gáagè < gáagà + -i)*
 3SG ICPL cloth-sell.ANTIP-GER
 ‘S/he does cloth selling.’
- c *À wá gáagá-ndì-ní.*
 3SG ICPL sell-ANTIP-GER
 ‘S/he does selling.’

(28) Soninke (Soninke-Bozo, Mande)

- a *Sòxáanà-n dà sókkè-n bòxòtí.*
 farmer-D CPL.TR weeds-D pull.out
 ‘The farmer pulled out the weeds.’
- b *Sòxáanà-n cókkí-bóxótí dáàrú.*
 farmer-D weed-pull.out yesterday
 ‘The farmer weeded yesterday.’

The explanation of this situation is probably historical. The crucial observation is that the Bozo languages (the closest relatives of Soninke) do not have a dedicated antipassive marker, but make a very productive use of their middle marker (cognate with the middle marker of Soninke) in antipassive function. This suggests that the creation of the dedicated antipassive marker *-ndì ~ -ndí* is relatively recent in the history of Soninke, and that the use of the middle marker in P-incorporation was systematized at a time when it was not in competition with *-ndì ~ -ndí* in the function of P denucleativization marker.

17.4.4.1 Compound verbs resulting from P-incorporation used transitively with atypical Ps

Interestingly, like the other intransitive verbs of Soninke denoting activities, the intransitive compound verbs resulting from P-incorporation can be used transitively with a duration phrase in P role (see chapter 7, section 7.3.4). Example (29) illustrates this possibility of a transitive use of the compound verb *sókkí-bóxóti* ‘weed’, whose intransitive use is illustrated in (28b) above. In (29) the P phrase is semantically a duration adjunct, and the syntactic slot it occupies could not be occupied by a phrase referring to a participant.

- (29) Soninke (Soninke-Bozo, Mande)
Sòxáanà-n dà kòotá-n mùumâ-n cókkí-bóxóti.
 farmer-D CPL.TR day-D whole-D^{LH} weed-pull.out
 ‘The farmer spent the whole day weeding.’

However, example (29) tells only part of the story, because *bòxóti* ‘pull out’ ends with *i*, and consequently does not have a detransitivized form distinct from the form used in the transitive construction. Interestingly, with a verb ending with *a*, *o*, or *u*, P-incorporation triggers detransitivization marking, as in (30b), but as illustrated by (30c), detransitivization marking is canceled when the intransitive verb resulting from P-incorporation is used transitively with a duration phrase in P role.

- (30) Soninke (Soninke-Bozo, Mande)
 a *Ń dà súwà-n kára.*
 1SG CPL.TR firewood-D break
 ‘I broke firewood.’
 b *Ń cíwá-karé dáàrí.*
 1SG firewood-break.ANTIP yesterday
 ‘I did firewood-breaking yesterday.’
 c *Ń dà kòotá-n mùumâ-n cíwá-kára.*
 1SG CPLTR day-D whole-D^{LH} firewood-break
 ‘I spent the whole day breaking firewood.’

17.4.5 Adverbial incorporation

In Soninke, adverbial incorporation is productive with similitive adjuncts, temporal adjuncts, and reduplicated numerals used adverbially with a distributive meaning. It operates on transitive and intransitive verbs without affecting their valency properties.

17.4.5.1 Similitive incorporation

As illustrated by example (31) with an intransitive verb, in this kind of incorporation, the incorporated noun is semantically equivalent to a similitive adjunct introduced by the preposition *qóò* ‘like’. There seems to be no semantic difference between the two constructions, except from the fact that incorporation excludes a specific reading of the incorporated noun.

(31) Soninke (Soninke-Bozo, Mande)

a *Múusá wùrú qóò yàxàrê.*
 PRN run like woman.D
 ‘Moussa ran like a woman.’

b *Múusá yàxàrì-n-ɲùrú.*
 PRN woman-EP-run
 ‘Moussa ran like a woman.’ lit. ‘Moussa woman-ran.’

Example (32) illustrates the same mechanism with a transitive verb, showing that similative incorporation has no incidence on transitivity. Note that, semantically, as already observed above about a Mandinka example, the incorporated noun describes the way the referent of P participates in the event: the meaning of sentence (32b) is ‘... like one kills dogs’, not ‘... like dogs kill’.

(32) Soninke (Soninke-Bozo, Mande)

a *Á wá sòró-n kàrì-ní qóò wùllú.*
 3SG ICPL person.PL-D kill-GER like dog.PL.D
 ‘S/he kills the people like dogs.’

b *Á wá sòró-n ɲùllì-n-kàrì-ní.*
 3SG ICPL person.PL-D dog-EP-kill-GER
 ‘S/he kills the people like dogs.’ lit. ‘S/he dog-kills the people.’

Example (33) shows that similative incorporation operates on antipassive constructions and on passive constructions without interfering with voice marking: the antipassive marker in (33c) and the middle marker in (33d) mark operations on the valency of ‘beat’, independently of the incorporation of a similative adjunct.

(33) Soninke (Soninke-Bozo, Mande)

a *Ì dà Múusá kátú qóò hàrê.*
 3PL CPL.TR PRN beat like donkey.D
 ‘They beat Moussa like a donkey.’

b *Ì dà Múusá hàrì-n-kátú.*
 3PL CPL.TR PRN donkey-EP-beat
 ‘They beat Moussa like a donkey.’ lit. ‘They donkey-beat Moussa.’

c *Ì hàrì-n-kátú-ndì.*
 3PL donkey-EP-beat-ANTIP
 ‘They beat (people) like donkeys.’

d *Múusá hàrì-n-kátí.*
 PRN donkey-EP-beat.PASS
 ‘Moussa was beaten like a donkey.’ lit. ‘Moussa was donkey-beaten.’

17.4.5.2 *Incorporation of temporal adjuncts*

As illustrated by example (34) with an intransitive verb, in this kind of incorporation, the incorporated noun or adverb is interpreted in the same way as when it occurs in post-verbal

position as an adjunct expressing temporal location. There seems to be no semantic difference between the two constructions.

(34) Soninke (Soninke-Bozo, Mande)

- a *À dàgá sùxùbà.*
 3SG leave morning
 ‘S/he left in the morning.’
- b *À sùxùbà-n-dàgá.*
 3SG morning-EP-leave
 ‘S/he left in the morning.’ lit. ‘S/he morning-left.’

Example (35) illustrates the same mechanism with a transitive verb, and example (35c-d) show that, like similative incorporation, the incorporation of temporal adjuncts operates on antipassive constructions (35c) and on passive constructions (35d) without interfering with voice marking.

(35) Soninke (Soninke-Bozo, Mande)

- a *À dà kónpè-n cèllà sùxùbà.*
 3SG CPL.TR room-D sweep morning
 ‘S/he swept the room in the morning.’
- b *À dà kónpè-n cùxùbà-n-cèllà.*
 3SG CPL.TR room-D morning-EP-sweep
 ‘S/he swept the room in the morning.’ lit. ‘S/he morning-swept the room.’
- c *À sùxùbà-n-cèllà-ndì.*
 3SG morning-EP-sweep-ANTIP
 ‘S/he did the sweeping in the morning.’
- d *Kónpè-n cùxùbà-n-cèllè.*
 room-D morning-EP-sweep.PASS
 ‘The room was swept in the morning.’

17.4.5.3 Incorporation of reduplicated numerals used as distributive adverbs

As illustrated by examples (36) and (37), in this kind of incorporation, a reduplicated numeral is incorporated, carrying the same distributive meaning as when reduplicated numerals follow the verb. There seems to be no semantic difference between the two constructions.

Morphologically, like nouns, reduplicated numerals take a special form when incorporated.¹⁷¹

(36) Soninke (Soninke-Bozo, Mande)

- a *Ì qènqé báané báané.*
 3PL sleep one one
 ‘They slept one by one.’

¹⁷¹ I leave open the question of why the linking *-n* occurs sometimes twice, as in (36b), and sometimes once, as in (36d), because my observations on this point are not fully consistent, and further investigation would be necessary before trying to put forward a rule.

- b *Ì báaná-n-báaná-n-qénqé.*
 3PL one-EP-one-EP-sleep
 ‘They slept one by one.’
- c *Ì dàgá hilló hilló.*
 3PL go two two
 ‘They went two by two.’
- d *Ì hilli-hilli-n-dágá.*
 3PL two-two-EP-go
 ‘They went two by two.’

Example (37) illustrates the same mechanism in a transitive construction and in the corresponding passive construction, showing that distributive incorporation has no incidence on transitivity and does not interfere with voice marking.

(37) Soninke (Soninke-Bozo, Mande)

- a *Á wá ménténhù-n gáagà-ná sikkó sikkó.*
 3SG ICPL tomato.PL-D sell-GER three three
 ‘She sells the tomatoes three by three.’
- b *Á wá ménténhù-n cikkì-n-cikkì-n-gáagà-ná.*
 3SG ICPL tomato.PL-D three-EP-three-EP-sell-GER
 ‘She sells the tomatoes three by three.’
- c *Ménténhù-n ñá sikkì-sikkì-n-gáagè-né.*
 tomato.PL-D ICPL three-EP-three-EP-sell.PASS-GER
 ‘The tomatoes are sold three by three.’

17.4.6 Multiple noun incorporation

In Soninke, various types of noun incorporation can be combined in the formation of a single compound verb.

As illustrated by examples (38) and (39), the linear order of the incorporated elements in compound verbs may reflect the order of the operations. In (38), the $N_P + N_{SIM} + n + V$ order implies that N_{SIM} characterizes the involvement of the referent of P in the event, suggesting that similative incorporation operates first, followed by P-incorporation, whereas in (39), the $N_{SIM} + n + N_P + V$ order implies that N_{SIM} characterizes the involvement of the referent of A, which suggests that P-incorporation operates first, and quite regularly, N_{SIM} characterizes the involvement of the referent of S in the intransitive construction resulting from P-incorporation. In both cases, P-incorporation triggers detransitivization marking.

(38) Soninke (Soninke-Bozo, Mande)

- a *Á wá sòró-n kètú-nú qòò hèrû.*
 3SG ICPL person.PL-D beat-GER like donkey.PL.D
 ‘S/he beats the people like donkeys.’
- b *Á wá sòró-n pèrì-n-kètú-nú.*
 3SG ICPL person.PL-D donkey-EP-beat-GER
 ‘S/he beats the people like donkeys.’
 lit. ‘S/he donkey-beats the people.’

- c *À wá sèrì-hèrì-n-kéti-ní.*
3SG ICPL person-donkey-EP-beat.ANTIP-GER
'S/he beats the people like donkeys.'
lit. 'S/he people-donkey-beats.'

(39) Soninke (Soninke-Bozo, Mande)

- a *Múusá ò ò í yàaxê-n dándá qòò yàxàré.*
PRN CPL.TR self eye-D widen like woman.D
'Moussa widened his eyes like a woman.'
lit. 'Moussa eye-widened like a woman.'
- b *Múusá yáaxá-dándé qòò yàxàré.*
PRN eye-widen.ANTIP like woman.D
'He widened his eyes like a woman.'
lit. 'Moussa eye-widened like a woman.'
- c *Múusá yàxàrì-n-ñáaxá-dándé.*
PRN woman-EP-eye-widen.ANTIP
'Moussa widened his eyes like a woman.'
lit. 'Moussa woman-eye-widened.'

Chapter 18

Conclusion

The notions of transitivity and valency are crucial for the analysis of basic aspects of clause structure in the languages of the world, since they make it possible to formulate in a clear and precise way the constraints that regulate the way verbs project clauses whose nominal terms refer to the participants in the event they denote, or to circumstances of the event.

Building on the abundant literature available on the topics addressed in this book and on my own experience of language description, I have tried to elaborate a consistent conceptual and terminological framework within which a typological approach to the phenomena commonly dealt with in terms of transitivity and valency can be developed. The typological perspective implies concern for elaborating a system of notions meeting not only the minimal requirement of logical consistency, but also the following two requirements: the basic notions in such a framework must not be limited to languages showing a particular typological profile, and the definitions must be formulated in such a way that they leave as little leeway as possible to arbitrariness in their application to language data. As regards terminology, I have tried to find balance between reusing terms commonly used for notions more or less similar to those I propose, and coining new terms in order to avoid confusions between the notions I propose and those that may be evoked by terms already in use.

In the domain of valency, I have tried to avoid the confusion between semantic and syntactic aspects of valency, favored in particular by the current use of the term ‘argument’. This is the reason why I have preferred unambiguous terms such as ‘participant frame’ for the semantic aspects of valency and ‘coding frame’ for the syntactic aspects. As regards participant roles, I have not tried to give a comprehensive account of this question, but rather to concentrate on those directly involved in the phenomena analyzed in this book. They include the roles of agent and patient, but also of transferee (more commonly designate as ‘theme’) and goal, and various subtypes of beneficiaries. In this book, the semantic role of beneficiary is distinguished from that of recipient (considered a particular variety of goal), but is conceived in other respects as a macro-role encompassing various subtypes, including the role of concerne (a term proposed by Mark Van de Velde for what is more commonly designated as ‘external possessor’).

The approach to transitivity I have put forward builds on the many studies carried out into this topic within the functional-typological tradition in the last decades, but is characterized by a particular concern for a precise account of the articulation between semantic transitivity and syntactic transitivity. The key notion is the basic construction of transitive verbs, and the way it is defined relates the approach developed in this book to those put forward by authors such as Gilbert Lazard or Bernard Comrie. Crucially, the conceptual framework developed in this book does not take as primitive notions the grammatical relations (defined as clusters of coding and behavioral properties) or the generalized semantic roles on which some other approaches base their definitions.

Another salient aspect of the study presented in the previous chapters is the proposal to reformulate the notion of alignment between the coding characteristics of transitive and intransitive clauses in terms of what I call the Obligatory Coding Principle, which serves as a basis for the discussion of the relationship between the typology of the transitive construction

and the typology of transitive-intransitive alignment. The Obligatory Coding Principle is also crucial in the approach I propose to impersonal constructions conceived as a particular type of phenomenon within the much broader domain of impersonality.

The typology of valency alternations occupies a large part of this book, with a basic distinction between verb-coded valency alternations and valency alternations without verbal coding. According to a practice which seems to be gaining ground, I have retained the term of voice as a cover term for all possible types of verb-coded valency alternations. Voice alternations can be morphologically oriented or unoriented, but there are good reasons not to restrict the notion of oriented voice alternations to those whose orientation is apparent in the morphology. The typology of oriented voice alternations put forward in this book is not based on the ambiguous notions of valency increase vs. decrease, or on notions presupposing a universal hierarchy of grammatical relations such as promotion vs. demotion, but on the notions of nucleativization vs. denucleativization. Moreover, in addition to the types commonly mentioned in typological accounts of voice, I have tried to give a status to types whose specificity is commonly overlooked, such as those I propose to designate as I-passivization, S-denucleativization, A/S-nucleativization of obliques, and A/S nucleativization of concernees (or concernativization). I have also insisted on the fact that voice markers are rarely monosemous, and that it is common that the same markers have both valency-related and non-valency-related uses. I also have emphasized that the polysemy of voice markers is not necessarily the consequence of the acquisition of new functions by already grammaticalized voice markers, since parallel grammaticalization of the same verb used as a voice auxiliary in distinct voice-like periphrases is also a possible source of polysemous voice markers.

Valency alternations without verbal coding have been grouped under the cover term of flexivalency (proposed by Martin Haspelmath), with a basic distinction between flexivalency alternations involving a change in transitivity (ambitransitivity), and flexivalency alternations with no change in transitivity. The obvious unbalance between the six chapters devoted to oriented voice alternations and the single chapter devoted to flexivalency alternations is simply due to the unbalance in the documentation available for a typological discussion of voice on the one hand, and flexivalency on the other hand. A systematic typological investigation of flexivalency would necessitate much more detailed accounts of flexivalency alternations in areally and typologically diverse languages than currently available.

In this connection, I would like to emphasize that, ideally, several other aspects of transitivity and valency would have deserved a more detailed treatment than that to which I have limited myself in this book.

This is in particular the case of the possible relationships between the lexical semantics of verbs and their division into valency classes, and of the possible relationships between transitive-intransitive alignment in the coding properties of core NPs and alignment in their syntactic behavior (syntactic accusativity vs. ergativity). In both cases, the reason for leaving these questions for further investigation is that a thorough discussion would have necessitated more data comparable to those found in (Malchukov & Comrie 2015) for the question of valency classes, or in (Witzlack-Makarevich & Bickel 2019) for the question of transitive-intransitive alignment in the behavioral properties of core NPs.

Another question that I would have liked to treat in more depth is the historical explanation of the possibility that markers involved in the coding of valency alternations may also have uses that are not related to manipulations of valency (as for example applicative markers also

found in constructions in which they mark the focalization of an adjunct without triggering any modification in its coding characteristics). The problem is that the languages whose history is documented represent a tiny proportion of the world's languages, and for phenomena that are mainly if not exclusively attested in languages whose history is poorly documented, or not documented at all, the elaboration of diachronic scenarios often depends on highly questionable reconstruction hypotheses. In particular, the fact that cognates of a given marker can be found in all branches of a given language family is undoubtedly a good argument for reconstructing it in the proto-language, but it is often forgotten that the same reasoning does not apply to the reconstruction of its original use, since a use particularly well-attested synchronically may result from parallel developments from an original use that has been lost, or is maintained only marginally.

In fact, this remark applies not only to the question of voice markers also found in constructions in which they do not operate on valency, but more generally to the question of the origin of voice markers. Some grammaticalization paths have been identified on the basis of solid evidence, but a number of unsolved problems and unanswered questions remain, in particular as regards the diachronic explanation of the possible use of identical markers for the coding of two or more types of voice alternations that are not always related in an obvious way. It can only be hoped that, in the future, it will be possible to take up such questions on the basis of more precise descriptions of an increasing variety of languages.

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Language Classification

This appendix recapitulates the genetic affiliation of all the languages quoted in the book along the lines of the classification of languages adopted in WALS Online (Dryer & Haspelmath 2013), with the few modifications indicated and commented in chapter 1 §1.6.

Afroasiatic

- Beja

 - Beja

- Berber

 - Kabyle

- Biu-Mandara (Chadic)

 - Bura

 - Moloko

- Highland East Cushitic (Cushitic)

 - Kambaata

- Lowland East Cushitic (Cushitic)

 - Afar

 - Oromo

- Mao (Omotic)

 - Mao, Northern

- Semitic

 - Amharic

 - Arabic, Classical

 - Arabic, Levantine

 - Arabic, Modern Standard

 - Arabic, Moroccan

 - Arabic, Syrian

 - Maltese

 - Syriac

- Southern Cushitic (Cushitic)

 - Iraqw

- Ta-Ne-Omotic (Omotic)

 - Maale

- West Chadic (Chadic)

 - Hausa

Ainu

- Ainu

 - Ainu

Algic

- Algonquian

 - Cree, Plains

 - Ojibwa

Altaic

- Tungusic
 - Even
 - Evenki
 - Manchu
- Turkic
 - Turkish
 - Tuvan
 - Yakut

Araucanian

- Araucanian
 - Mapudungun

Arauan

- Arauan
 - Jarawara

Arawakan

- Bolivia-Paraná
 - Mojeño Trinitario
- Japurá-Colombia
 - Tariana
 - Yukuna

- Piro
 - Yine

Austroasiatic

- Vietic
 - Vietnamese

Austronesian

- Atayalic
 - Atayal
- Barito
 - Malagasy
- Celebic
 - Tukang Besi
- Central Malayo-Polynesian
 - Kedang
 - Manngarai
- Chamorro
 - Chamorro
- Greater Central Philippine
 - Cebuano
 - Tagalog
- Malayo-Sumbawan
 - Acehnese
 - Balinese
 - Indonesian
 - Malay, Ambonese

Malay, Sri Lanka
Northwest Sumatra-Barrier Islands
Nias
Oceanic
Fagauvea
Fijian, Boumaa
Futunan
Kokota
Mokilese
Nêlêmwa
Niuean
Paluai
Roviana
Saliba
Samoan
Teop
Tongan
Uvean, East
Vaeaku-Taumako
Xârâcùù
Paiwan
Paiwan
Rukai
Rukai
Boran
Boran
Bora
Caddoan
Caddo
Caddo
Cahuapanan
Cahuapanan
Shawi
Shiwilu
Cariban
Cariban
Akawaio
Hixkaryana
Kali'na
Kari'nja
Tiriyó
Wayana
Ye'kwana
Central Sudanic
Sara-Bongo-Bagirmi
Sar

Chukotko-Kamchatkan

Northern Chukotko-Kamchatkan

Chukchi

Dogon

Dogon

Jamsay

Dravidian

Dravidian

Tamil

East Sudanic

Eastern Nilotic

Maa

Jebel

Gaahmg

Kuliak

Ik

Nubian

Nubian, Kunuz

Nubian, Old

Southern Nilotic (Nilotic)

Datooga

South Surmic (Surmic)

Mursi

Tennet

Western Nilotic (Nilotic)

Dinka

Kurmuk

Lango

Luo

Mabaan

Nuer

Päri

Shilluk

Eskimo-Aleut

Aleut

Aleut

Eskimo

Greenlandic, West

Inuktitut

Yupik, Central Alaskan

Euskaran

Euskaran

Basque, Central

Basque, Lapurdian

Basque, Old

Basque, Souletin

Basque, Western
Gbaya-Manza-Ngbaka
 Gbaya-Manza-Ngbaka
 Gbaya
Greater West Bomberai
 Alor-Pantar
 Teiwa
East Timor
 Makalero
Guaycuruan
 Qom
 Mocoví
 Toba
Gunywinguan
 Anindilyakwa
 Anyindilyakwa
Hokan
 Pomoan
 Pomo, Central
 Yuman
 Tiipay, Jamul
Indo-European
 Anatolian
 Hittite
 Armenian
 Armenian, Classical
 Armenian, Eastern
 Baltic
 Latvian
 Lithuanian
 Celtic
 Breton
 Welsh
 Germanic
 Danish
 Dutch
 English
 Faroese
 Frisian
 German
 Icelandic
 Norwegian
 Swedish
Greek
 Greek, Classical
 Greek, Modern

Indic

Hindi
Kashmiri
Maithili
Sanskrit, Classical
Sanskrit, Vedic

Iranian

Kurdish, Kurmanji
Persian
Rošani
Sinhala
Vafsi
Yazgulyam

Italic

Abruzzese
Catalan
French
French, Colloquial
French, Old
Italian
Italian, Tuscan
Latin
Latin, Late
Latin, Vulgar
Occitan
Portuguese
Portuguese, Brazilian
Romanian
Spanish
Spanish, Ecuadorian Highland
Spanish, Guatemalan

Slavic

Belarusian
Bulgarian
Czech
Macedonian
Polish
Russian
Russian, Northern dialects
Russian, Northwestern dialects
Serbo-Croat
Ukrainian

Iroquoian

Northern Iroquoian
Cayuga
Mohawk

Oneida
Japonic
 Japonic
 Japanese
 Japanese, Hokkaido
 Japanese, Mitsukaido
 Japanese, Old
Jivaroan
 Jivaroan
 Aguaruna
Kartvelian
 Kartvelian
 Georgian
 Laz
Kiowa-Tanoan
 Kiowa-Tanoan
 Picurís
 Tewa
Koman
 Koman
 Uduk
Koreanic
 Koreanic
 Korean
Kwaza
 Kwaza
 Kwaza
Kx'a
 !Xun
 Ju|'hoan
 !Xun
Macro-Jê
 Karajá
 Karajá,
Mande
 Central Mande
 Bambara
 Kakabe
 Mandinka
 Maninka, Kita
 Maninka, Niokolo
 Soninke-Bozo
 Soninke
 Tigemaxo
 Soso-Jalonke
 Jalonke

Soso
South Mande
 Dan
 Mano
Southwestern Mande
 Mende
Mayan
 Mayan
 Akatek
 Chol
 Kaqchikel
 K'ichee'
 Mopan
 Q'eqchi'
 Tzeltal
 Tzotzil
 Yucatec
Mirndi
 Jaminjungan
 Jaminjung
Movima
 Movima
 Movima
Muskogean
 Muskogean
 Alabama
 Choctaw
 Koasati
Nadahup
 Nadahup
 Hup
Na-Dene
 Athapaskan
 Navajo
Nakh-Daghestanian
 Avar-Andic-Tsezic
 Akhvakh, Northern
 Andi
 Avar
 Bagvalal
 Bezhta
 Chamalal
 Godoberi
 Hunzib
 Karata
 Khwarshi

Tindi
Tsez
Dargwic
Dargwa, Icari
Dargwa, T'ant'i
Lak
Lak
Lezgetic
Agul
Lezgi
Nakh
Chechen
Niger-Congo
Balanta (Atlantic)
Ganja
Bantu (Benue-Congo)
Bemba
Chewa
Comorian
Cuwabo
Ganda
Haya
Herero
Kimbundu
Lingala
Luguru
Lunda
Makhuwa
Maore
Mongo
Mwiini
Ngangela
Nsenga
Nyambo
Orungu
Rundi
Rwanda
Shona
Sotho, Southern
Swahili
Tonga
Tswana
Zulu
Cangin (Atlantic)
Laalaa
Noon

Defoid (Benue-Congo)

Yoruba

Edoid (Benue-Congo)

Degema

Emai

Fula-Seereer (Atlantic)

Fula

Seereer

Gbe (Kwa)

Ewe

Fon

Gen

Grassfields (Benue-Congo)

Kejom

Joola (Atlantic)

Jóola Banjal

Jóola Fóoñi

Kuwaataay

Katla-Tima

Tima

Ka-Togo (Kwa)

Tuwuli

Kru

Bete, Gagnoa

Newole

Nyun (Atlantic)

Gubëeher

Oti-Volta (Gur)

Byali

Nawdm

Samba-Duru (Adamawa)

Pere

Samba Leko

Senufo (Gur)

Minyanka

Supyire

Southern Mel (Mel)

Kisi

Talodi-Heiban

Lumun

Tano (Kwa)

Akan

Baule

Wolof (Atlantic)

Wolof

Nivkh

Nivkh
 Nivkh
North Halmaheran
 North Halmaheran
 Galela
 Tobelo
Northwest Caucasian
 Northwest Caucasian
 Adyghe
 Kabardian, Besleney
Nyulnyulan
 Nyulnyulan
 Warrwa
Otomanguean
 Otomian
 Otomi
Popolocan
 Ixcatec
Subtiaba-Tlapanec
 Tlapanec
Zapotecan
 Chatino, Zezontepec
 Zapotec, San Bartolomé Zoogocho
Pama-Nyungan
 Central Pama-Nyungan
 Diyari
 Northern Pama-Nyungan
 Dyirbal
 Guugu Yimidhirr
 Kalkatungu
 Kuuk Thaayorre
 Umpithamu
 Warrungu
 Yidiny
 Western Pama-Nyungan
 Djaru
 Panyjima
 Warlpiri
Pano-Tacanan
 Panoan
 Kakataibo
 Matses
 Tacanan,
 Cavineña
Penutian
 Chinookan

Chinook
Sahaptian
 Nez Perce
 Sahaptin
Quechuan
 Quechuan
 Quechua, Imbabura
Ramu-Lower Sepik
 Ramu
 Chini
 Lower Sepik
 Yimas
Saharan
 Eastern Saharan
 Beria
 Western Saharan
 Kanuri
Salishan
 Bella Coola
 Bella Coola
 Central Salish
 Halkomelem
 Lummi
 Sliammon
 Interior Salish
 Nxa'amxcin
 Shuswap
Sepik
 Ndu
 Manambu
 Sepik Hill
 Alamblak
Seri
 Seri
 Seri
Sino-Tibetan
 Bodic
 Tibetan, Lhasa
 Brahmaputran
 Tangsa, Muklom
 Central Naga
 Ao, Mongsen
Kiranti
 Bantawa
 Chintang
 Limbu

Thulung
Kuki-Chin
Lai, Hakha
Monsang
Sizang
Na-Qiangic
Japhug
Rgyalrong, Zbu
Sinitic
Mandarin
Siouan
Mississippi Valley Siouan
Dakota
Hocąk
Lakota
Osage
Skou
Warapu
Barupu
Songhay
Songhay
Koroboro Senni
Koyra Chiini
Songhay, Diré
Zarma
South Bougainville
South Bougainville
Buin
Southern Daly
Murrinhpatha
Murrinhpatha
Ngankikurungkur
Ngan'gityemerri
Tangkic
Tangkic
Yukulta
Tarascan
Tarascan
Purépecha
Tikuna
Tikuna
Tikuna
Totonacan
Totonacan
Tepehua
Totonac

Totonac, Upper Necaxa
Trans-New Guinea
 Kalam-Kobon
 Kobon
 Rai Coast
 Tauya
Tupian
 Maweti-Guarani
 Emerillon
 Guaraní
 Kamaiurá
Tuu
 Tuu
 N||ng:
 !Xoon
Uralic
 Finnic
 Estonian
 Finnish
 Finnish, Colloquial
 Permic
 Udmurt
 Saami
 Saami, North
 Samoyedic
 Nenets
 Ugric
 Hungarian
Uto-Aztecan
 Aztecan
 Nahuatl, Classical
 Nahuatl, Huasteca
 Cahita
 Yaqui
 Northern Uto-Aztecan
 Hopi
 Paiute, Northern
 Ute
 Tarahumaran
 Guarijío
 Tarahumara
 Tepiman
 O'odham
Yam
 Nambu
 Nen

Tonda

 Komnzo

Yámana

 Yámana

 Yagan

Yawan

 Yawan

 Saweru

Yeniseian

 Yeniseian

 Ket

Yukaghir

 Yukaghir

 Yukaghir, Tundra:

Pidgins and Creoles

 African American English

 Caribbean English

 Jamaican Creole

 Seychellois