

The diachronic typology of non-canonical subjects and subject-like obliques

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Introduction

As has been mentioned in the introduction to the present volume, there is a large body of literature devoted to different aspects of non-canonical subjects or subject-like obliques ranging from language-specific case studies to typological overviews. Nevertheless, the diachrony of these constituents has not been the subject of cross-linguistic research (an important exception here is Cole et al. 1980). Most of the diachronic studies concentrated on Germanic languages (especially Old English vs. Middle and Modern English as well as Old Norse vs. Modern Scandinavian). The aim of the present paper is to summarize and give structure to the research results in a rather theory-neutral way acknowledging the contributions of all approaches applied in this volume, as well as to integrate the preceding research on the evolution of non-canonical, oblique case-marked subjects. It is intended to establish an interim diachronic typology of the phenomenon including diachronic generalizations and recurrent developmental clines.

The generalizations that will be put forward in this paper are inductive and exclusively empirically based; the approach is typological and data-driven. At the same time, the empirical data base is not exhaustive, and no universality of the generalizations may be claimed. Rather, it should be considered as a first attempt to provide the evolutionary typology of non-canonical subjects.

Diachronic typology views the synchronic descriptions as representing stages that languages pass through in their infinite evolution, stages that a language can enter and exit (Croft 2003: 234–5) *ad libitum*.

Following Croft (2003:245–6), studies that entertain the *stage-by-stage view of the diachronic processes* exemplified by the following change are not included:¹

- (1) no articles -> anaphoric demonstratives -> definite articles

The inquiry is rather about a particular, morphologically and functionally individuated linguistic construction that undergoes a particular diachronic process (as per Croft 2003:246) because only case studies of this kind can provide a reliable basis for generalizations.² Thus the sample does not include those investigations which assume a historical inheritance between constructions only on the basis of their functional similarity/synonymy while disregarding the etymological unrelatedness of their morphology and lexical input. It seems that, in these cases, the requirement that there be a particular construction that undergoes certain changes put forward in Croft (2003:245–6) is not obeyed.

The paper is structured as follows. First, the prototype approach applied to the diachrony of non-canonical subjects is presented in Section 1. Section 2 briefly provides a categorization of the types of constructions that attest non-canonical subjects or subject-like obliques. Section 3 presents a diachronic typology of the non-canonical subjects or subject-like obliques. Here, Subsection 3.1 presents attested developmental clines for the rise of non-canonical subjects and subject-like obliques. Subsequently, subsection 3.2 discusses the constraints for their diachronic stability and even productivity in some languages. Finally, Subsection 3.3 investigates the demise of non-canonical subjects and subject-like obliques as well as their development into canonical subjects (henceforth: *canonicization*).

1. The prototype approach

The notion of *prototype* was first introduced in the cognitive sciences (*cf. inter alia*, Rosch 1973, 1975; Rosch & Mervis 1975; Bybee & Moder 1983; Taylor 1998, 2004) where it has been recognized as crucial to the understanding of how certain concepts and their categories are structured and represented in the human mind. When it comes to grammar, it was probably Keenan (1976) who was the first to recognize prototype

1. Even though the processes at hand consist of gradual transitions between an infinite number of intermediate micro-steps, the diachronic descriptions are provided in quasi-discrete steps (*stages*) for the sake of clarity. The case studies of the volume, in turn, provide a much higher resolution of the processes concerned.

2. A different approach is put forward in Barðdal et al. 2012.

effects with the category of *subject*. A further important study here is Taylor (1998) who illustrates the prototype effects with the category *subject* in English, as well as Faarlund (1990) who applies the prototype approach to subject in the diachronic perspective, cf. furthermore Malchukov and Ogawa (2011).

The prototype approach allows the category of subject to be defined with a good portion of gradience – which is absolutely necessary for any diachronic study dealing with the changes from one syntactic category into some other. The category *subject* encompasses a significant number of different kinds of less prototypical instantiations grouped together around the prototype in a structured way (cf. *radial category* within the cognitive linguistics paradigm, *inter alia*, at the hands of Lakoff 1987; Janda 1993; Nessel *et al.* 2011). The prototype, in turn, is defined as the maximal set of subject properties of the respective language. This set is subject to cross-linguistic variation.

The less prototypical, peripheral members of the category *subject* are defined by lacking some of these properties (cf. Croft 2003: 162) and/or having some of the properties of other prototypes. Crucial to the present study is the assumption that there might be more than just one prototype that the particular member in question is linked to; there is no uniqueness requirement. That is to say, a particular peripheral member may enter a relationship with several prototypes at the same time, though to a different degree, of course. Thus the language-specific category *subject* encompasses members that are prototypical (i.e. prototypical subjects) and those that are less prototypical. The less prototypical members are not only those members that lack some of the properties from the maximal set, but also those that have some of the properties indicative of some other prototype. Thus non-prototypical subjects often share some properties with other prototypes such as, e.g. *direct object* or *indirect object*; in this sense, there is no increasing degree of abstractness with less prototypical members.

The maximal set of properties typically consists of the following types: *behavioral*, *coding* and *semantic* properties (Keenan 1976). Behavioral properties refer to the syntactic behavior typical of a subject in the given language, such as control of PRO, raising, binding the reflexive anaphora, etc. whereas coding properties are rather expressed by morphology, such as subject-verb agreement markers or dedicated case-marking (e.g. the nominative case).³ There are also *pragmatic properties* encompassing such subjecthood correlatives as *topichood* (Keenan 1976: 318–9; Andrews 1985; Lambrecht 2000: 132), *empathy* and *definiteness* (Kibrik 1997; Givón 1997; Croft 2001; Lambrecht 2000), while

3. Keenan (1976) and a number of subsequent researchers consider *word order* to be a coding property while, e.g. Haspelmath (2010) takes it as a behavioral property.

semantic properties refer to the Proto-Agent introduced by Dowty (1991) or Antecedent (vs. Subsequent) in Croft's (1998) force dynamics. I group *pragmatic* and *semantic properties* together under the label *functional properties* since these properties represent the functional load of the category *subject* whereas both the behavioral and coding properties represent its grammatical encoding (cf. Malchukov & Ogawa 2011:22), henceforth: *grammatical properties*. The syntactic roles are thus understood as a multi-dimensional space that consists of all possible properties. It is organized along such dimensions as *coding*, *behavioral*, *semantic* and *pragmatic* dimensions and structured around the prototypes, i.e. members that are endowed with the maximal set of properties, such as *subject*, *direct object*, *adjunct*, etc.

Note that no cross-linguistically valid coupling between different property types (dimensions) is assumed here. This implies that a particular member may be placed considerably close to the prototype within one dimension (if scoring high with regard to the respective properties) while being distant from the prototype within another dimension. To give an example, the subjects of passives are typically close to the subject prototype with regard to their behavioral, coding and (typically) pragmatic properties but are distant from the subject prototype with regard to their semantic properties (e.g. in terms of the Proto-Role entailments): the semantic properties of the passive subjects are linked to the object prototype.

No coupling between different dimensions also implies that the diachronic changes that a particular member undergoes may progress within every dimension independently – i.e. with regard to the *coding*, *behavioral*, *semantic* and *pragmatic* dimensions – and to a different extent, not least because the interplay of the morphological and syntactic properties which encode a particular functional property is subject to language-specific constraints. Thus – just to mention both extremes – some languages may encode the discourse prominence syntactically (e.g. by the clause-initial position) while others do so by means of morphology (e.g. via dedicated affixes). Even though changes in the functional properties are the main trigger for changes in the grammatical properties, the particular choice and relative chronology of the acquisition of the grammatical properties is language-specific (Seržant, this volume).

The prototypes themselves largely correspond to the traditional understanding of the syntactic roles as discrete entities, which abstracts away from the less prototypical or quirky cases. The difference between the traditional understanding and the prototype-model results from a different factor of focus, but it is not a fundamental difference. Thus, at a lower zoom-in factor, a particular argument in a clause (e.g. passive) is analyzed as the subject because it has most of those properties that are indicative of the subject in that language. There is no way to acknowledge the gradience here. In turn, at a higher zoom-in level, one faces more prototypical and

less prototypical instantiations each with somewhat different relations to their prototype. These instantiations are mistreated if grouped together with no disclaimers and require an increased zoom-in level of observation for a coherent description thereof (cf. Barðdal 2006).

Indeed, an analysis in terms of discrete syntactic roles fails to capture the syntactic organization of the data discussed in this volume. In most of the cases, one finds argument structure constructions with a diffusion of subject properties (Haspelmath & Caruana 2000; Benedetti, this volume, Fernández-Soriano & Mendikoetxea, this volume, Holvoet, this volume, Montaut 2004: 35). Fernández-Soriano & Mendikoetxea (this volume) speak about “characteristics scattered across more than one nominal.” Thus Holvoet (this volume) argues that certain structures with the highest ranked (experiencer) dative NPs in Slavic and Baltic – in contrast to the Icelandic textbook-examples – show diffusion of subject properties between the dative NP and the “demoted” intransitive nominative subject (stimulus). He compares the diffusion of subject properties in such configurations to the diffusion of object properties between the direct and indirect objects of the ditransitive verbs of transfer like English *John gave Mary the flowers* where both *Mary* and *flowers* share some object properties. Benedetti (this volume), in turn, accounts for diffusion by assuming that both arguments concerned are subjects but each at a different level of derivation. A diffusion of subjecthood can even be found on the morphological level. Thus Croft (1998: 85) states that the experiencer and the stimulus may both be coded as subjects in the Japanese “double-*ga*” construction. Haspelmath and Caruana (2000) argue that the verb-experiencer agreement in Maltese is twofold: it is oblique as the object agreement but it is obligatory as the subject agreement. Furthermore, one finds argument structure constructions in which certain subject behavioral properties are not available at all, even though there is no pragmatic reason for that. Thus Holvoet (this volume) shows that with some Dat-Nom predicates such as Lith. *patikti* ‘to like’, some pivot functions (like the control of *pro* in conjoined clauses) are not available with any of its arguments.

The prototype model applied here also allows cross-linguistic variation of superficially parallel constructions to be captured. In this way, verbs such as ‘to like’ often subcategorize for Dat-Nom case frame for the experiencer and the stimulus, respectively. It is, however, essential that, despite the superficial correlation in case assignment, languages considerably distinguish the degree to which subject behavioral properties are assigned to the dative and to the nominative argument, respectively (cf. Bickel 2004: 77). Sigurðsson (2002a) argues that the dative experiencer of the Icelandic *lika* ‘to like’ is syntactically a non-nominative (non-canonical) subject, whereas its Russian and German counterparts are just subject-like arguments (with respect to, e.g. the linear

position) with few syntactic subject properties (differently Barðdal 2006).⁴ The latter option is found in many other languages of Europe as well (Haspelmath 2001b:79). This is, furthermore, true for the dative of Spanish *gustar* ‘like’ (Fernández-Soriano & Mendikoetxea, this volume, Melis & Flores, this volume), Latvian *patikt* ‘to like’ and Lithuanian *patikti* ‘to like’ (Holvoet, this volume, Seržant, this volume). The variation found across languages is often a matter of degree, sometimes diachronically motivated (Haspelmath 2001b: 79; Haspelmath & Caruana 2000).

The prototype model not only accommodates *gradience* of the *subject* notion in the sense of Keenan’s seminal paper (Keenan 1976), but also implies that this gradience correlates to other prototype relations (such as, e.g. *direct object*, *indirect object*, *adjunct*, etc.). Thus, contrasting with other approaches, it is assumed that there are no “non-indicative” properties – most of the properties found with a particular argument are indicative of some of the prototypes. The most prototypical members are endowed with properties from just one prototype, while less prototypical members also have those properties that are indicative of some other prototype. There is, thus, no clear-cut boundary between the syntactic roles (*cf.*, *inter alia*, Lazard 1994; Taylor 1998: 196–7).

Now, when it comes to diachrony, it seems that the modeling of the diachronic processes that grammatical categories undergo is inherently biased towards conflicting evidence because the processes of change from one category to another are typically gradual, often with no prototypical in-between stages. Crucially, embedding our understanding of syntactic roles into the prototype model allows diachronic processes that the syntactic roles undergo to be modeled by capturing them as developments from one prototype towards another. It is a gradual change in the proportion of properties linked to both prototypes (for example, a change from mainly object and few subject properties towards few object and mainly subject properties) – something that an approach with discrete syntactic roles would not enable. Thus the prototype model allows instances of an on-going re-assignment of properties with different prototype attributions between two arguments of a construction to be captured, *cf.* the Latvian dative in Holvoet (this volume).

The present approach is capable of accommodating the cross-linguistic variation of the category *subject*. Thus languages differ along the degree of grammaticalization

4. Barðdal (2006), while also acknowledging the fact that the dative experiencers, for example, in German are endowed with less subject properties than their Icelandic counterparts, argues that, nevertheless, these properties are enough to call these datives subjects in German. While it is correct that the differences between German and Icelandic are not categorial, there are considerable differences in terms of degree (*cf.* Sigurðsson 2002a; Haspelmath 2001b) that are left unaccounted for in Barðdal’s approach but can be captured by the prototype model.

of *subject*. The degree of grammaticalization not only depends on the number of the functional and grammatical properties attributed to the subject prototype, but also correlates with how densely the less prototypical members are located with respect to each other and to their prototype in the space of syntactic roles. Following this understanding, it is expected that those languages with more subtypes of non-prototypical subjects across their constructions will exhibit a less grammaticalized degree of *subject* than those languages whose subjects show a greater degree of uniformity across different constructions. This is also empirically supported by the development from Old Norse to Modern Norwegian, as Faarlund (1990) shows. The former not only exhibits considerable prototype effects with regard to the category subject in different constructions, but also shows the maximal set of prototypical-subject properties to be much smaller. Its successor, Modern Norwegian, in turn exhibits much less variation across different constructions and has a more complex set of subject properties (Faarlund 1990: 132–3).

The degree of grammaticalization can also be observed in the type frequency which is indicative of its entrenchment in the language. Thus, even though the category *subject* is a cluster category exhibiting a whole set of grammatical and functional properties in Lithuanian and representing the cumulative strategy (in Kibrik 1997's typology), there are some constructions that lack subjects in this language. As a matter of fact, the category *subject* cannot be unequivocally postulated for several experiencer predicate constructions in Lithuanian; e.g. with the verb *patikti* 'to like' whose two arguments – even if taken together – considerably underscore the prototypical subjects with regard to several grammatical (and functional) properties (cf. Holvoet, this volume). That is to say, the degree of entrenchment and productivity of *subject* in Lithuanian is lower than in the more subject-oriented languages with a greater uniformity and less prototype effects such as, for example, English or French. At the same time, a prototypical Lithuanian subject would not necessarily underscore a prototypical subject of English or French with regard to the number of properties attributed.

A lower degree of grammaticalization of subject can also be substantiated in a less complex clustering of different properties types (like information-structure properties, syntactic properties, semantic properties, etc.) and hence in more diversity. Montaut (2004; this volume) illustrates the versatility of non-prototypical subjects and their different types in Modern Indo-Aryan languages; specifically in Hindi and Urdu and ranging from ergative or dative to genitive, locative and instrumental ones with the respective decrease in the endowment with the syntactic subject properties. She argues that modern Hindi/Urdu tend to separate information-structure properties, thematic-roles-related properties, and coding properties while syntactic properties are attached to the most salient NP in terms of semantic and pragmatic properties in the past/perfective. In such systems, the very category subject has not been fully

grammaticalized by completely accumulating all the properties types. Thus only the clustering of semantic and syntactic properties with an inherent lack of coding properties (e.g. verbal agreement) exists with ergative NPs or experiential dative NPs; the pragmatic properties are also optional with both NP types. See also the discussion of Nakh-Daghestanian languages in Ganenkov (this volume).

The degree of grammaticalization of the syntactic category *subject* also correlates with the proportion of how much those functions that are responsible for the clausal and inter-clausal organization are constrained syntactically and how much morphologically. To give an example, while for some languages, e.g. Icelandic, the role of syntactic properties is crucial here, other languages, like ancient Indo-European languages (such as Ancient Greek or Vedic Sanskrit) are more morphology-driven. The morphological case and rich verbal morphology primarily code the internal organization of the event/state referred to by the clause as well as provide the necessary parameters and mechanisms upon which the clausal and inter-clausal linking rests, while syntax has much less weight here.⁵

The present paper and volume are devoted to a specific kind of non-prototypical subject, namely, to the kind of argument which is endowed with some properties linking it to the subject prototype but which consistently lacks certain subject (morphological) coding properties. There are an infinite number of subtypes. For the sake of clarity, however, I will distinguish between two diachronic extremes: *non-canonical subjects* and *subject-like obliques*. The former refer to oblique NPs that are not endowed with canonical subject case-marking and have no access to (canonical) verbal agreement; at the same time, they are characterized by the endowment with behavioral subject properties and are syntactically full-fledged subjects (Sigurðsson 2002a; Holvoet, this volume). *Subject-like obliques*, in turn, are constituents that considerably deviate from the subject prototype lacking not only morphological, but also most behavioral subject properties. These constituents only share a small subset of properties pertaining first of all to the semantic and/or information-structure with the subject prototype.

5. Thus these languages typically lack a dedicated reflexive anaphora with reflexivization typically being coded on the verb by means of the middle voice endings (both beneficiary/possessive and object reflexives). There are no converbs, while infinitives are still abstract deverbal nouns that can even inflect for case, subordination being expressed by means of participles that have to agree with the controller in case, gender and number and do not depend on its syntactic role. The function of the predicates that typically have raising or control functions in the modern European languages are expressed by verbal morphology: e.g. phasal meanings are expressed by verbal aspect derivations while modal meanings are primarily expressed by different mood formations. Similarly, causatives (where they are found) involve dedicated causative stem formations and never a raising auxiliary. The word order, as well as a rich system of particles, constrains the information structure.

Thus a subject-like oblique (as understood here) encodes the highest ranked participant in the clause and/or is the default topic. From the synchronic point of view, it may be better analyzed in terms of some other prototype (e.g. as a direct object) with which it has a higher degree of correspondence (e.g. with regard to the syntactic properties).⁶ However, from the diachronic perspective, these constituents have the potential to develop into non-canonical subjects. As we shall see below (Section 3), arguments with different syntactic roles may develop into non-canonical (and sometimes, subsequently, into canonical) subjects. They will all, therefore, be grouped together here under the label *subject-like obliques* as long as they consistently encode the highest ranked participant and/or the default topic.

Notably, the labels *subject-like oblique* and *non-canonical subject* are understood here as notions representing two opposite poles of sets of properties. The transition between them is gradual and primarily affects the behavioral properties. In those cases where I will have to refer to subject-like obliques and non-canonical subjects as well as to the variety of transitional cases between these two poles, I will refer to *non-prototypical subjects*.⁷ The following table summarizes the terminology (Table 1):

Table 1. Subject-like oblique vs. Non-canonical vs. Canonical subject

SUBJECT PROPERTIES	NON-PROTOTYPICAL SUBJECTS		PROTOTYPICAL SUBJECTS
	SUBJECT-LIKE OBLIQUE	NON-CANONICAL SUBJECT	CANONICAL SUBJECTS
<i>Semantic properties</i> and/or <i>Information-structure properties</i> (default topic)	YES	YES	YES
<i>Behavioral properties</i>	NO/(FEW)	YES	YES
<i>Coding properties</i>	NO	NO	YES

It is the aim of the present volume and of the present paper to establish the main recurrent diachronic tendencies that lead to (i) the rise of the subject-like obliques,

6. Other notions have been used in the literature to refer to such “semantic but not syntactic subjects”, cf. *quasi-subjects* (Benedetti, this volume), *actant H* (for presentational clauses in Lazard 1994), *semi-subject* (cf. Sasse 1982), *diffused subjecthood* (Haspelmath & Caruana 2000; Holvoet, this volume) or *subject-like oblique* (cf. Sigurðsson 2002a, 2002b).

7. Note that I thereby artificially exclude other subtypes of non-prototypical subjects, e.g. the canonical subjects of passives. I do this simply for the sake of brevity.

(ii) their development into non-canonical subjects, (iii) the productivity of both and, finally, (iv) the demise of non-canonical subjects and/or their development into canonical ones. However, before I proceed to this, I will first introduce a categorization of the non-canonical subjects and subject-like obliques.

2. Classification of non-prototypical subjects

Non-prototypical subjects (henceforth: NS) may be classified into *lexically-driven non-prototypical subjects*, *gram-driven non-prototypical subjects* and *syntax-driven non-prototypical subjects*, depending on the particular source for the non-prototypicality of the constituent in question (Seržant to appear-d).

With *lexically-driven non-prototypical subjects*, the non-canonical case-marking of the subject-like constituent is motivated by the entailments that the lexical predicate imposes on its argument. The lexically-driven NS type corresponds to the *predicate-related condition* for non-canonical case assignment in Haspelmath (2001b). A typical lexically-driven NS predicate is, for example, a predicate that subcategorizes for an oblique case-marked experiencer, cf. (2)–(4):

- (2) *Okkur fellur þessi bók* (Icelandic)
 we:DAT like:3SG this:NOM book:NOM
 ‘We like that book.’
- (3) *Man piestāv šis uzvalks* (Latvian)
 I:DAT fit:3SG this:NOM suit:NOM
 ‘This suit sits on me well.’
- (4) *Rebenka vyrvalo kašej* (Russian)
 child:ACC vomit:PST.3SG.NEUTR porridge:INSTR
 ‘The child vomited the porridge.’

In turn, a gram-driven predicate is a complex predicate where the non-canonical case assignment is not triggered by the underlying lexical verb but rather by the gram in which it occurs. That is, the case frame of a lexical verb is overridden by the case frame imposed by the gram. In formal terms, with lexically-driven NS predicates, the case is assigned by the lexical verb on the basis of the thematic role of the argument while with the gram-driven NS predicates, the case is assigned by the corresponding functional head, e.g. by the debitive mood in Latvian (Holvoet, this volume), perfect in North Russian (Seržant 2012a, Seržant, to appear-d) or the evidential mood in Lithuanian in (6) opposed to the nominative-accusative alignment of the same verb elsewhere, e.g. in (5):

- (5) *Sen-ieji mišk-us mylė-jo* (Lithuanian)
 old-NOM.PL forrest-ACC.PL love-PAST.3
 ‘The elders loved the forests’
- (6) *Sen-ų mišk-ai mylė-t-a* (Lithuanian)
 old-GEN.PL forrest:NOM.PL love-PPP-SG.NEUTR
 ‘The elders [apparently] have loved the forests’
 (adopted from Jablonskis 1922: 141)

With the syntax-driven NSs, in turn, the oblique case is assigned to the logical subject at the clause level, e.g. in such constructions as *accusativus cum infinitivo* or different kinds of absolute constructions (e.g. the *ablativus absolutus* in Latin).

3. Diachronic typology of non-prototypical subjects

The aim of the present section is to establish cross-linguistic generalizations on the diachronic processes that the non-prototypical subjects significantly often undergo.

This section includes the following subsections: rise (3.1), expansion (3.2) and demise (3.3). First (subsection 3.1), three recurrent paths of development are put forward that schematically describe processes leading to the rise of non-prototypical subjects. Secondly, subsection 3.2 discusses the main factors leading to the diachronic stability and even productivity thereof. Finally (subsection 3.3), the mechanisms that lead to the demise of non-prototypical subjects and their development into prototypical and canonical ones are analyzed.

3.1 Rise of non-prototypical subjects

On the basis of the available data, three major *Developmental Clines* (DC) can be postulated:

- DC1: a non-core constituent, an **adjunct**, develops into a non-prototypical subject (subsection 3.1.1),
- DC2: an **object** becomes reinterpreted as a non-prototypical subject (subsection 3.1.2), and
- DC3: a system of **differential object marking** is extended onto the subject (subsection 3.1.3).

Subsection 3.1.4 summarizes the discussion of the whole subsection 3.1.

3.1.1 *An adjunct develops into a non-prototypical subject*
(1st Developmental Cline)

A frequent pattern of acquiring a subject-like oblique/non-canonical subject in a language may proceed as follows:⁸

- i. There is a non-agentive or inactive predicate with a patient-like subject denoting an uncontrolled action (e.g. a resultative, passive, anticausative, middle, etc.);
- ii. One of the following adjuncts can optionally be added to the construction in (i):
 - ii.a. often a *free dative* or a *free-dative-like PP*⁹ (with experiencer predicates, resultative predicates, anticausatives/middles). At this step, it encodes the meaning of an *affected participant*¹⁰ such as: physically affected participant,¹¹ external possessor, bene-/maleficiary or experiencer of the event in (i). This semantics restricts the referent of the adjunct to animates only;
 - ii.b. alternatively, the internal possessor that has been disjoined from its original host phrase;
 - ii.c. other type adjuncts that encode affected participants, e.g. *accusativus commodi* (animates only);
 - ii.d. finally, a location denoting adjunct with existential predicates to yield presentational constructions (no animacy restrictions here).
- iii. The adjunct from (ii) starts outranking the original subject on animacy scale and/or definiteness and/or empathy and, as a consequence, topic-worthiness. As a result, it gradually occupies the linear subject position (by means of some sort of (left)-dislocation) in an unmarked word order of the construction. Concomitantly, it intrudes on the predicate's valence and develops into one of its core arguments.
 - iii.a. Predicate-specific (e.g. typically with resultatives or anticausatives): this adjunct – originally just an *affected-participant* – additionally acquires the reading of a participant that is in some sort responsible for the event encoded by the predicate (“non-controlling agent”).

8. A somewhat different version of this cline has been suggested in Estival & Myhill (1988) to account for the rise of ergative patterns.

9. An optional, non-subcategorized dative/dative-like-PP, cf., inter alia, Schäfer (2008: 41ff).

10. This participant is sometimes more precisely referred to as *indirectly* affected participant (cf. Kemmer & Verhagen 1994) to distinguish it from the direct affectedness of the prototypical objects. However, for the sake of brevity, I will refer to it as to *affected participant*.

11. The process takes place in the immediate proximity of that participant.

- iv. Subsequently, the adjunct acquires subject properties which the former subject loses.
- iv.a. Applies only to (iii.a): the original *affected-participant* reading is lost, which leads to a loosening of the lexical input restrictions on the former adjunct: inanimate NPs are also allowed from this stage on.
- v. Concomitantly, the original subject, the internal argument of the inagentive predicate loses its subject-coding properties opening up the way for the acquisition of the subject-coding properties by the new subject at this final stage (discussed at length in subsection 3.3).

Comments and data

3.1.1.1 *Step (ii)*. (ii.a): It is often assumed for the languages which encode the predicative possessor (in the *mihi-est*-type possessive construction) and the cluster (*indirectly*) *affected participant* (external possessor/experiencer/beneficiary, cf. Kemmer & Verhagen 1994) alike, that step (ii.a) evolves from embedding the predicate in (i) under the possessee of the *mihi-est*-type possessive construction, cf., *inter alia*, Benveniste (1952) and Bauer (2000: 197–260) with a number of potential examples. This is also assumed for the modal infinitive constructions in Baltic and Slavic (Holvoet 2003a; Jung, this volume) as well as for the so-called possessive perfects in North Russian or Estonian (Lindström & Tragel 2010 following Kuteva & Heine 2004). However, I have argued against the possessive origin in favor of a free dative adjunct denoting an affected participant for the North Russian perfect in Seržant (2012a). In the same vein, Seržant and Bjarnadóttir (to appear) argue for a free-dative-like adjunct for some experiencer and modal predicates in Baltic and Russian. The possessive origin is furthermore rejected for the deadjectival experiencer predicates of Hebrew and Aramaic, even though both languages encode the free-dative-like affected participant and the predicative possessor alike (with the prefix *l-*) (Pat-El, to appear). This origin is, furthermore, rejected by Coghill (to appear) for the perfect construction of Late Eastern Aramaic dialects (e.g. Syriac), see also Butt (2006) on the origin of the ergative in Hindi/Urdu.

While I do not intend to rule out such a possibility entirely, I believe that it is not as frequent as is often assumed. The reason for conflating these two strategies lies in the semantic and morphosyntactic similarity of the possessive construction of the *mihi-est*-type (like Latvian (7)) with a construction at the stage (ii.a), if the latter also involves copula (e.g. as an auxiliary), like Latvian (8):

- (7) *Man ir māja* (Latvian)
 I:DAT is (=COPULA) house:NOM.SG.F
 'I have a house.'

- (8) *Man ir šī*
 I:DAT is (=COPULA) this:NOM.SG.F
māja par lielu (Latvian)
 house:NOM.SG.F too-big:PREDICATIVE-ONLY
 ‘To me/For me, this house is too big.’

An important weakness of this account is that it obviously fails in those languages that morphologically and syntactically discriminate between the possessors in their possessive construction and the external possessors associated with the affected-participant-cluster.¹² For example, if the former is encoded as the subject (possessor of the *habeo*-type) while the latter by the dative case or a dative-like PP as is the case, for example, in German, Spanish or Italian. Thus Melis & Flores (this volume, see also Fernández-Soriano & Mendikoetxea, this volume) provide examples of the *accidental-causer construction* in Spanish in which the external possessor strategy is used to encode the accidental causer. The latter also becomes the natural candidate to be associated with syntactic subject properties. At the same time, there is no predicative possessor of the *mihi est* type in Spanish, from which it could have been historically derived. Thus, differently from Latvian, there is no ambiguity in Spanish here.

Even those languages that have *mihi-est*-type possessive construction, however, provide strong evidence in favor of the external-possessor/affected-participant-strategy (ii.a) in giving rise to non-canonical dative subjects. Montaut (this volume) argues that the experiencer of Early Hindi *bhānā* ‘to please’ stems from the original dative beneficiary of the Sanskrit verb *bhā-* ‘to shine’. At the same time, the predicative possessor is expressed by the genitive or locative case in Sanskrit and in Prakrits and, hence, cannot have been the source for the subject of *bhānā*.

Furthermore, there are general semantic and syntactic arguments to keep the possessors of the possessive constructions and the external possessors (free datives) apart. Both may also differ from one another with regard to their distribution and, hence, meaning (cf. McIntyre 2006 for German), or Benedetti (this volume). Benedetti, in her discussion of the nominal experiencer predicates, shows that the external possessor is only used with the inchoative experiencer predicates in Italian whereas stative experiences can only be encoded by means of the possessive construction. In addition, the *link-requirement* entailing that the utterance is most felicitous if its possessor is represented somewhere in the complement (my reformulation of McIntyre 2006: 195) may be violated with the external possessor but not with the possessors in the pos-

12. Even in the Latvian example (8) the dative *Man* ‘to me’ is arguably not a predicative possessor (Holvoet 2003b).

sessive constructions (cf. McIntyre 2006: 195).¹³ Furthermore, the external possessor and the possessor in the possessive construction mostly differ denotationally, e.g. in Russian (Haspelmath 1999: 128), also syntactically, for example, in Latvian (Holvoet 2003b). Holvoet argues that the copular construction with an external possessor as in (8) exhibits considerable differences in its syntactic organization from the possessive *mihi-est* construction with the predicative possessor as in (7), even though both are superficially coded alike (with the dative case in Latvian).

The dative/dative-like-PP adjunct in (ii.a) can also stem from the so-called *free dative* traditionally referred to as *dativus (in)commodi* (van Hoecke 1996: 7; McIntyre 2006: 194) semantically encoding *bene-* and *maleficiaries* as in Spanish (Melis & Flores, this volume) or, more generally, the physically or psychologically affected participant (Wegener 1991; McIntyre 2006: 194; Melis & Flores this volume; Seržant 2012a). Free datives are often difficult to distinguish from external possessors because the affected participant they encode may often also be pragmatically interpreted as the possessor of the patientive subject referent: if someone is affected by an action to an inanimate referent, then it is natural (though not necessary) that one is in the possession of that referent (e.g. if Peter is affected by the fact that a table is broken, then a typical implication might be that it is because Peter is the possessor of that table). However, in some languages, this distinction can be made. Thus, there is no evidence for external possessors in earlier Aramaic, only the experiencer or beneficiary roles are found with the dative marker *l-*. It is therefore reasonable to assume that the agent marking of the perfect construction of Late Eastern Aramaic dialects (e.g. Syriac) stems directly from experiencers or beneficiaries and not from an external possessor (Coghill, to appear).

To summarize, the free-dative (affected participant)/external possessor, on the one hand, and the possessor of the possessive construction, on the other, are two different strategies to encode affectedness of a participant. These may either co-exist in a language (e.g. in German, Spanish or Italian), be homonymic (e.g. in Latvian, Old Persian (Haig 2008), Estonian or Hebrew), or, alternatively, one of the strategies may be absent from the language, e.g. English, which almost lacks the external-possessor strategy. From this I conclude that one also has to distinguish between both sources in the diachronic perspective: the external possessor/free dative and the possessor in the possessive construction.

(ii.b): The adjunct in step (ii) may also rise via the possessor emancipation from its host NP with no significant differences in the following steps. The possessor emancipation is a diachronic process by which an (originally) internal possessor encoded by a

13. Here I adopt McIntyre's argument originally applied to distinguish between the experiencer subjects of *have* and the dative experiencers in German.

genitive or a genitive-like NP is raised out of its original host NP and becomes an independent constituent. This is found with the perfect constructions in Classical Armenian (Kölligan, this volume) and also with the past ergative of the modern Indo-Aryan languages (Hock 1991; Bynon 2005). Kölligan (this volume) and Bynon (2005:62–5), based on their data, claim that, in the case of the perfect in Classical Armenian and Indo-Aryan, respectively, the internal possessor is first used with the deverbal adjectives derived from the intransitive verbs and, only later extended this strategy to transitive verbs as well. With regard to the Sanskrit resultative/perfect construction in *-ta*, Hock (1991) provides evidence that the genitive argument passes through step (ii/ii.b) with beneficiary and affected-participant readings, exhibiting the reading of an agent (step iii.a), and even being endowed with subject properties (step iv).

(ii.a & ii.b): A semantic emancipation is common for all kinds of original possessors at step (ii): the original internal (ii.b), external or predicative possessors (ii.a) cease being just possessors of a particular NP/DP and start rather relating to whole situations (cf. McIntyre 2006 for German). This is a necessary precondition for step (iii) to start and is valid for all languages and case studies discussed in this volume.

Note that the possessor NP/DP may become obligatory very early, e.g. if entering a part-whole-relation with the original subject NP. At this stage, it is the *part*-denoting subject NP that has the semantic valence for the respective *whole* (the possessor NP). Thus the experiencer and simultaneously the possessor of a body-part in pain events is semantically an obligatory participant from the very beginning because it is required by the semantic valence of the body-part NP (but not by the verb to begin with!): the latter generally does not occur without its possessor. Thus Seržant and Bjarnadóttir (to appear) argue that the verb *bolet'* 'to ache' in Russian originally had the meaning 'to be sick' in Old Russian with exclusively animate subjects. Once it started allowing body-part NPs in its subject position, the experiencer immediately became obligatory due to pragmatics.

(ii.c): Quite rare but still an attested possibility is that the experiencer adjunct is case-marked as a direct object. The encoding of the affected participant by means of the so-called *accusativus commodi* is found in some ancient Indo-European languages such as Old Church Slavonic and Old Russian (cf., *inter alia*, Popov 1881; Danylenko 2003: 105–6, 2006; Kryš'ko 2006: 118–9; Seržant & Bjarnadóttir to appear). The *accusativus commodi* like the *free dative*, is not an argument of the verb to begin with, cf. the following examples from Old Russian (Kryš'ko 2006: 118–9 with further references to Šaxmatov):

- (9) *Straxø mja eda vødadjatø ny ognevi* (Old Russian)
 fear:NOM I:ACC whether expose:PRES.3PL us fire:DAT
 'I am afraid, they might expose us to the fire.'

(12c., adopted from Kryš'ko 2006: 118)

- (10) ... *da mja tuža ne budetb* (Old Russian)
 that I:ACC trouble:NOM.SG not be:FUT.3.SG
 ‘so that I would not come into troubles.’

(14c., adopted from Kryś’ko 2006: 118)

As can be seen from Examples (9) and (10), the accusative experiencer is added to the (originally) copular construction based on the verb *byti* ‘to be’ (in this language generally omitted in the present tense as in (9)) and a noun in the predicative function: *strax* ‘fear’ in (9) and *tuža* ‘trouble’ in (10).

Step (ii.d) is attested in the English locative-inversion construction in which the locative adjunct acquires some subject properties such as raising (cf. Bresnan 1994).

3.1.1.2 Step (iii). Step (iii) implies that there is an increasing obligatoriness for the original adjunct constituent in the construction, a consequence of the rise of semantic valence for this argument at the predicate. Even if this valence is overtly unfilled in a particular utterance, its participant remains implicitly present and is either interpreted as co-referential with a participant in the preceding discourse or as generic/arbitrary. Once the new valence is established, it starts outranking the original subject NP in discursive prominence: it becomes more and more frequently overtly realized, increasingly by salient NPs; it occupies the linear subject/topic position (typically the first position); and, more and more frequently, it is found to control the subject of a dependent (e.g. infinitive) clause (cf. Say to appear). At the same time, the original subject undergoes the reverse development: if, for example, it is originally the stimulus of an experience predicate, it ceases to assume salient NPs owing control over the event and allowing for the interpretation of a “causative stimulus” (as in English *he tried to please me*) (cf. Say, to appear).

(iii.a): Generally, step (iii.a) is not found with the lexically-driven-NS-type constructions, e.g. with the experiencer predicates which do not undergo this kind of change in the meaning of the adjunct. It is only found with the *experiencer-anticausative* (Malchukov 2006) or *dative-anticausative* (Creissels 2007) constructions, e.g. in such languages as Italian, German, Albanian, Greek (with genitive), Bulgarian, Romanian (Schäfer 2008; McIntyre 2006:204ff), Polish, Russian (Malchukov 2006), Spanish (Fernández-Soriano & Mendikoetxea, this volume, with further references), East Caucasian languages (Ganenkov et al. 2008; Ganenkov, this volume),¹⁴ but also, *sensu lato*, with the North Russian perfect construction (Seržant 2012a). It is common to

14. In the formal approach, this valence is accommodated by an applicative head high in the derivation that licenses the dative argument for some of the predicates in question

both construction types, i.e. the North Russian perfect and the dative-anticausative-construction (e.g. in Spanish), that the participant referred to by the dative-like PP only controls the preceding step of the event, not its ultimate segment (Fernández-Soriano & Mendikoetxea this volume; Melis & Flores this volume; Seržant 2012a): neither the accidental causer nor the agent-of-the-preceding-action has control over the ultimate segment of *breaking* in (11) and the resultant state in (12), respectively:

- (11) *A Juan se le ha roto el vaso.* (Spanish)
 to Juan REFL CL_{DAT} has broken the glass
 ‘Juan has (unintentionally) broken the glass.’
- (12) *U nego korova podoeno* (North Russian)
 at him COW:NOM.SG.FEM milk:PPP.INVAR
 ‘He has milked the cow.’

The change from (iii) to (iii.a), i.e. the rise of the “non-controlling agent” reading, constitutes an increase in degree of grammaticalization not only because the acquisition of another reading facilitates the contextual expansion, but also because the semantics of the adjunct becomes more abstract by that (*semantic bleaching*). In formal terms, (i) to (iv) is a development from a purely lexical projection to a functional projection (*vP*), i.e. the process of the “reduction of thematic structure” which is a diagnostic feature for a process of grammaticalization (Jung 2011; this volume).

3.1.1.3 Other data. The development along the lines (i) – (iv) (including iii.a) is found with the Spanish dative adjunct extending the anticausative predicates to encode the meaning of an accidental causer, an involuntary or indirect facilitator or an unexpected causer (Fernández-Soriano & Mendikoetxea, this volume), cf. (11) above. The dative originally coded the meaning of the affected participant (*maleficiary*) in this construction and only acquired the accidental causer reading ((iii) -> (iii.a)) around the 19th century (Melis & Flores, this volume). Note that the *accidental causer* meaning cluster and the *maleficiary* meaning cluster distinguish themselves from each other syntactically in Spanish: only the former – in contrast to the latter – is endowed with certain subject behavioral properties (Fernández-Soriano & Mendikoetxea, this volume). It is only the accidental causer dative that has arrived at stage (iv).

(cf. McIntyre 2006:187 for German, Fernández-Soriano & Mendikoetxea this volume for Spanish, following Pykkänen 2008).

The development from (i) to (iii) is found with a number of Lithuanian, Latvian experiencer and modal predicates as well as with the Old Russian verb *bolěti* ‘to ache’; these Lithuanian and Latvian predicates are denominal in origin. They started out as copular sentences with a subsequent verbalization of the predicative noun or adverbial (Seržant & Bjarnadóttir, to appear).

The development from (i) to (iv) is found in the Sanskrit verb *bhā-* ‘shine’ with an optional dative beneficiary developed in Early Hindi (already in the 14 c.) *bhānā* ‘to please’. This original dative beneficiary turns into the experiencer concurrently with the change in the verb’s semantics from ‘to shine’ to ‘to like’. This verb reaches step (iv) (without the optional step iii.a), and the dative experiencer acquires a number of syntactic subject properties (Montaut, this volume). The development from (i) to (iv) is furthermore found in a number of other predicates of New Indo-Aryan, both lexically-driven and grammatically-driven non-prototypical subject predicates (Montaut 2007, to appear).

The development from (i) to (iv) is also found with the stative experiencer predicates in Aramaic and Hebrew (Pat-El to appear). It is furthermore found with the *Qṭil l-* perfect construction of Late Eastern Aramaic (Coghill to appear).

The development from (i) to (iv) is found in the perfect predicate in North Russian that encodes its non-canonical subject with a dative-like PP (headed by the preposition *u* ‘at’ with genitive) and its object either with nominative or accusative; structurally analogical developments with a decreased degree of grammaticalization and entrenchment are found in neighboring languages such as Standard Russian, Latvian, Votian, Karelian, Estonian (Jung 2007, this volume; Seržant 2012a).

In a broader perspective, the development from (i) to (iv) in, for example, the North Russian perfect is somewhat reminiscent of the rise of agent phrases with passives, which sometimes also start out as non-agentive, middle-type predicates, subsequently extended by an oblique adjunct. The main differences here are: the original subject remains the subject and does not turn into the object, and the agent adjunct does not acquire subject properties with passives. Furthermore, the development from (i) to (iv) with perfects (without step (v)) may result in the rise of ergative alignment in the past tense, cf. the split ergativity in Modern Indo-Aryan languages (Bynon 2005; Montaut 1996, 2007), Iranian (Haig 2008) or North-eastern Neo-Aramaic (Coghill to appear). The necessary precondition is that there be a shift along the frequently attested diachronic cline *resultatives* > *perfects* > *aurist* > *preterit* leading to the rise of prototypical transitivity (in terms of Hopper & Thomson 1980) of the given construction. The main difference in North Russian is that there is an analogical spread of the dative-like subject marking to intransitive and even unaccusative subjects (Seržant 2012a: 372).

3.1.2 *Object develops into subject (2nd Developmental Cline)*

This development (DC2) is frequently found with the originally transitive or even (morphologically) causative verbs with an experiencer object (henceforth labelled *P*) and subject stimulus (henceforth labelled *A*).¹⁵ I assume the following schematic steps for this cline:

- i. The *P* position outranks the *A* argument on the animacy scale, definiteness, subsequently, topic-worthiness; as a consequence, the original subject/object word order becomes inverted.
- ii. The *A* position becomes lexically restricted (e.g. to some particular stimuli with the experiencer verbs).
- iii. Often, the *A* (original subject) position is gradually absorbed by the verb or disappears while the cause/stimulus can only be encoded in the syntactic periphery (e.g. by means of an adjunct); alternatively, it may lag in the verb's morphology (as agreement residue) until the completion of step (v) below (cf. *transimpersonals* in Malchukov 2008a).
- iv. The *P* argument, even though originally the object, starts acquiring subject properties due to the functional overlap with the prototypical subject.
- v. Subsequently and optionally, the verb loses transitivity features (e.g. its original subject agreement).

Comments and data

This is a typologically well-established DC (cf. Creissel 2007:30–1, Malchukov & Ogawa 2011:48–9).¹⁶ I believe that this DC2 is one of the most frequent and recurrent patterns in many (if not all) languages. Evans (2004) even refers to this development in Iwaidjan as a cline leading to the rise of split intransitive alignments; see also Malchukov & Siewierska (2011:5) for an overview.

Note that non-structural objects are subsumed under *P* as well, cf. the textbook example from Germanic on the verb *to like* that in Old Germanic languages subcategorized for the dative experiencer and the nominative stimulus (Seefranz-Montag 1983; Malchukov 2008a). This verb attests steps (i) to (iv): the dative experiencer has gradually acquired subjecthood to different degrees in different Germanic languages, ranging from a non-canonical subject in Old English, Icelandic or Faroese, to a

15. Note that *A* and *P* are just used as labels here. They imply only that, at stage (i), the stimulus argument patterns syntactically (and morphologically) with prototypical agents and the experiencer argument with patients (including less canonical ones which are typically mapped into indirect objects).

16. Differently, Eythórsson and Barðdal (2005).

canonical subject in English or Scandinavian languages (Seefranz-Montag 1983; Denison 1993:61–102; Allen 1995; Haspelmath 2001b: 75–78; Trousdale 2008; Gisborne 2011:175f).

The DC2 is discussed in detail in Malchukov (2008a) on the basis of a number of typologically different languages (Siberian, Native American, Amazonian, etc.) that consistently attest the development from a *transitive pattern* with a referential A-stimulus into the *transimpersonal experiencer* pattern with a non-referential ex-stimulus index (**step iii**) and, finally, to the *patientive experiencer* pattern (**step v**), see also Kimball (1991) on Koasati, Evans (2004), Drapeau (2011:512), among many others. Malchukov notes that different languages attest to different degrees of progression along the cline like our DC2, e.g. he mentions the Papuan languages where the reanalysis from object to subject has proceeded to varying degrees (Malchukov 2008a: 87). The development from (i) to (iii) is also found in Iwaidjan languages in Australia (Evans 2004: 176).

Generally, as Malchukov (2008a:90) states, the motivation behind this DC2 is twofold: the stimulus subject tends to be demoted due to its inherently low prominence (it is often indefinite or non-specific, always inanimate) while the object experiencer is promoted due to its inherent prominence (it is always animate, definite, etc.). Notably, it seems that there is a semantic change that is necessary for and prior to this development. The reason for the assumption of a preceding semantic change is that, assumedly in every language, there is a class of verbs which code their experiencer like A and stimulus like P but which nevertheless do not undergo the developments of DC2, i.e. do not gradually invert the former A and P syntactically (and morphologically) and rather retain their alignment. The stimulus of these verbs need not be of inherently low prominence – it can also be occupied by an animate NP while the verbs themselves remain compatible with agentivity adverbs (such as *on purpose*, *intentionally*) and/or can be embedded under such weak-agentivity verbs as *try* or *want*, very much like the English verb *to satisfy*, for example. For some reason, to be studied elsewhere, some of these verbs lose their agentive (or even causative-like) reading like ‘*We always satisfy our customers*’ retaining only the non-agentive one, ‘*Her excuse has not satisfied him*’. Crucially, it is only the later reading that then typically undergoes a development along the lines of DC2. To give an example, I refer to the history of two Old English verbs *lician* and *(ge)cweman*, both meaning ‘to please’, discussed in detail in Allen (1995). Although both verbs are glossed with the same meaning, they have been distinct with regard to these two readings. Thus the nominative (subject) argument of *cweman* always expresses a stimulus with a certain control over the situation (henceforth “*causative*” stimulus) – there is only one attestation in which the stimulus is an inanimate NP in Old English. At the same time, *lician* attests a great number of inanimate stimuli in Old English. Yet, when it comes to Middle English, only *lician* has developed nominative/subject experiencer and accusative/object stimulus (along our

DC2) while *(ge)cweman* (later replaced by the French borrowing *to please*) never did and instead retained its original alignment (Allen 1995: 149). This means that *lician* has generalized/lexicalized the non-agentive and *(ge)cweman* the agentive reading, although, at least in case of *(ge)cweman*, both readings were available in Old English.

Say shows, in a corpus-based study (Say to appear), that a number of two-place dative experiencer predicates in Russian considerably decrease the token frequency of their agentive readings from 18th century onwards concomitantly with expanding the non-agentive reading onto other contexts. Thus, while there are no (with *nadoest* ‘to bore, annoy’) or almost no (with *nravit’sja* ‘to like’) attestations of control infinitives with the dative experiencer predicates in the 18th century, they become productive in the 20th century.

In many instances, however, both readings may be upheld for quite a long period of time, as is the case in Finnic languages, for example. Here, steps (i)–(iii) are found in Finnish, Votic, Veps, Livonian, and Karelian with A consistently encoded by the nominative case (Sands & Campbell 2001; Lindström this volume). The experiencer (P, marked with the case partitive) does not show any behavioral subject properties except a default topic position in Finnish (Sands & Campbell 2001: 255, though cf. some less acceptable but attested examples in Siirinen 2001 apud Lindström, this volume), hence, arriving only at step (iii) or, for some speakers (in Siirinen 2001), to a certain degree at step (iv). The verb is often morphologically marked as causative, cf. *pelo-tt-aa-* ‘to fear’ where *-tt-* is a causative morpheme, thus proving the original status of the partitive experiencer as the one of object. Finally, the stimulus position still allows for animate NPs that may have the reading of the “causative”-stimulus at least with some verbs.¹⁷

Contrastingly to its close cognates, Estonian only attests step (i) with its experiencer predicates, having the stimulus as an obligatory, non-omittable argument (Lindström, this volume). Lindström (this volume) considers this a retrograde development, assuming that the other Finnic languages are more conservative in the optionality of the presence of the stimulus argument in an utterance. Lindström (this volume) argues that the obligatoriness of the stimulus argument in Estonian is the reason why Estonian object-like experiencers did not acquire any syntactic subject properties in contrast to the other, closely related Finnic languages, while the nominative case-marked stimulus has kept its subject properties.

The development from (i) to (iii) is also attested in a number of experiencer verbs in Lithuanian (Seržant to appear-a). Here, a series of experiencer verbs with explicit causative or transitive verb morphology undergo considerable lexical input

17. Cf. *Karannut leijona pelottaa eteläafrikkalaiskaupungissa* ‘The escaped lions frighten (people) in a South-African town.’ (http://yle.fi/uutiset/karannut_leijona_pelottaa_etelaafrikkalaiskaupungissa/6456284).

restrictions of the A (stimulus) position (step (ii)) and, subsequently, almost lose it (step (iii)), e.g. *plěšti* ‘to ache badly’ (non-metaphorically ‘to tear’, tr.), *gelti* ‘to have strong pains’ (non-metaphorically ‘to sting’, tr.). The verb *plěšti* is used without any stimulus in most of its utterances. The lexical input of the stimulus is restricted to only a few, less prototypical, semantically redundant NPs like, for example, *skausmas* ‘pain’. At the same time, the experiencer, being the only topic-worthy participant, is promoted to the first position in the unmarked word order. Parallel developments are also found in Russian (Creissels 2007; Malchukov & Ogawa 2011: 48–9)¹⁸ or Late Sanskrit (Deshpande 1991; Montaut, this volume).

Another alternative to the input restrictions placed on the former subject position in Lithuanian or Russian at **step (iii)** is the so-called ‘frozen subject’ in Iwaidjan (Non-Pama-Nyungan Australian family). This term implies that a particular lexeme stiffens in the subject/A position, subsequently losing its constituency and becoming, to a certain degree, part of the predicate (Evans 2004: 170–2). Another degree of subject/A absorption is its full incorporation (Evans 2004: 173; Malchukov 2008a: 92).

Furthermore, DC2 is also found with anticausative constructions as in (13), expressing events caused by the nature activities in such languages as Russian (cf. Malchukov & Ogawa 2011), Lithuanian or Icelandic:

- (13) *jego ubilo tokom* (Russian)
 he:ACC kill:ACT.PAST.3.SG.NEUTR current:INSTR
 ‘He was electrocuted.’

These constructions are derived from the corresponding active transitive constructions as in (14) (Barðdal, to appear: 3.2):

- (14) *jego ubil grabitel’* (Russian)
 he:ACC kill:ACT.PAST.3.SG.MASC robber:NOM
 ‘He was killed by the robber.’

I emphasize that the degree of subjecthood with the former P argument, i.e. the degree of completion of **step (iv)**, is subject to cross-linguistic and diachronic variation. It acquires full syntactic subjecthood, e.g. in Icelandic, or (*pivohood*) (Creissel 2007) in Tibeto-Burman languages (Bickel 2004), but it retains most of its object features in, for example Finnic, Baltic or Russian.

18. Thus the Modern Russian verb *pretit’* ‘to dislike, disgust’ can only be used in the third person with the dative experiencer and the nominative stimulus. But in Old Russian, it only had the meaning of ‘to prevent, to frighten someone’ subcategorizing for human agent in the subject (nom.) and human patient in the object position in the dative case. Once the selectional restrictions of the subject slot were loosened and inanimate, NPs started occurring in it, the meaning of *pretit’* has changed from ‘it prevents me’ to the modern meaning ‘it turns me off’. Subsequently, the original meaning was lost.

3.1.3 *Loss of prototypicality (3rd Developmental Cline)*

Another common DC to acquire a subject-like oblique and/or a non-canonical subject is found when a prototypical subject loses its prototypicality – as the consequence of the losses some of the functional properties – and acquires a non-canonical marking and/or loses (the canonical) verbal agreement.¹⁹

A frequent motivation behind the loss of prototypicality is the aim to morphologically discriminate between the less prominent (indefinite/inanimate/non-topical) subjects and their prototypical counterparts, which may lead to different kinds of DSM-driven splits (Differential Subject Marking). Differential argument marking (DAM) is typically conditioned by factors from domains such as definiteness and/or specificity, or discourse prominence, cf. Aissen (2003), Bossong (1998); von Stechow & Kaiser (2007), Kittilä (2006), Kittilä et al. (2011), Leonetti (2004), just to mention some. DAM phenomena are also sensitive to the thematic roles of the respective arguments, thus DAM often involves the marking of highly agentive subjects rather than atypical ones (cf. de Hoop & Malchukov 2007; de Hoop & de Swart 2008) in order to contrast both arguments of a transitive clause (de Hoop, this volume). Cross-linguistically, it may appear in different formal realizations triggered by a variety of conditions (cf. de Hoop & de Swart 2008). In addition to the DSM based on pragmatic or semantic properties of the respective NP, it may also be governed by the tense or aspectual properties of the verb phrase or the clause type (De Hoop, this volume).

The acquisition of non-canonical marking may historically stem from the Differential Object Marking (DOM) that spread onto the subject domain but may also be independent of the object marking. In fact, it is often difficult to distinguish between these two options diachronically.

A case of the latter may be the Russian subject NPs containing numerals. If the numeral NP is indefinite and/or non-topical (new), it may lose its verbal agreement while otherwise agreement is obligatory (cf., *inter alia*, Malchukov & Ogawa 2011: 30):

- (15) *Prišlo / prišli tri človeka* (Russian)
 came:3SG/ came:3PL three human
 ‘There came three men.’
- (16) *Eti tri človeka prišli /*prišlo* (Russian)
 these three human came:3PL /*came:3SG
 ‘These three men came.’

A clear case of the former is presented in De Hoop (this volume). She shows that the oblique third person pronoun, *hun* ‘they’, in Dutch has spread out from the animacy-

19. This development may be observed with the original subjects in DC1 and DC2, which gradually develop into objects, but may retain some of their subject properties quite consistently. For the data on these cases, the reader is referred to the relevant sections above.

driven DOM to the animacy-driven DSM, whereby the marked option, that is *hun* ‘they’, referring back to animate active participants only, has become acceptable in the subject position. Thereby, a form responsible for the object marking spreads out to the subject position yielding analogically-based DSM.

While *hun* ‘they’ was the marked option in Dutch to mark salient NPs, Finnic languages attest the extension of the marked option to encode non-salient NPs. The partitive case extremely decreases the referentiality of its NP as well as does a number of other functions (such as quantification, interaction with aspect, etc.). The productive *partitive vs. total* alternation found in the modern Finnic languages with unaccusative subjects (DSM) and objects (DOM) stem most probably from the object domain. This is strongly suggested by the comparative evidence from Mordvinian, another Finno-Ugric language, which attests the more original state of affairs with regard to partitive as to its syntax and function (Kiparsky 1998). In this language, the *partitive vs. total* alternation is found with objects only (Kiparsky 1998). Furthermore, the DSM expands in contemporary Finnish from unaccusative subjects to subjects of transitive verbs. Thus, Hakulinen and Karlsson (1979: 167)²⁰ state that the partitive case-marked subjects began to also appear in sentences with a full direct object.²¹

- (17) *Use-i-ta siviilihenkilö-i-tä*
 several-PL-PART civilian.person-PL-PART
sa-i surma-nsa. (Finnish)
 receive-3SG+PAST death+ACC-3SG+POSS
 ‘Several civilians received their deaths.’/‘Several civilians died.’

- (18) *Kieltenopettaj-i-a saa*
 language.teacher-PL-PART get+3SG
luo-na-mme työ-tä. (Finnish)
 presence-INESS-PL+POSS work-PART
 ‘Language teachers get work with us.’ (Hakulinen and Karlsson 1979: 167)

In the same way, the distributive subjects in Russian realized by the PP headed by the preposition *po* (≈ ‘each, per’) can replace canonical intransitive subjects, cf. the distributive (19) as opposed to canonical (20):

- (19) *Prišlo po dva studenta ot kazdoj gruppy*
 came:3SG.NEUTR DISTR two students from each group
 ‘Two students came from each group.’

20. Quoted from Sands and Campbell (2001:265).

21. Notably, this historical process works against the general function of case to discriminate between subjects and objects (see the discussion of DOM/DSM in Malchukov 2008b: 211ff).

- (20) *Prišli dva studenta*
 came:3PL two students
 ‘Two students came.’

The distributive subjects, as in (19), are inherently indefinite (narrow scope). Even though it has originally been assumed that non-referential distributive subjects can occur only with unaccusatives, Kuznecova (2010: 193) provides natural examples with transitive and unergative verbs.

Another example of the extension of the object case-marking onto the subject domain is provided by Late Latin texts. Cennamo (2011) argues that the accusative case-marking has been extended in Late Latin (from 4th c. on) onto the intransitive unaccusative, then intransitive unergative and, finally, on the transitive subjects.

3.1.4 *Interim conclusions*

To summarize, at least three recurrent Developmental Clines for how subject-like obliques and, subsequently, non-canonical subjects may evolve have been found. Common to both the DC1 and DC2 is the step where the predicate denotes some non-agentive situation/action with a patient- or theme subject to begin with. Often (especially with the *gram-driven non-prototypical subject predicates* such as perfect (originally resultative) or anticausative), the non-agentivity of the predicate is construed or reinterpreted as having some external cause. Thus such sentences as *the door opened* or *the car is damaged* may easily imply that there might have been an external cause for the resultant state.

Another commonality with both DCs is that the original mismatch between the prominence of the argument, on the one hand, and the mapping onto the grammatical relations, on the other hand, becomes fixed by the respective restructuring of grammatical relations of the construction (cf. Holvoet, this volume). Both the pragmatic and semantic (thematic) mismatches between the properties of an NP and its syntactic role may independently or jointly trigger this restructuring. In turn, the main difference between the DC1 and DC2 lies in the source of the new highest ranked argument, subsequently non-canonical subject: while in DC1 it is originally a non-core argument, an adjunct, it is a core argument (object) in DC2.

The degree of subjecthood acquisition is not only language and construction specific, but it also very much depends on the predicate type in both DC1 and DC2. The gram-driven-NS constructions undergo these DCs much faster in time than their lexically-driven counterparts – a fact that will also be evident from the data on the acquisition of canonical subjecthood below (Subsection 3.3). To give an example, the North Russian perfect (a gram-driven-NS predicate) assigns an adessive PP to the subject and (in some subdialects) nominative to the object of the underlying lexical verb. The adessive PP is endowed with all behavioral subject properties. At the same time, the Russian verb *bolet* ‘to ache’ (lexically-driven-NS predicate) also assigns the

same case frame: the adessive PP to the highest ranked argument (experiencer) and the nominative case to the lowest argument (body part). However, differently from the perfect, the adessive PP of the latter does not show any subject properties at all, even though both predicates (in the respective meaning and with this subcategorization frame) have emerged some time during the Middle Russian period (cf. Seržant 2012a on perfect and Seržant & Bjarnadóttir, to appear on *bolet'*).

Furthermore, there is a certain variation within the type of the lexically-driven-NS predicates. Verbs of this type progress in acquiring subjecthood each to a different extent dependent on its semantics. Thus different experiencer verbs entail different tiny degrees of agentivity, subsequently subject-worthiness on the experiencer argument. As a consequence, different semantic subclasses of experiencer verbs may acquire subjecthood to different degrees and at chronologically different time periods, cf. Fedriani (this volume) on examples from Late Latin. Similarly, Deo (2003) shows that the dative arguments of the verbs with the core meaning *to find* are (syntactically) better subjects than the semantic class grouped around the meaning *to like* in Marathi. The semantic class of the *find* verbs also shows greater affinity to canonical subjecthood in Eastern Caucasian languages than verbs from other semantic classes (cf. Ganenkov, this volume, and below in 3.3).

Finally, I emphasize that I do not claim these three DCs exhaust the range of possibilities. In the same way, I concede that languages may differentiate in their individual developments along these paths. Furthermore, the degree of progression along these DCs is subject not only to cross-linguistic, but also to intra-linguistic variation. The prototype model allows the accommodation and alignment of different degrees of progression attested along these three DCs.

3.2 Stability of non-prototypical subjects

3.2.1 *Stability factors*

Constructions with non-canonical subjects or subject-like obliques can be quite stable over time. Thus the oblique, subject-like constituents are considered inherited in the East Caucasian languages (Ganenkov, this volume).²² Furthermore, they may and do become a productive pattern cross-linguistically, e.g. in Hindi/Urdu (Montaut, this volume) or Spanish (Melis & Flores).

Barðdal (2008) argues that, in addition to type frequency, the semantic coherence of the argument structure construction is another important factor to ensure its diachronic stability, as can be observed from the development of oblique subjects in Icelandic. This is, furthermore, supported by the data from Late Latin. Thus the

22. Potential prototypical subjects and objects cannot be distinguished by means of the syntactic tests generally applied to determine subjects (such as in Onishi 2001) in most East Caucasian languages.

non-oriented (as per Verhoeven 2007), semantically aligned pattern as $ACC_{\text{experiencer}} - GEN_{\text{stimulus}}$ remains stable throughout, from Early to Late and Medieval Latin, due to the internal semantic coherency of the verb class that assigns this pattern (Fedriani, this volume). Fedriani (this volume) concludes that “the formal and functional consistency” is an important factor that enables “a high degree of constructional persistence” and preserves this pattern from analogical leveling while overriding other factors such as low type frequency.

While the *formal and functional consistency* factor may ensure the “conservation” of a construction with a non-prototypical subject (Fedriani, this volume), there are mechanisms to trigger the spread of non-prototypical subject constructions. Thus Montaut (this volume), on the bases of data from Indo-Aryan, identifies the following triggering factors that are at work when these constructions become productive:

- i. *Reanalysis and speaker's choice,*
- ii. *Lexical renewal and attraction* (following Barðdal 2009: 142),
- iii. *Differentiation between alternative argument structures and avoidance of synonymy,*
- iv. *Language contact.*

As to (iv), the typology of area is a highly important factor for the stability of non-prototypical subjects. To give an example, dative subjects constitute an areal feature in the South-Asian area (Masica 1976: 164); dative experiencers also show areal impact in the Circum-Baltic Sprachbund (term coined in Dahl & Koptjevskaja-Tamm 2001), especially in the Northeast. They exhibit striking correlations across the languages of the Sprachbund regarding their syntactic and morphological make-up, as well as include a number of lexical borrowings (Lindström, this volume, Seržant to appear-b). The areal impact is one of the main factors for the stability of non-prototypical subjects.

At the same time, some of the Circum-Baltic Sprachbund languages such as Estonian gradually increase the type frequency of the canonical, transitive (Nom-Partitive)²³ patterns with the nominative experiencer, assumedly influenced by the Standard Average European (*inter alia*, Haspelmath 2001a: 1492–1510; 2001b), as suggested in Lindström (this volume). Such dative-like (adessive) experiencer predicates as *meeldima* ‘to like’ are, therefore, often replaced by the Nom-Part verbs as *armastama* ‘to love’ whereas labile $Part_{\text{EXP}} - Nom_{\text{STIM}} / Nom_{\text{EXP}} - Obl_{\text{STIM}}$ verbs were more often generalized with the $Nom_{\text{EXP}} - Part_{\text{STIM}}$ case-frame between 1995–2000 in Estonian (Erelt & Metslang 2008; Metslang 2009; Lindström, this volume). Furthermore, Lindström (this volume) argues that the nominative stimulus argument in constructions with the object experiencer – as opposed to the other neighboring Finnic languages – increasingly becomes an obligatory, non-omittable argument in

23. Partitive (henceforth *Part*) is the canonical object case-marking with the atelic verbs in the Finnic languages.

Estonian. This can be interpreted as a development backwards, towards transitive, nominative-accusative alignment. Notably, the experiencer has no subject properties in these constructions.

At the same time, an opposite development may also be found, as seen, for example, in the change of case frame of the Latvian verb *drikstēt* ‘to dare, may’ from Standard Latvian Nom-Complement-Clause into Colloquial Latvian Dat-Complement-Clause under Russian influence, which has dative case-marking with the synonymous predicates here (like Russ. *možno* ‘to dare’) (Holvoet 2007).

Melis & Flores (this volume) observe not only stability in the “dative pattern” (i.e. constructions with the dative-marked highest ranked argument) in Spanish, but also its analogical spread (productivity) leading to some sort of grammaticalization thereof (see also Fedriani, this volume, for the data from Latin) “whereby the semantic value of the construction is obscured and the formal structure generalizes over a wide range of distinct event types” (Melis & Flores, this volume). Parallel entrenchment developments of the subject-like datives in Russian, Latvian, Lithuanian, and, correspondingly, adessives/allatives/(genitives) in Finnish or Estonian can also be observed. There is, however, considerable variation regarding the syntactic status of these constituents in every particular construction depending, not least, on whether the main predicate is a lexically- or gram-driven-NS predicate (see more on this below) as well as on other factors.

Melis & Flores (this volume), contrasting Spanish with its close relative French as well as with English, link the productivity of the dative pattern in Spanish to the general syntactic organization of the language. They suggest that the productivity of the dative pattern typologically correlates with such features as a relative (i) *free word order* allowing for the nominative subjects to also occur postverbally, (ii) *lack of the expletives*, (iii) no requirement for the explicit subject pronouns, i.e. *pro-drop*. Taken together, these properties typically resist the generalization of transitive syntax. Even though exceptions are well known (cf. Icelandic which has non-canonical subjects but, at the same time, expletives, no *pro-drop* and relatively strict word order), it seems that this correlation is indeed frequently found, cf. many more languages such as Russian, Latvian, Lithuanian but also the Old Germanic languages such as Old English (Allen 1995), Gothic and Old Norse (cf. Barðdal & Eythórsson 2003). Faarlund (this volume) also suggests that the demise of the Old Norse non-canonical subject-like obliques in Modern Norwegian is directly related to the loss of *pro* in the latter. In contrast to the *pro-drop* languages, this pronoun could only assume non-referential or indefinite referential values already in Old Norse, which implies that it has lost the definite and specific values reconstructed on the basis of ancient Indo-European languages as the precursor of Old Norse.

Even though there are a number of stability and even productivity facilitating factors, one often finds traces of some sort of syntactic and/or morphosyntactic instability in the synchronic perspective (for the diachronic perspective, see Sections 3.2.2 and 3.3).

It has been observed that the stative predicates expressing a near-symmetrical relation between both arguments, e.g. the experiencer predicates, are unstable with regard to the attribution of the subject properties to one of the arguments. Croft (1993: 64, 1994: 51–3) observes that one and the same verb is often compatible with two different constellations: (i) it is the experiencer argument that is assigned non-prototypical subjecthood, and (ii) it is the stimulus that is assigned non-prototypical subjecthood depending on the information structure and the construal of the utterance (cf. also Montaut 2004: 44–5; this volume). Barðdal (2001: 47) discusses such an example from Icelandic where the verb *henta* alternates between ‘to like’ (a) and ‘to please’ (b) in (21). In (21)a, it is the stimulus argument that is the syntactic subject while in (21)b, it is the experiencer argument (Barðdal 2001: 47):

- (21) a. *Hentar Þetta Þér?* (Icelandic)
pleases this:NOM you:DAT
‘Does this please you?’
b. *Hentar Þér Þetta?* (Icelandic)
pleases you:DAT this:NOM
‘Are you pleased with this?’

Moreover, it often suffices that the stimulus position is occupied by an animate and/or highly referential (e.g. a personal pronoun) NP to make option (a) unavailable (cf. Barðdal 2001 for Icelandic; Holvoet, this volume, for Baltic; Montaut, this volume, for Hindi/Urdu; Lindström, this volume, for Estonian). The symmetrical relation where both options, namely (a) and (b), are possible is thus so sensitive that it is sufficient for only this one (lexical) factor to stabilize the assignment of subject properties to a particular argument.

3.2.2 “Dative Sickness”

In Icelandic, a number of accusative experiencer subjects have acquired dative case-marking with no change in the meaning, a process discussed under the label *dative sickness* (see, *inter alia*, Zaenen et al. 1985; Jónsson & Eythórssón 2005; Barðdal 2011):

- (22) *Mig langar í ís.* *Mér langar í ís.* (Icelandic)
I:ACC longs in ice-cream → me:DAT longs in ice-cream
‘I want ice cream.’ (from Barðdal 2011: 61)

Originally suggested for Icelandic, this phenomenon seems to be attested far beyond Icelandic. Thus Melis & Flores (this volume) show that in the history of Spanish the dative experiencers expel the accusative experiencers of the so-called “emotional causatives” such as *espantar* ‘frighten’, *molestar* ‘annoy’ etc. that originally subcategorize for the nominative stimulus and accusative experiencer.

A similar phenomenon is furthermore attested in Latvian:

- (23) *Man interesē Jūsu viedoklis*²⁴ (Latvian)
 I:DAT interest:CAUS.PRES.3 your point-of-view:NOM.SG
 ‘I am interested in your opinion.’
- (24) *Mani interesē Jūsu viedoklis*²⁵ (Latvian)
 I:ACC interest:CAUS.PRES.3 your point-of-view:NOM.SG
 ‘I am interested in your opinion.’

Analogical phenomenon is found in colloquial Czech with unstressed clitic pronouns (Fried 2004: 100–2) and Polish (Dabrowska 1997). The original accusative case-marking is sometimes replaced by the dative one in colloquial speech:

- (25) *Píchlo mě / mi u srdce.* (Czech)
 stab.PPL.SG.N 1SG.ACC/DAT at heart.GEN.SG.N
 ‘I felt a sharp pain in [my] chest.’ (Fried 2004: 101)

Dative case-marking thus seems to be more apt for experiencers cross-linguistically than the accusative case-marking (Dabrowska 1997; Fried 2004: 100). That is to say, experiencers tend to pattern with recipients rather than with patients (direct objects). Additionally, I refer to Barðdal (2011) for the productivity-related account of this development.

3.3 Demise and canonicization of non-prototypical subjects

The prototype model predicts that less prototypical members will be more constrained as to their selectional restrictions and are thus less productive than prototypical members (Taylor 1998: 192). Non-productive patterns are often unstable diachronically. Harris and Campbell’s (1995) *Complementarity Principle* predicts that minority alignment patterns tend to be resolved in favor of the unmarked system (see also Haig 2008; Malchukov 2008a; Fedriani, this volume) or prototypical system in our terms. This may happen either (i) via a loss of the non-prototypical constituent in the construction or, more frequently, (ii) by the acquisition of prototypical, canonical subjecthood. The former option (i) is found, for example, in some modal predicates in Polish such as *trzeba* ‘have to, should’ that superimposed the dative case-marking on the (canonical) subject of the embedded lexical verb in Old Polish. These dative subject-like arguments did not develop further but were lost in Modern Polish, the modal construction becoming exclusively impersonal with no option to explicitly encode the subject of the underlying verb (Weiss 1993; Hansen 2001).

24. Found in <http://www.maminuklubs.lv/sieviesu-klubs/20120829-man-interese-jusu-viedoklis/>

25. Found in http://medicine.lv/jautajumi/LVQA_108671

Alternatively (ii), the non-prototypical subjects gradually acquire subject properties and, finally, become canonical. I will discuss this process in detail with special emphasis on their relative order.

Both DC1 and DC2 share the step with an oblique argument outranking the other constituents of the clause by virtue of its saliency (DC1: step (iii); DC2: step (ii)). This is the crucial step for the next development. With saliency, I mean that this argument outranks the other arguments in the degree of the functional overlap with a prototypical subject in the given language. It becomes the most subject-worthy constituent with regard to its pragmatic and/or semantic properties (cf. “the least oblique argument” in Holvoet, this volume). Thus the oblique experiencers of Old English became semantically part of the *agent prototype* (defined with Dowty’s 1991:572 proto-entailments) which triggered their further development into non-canonical and, subsequently, canonical subjects in Modern English (Gisborne 2011:177ff). Furthermore, the demise of the dative experiencers in some East Caucasian languages is due to the merger of the agent domain (that is linked with the canonical coding properties) and the experiencer domain (that is linked with the non-canonical coding properties) in these languages (Ganenkov, this volume). At the same time, the productivity of non-prototypical subjects with experiencer predicates is related to the stability of the experiencer prototype in a language (Melis & Flores, this volume). The semantic and/or pragmatic overlap with prototypical subjects is, thus, the main trigger for the acquisition of syntactic and morphological properties. Only somewhat differently, Holvoet (this volume) motivates the acquisition of the canonical coding properties as being due to the adjustments to the Obliqueness Hierarchy of Keenan and Comrie (1977) – another manifestation of the Grammatical Relations Hierarchy (Croft 2003:147) – that let the least oblique argument acquire nominative case and (canonical) verbal agreement.

In addition to the semantic and functional reasons for the canonicization, particular languages may provide a more compatible or less compatible environment for the non-canonical or, respectively, for the canonical subjects, depending on their syntactic organization. Thus the demise of non-prototypical subjects from Old Norse into Modern Norwegian (cf. the criticism of positing non-canonical subjects for Old Norse in Faarlund 2001) is related to the loss of the empty *pro* with an indefinite (both non-referential and referential), rarely definite reference as is argued in Faarlund (this volume). After the *pro* was lost, there was no filler available for the Spec-TP with the predicates that subcategorize for a non-canonical case frame. The generative model requires a filler that can be assigned the nominative case, which predicts the creation of such a filler: either by means of expletives or by coercing one of the oblique arguments to receive the nominative case (Faarlund, this volume).

3.3.1 *Behavior-before-Coding Principle*

There is a developmental cline that entails the behavioral properties being acquired first and the (morphological) coding properties only being acquired subsequently (Cole et al. 1980; Allen 1995; Haspelmath 2001b: 76ff, 2010). The acquisition of the coding properties has been motivated by the increasing preference to mark subject arguments with structural rather than lexical case (Allen 1995:347) or by the tendency towards prototypicality of the category of *subject* (Faarlund 1990:133). This cline has been integrated into the more general *Behavior-before-Coding-Principle* by Haspelmath (2010) who followed Cole et al. (1980) with regard to subject acquisition, see also Malchukov (2008a:90). Indeed, data from such languages as Germanic (Cole et al. 1980), Late Latin (Fedriani 2009), Armenian (Kölligan, this volume) or North Russian (Seržant 2012a) support this principle, just to mention a few. It seems, however, that this is not a universal principle and counterexamples are found in Lithuanian, Standard Russian, North Russian and German (Seržant, this volume). Thus the original pattern in (26) with a dative experiencer predicate in Lithuanian acquires canonical subjecthood, as in (27), without ever having been a non-canonical subject syntactically:

- (26) *Man sušalo ranka* (Lithuanian)
 I:DAT freeze:PST.3 hand:NOM
 ‘I got my hand cold.’
- (27) *Aš sušalau ranką* (Lithuanian)
 I:NOM freeze:PST.1SG hand:ACC
 ‘I got my hand cold.’

These counterexamples can be ruled out by assuming that the coding and syntactic properties can also be acquired simultaneously with no gradience and, hence, no relative order; the assumption that morphological properties are never acquired prior to syntactic ones can thus be maintained (Seržant, this volume).

The *Behavior-before-Coding Principle* makes an unpronounced assumption in this context that the acquisition of the morphological properties is causally related to the prior acquisition of the syntactic subject properties: the acquisition of coding properties may be considered the necessary morphological adjustment to what has already happened in syntax.²⁶ As Ganenkov (this volume) rightly emphasizes, this appears to be problematic, however, with respect to those languages (e.g. some Eastern Caucasian lgg.) that syntactically do not discriminate between subjects, non-canonical subjects

26. Thus Gisborne (2011:178) argues that the case marking of the Icelandic non-canonical subjects is “an exponent of morphological lag in grammaticalization”.

and, say, objects because it does not account for the fact that the non-canonically marked subjects acquire coding properties but, other arguments do not. Nevertheless, these languages also do not contradict the principle in itself since there is no acquisition of morphological properties prior to the acquisition of syntactic ones. Moreover, this principle is compatible with the semantic motivation behind it mentioned above. To conclude, Ganenkov (this volume), Fedriani (this volume), and Seržant (this volume) argue for a primarily semantic motivation as the main triggering force that makes the experiencer and the agents pattern alike. It depends, however, very much on the syntactic organization of the language as to whether the experiencers (a) must be first adjusted to the agents syntactically and only then also morphologically (see examples in Fedriani, this volume), (b) must be adjusted syntactically and morphologically at the same time (see examples in Seržant, this volume) or whether (c) only the morphological (coding) properties must be adjusted because there is no discrimination in syntax (see examples in Ganenkov, this volume).

3.3.2 *What is acquired first: Verbal agreement or the canonical subject case-marking?*

With regard to the acquisition of the coding properties, the available data suggest that there is a particular preference for the verbal agreement typically acquired first in those languages that do not have a dedicated, morphologically distinguished non-canonical verb agreement (cf. Givón 1997). Thus examples from some North Russian subdialects (Seržant to appear-c) and from Ancient Greek (Seržant 2012b) attest the acquisition of the verbal agreement with the subject-like argument encoded by the (partitive) genitive while no acquisition of the canonical case-marking is found. The following examples demonstrate that the verb takes the plural form if the genitive subject is formally a plural NP instead of the default third person singular neuter form used regularly elsewhere in Russian with a genitive NP in the subject position:

- (26) *A kto rabotal pokrepče, tak*
 But who worked stronger, so
ix byli (Sujsar', Onega North Russian)
 they:GEN.PL were:PL
 'As regards those who worked harder, there were (some) of them.'
 (adopted from Markova 2008: 153)

- (27) *Zdes' vsjakix rastut* (Derevjannoe, Onega North Russian)
 here any-kind:GEN.PL grow:3.PL
 'Here grow any kind (of plants).' (adopted from Markova 2008: 153)

Similarly, the dative subjects of the modal infinitives in Russian trigger verbal agreement for gender and number, cf.:

- (30) *Jej ne byt' sčastlivoj* (Standard Russian)
 she:DAT.SG.F not be:INF happy:ADJ.INSTR.SG.F
 'She will never be happy.'
- (31) *Jemu ne byt' sčastlivym* (Standard Russian)
 he:DAT.SG.M not be:INF happy:ADJ.INSTR.SG.M
 'He will never be happy.'
- (32) *Im ne byt' sčastlivymi* (Standard Russian)
 they:DAT.PL not be:INF happy:ADJ.INSTR.PL
 'They will never be happy.'

Furthermore, the accusative subjects in Late Latin could also trigger verbal agreement (Cennamo 2011) thereby attesting the same tendency.

By contrast, verbal agreement seems to be more stable in those languages, which have a morphologically distinguished, dedicated non-canonical agreement beside the canonical one, cf. Maltese in Haspelmath and Caruana (2000). The non-canonical agreement may be diachronically more stable than the non-canonical case marking with regard to canonicization (Ganenkov, this volume). Vartashen Udi (an East Caucasian language), for example, attests the innovative, canonical (ergative) case-marking while still having non-canonical (dative-like) verbal agreement. Furthermore, Ganenkov (this volume) puts forward a second hypothesis that “[i]f a verb in a language features non-canonical case marking together with canonical person agreement, then the verb (or the language in general) has never had non-canonical agreement”. Indeed, neither such Caucasian languages as Dargwa and Lak nor North Russian, Ancient Greek or Latin ever did have non-canonical verb agreement.²⁷ Summing up, if the language has a dedicated non-canonical verbal agreement, then the verbal agreement seems to be more stable than the case marking. In turn, if the language does not have a dedicated non-canonical verbal agreement but rather a lack of agreement (cf. Andrews 1982:492–9) or the default agreement (Sigurðsson 2002b) with non-canonical subjects or subject-like obliques, then it will tend to acquire the (canonical) verbal agreement prior to the canonical case-marking.

Generally, the acquisition of the (canonical) verbal agreement preceding the acquisition of the canonical case-marking behaves symmetrically to the loss of the subject coding properties whereby the (canonical) verbal agreement is lost first, and only then is there a loss of the subject case-marking (Malchukov & Ogawa 2011: 30, cf. also Seržant 2012a for a case study). Therefore, if there is a canonically case-marked subject with no ability to trigger verbal agreement, then it loses subjecthood whereas

27. This, of course, presupposes that the default agreement is not considered a full-fledged agreement.

if there is a non-canonically marked subject with the ability to trigger (the canonical) verbal agreement, then it acquires subjecthood.

3.3.3 Which predicate and NP types are affected first?

Another important factor in the canonicization process is that not all verbs and not all input NP types are affected simultaneously by the canonicization. This leads to different kinds of splits, both *predicate-* and *argument-driven splits*.

3.3.3.1 Predicate-driven splits. Such splits are, for instance, represented in those East Caucasian languages (Ganenkov, this volume) that gradually replace the original dative case-marking by the ergative (agent-like) case-marking.²⁸ Ganenkov further states that the process of canonicization (i.e. the expansion of the ergative or transitive alignment) proceeds along the following steps (i) to (iii), gradually affecting verbs from (a) to (e):

- i. expansion of the ergative into the experiential domain, leading to the dative/ergative alternations;
- ii. shift to the ergative as the default option, i.e. from dative being the unmarked option to ergative being the unmarked option,
- iii. loss of the dative option.
 - a. ‘find’, most prone to the ergative marking,
 - b. ‘forget’,
 - c. ‘see’ and ‘hear’,
 - d. ‘know’ and ‘understand’, and
 - e. ‘want, love’, most resistant to changes in subject marking

Similar splits are found in other languages as well. Fedriani (this volume) shows that different lexical predicates acquire canonical case-marking in different historical periods of Latin which is crucially dependent on their semantic properties. The Latin experiencer predicates – even though all being low on the transitivity scale – vary in the degrees of control they entail on the part of the experiencer. This variation is indicative of tiny differences on the transitivity scale or in the asymmetry between both participants (the experiencer and the stimulus). This, in turn, as Fedriani shows, determines the order for the acquisition of the canonical, transitive case frame. *Me paenitet* ‘I repent’, therefore, acquires the canonical case frame earlier than *me pudet*

28. However, this process is not a syntactic one in East Caucasian languages since it does not involve a change with respect to the syntactic behavior (subject properties), as Ganenkov points out.

'I am ashamed' because the former scores higher than the latter with regard to the control endowment on the part of the experiencer (Fedriani, this volume).

In the same light, Ganenkov (this volume) provides a semantic explanation for the fact that the verb 'want, love' preserves the original dative experiencer marking even in those East Caucasian languages that have generalized the ergative alignment with all other originally dative-experiencer predicates.

Additional factors in the acquisition of the subject properties are at play with the gram-driven-NS constructions as opposed to their lexically-driven counterparts. The non-canonical encoding of arguments of a lexically-driven-NS construction may be very stable across long periods of time whereas the gram-driven-NS constructions, with superficially the same case assignments, may acquire the canonical case-marking and the behavioral subject properties much faster in time. To give some examples, the Latvian debitive construction that assigns dative to the subject and nominative to the object of any transitive verb emerged around the 16th century (Endzelīns 1951; Holvoet 1993: 152):

- (33) *Tev augļi (ir) jā-ēd* (Latvian)
 you:DAT fruit:NOM.PL (COP:PRES.3) DEB-eat
 'You have to eat fruits.'

Despite its recent character, it has already acquired accusative as the object case-marking in Colloquial Latvian (Dat-Nom -> Dat-Acc) replacing the older, nominative object.

- (34) *Tev augļus (ir) jā-ēd* (Colloquial Latvian)
 you:DAT fruit:ACC.PL (COP:PRES.3) DEB-eat
 'You have to eat fruits.'

The process of canonicization even went so far as to have the nominative subject with the verb *būt* 'to be' start appearing in colloquial speech replacing the original dative, cf. (37) below. At the same time, lexically-driven-NS predicates with the Dat-Nom case frame in Latvian (such as *patikt* 'to like') are extremely stable as evidenced by the Lithuanian etymological counterpart *patikti* 'to like' also with Dat-Nom, given that the split between these languages is generally dated at approx. 5th century AD.

- (35) *Tev patik augļi / *augļus* (Latvian)
*Tau patinka vaisiai / *vaisius* (Lithuanian)
 you:DAT like:PRES.3 fruit:NOM.PL/*fruit:ACC.PL
 'You like fruits.'

Crucially, the lexically-driven Dat-Nom predicates (such as Latvian *patikt*), in contrast to the gram-driven Dat-Nom predicates (such as the Latvian debitive), do not

allow any canonicization of their arguments in Latvian. Moreover, these lexically-driven-NS predicates lack any syntactic subject properties on the part of their dative experiencer in contrast to the dative oblige of the debitive. Thus, even though being historically older, they do not reach the progress of the much younger gram-driven-NS predicates. Another example is the case frame AdessPP²⁹-Nom of the Russian lexical predicates such as *bolet* ‘to ache’. The latter does not allow any variation, whereas the same case frame shows essential modifications towards canonicity with the North Russian perfect, a gram-driven-NS type predicate. The latter is equally a very recent development (Seržant 2012a). Nevertheless, here, the AdessPP has acquired a full syntactic subjecthood (differently from, e.g. the AdessPP with the lexically-driven NS of *bolet*) and can even be replaced with the nominative in the context of strong topicalization (Timberlake 1976, Seržant, this volume). Additionally, its nominative object has been replaced with accusative in some North Russian subdialects.

Furthermore, the dative accidental causer in the Spanish anticausative construction (gram-driven NS) considerably outranks the lexically-driven dative experiencer of *gustar* ‘to like’ in Spanish as regards the subject properties, even though both constructions involve the same Dat-Nom case frame (Fernández-Soriano & Mendikoetxea, this volume). Notably, the accidental causer construction is also a much more recent development than the lexically-driven non-prototypical subjects of the *gustar* type. Thus the earliest example of the accidental causer in Spanish stems only from the 19th century (Melis & Flores, this volume).

The fact that the gram-driven-NS predicates generally acquire canonical argument marking much faster than their lexically-driven counterparts can presumably be explained by the fact that the gram-driven-NS predicates embed verbs with prototypical/canonical subjects and objects. The competing case frames – i.e. that of the embedded lexical verb and the gram – are then leveled out as a sort of paradigmatic leveling whereby the case frame of the underlying lexical verb wins.³⁰ This is because the consequence of the grammaticalization process is that the gram becomes much weaker with regard to its semantic entailments than the embedded lexical verb. The latter becomes predominantly responsible for providing the semantic information about the event. The decreasing weight of the gram is even often iconically mirrored and correlated by the minimum of morphology that encodes it as opposed to a larger phonetic

29. Adessive-like PP based on the preposition *u* ‘at’ governing genitive.

30. This is, however, not a necessary outcome; also the case frame of the respective gram may win the competition, cf., for example, the Indo-Aryan perfect with agent originally case-marked by an oblique case. The alignment of the gram (perfect) has led to the ergative alignment in the past tense in most of the Modern Indo-Aryan languages.

string of the lexical verb. There is no such conflict between different case frames with the lexically-driven-NS predicates.

3.3.3.2 *Argument-driven splits.* The *argument-driven split* entails that not all subject input NP-types acquire canonical subjecthood at the same time. There is often a gradual acquisition of coding properties with an intermediate step in the Differential Subject Marking driven by different saliency of particular input types. The canonical case-marking typically spreads from the lexically most salient NPs along the Extended Animacy Hierarchy (Croft 2003: 130) such as personal pronouns (see, however, Bickel et al., submitted). Alternatively, the intermediate DSM may be driven by the discursive prominence of the participants. Thus the nominative subject marking of the North Russian perfect replaces the adessive-like PP subject marking if the subject NP is a contrastive topic (Seržant, this volume, following Timberlake 1976: 562–3). From this sort of DSM, the canonical coding may gradually spread out to other input types in this syntactic position.

An interesting example in this context represents the Latvian debitive mood that is formed by means of the verbal prefix *jā-* added to the (formally) third person present verb. The nominative subject of the underlying verb obligatorily turns into dative in both Standard and Colloquial language:

- (36) *Es lasu grāmatu Man (ir) jā-lasa grāmata* (Latvian)
 I:NOM read book:ACC I:DAT is DEB-read book:NOM
 ‘I read the/a book.’ ‘I have to read the/a book.’

Yet, the only verb that allows canonicization of the debitive subject in colloquial language is the verb *būt* ‘to be’ and, basically, only when the pronoun *tas* ‘this:NOM.M’ (there is no neuter in Latvian) occupies the subject slot, cf. (37) as opposed to the standard (38):

- (37) ... *kā tas jā-būt oficiāli* (Colloquial Latvian)
 as this:NOM DEB-be officially
 ‘... in the way as this has to be officially.’³¹
- (38) ... *kā tam jā-būt oficiāli* (Standard Latvian)
 as this:DAT DEB-be officially
 ‘... in the way as this has to be officially.’

31. <http://www.audi-style.lv/forum/topic/24246-jautajums-par-dzincju/>. I thank Andra Kalnača (p.c.) who pointed out this to me, see also Grīse (2005:7).

Thus the canonicization (i.e. the change from pattern in (38) to the pattern in (37)) that has just started emerging in Colloquial Latvian exhibits selectional restrictions regarding both the verb and the subject-NP.

4. Conclusions

The aim of this paper has been to summarize and structure results from the preceding research and case studies carried out in this volume in order to achieve a (preliminary) diachronic typology of non-canonical subjects and uncover diachronic generalizations going beyond the language-specific level.

Three Developmental Clines – probably most frequently found cross-linguistically – have been put forth to schematically show the rise of subject-like obliques and, subsequently, non-canonical subjects. The main difference between DC1 and DC2 concerns the source of the oblique constituent that develops into a non-canonical subject: it is adjunct with DC1 and object with DC2. Consequently, DC1 affects mainly intransitive predicates while DC2 affects transitive ones. Otherwise, both DC1 and DC2 are almost parallel in the way that they describe diachronic adjustment processes of the syntactic and, subsequently or concomitantly, morphological properties to the new semantic ranking among arguments.

Furthermore, different kinds of aspects of productivity of non-canonical subjects have been discussed and suggested. I have mentioned that the areal impact may quite considerably constrain the syntactic and morphological properties of non-canonical subjects.

Finally, I discuss data featuring the canonicization of non-canonical subjects. Here such factors as the type of the predicate that triggers the non-canonical case-marking of arguments, different degrees of agentivity with different experiential verbs and, finally, different NP types constrain the acquisition of the canonical subject coding properties.

This organization of this paper and the volume, however, does not imply that all subject-like obliques necessarily have to undergo the whole life-cycle.

Acknowledgement

I am first of all very much indebted to Alena Witzlack-Makarevich (Zürich) who has extensively commented on the earlier versions of this paper. I am, furthermore, grateful to (alphabetically) Chiara Fedriani (Bergamo), Leonid Kulikov (Ghent), Chantal Melis (Mexico), Annie Montaut (Paris), Sergey Say (St. Petersburg) and, of course, to all the authors of this volume for their help with this paper. All disclaimers apply.

Abbreviations

ACC	accusative	NOM	nominative
ADV	adverb	NP	Nominal phrase
AUX	auxiliary	PART	partitive
DAT	dative	PASS	passive
DISTR	distributive	PERF	perfective
GEN	genitive	PL	plural
INF	infinitive	PP	Prepositional phrase
INSTR	instrumental	PPP	passive past participle
INVAR	invariant	PRT	particle
LOC	locative	PRES	present
M	masculine	PST	past
NEG	negation	REFL	reflexive
NEUTR	neuter	SG	singular.

References

- Aikhenvald A.Y., Dixon, R.M.W & Onishi, M. (eds). 2001. *Non-canonical Marking of Subjects and Objects* [Typological Studies in Language 46]. Amsterdam: John Benjamins.
- Aissen, J. 2003. Differential object marking: Iconicity vs. economy. *Natural Language and Linguistic Theory* 21: 435–448.
- Allen, C.L. 1995. *Case Marking and Reanalysis*. Oxford: Clarendon Press.
- Andrews, A. 1985. The major functions of the noun phrase. In *Syntactic Typology and Linguistic Description*, Vol. 1, T. Shopen (ed.), 62–154. Cambridge: CUP.
- Barðdal, J. 2001. The perplexity of Dat-Nom verbs in Icelandic. *Nordic Journal of Linguistics* 24: 47–70.
- Barðdal, J. 2006. Construction-specific properties of syntactic subjects in Icelandic and German. *Cognitive Linguistics* 17(1): 39–106.
- Barðdal, J. 2008. *Productivity: Evidence from Case and Argument Structure in Icelandic*. Amsterdam: John Benjamins.
- Barðdal, J. 2009. The development of case in Germanic. In *The Role of Semantic, Pragmatic, and Discourse Factors in the Development of Case* [Studies in Language Companion Series 108], J. Barðdal & C.L. Shobhana (eds), 123–59. Amsterdam: John Benjamins.
- Barðdal, J. 2011. The rise of dative substitution in the history of Icelandic: A diachronic construction grammar account. *Lingua* 121 (1): 60–79.
- Barðdal, J. To appear. Valency classes in Icelandic: Oblique subjects, oblique anticausatives and the actional passive. In *Valency Classes in the World's Languages*, B. Comrie & A. Malchukov (eds). (<http://org.uib.no/iecastp/IECASTP/Valency%20Classes.JB.pdf>) (23 March, 2012).
- Barðdal, J., Smitherman, T., Bjarnadóttir, V., Danesi, S., Jensen, G.B. & McGillivray, B. 2012. Reconstructing constructional semantics: The dative subject construction in Old Norse-Icelandic, Latin, Ancient Greek, Old Russian and Old Lithuanian, *Studies in Language* 36(3): 511–547.

- Barðdal, J. & Eythórsson, T. 2003. The change that never happened: The story of oblique subjects. *Linguistics* 39: 439–472.
- Bauer, B. 2000. *Archaic Syntax in Indo-European: The Spread of Transitivity in Latin and French* [Trends in Linguistics, Studies and Monographs 125]. Berlin: Mouton de Gruyter.
- Benveniste, E. 1952. La construction passive du parfait transitif. In *Problèmes de Linguistique Generale*, E. Benveniste (ed.), 176–186. Paris: Gallimard.
- Bhaskararao, P. & Subbarao, K.V. (eds). 2004. *Non-nominative Subjects* [Typological Studies in Language 60–61], 2 Vols. Amsterdam: John Benjamins.
- Bickel, B. 2004. The syntax of experiencers in the Himalayas. In Bhaskararao & Subbarao (eds), Vol. 1, 77–111.
- Bickel, B., Witzlack-Makarevich, A. & Zakharko, T. Submitted. Typological evidence against universal effects of referential scales on case alignment. Ms, University of Zurich. (<http://www.spw.uzh.ch/bickel-files/papers/>) (25 January 2013).
- Bossong, G. 1998. Le marquage différentiel de l'objet dans les langues d'Europe. In: Feuillet, J. (ed.): *Actance et Valence dans les Language de l'Europe*. Berlin, New York: Mouton de Gruyter, 193–258.
- Bresnan, J. 1994. Locative inversion and the architecture of Universal Grammar. *Language* 70(1): 72–131.
- Butt, M. 2006. The dative-ergative connection. In *Proceedings of the Colloque Syntax-Semantique Paris (CSSP)* [Empirical Issues in Syntax and Semantics 6], O. Bonami & P. Cabredo-Hofherr (ed.). The Hague: Thesus.
- Bybee, J.L. & Moder, C.L. 1983. Morphological classes as natural categories. *Language* 59: 251–270.
- Bynon, T. 2005. Evidential, raised possessor, and the historical source of the ergative construction in Indo-Iranian. *Transactions of the Philological Society* 103(1): 1–72.
- Cennamo, M. 2011. Impersonal constructions and accusative subjects in Late Latin. In Malchukov & Siewierska (eds), 169–188.
- Coghill, E. To appear. *Cycles of Alignment Change: The Rise and Fall of Ergativity in Aramaic*.
- Cole, P., Harbert, W., Hermon, G. & Sridhar, S.N. 1980. The acquisition of subjecthood. *Language* 56: 719–743.
- Creissels, D. 2007. Impersonal and anti-impersonal constructions: A typological approach. Ms. Lectures given at the University of Tartu. (<http://www.deniscreissels.fr/index.php?pages/autres-documents-t%C3%83%C2%A9l%C3%83%C2%A9chargeables>)
- Croft, W. 1993. Case marking and the semantics of mental verbs. In *Semantics and the Lexicon*, J. Pustejovsky (ed.), 55–72. Dordrecht: Kluwer.
- Croft, W. 1994. The semantics of subjecthood. In *Subjecthood and Subjectivity*, M. Yaguello (ed.), 29–75. Paris: Ophrys.
- Croft, W. 1998. The structure of events and the structure of language. In *The New Psychology of Language: Cognitive and functional Approaches to Language Structure*, M. Tomasello (ed.), 67–92. Mahwah NJ: Lawrence Erlbaum Associates.
- Croft, W. 2001. *Radical Construction Grammar. Syntactic Theory in Typological Perspective*. Oxford: OUP.
- Croft, W. 2003. *Typology and Universals*, 2nd edn. Cambridge: CUP.
- Dabrowska, E. 1997. *Cognitive Semantics and the Polish Dative* [Cognitive Linguistics Research 9]. Berlin: Mouton de Gruyter.
- Dahl, Ö. & Koptjevskaja-Tamm, M. (eds). 2001. *Circum-Baltic Languages* [Studies in Language Companion Series 54–55]. Amsterdam: John Benjamins.

- Danylenko, A. 2003. *Predykaty, vidminky i diatezy v ukrains'kij movi: Istoryčnyj i typolojičnyj aspekty*. Xarkiv: Oko.
- Danylenko, A. 2006. The Greek accusative vs. new Slavic accusative in the impersonal environment. In *Slavica et Islamica*, 243–265. Munich: Otto Sagner.
- Denison, D. 1993. *English Historical Syntax*. London: Longman.
- Deo, A. 2003. Valency change and case marking: Marathi dative experiencers. Handout from Pioneer Workshop on 'Case, Valency and Transitivity'.
- Deshpande, M. 1991. Some features of the *sampradāna kārīka* in Panini. In *Experiencer Subjects in South Asian Languages*, M.K. Verma & K.P. Mohanan (eds), 147–59. Stanford CA: The Stanford Linguistic Association.
- Donohue, M. & Wichmann, S. (eds). 2008. *The Typology of Semantic Alignment*. Oxford: OUP.
- Dowty, D.R. 1991. Thematic proto-roles and argument selection. *Language* 67: 547–619.
- Drapeau, L. 2011. Impersonals in Innu. In *Impersonal Constructions: A Cross-linguistic Perspective* [Studies in Language Companion Series 124], A. Malchukov & A. Siewierska (eds), 489–516. Amsterdam: John Benjamins.
- Erelt, M. & Metslang, H. 2008. Kogea vormistamine eesti keeles: Nihkeid SAE perifeerias. *Emakeele Seltsi Aastaraamat* 53: 9–22. Tallinn: Teaduste Akadeemia Kirjastus.
- Estival, D. & Myhill, J. 1988. Formal and functional aspects of the development from passive to ergative systems. In *Passive and Voice* [Typological Studies in Language 16], M. Shibatani (ed.), 441–492. Amsterdam: John Benjamins.
- Evans, N. 2004. Experiencer objects in Iwaidjan languages (Australia). In Bhaskararao & Subbarao (eds), Vol. 2, 77–100.
- Eythórsson, T. & Barðdal, J. 2005. Oblique subjects: A common Germanic inheritance. *Language* 81(4): 824–881.
- Faarlund, J.T. 1990. *Syntactic Change. Toward a Theory of Historical Syntax* [Trends in Linguistics, Studies and Monographs 50]. Berlin: Mouton de Gruyter.
- Faarlund, J.T. 2001. The notion of oblique subject and its status in the history of Icelandic. In *Grammatical Relations in Change* [Studies in Language Companion Series 56], J.T. Faarlund (ed.), 99–135. Amsterdam: John Benjamins.
- Fried, M. 2004. Predicate semantics and event construal in Czech case marking. In *Construction Grammar in a Cross-Language Perspective* [Constructional Approaches to Language 2], M. Fried & J.O. Östman (eds), 87–120. Amsterdam: John Benjamins.
- Ganenkova, D., Maisak, T. & Merdanova, S. 2008. Non-canonical agent marking in Agul. In *Differential Subject Marking* [Studies in Natural Language and Linguistic Theory 72], H. de Hoop & P. de Swart (eds), 173–198. Dordrecht: Springer.
- Givón, T. 1997. Grammatical relations: An introduction. In *Grammatical Relations: A Functionalist Perspective* [Typological Studies in Language 35], T. Givón (ed.), 1–84. Amsterdam: John Benjamins.
- Gisborne, N. 2011. Constructions, word grammar and grammaticalization. *Cognitive Linguistics* 22(1): 155–182.
- Haig, G. 2008. *Alignment Change in Iranian Languages: A Construction Grammar Approach*. Berlin: De Gruyter.
- Hakulinen, A. & Karlsson, F. 1979. *Nykysuomen lauseoppi* (Modern Finnish Syntax). Helsinki: Suomalaisen Kirjallisuuden Seura.
- Hansen, B. 2001. Das Modalauxiliar im Slavischen. Grammatikalisierung und Semantik im Russischen, Polnischen, Serbischen/Kroatischen und Altkirchen-slavischen [*Slavolinguistica* 2]. München: Otto Sagner.

- Harris, A.C. & Campbell, L. 1995. *Historical Syntax in Cross-linguistic Perspective* [Cambridge Studies in Linguistics 74]. Cambridge: CUP.
- Haspelmath, M. 1999. External possession in a European areal perspective. In *External Possession*, D.L. Payne & I. Barshi (eds), 109–136. Amsterdam: John Benjamins.
- Haspelmath, M. 2001a. The European linguistic area: Standard average European. *Handbuch der Sprach- und Kommunikationswissenschaft* 20(2): 1492–1510.
- Haspelmath, M. 2001b. Non-canonical marking of core arguments in European languages. In Aikhenvald *et al.*, 53–83.
- Haspelmath, M. 2010. The Behaviour-before-Coding Principle in syntactic change. In *Mélanges Denis Creissels*, F. Floricic (ed.), 493–506. Paris: Presses de L'École Normale Supérieure.
- Haspelmath, M. & Caruana, S. 2000. Subject diffuseness in Maltese: On some subject properties of experiential verbs. *Folia Linguistica* 24(3–4): 245–265.
- von Heusinger, K. & Kaiser, G.A. 2007. Differential object marking and the lexical semantics of verbs in Spanish. In *Proceedings of the Workshop "Definiteness, Specificity and Animacy in Ibero-Romance Languages"* [Fachbereich Sprachwissenschaft. Arbeitspapier 122], G.A. Kaiser & M. Leonetti (eds), 85–110. Konstanz: Universität Konstanz.
- Hoch, H.H. 1991. Possessive agents in Sanskrit? In *Studies in Sanskrit Syntax. A Volume in Honor of the Centennial of Speijer's Sanskrit Syntax*, H. Hoch (ed.), 55–70. Dehli: Motilal Banarsidass.
- Van Hoecke, W. 1996. The Latin dative. In *The Dative, 1: Descriptive Studies* [Case and Grammatical Relations Across Language 2], W. Van Belle & W. Van Langendonck (eds), 3–37. Amsterdam: John Benjamins.
- Holvoet, A. 2003a. Modal constructions with 'be' and the infinitive in Slavonic and Baltic. *Zeitschrift für Slavische Philologie* 48(3): 465–480.
- Holvoet, A. 2003b. Notes on possessive constructions in Baltic. In *Prace Baltystyczne. Język, literatura, kultura*, N. Ostrowski & O. Vaičiulytė-Romańczuk (eds), 36–44. Warszawa.
- Holvoet, A. 2007. *Mood and Modality in Latvian*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- de Hoop, H. & de Swart, P. (eds). 2008. *Differential Subject Marking*. Dordrecht: Springer.
- Hopper, P. & Thompson, S.A. 1980. Transitivity in grammar and discourse. *Language* 56(2): 251–299.
- Janda, L. 1993. *A Geography of Case Semantics. The Czech Dative and the Russian Instrumental*. Berlin: Mouton de Gruyter.
- Neset, T., Endresen, A. & Janda, L. 2011. Two ways to get out: Radial Category Profiling and the Russian Prefixes *vy-* and *iz-*. *Zeitschrift für Slawistik* 56(4): 377–402.
- Janda, L.A., Neset, T. & Baydimirova, A. To appear. Two ways to get out: Radial Category Profiling and the Russian Prefixes *vy-* and *iz-*. *Zeitschrift für Slawistik*.
- Jónsson, J.G. & Eythórsson, T. 2005. Variation in subject case marking in Insular Scandinavian. *Nordic Journal of Linguistics* 28(2): 223–245.
- Jung, H. 2011. *The Syntax of the Be-possessive: Parametric Variation and Surface Diversities* [Linguistik Aktuell/Linguistics Today 178]. Amsterdam: John Benjamins.
- Keenan, E.L. 1976. Towards a universal definition of 'Subject'. In *Subject and Topic*, C.N. Li (ed.), 303–333. New York NY: Academic Press.
- Keenan, E.L. & Comrie, B. 1977. Noun phrase accessibility and Universal Grammar. *Linguistic Inquiry* 8(1): 63–91.
- Kemmer, S. & Verhagen, A. 1994. The grammar of causatives and the conceptual structure of events. *Cognitive Linguistics* 5: 115–156.

- Kibrik, A.E. 1997. Beyond subject and object: Towards a comprehensive relational typology. *Language Typology* 1: 279–346.
- Kimball, G.D. 1991. *Koasati Grammar*. Lincoln NB: University of Nebraska Press.
- Kiparsky, P. 1998. Partitive case and aspect. In *The Projection of Arguments. Lexical and Compositional Factors*. M. Butt & W. Geuder (eds), 265–307. Stanford CA: CSLI.
- Kittilä, S.T. 2006. Object-, animacy- and role-based strategies: A typology of object marking. *Studies in Language* 32(1): 1–32.
- Kittilä, S., Västi, K. & Ylikoski, J. 2011. Introduction to case, animacy and semantic roles. In *Case, Animacy and Semantic Roles* [Typological Studies in Language 99], S. Kittilä, J. Ylikoski & K. Västi (eds), 1–29. Amsterdam: John Benjamins.
- Kittilä, S. & Kulikov, L. (eds). To appear. *Diachronic Typology of Voice and Valency-Changing Categories*. Amsterdam: John Benjamins.
- Kryško, V.B. 2006. *Istoričeskij sintaksis russkogo jazyka. Objekt i perexodnost'. 2-e izdanie, ispravlennoe i dopolnennoe*. Moskva: Azbukovnik.
- Kuteva, T. & Heine, B. 2004. On the possessive perfect in North Russian. *Word* 55(1): 37–71.
- Kuznecova, Y.L. 2010. Russkaja konstrukcija s predlogom *po* i problema neakkuzativnosti [Construction with the preposition *po* in Russian and the question of unaccusativity]. In *Lingvistika konstrukcij. Construction Linguistics* [Russian Academy of Sciences], E.V. Rakhilina (ed.), 184–218. Azbukovnik: V.V. Vinogradov Russian Language Institute.
- Lakoff, G. 1987. *Women, Fire and Dangerous Things*. Chicago IL: Chicago University Press.
- Lambrecht, K.L. 2000. *Information Structure and Sentence Form. Topic, Focus and the Mental Representations of Discourse Referents* [Cambridge Studies in Linguistics 71]. Cambridge: CUP.
- Lazard, G. 1994. L'actant H: Sujet ou object? *Bulletin de la Société de Linguistique de Paris* LXXXIX: 1–28.
- Leonetti, M. 2004. Specificity and differential object marking in Spanish. *Catalan Journal of Linguistics* 3: 75–114. (Revised version of: Specificity and object marking: The case of Spanish *a*. In 2003. *Proceedings of the Workshop "Semantic and Syntactic Aspects of Specificity in Romance Languages"* [Arbeitspapier 113], K. von Stechow & G.A. Kaiser (eds), 67–101. Konstanz: Fachbereich Sprachwissenschaft, Universität Konstanz.
- Lindström, L. & Tragel, I. 2010. The possessive perfect construction in Estonian. *Folia Linguistica* 44(2): 371–401.
- Malchukov, A. 2006. Transitivity parameters and transitivity alternations: Constraining co-variation. In *Studies on Case, Valency and Transitivity* [Studies in Language Companion Series 77], Kulikov, L, Malchukov A. & P. de Swart (eds), 329–359. Amsterdam: John Benjamins.
- Malchukov, A. 2008a. Split intransitives, experiencer objects, and 'Transimpersonal' constructions: (re-)establishing the connection. In *The Typology of Semantic Alignment*, M. Donohue & S. Wichmann (eds), 76–101. Oxford: OUP.
- Malchukov, A.L. 2008b. Animacy and asymmetries in differential case marking. *Lingua* 118: 203–221.
- Malchukov, A. & Siewierska, A. 2011. *Impersonal Constructions: A Cross-linguistic Perspective* [Studies in Language Companion Series 124]. Amsterdam: John Benjamins.
- Malchukov, A. & Ogawa, A. 2011. Towards a typology of impersonal constructions. In Malchukov & Siewierska (eds), 19–56.
- Masica, C.P. 1976. *Defining a Linguistic Area: South Asia*. Chicago IL: University of Chicago Press.

- McIntyre, A. 2006. The interpretation of German datives and English *have*. In *Datives and Other Cases: Between Argument Structure and Event Structure* [Studies in Language Companion Series 75], D. Hole, A. Meinunger & W. Abraham, 186–212. Amsterdam: John Benjamins.
- Metslang, H. 2009. Estonian grammar between Finnic and SAE: Some comparisons. *Language Typology and Universals* 62(1–2): 49–71.
- Montaut, A. 1996. L'évolution des systèmes perfectal et futur en indo-aryen occidental et oriental. *Journal Asiatique* 284(2): 325–360.
- Montaut, A. 2004. Oblique main Arguments in Hindi. In *Non-nominative Subjects*. In Bhaskararao & Subbarao (eds), Vol. 2, 33–56.
- Montaut, A. 2007. The evolution of the tense-aspect system in Hindi/Urdu, and the status of the ergative alignment. In *Proceedings of the LFG06 Conference*, M. Butt & T. Holloway King (eds). Stanford CA: CSLI. (<http://hal.archives-ouvertes.fr/halshs-00128590/>).
- Montaut, A. To appear. Why ergative case in modal (in)transitive clauses? Aspect, modality, ergative and locative in Indo-Aryan. In *Ergativity in Indo-Aryan*, E. Dahl & K. Stroński (eds). Amsterdam: John Benjamins.
- Onishi, M. 2001. Non-canonically marked subjects and objects: Parameters and properties. In Aikhenvald *et al.*, 1–52.
- Pat-El, N. To appear. The diachrony of non-canonical subjects in Northwest Semitic. In *Non-Canonically Case-Marked Subjects within and across Languages*, J. Barðdal, M. Carey, T. Eythórsson, N. Pat-El, (eds). Amsterdam: John Benjamins.
- Popov, A.V. 1881. *Sintaksičeskie issledovanija*. Voronezh.
- Rosch, E. 1973. On the internal structure of perceptual and semantic categories. In *Cognitive Development and the Acquisition of Language*, T. Moore (ed.). New York NY: Academic Press.
- Rosch, E. 1975. Cognitive representations of semantic categories. *Journal of Experimental Psychology: General* 104: 192–233.
- Pylkkänen, L. 2008. *Introducing Arguments*. Cambridge MA: The MIT Press.
- Sands K. & Campbell L. 2001. Non-canonical subjects and objects in Finnish. In Aikhenvald *et al.*, 251–305.
- Sasse, H.-J. 1982. 'Subjektprominenz'. In *Fakten und Theorien. Beiträge zur romanischen und allgemeinen Sprachwissenschaft. Fs. für Helmut Stimm zum 65. Geburtstag*. Hrg. von S. Heinz und U. Wandruszka, 267–286. Tübingen.
- Say, S. To appear. Leksičeskie mehanizmy grammatičeskogo drejfa: Konstrukcii s dativnym subjektom v ruskom jazyke XVIII–XXI vekov. In *Sbornik statej v čest' 80-letija V. S. Xrakovskogo*. St. Petersburg.
- Schäfer, F. 2008. *The Syntax of (Anti-)Causatives. External Arguements in Change-of-state Contexts* [Linguistik Aktuell/Linguistics Today 126]. Amsterdam: John Benjamins.
- von See Franz-Montag, A. 1983. *Syntaktische Funktionen und Wortstellungsveränderung. Die Entwicklung "subjektloser" Konstruktionen in einigen Sprachen*. Munich: Wilhelm Fink.
- Seržant, I.A. 2012a. The so-called possessive perfect in North Russian and the Circum-Baltic area. A diachronic and areal approach. *Lingua* 122(4): 356–385.
- Seržant, I.A. 2012b. Morphosyntactic properties of the partitive genitive in Ancient Greek. *Indogermanische Forschungen* 117: 187–204.
- Seržant, I.A. To appear-a. Rise of canonical objecthood by the Lithuanian verbs of pain. *Baltic Linguistics*.
- Seržant, I.A. To appear-b. Dative experiencers as a Circum-Baltic isogloss. In *Contemporary Approaches to Baltic Linguistics*, P. Arkadiev, Holvoet, A. & B. Wiemer (eds). Berlin: Mouton de Gruyter.

- Seržant, I.A. & Bjarnadóttir, V. To appear. Verbalization and non-canonical case marking of some irregular verbs in *-ē- in Baltic and Russian. In *Proceedings of the international conference, dedicated to the academian Vladimir Toporov, The Balts and Slavs: Intersections of Spiritual Cultures*, A. Judžentis, T. Civjan & M. Zavyalova (eds). Vilnius.
- Sigurðsson, H.Á. 2002a. To be an oblique subject: Russian vs. Icelandic, *Natural Language and Linguistic Theory* 20(4): 691–724.
- Sigurðsson, H.Á. 2002b. Icelandic non-nominative subjects: Facts and implications. In Bhaskararao & Subbarao (eds), Vol. 2, 137–159.
- Siiroinen, Mari. 2001. *Kuka pelkää, ketä pelottaa. Nykysuomen tunneverbien kielioppia ja semantiikkaa*. Suomalaisen Kirjallisuuden Seura: Helsinki.
- Taylor, J. 1998. Syntactic constructions as prototype categories. In *The New Psychology of Language: Cognitive and Functional Approaches to Language Structure*, Vol. 1, M. Tomasello (ed.), 177–202. Mahwah NJ: Lawrence Erlbaum Associates.
- Taylor, J.R. 2004. *Linguistic Categorization*, 3rd edn [Oxford Textbooks in Linguistics]. Oxford: OUP.
- Timberlake, A. 1976. Subject properties in the North Russian passive. In *Subject and Topic*, C.N. Li (ed.), 545–594. New York NY: Academic Press.
- Trousdale, G. 2008. Words and constructions in grammaticalization: The end of the English impersonal construction. In *Studies in the History of the English Language, IV: Empirical and Analytical Advances in the Study of English Language Change* [Topics in English Linguistics 61], S. Fitzmaurice & D. Minkova (eds), 301–326. Berlin: Mouton de Gruyter.
- Verhoeven, E. 2007. *Experiential Constructions in Yucatec Maya: A Typologically Based Analysis of a Functional Domain in a Mayan Language* [Studies in Language Companion Series 87]. Amsterdam: John Benjamins.
- Wegener, H. 1991. Der Dativ – ein struktureller Kasus? In *Strukturen und Merkmale syntaktischer Kategorien*, G. Fanselow & S. Felix (eds), 70–103. Tübingen: Narr.
- Weiss, D. 1993. Infinitif et datif en Polonais moderne – un couple malheureux? In *Complétude et incomplétude dans les langues romanes et slaves*, K. Stanisław & T. Muryn (eds), 443–487. Cracovie: WSP.
- Zaenen, A., Maling, J. & Thráinsson, H. 1985. Case and grammatical functions: the Icelandic passive. *Natural Language and Linguistic Theory* 3: 441–483.