

On subject / non-subject extraction asymmetries in Igbo*

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Goals:

- present new data on a SU/non-SU extraction asymmetry in Igbo
- provide evidence that the morphological asymmetry in focus marking corresponds to a syntactic asymmetry: local wh-SUs don't move to SpecCP but stay in SpecTP → suggests an anti-locality (AL) based approach
- discuss empirical/conceptual challenges for AL
- present an analysis that mimics AL by locality + economy

1 SU / non-SU asymmetries in Igbo

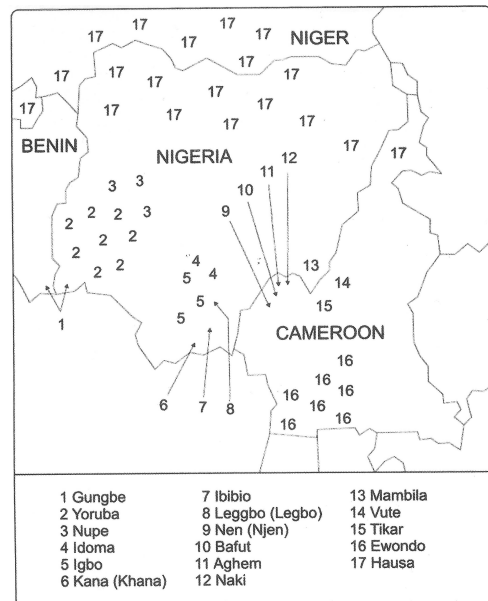
1.1 The Igbo language

- Niger-Congo, West Benue-Congo (cf. Blench 1989)
- spoken in Southern Nigeria by about 30 mio. people, see (2)
- grammars: Green and Igwe (1963); Carrel (1970); Manfredi (1991); Mbah (2006); Emenanjo (2015)
- vowels: [±ATR]-distinction

	[+ATR]	[-ATR]
(1)	i	ĩ
	u	ũ
	o	õ
	e	a

- three level tones: low (\grave{a}), high (\acute{a}), downstep (\bar{a}); lexical + grammatical function (see Nwachukwu 1995); nasals can be syllabic → bear tone
- inflection:
 - no argument-V agreement
 - case: Nom-Acc distinction only for 2sg + 3sg pronouns, see (3)
 - rich verbal morphology: tense/aspect, derivational affixes (Uwalaka 1988)

(2) Map (Aboh et al. 2008: 10):



(3) Personal pronouns:

	Nom	Acc
1sg	m̃	m̃
2sg	í/ĩ	gí
3sg	ó/õ	yá
1pl	ànyí	ànyí
2pl	únú	únú
3pl	há	há

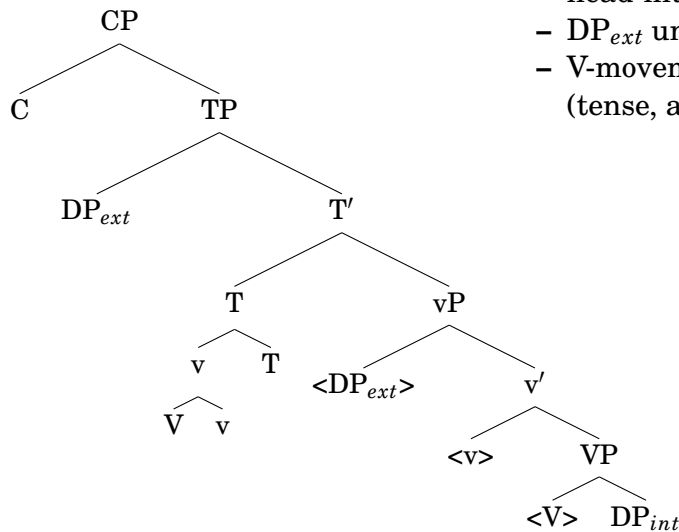
*Unless noted otherwise, the data and judgements in this handout are provided by Mary Amaechi, a native speaker of Igbo.

- rigid word order: SU – V – (IO) – (DO) – (ADJ)

- (4) a. Òbí hù-rù Àdá n'-áhiá
Obi see-PST Ada P-market
“Obi saw Ada at the market.”
- b. Òbí nyè-rè Àdá éḡō nà m̀gbèdè
Obi give-PST Àdá money P evening
“In the evening Obi gave Ada money.”

- clause structure:

- (5) Transitive verb:



- head-initial VP
- DP_{ext} undergoes EPP-movement to SpecTP
- V-movement to T to pick up the inflection (tense, aspect, negation)

1.2 The SU / non-SU asymmetry in focus marking: basics

- occurs in constituent questions with wh-pronouns + in focus constructions
- basic descriptions: see Goldsmith (1981); Ikekeonwu (1987); Uwalaka (1991); Ogbulogo (1995); Mmaduagwu (2012); Nwankwegu (2015); but no study of the nature of the asymmetry

1.2.1 Constituent questions

- (6) Short questions, ex-situ strategy, V_{trans} :

- a. Òbí hù-rù Àdá n'-áhiá
Obi saw Ada P-market
“Obi saw Ada at the market.” *declarative*
- b. Ònyé hù-rù Àdá n'-áhiá
who saw Ada P-market
“Who saw Ada at the market?” *SU question*
- c. Ònyé **kà** Òbí hù-rù n'-áhiá
who FOC Obi saw P-market
“Who did Obi see at the market?” *OBJ_{anim} question*
- d. Gínì **kà** Òbí hù-rù n'-áhiá
what FOC Obi saw P-market
“What did Obi see at the market?” *OBJ_{inanim} question*
- e. Èbéē **kà** Òbí hù-rù Àdá
where FOC Obi saw Ada
“Where did Obi see Ada?” *ADJ question*

(7) Short questions, ex-situ strategy, $V_{ditrans}$:

- | | | |
|----|--|--------------------|
| a. | Òbí nyèrè Àdá éḡō
Obi gave Ada money
“Obi gave Ada money.” | <i>declarative</i> |
| b. | Ònyé nyèrè Àdá éḡō
who gave Ada money
“Who gave Ada money?” | <i>SU question</i> |
| c. | Ònyé kà Òbí nyèrè ___ éḡō
who FOC Obi gave money
“Who did Obi give money to?” | <i>IO question</i> |
| d. | Gínī kà Òbí nyèrè Àdá ___
what FOC Obi gave Ada
“What did Obi give to Ada?” | <i>DO question</i> |
- wh-pronoun fronted to the clause-initial position in questions
 - **SU / non-SU asymmetry**: *kà* obligatorily follows fronted non-subject wh-pronouns, but cannot co-occur with subject wh-pronouns

1.2.2 Focus constructions

(8) Short focus, ex-situ strategy, V_{trans} :

- | | | |
|----|---|---------------------------------|
| a. | Òbí hùrù Àdá nà m̀gbèdè n'-áhiá
Obi saw Ada P evening P-market
“Obi saw Ada in the evening at the market.” | <i>declarative</i> |
| b. | Ó bù Òbí hùrù Àdá nà m̀gbèdè n'-áhiá
3sg COP Obi saw Ada P evening P-market
“It is Obi who saw Ada in the evening at the market.” | <i>SU-focus</i> |
| c. | Àdá kà Òbí hùrù ___ nà m̀gbèdè n'-áhiá
Ada FOC Obi saw P evening P-market
“It is Ada that Obi saw in the evening at the market.” | <i>OBJ_{anim}-focus</i> |
| d. | Na m̀gbèdè kà Òbí hùrù Àdá ___ n'-áhiá
P evening FOC Obi saw Ada P-market
“It is in the evening that Obi saw Ada at the market.” | <i>ADJ-focus</i> |

- fronting of the focused XP to the clause-initial position, same **SU / non-SU asymmetry**: *kà* = obligatory with focused non-subjects
- foc-subject: *kà* is impossible, a cleft structure is required (other GFs *can* also be clefted)²
- cleft = δ (3sg.nom pronoun, invariant) + *bù* (= copula used with nominal predicates) + CP (with the focused XP at the left edge)
- focus construction used to express new information focus (answer to questions) as well as contrastive focus (corrective)

CENTRAL QUESTION: What is the source of the SU / non-SU asymmetry?

- syntactic symmetry in SU and non-SU contexts, surface effect: morphology encodes an inherent property (GF) of wh-/foc-XPs (DAM-like)
- syntactic asymmetry reflected in the morphology

CLAIM: Morphology reflects a deeper syntactic asymmetry: wh-/foc-non-SUs are moved to the left periphery, wh-/foc-SUs stay in SpecTP.

²Both clefts and the construction introduced in the current section can be used to express focus in Igbo. There's a semantic difference between the two: clefts indicate exhaustivity, while non-clefts don't.

2 The syntax of the wh-/foc-constructions

2.1 Movement or base generation?

Both constituent questions + focus construction involve movement. Evidence:

- island-sensitivity
- reconstruction effects
- strong cross-over

Note: long-distance questions and focus are possible, so the distance of the dependency is not responsible for the ungrammaticality of the island data!

(9) Long non-subject questions:

- a. Úchè chère nà Òbí hùrù Àdá n'áhiá
Uche thinks that Obi saw Ada P-market
"Uche thinks that Obi saw Ada at the market." *declarative*
- b. Ònyé kà Úchè chère nà Òbí hùrù ___ n'áhiá
who FOC Uche thinks that Obi saw P-market
"Who does Uche think that Obi saw at the market?" *long OBJ quest.*
- c. Èbéè kà Úchè chère nà Òbí hùrù Àdá ___
where FOC Uche think that Obi saw Ada
"Where does Uche think that Obi saw Ada?" *long ADJ question*

(10) Long non-subject focus:

- a. Àdá kà Úchè chère nà Òbí hùrù ___ n'áhiá
Ada FOC Uche think that Obi saw P-market
"It's Ada that Uche thinks Obi saw at the market." *long OBJ focus*
- b. N'áhiá kà Úchè chère nà Òbí hùrù Àdá ___
P-market FOC Uche think that Obi saw Ada
"It's at the market that Uche thinks Obi saw Ada." *long ADJ focus*

2.1.1 Island-sensitivity

(11) Questions, adjunct island:

- a. Úchè pùrù túpú Òbí àhù Àdá n'áhiá
Uche left before Obi saw Ada P-market
"Uche left before Obi saw Ada at the market." *declarative*
- b. *Ònyé kà/Ø Úchè pùrù túpú Òbí àhù ___ n'áhiá
who FOC Uche left before Obi saw P-market?
"Lit.: Who did Uche leave before Obi saw at the market?" *OBJ-question*
- c. *Èbéè kà/Ø Úchè pùrù túpú Òbí àhù Àdá ___
where FOC Uche left before Obi saw Ada
"Lit.: Where did Uche leave before Obi saw Ada?" *ADJ-question*
(with *where* referring to the embedded VP, ok with matrix construal)

(12) Questions, CNP-island:

- a. Úchè mà nwókè àhù hūrū Àdá n'áhiá
Uche know man DEM saw Ada P-market
"Uche knows the man who saw Ada at the market." *SU-RC*
- b. *Ònyé kà/Ø Úchè mà nwókè àhù hūrū ___ n'áhiá
who FOC Uche know man DEM saw P-market
"Lit.: Who does Uche know the man who saw ___ at the market?" *DO-focus*

(13) Focus construction, adjunct island:

- a. Úchè pùrù túpú Òbí àhù Àdá n'áhiá
 Uche left before Obi saw Ada P-market
 “Uche left before Obi saw Ada at the market.” *declarative*
- b. *Àdá kà/Ø Úchè pùrù túpú Òbí àhù ___ n'áhiá
 Ada FOC Uche left before Obi saw P-market?
 “Lit.: (It is) ADA (that) Uche left before Obi saw at the market” *OBJ-focus*

(14) Focus construction, CNP-island:

- a. Úchè mà nwókē àhù nyērē Àdá égō n'áhiá
 Uche know man DEM gave Ada money P-market
 “Uche knows the man who gave Ada money at the market.” *SU-RC*
- b. *Àdá kà/Ø Úchè mà nwókē àhù nyērē ___ égō n'áhiá
 Ada FOC Uche know man DEM gave money P-market
 “Lit.: (It is) ADA (that) Uche knows the man who gave money to at the m.” *IO-focus*

2.1.2 Reconstruction effects / SCO

(15) Focus construction, Principle A:

- a. Òbí_i hùrù fótó [ònwé yā]_i
 Obi saw picture SELF 3SG.ACC
 “Obi saw a picture of himself.”
- b. [Fótó [ònwé yā]_i] kà Òbí_i
 picture SELF 3SG.ACC FOC Obi
 hùrù ___
 saw
 “It’s a picture of himself that Obi saw.”

(16) Questions, SCO:

- a. Ó chère nà Òbí hùrù Àdá
 3SG.NOM think that Obi saw Ada
 “He thinks that Obi saw Ada.”
- b. Ònyé kà ó chère nà Òbí hùrù ___
 who foc 3SG.NOM think that Obi saw
 *for which x, x thinks that Obi saw x
 ✓ for which x, y thinks that Obi saw x

(17) Focus construction, scope:

- Baby kà nwátà òbùlà hùrù ___
 toy FOC child every saw
 “A TOY every child saw.” $\forall > \exists, \exists > \forall$

(18) Questions, scope:

- Gínì kà nwátà òbùlà hùrù ___
 what FOC child every saw
 “What does every child see” $\forall > wh, wh > \forall$

2.2 The nature of kà

- is obligatory for non-SU focus/questions (with wh-pronouns)
- cannot associate with focused non-SUs at a distance, has to be adjacent to the foc-XP

(19) OBJ focus:

- a. Àdá kà Òbí hùrù ___ nà mgbèdè n'áhiá
 Ada FOC Obi saw P evening P-market
- b. *Ada Obi (kà) hùrù (kà) ___ nà mgbèdè (kà) n'áhiá (kà)
 Ada Obi (FOC) saw (FOC) P evening (FOC) P-market (FOC)
 “Obi saw ADA in the evening at the market.”

- attaches to *phrases* to its left that contain the focused element

- (20) a. Context: (A) ‘What happened?’ – (B) ‘Obi saw Ada at the old farm.’
 b. (C) [N'áhiá (*ká) ochie] kà Òbí hùrù Àdá
 P-market (FOC) old FOC Obi saw Ada
 “Obi saw Ada at the old MARKET.” (and not at the old farm)

- wh-/foc-movement is optional (cf. Uwalaka 1991); but *kà* can't attach to wh-/foc-in-situ

(21) In-situ questions:

- a. Òbí hùrù Àdá n'-Àbá
Obi saw Ada P-Aba
"Obi saw Ada in Aba." *declarative*
- b. Òbí hùrù ònyé (*kà) n'-Àbá
Obi saw who (FOC) P-Aba
"Who did Obi see in Aba?" *in-situ qu. of OBJ*
- c. Òbí hùrù Àdá n'-èbéē (*kà)
Obi saw Ada P-where (FOC)
"Where did Obi see Ada?" *in-situ qu. of ADJ*

(22) In-situ focus:

- a. Òbí hùrù Àdá n'-áhiá
Obi saw Ada P-market
"Obi saw Ada at the market." *declarative*
- b. Òbí hùrù Àdá (*kà) n'-áhiá
Obi saw Ada (FOC) P-market
"Obi saw ADA at the market." *in-situ OBJ-focus*
- c. Òbí hùrù Àdá n'-áhiá (*kà)
Obi saw Ada P-market (FOC)
"Obi saw Ada AT THE MARKET." *in-situ ADJ-focus*
- d. Òbí hùrù sòsò Àdá (*kà) n'-áhiá
Obi saw only Ada FOC P-market
"Obi saw only ADA at the market." *in-situ OBJ-focus + foc-prt.*
- e. Òbí hùrù Àdá sòsò n'-áhiá (*kà)
Obi saw Ada only P-market FOC
"Obi saw Ada only AT THE MARKET." *in-situ ADJ-focus + foc-prt.*

Note: Focus has to be morphologically marked in Igbo; since *kà* can't co-occur with foc-in-situ, (22-b-c) (without *kà*) can only be interpreted as having sentence focus, but not with focus on an argument/adjunct; foc-in-situ is only possible if a focus sensitive particle accompanies the focused XP (but *kà* is still impossible!).

- Wh-/foc-*kà* = syncretic with the coordination expressing disjunction \Rightarrow alternatives; it is also used as a subordinating conjunction meaning "while/as/when" (Nwachukwu 1987)

Conclusion: *kà* attaches to the immediate left of an ex-situ XP that contains a focused element

\Rightarrow *kà* is a focus marker, it's not a focus sensitive particle

\Rightarrow *kà* does not realize an inherent feature of an XP (like [foc] or [wh])

\Rightarrow *kà* realizes a head H in the left periphery if a constituent (containing a wh/foc-element) occupies its Spec; assumption: H = C

2.3 Do foc-subjects undergo movement to SpecCP?

QUESTION:

Why is *kà* absent in SU-questions / focus constructions?

ANSWER:

Wh-/foc-subjects don't move to SpecCP.

2.3.1 Multiple movement

(23) Multiple questions:

- | | | |
|----|---|-------------------------|
| a. | Òbí hùrù Àdá n'-Àbá
Obi saw Ada P-Aba
“Obi saw Ada in Aba.” | <i>declarative</i> |
| b. | Ònyé hùrù ònyé n'-èbéē
who saw who P-where
“Who saw whom where?” | <i>wh: SU, OBJ, ADJ</i> |
| c. | N'-èbéē kà ònyé hùrù ònyé
where foc who saw who
“Who saw whom where?” | <i>wh: SU, OBJ, ADJ</i> |
| d. | Ònyé kà ònyé hùrù n'-èbéē
who FOC who saw where
“Who saw whom where?” | <i>wh: SU, OBJ, ADJ</i> |
| e. | Ònyé kà ònyé hùrù n'Àbá
who FOC who saw P-Aba
“Who saw who in Aba?” | <i>wh: SU, OBJ</i> |
| f. | *Ònyé ònyé kà hùrù n'Àbá
who who FOC saw P-Aba
“Who saw who in Aba?” | <i>wh: SU, OBJ</i> |
| g. | Ònyé kà Òbí hùrù n'-èbéē
who FOC Obi saw P-where
“Who did Obi see where?” | <i>wh: OBJ, ADJ</i> |
| h. | N'-èbéē kà Òbí hùrù ònyé
P-where FOC Obi saw who
“Who did Obi see where?” | <i>wh: OBJ, ADJ</i> |
| i. | *Ònyé kà n'-èbéē kà Òbí hùrù
who FOC where FOC Obi saw
“Who did Obi see where?” | <i>wh: OBJ, ADJ</i> |
| j. | Ònyé hùrù Àdá n'-èbéē
who saw Ada P-where
“Who saw Ada where?” | <i>wh: SU, ADJ</i> |
| k. | N'-èbéē kà ònyé hùrù Àdá
P-where FOC who saw Ada
“Who saw Àdá where?” | <i>wh: SU, ADJ</i> |

Generalizations:

- exactly one wh-word can be fronted, the other(s) stay in-situ, see e.g. (23-i) where we try to move two wh-words (ungrammatical regardless of the distribution of *kà* or the order of the wh-elements at the left edge)
⇒ there's exactly one \bar{A} -position at the left periphery that can host wh-/foc-elements
- no superiority effects: each of the wh-words can be fronted, see e.g. (23-g) vs. (23-h)
- **surface violation** of the restriction against multiple wh-words at the left edge: ok if the lower wh-word is the subject
- interpretation: wh-SUs do not move to SpecCP but stay in SpecTP in examples like (23-d)

The same pattern is found if we combine different movement operations – wh- + foc-movement; two wh-/foc-elements at the left edge are fine only if the lower one is the subject:

(24) Ex-situ focus + wh-movement:

- a. Òbí nyèrè Àdá [sòòsò ákwúkwò òké m̄bū]
Obi gave Ada only book ORD one
“Obi gave Ada only the first book.” *in-situ OBJ-foc*
- b. [sòòsò ákwúkwò òké m̄bū] kà Òbí nyèrè Àdá ____
only book ORD one FOC Obi gave Ada
“It’s only the first book that Obi gave Ada.” *ex-situ OBJ-foc*
- c. Ònyé kà Òbí nyèrè ____ [sòòsò ákwúkwò òké m̄bū]
who FOC Obi gave only book ORD one
“To whom did Obi give only the first book?” *in-situ OBJ-foc + ex-situ IO-qu.*
- d. *[Sooso ákwúkwò òké m̄bū] kà ònyé kà Òbí nyèrè
only book ORD one FOC who FOC Obi gave
“Lit.: It’s only the first book that Obi gave to whom?” *ex-OBJ-foc+ex-IO-qu.*
- e. *Ònyé kà [sòòsò ákwúkwò òké m̄bū] kà Òbí nyèrè
- f. Ònyé nyèrè Àdá [sòòsò ákwúkwò òké m̄bū]
who gave Ada only book ORD one
“Who gave Ada only the first book?” *in-situ OBJ-foc + SU-qu.*
- g. [Sooso ákwúkwò òké m̄bū] kà ònyé nyèrè Àdá
only book ORD one FOC who gave Ada
“Lit.: It’s only the first book that who gave Ada?” *ex-situ OBJ-foc + SU-qu.*
- h. *Ònyé [sòòsò ákwúkwò òké m̄bū] kà nyèrè Àdá?

(Restrictive) relative clauses (RCs):

- no overt (Rel-)C-head, no Rel-OP, just a gap inside the RC
- test (Hartmann and Zimmermann 2012): XPs inside RCs can’t be focused ex-situ
- interpretation: the silent Rel-OP occupies SpecCP, the only position that can be targeted by wh-/foc-movement in Igbo, hence, it blocks further movement
- note: SU-foc is possible (with a cleft or a foc-particle) ⇒ foc-SU doesn’t move to SpecCP

(25) RC + focus:

- a. Úchè chòrò íhé [CP Àdá nyèrè Òbí ____]
Uche wants thing Ada gave Obi
“Uche wants the thing that Ada gave to Obi.” *DO-RC*
- b. Úchè chòrò íhé [CP sòòsò Àdá nyèrè Òbí ____]
Uche wants thing only Ada gave Obi
“Uche wants the thing that only ADA gave to Obi.” *SU-foc in DO-RC*
- c. Úchè chòrò íhé [CP ó bù (sòòsò) Àdá nyèrè Òbí ____]
Uche wants thing it COP (only) Ada gave Obi
“Uche wants the thing that (only) ADA gave to Obi.” *SU-cleft in DO-RC*
- d. Úchè chòrò íhé [CP Àdá nyèrè sòòsò Òbí ____]
Uche wants thing Ada gave only Obi
“Uche wants the thing that Ada gave only to OBI.” *IO in-situ foc in DO-RC*
- e. *Úchè chòrò íhé [CP [(sòòsò) Òbí] kà Àdá nyèrè ____ ____]
Uche wants thing only Obi FOC Ada gave
“Uche wants the thing that Ada gave only to OBI.” *IO ex-situ foc DO-RC*

Conclusion:

- There is only a single position (SpecCP) at the left edge that can be targeted by movement; it’s head C is realized by *kà* if SpecCP is occupied by a non-zero XP
- exception: the lower wh-/foc-XP at the left edge = SU ⇒ wh-/foc-SUs don’t move to SpecCP

2.3.2 Coordination: ex-situ SUs

Wh-pronouns as conjuncts in DP-coordinations:³

(26) Coordination and wh-pronouns:

- | | |
|---|--|
| <p>a. Ézè hùrù [Àdá nà Úchè]
Eze saw Ada and Uche
“Eze saw Ada and Uche.”</p> | <p><i>declarative</i></p> |
| <p>b. Ézè hùrù [Àdá nà ònyé]
Eze saw Ada and who
“Eze saw Ada and who?”</p> | <p><i>in-situ OBJ-question of Conj2</i></p> |
| <p>c. *Ònyé kà Ézè hùrù [Àdá nà ____]
who FOC Eze saw Ada and
“Lit.: Who did Eze see Ada and?”</p> | <p><i>ex-situ OBJ-question of a Conj2</i></p> |
| <p>d. Ònyé kà Ézè hùrù [Àdá nà yā]
who FOC Eze saw Ada and 3SG.ACC
“Lit.: Who did Eze see Ada and her/him?”</p> | <p><i>ex-situ OBJ-question of a Conj2 + RP</i></p> |
| <p>e. [Àdá nà Úchè] rìrì jí
Ada and Uche ate yam
“Ada and Uche ate yam.”</p> | <p><i>declarative</i></p> |
| <p>f. [Àdá nà ònyé] rìrì jí
Ada and who ate yam
“Ada and who ate yam?”</p> | <p><i>in-situ SU-question of Conj2</i></p> |
| <p>g. [Ònyé nà Úchè] rìrì jí
who and Uche ate yam
“Who and Uche ate yam?”</p> | <p><i>in-situ SU-question of Conj1</i></p> |
| <p>h. Ònyé kà [yā nà Úchè] rìrì jí
who FOC 3SG.ACC and Uche ate yam
“Lit.: Who s/he and Uche ate yam?”</p> | <p><i>ex-situ SU-question of Conj1 + RP</i></p> |

(27) Coordination and focus:

- a. [Úchè nà Àdá] rìrì jí
Uche and Ada ate yam
“Uche and Ada ate yam.”
- b. Úchè kà [yā nà Àdá] rìrì jí
Uche FOC and Ada ate yam
“UCHE and Ada ate yam.”

(28) Wh-possessors:

- a. [íné Àdá] biàrà
father Ada.GEN came
“Ada’s father came.”
- b. [íné ònyé] biàrà
father who came
“Who’s father came?”
- c. Ònyé kà [íné yā] biàrà
who FOC father 3SG.GEN came
“Who’s father came?”

CONCLUSION:

- the positioning of *ká* tells us that the wh-word/foc-element is &P-external (*ká* cannot attach inside an XP to its left)
- ⇒ When a wh-SU is ex-situ (→ resumptive in base position), it must be followed by *ká*; but usually this is excluded → wh-/foc-SUs stay in SpecTP

³That we are dealing with DP-coordination and not with vP/TP-coordination + ellipsis is supported by the observation that the coordination can occur as the sole argument of a collective predicate:

- (i) [Àdá nà Úchè] zúró
Ada and Uche met
“Ada and Uche met each other.”

NOTE:

- not every island can be repaired by resumption in Igbo, only coordination islands and left branch islands, but not e.g. adjunct- or CNP-islands
- not every wh-/foc-SU can occupy SpecCP if a resumptive is added in SpecTP:

- (29) a. Ònyé hùrù Àdá
who saw Ada
- b. *Ònyé kà ó hùrù Àdá
who FOC 3SG.NOM saw Ada
“Who saw Ada”

2.3.3 Non-applicable tests

Tests used to explore if wh-/foc-SUs are moved to SpecCP (see e.g. George 1980; Chomsky 1986; Agbayani 1997; Ishii 2004; Brillman and Hirsch 2015 on the Vacuous Movement Hypothesis in English), but that can't be applied to Igbo for independent reasons:

- reflexes of movement: see e.g. Tuller (1985); Green (1997) on Hausa (relative tense marking); problem: there are no movement reflexes in Igbo, not even tonal reflexes
- multiple coordinated questions ('who and when'): are impossible in Igbo, regardless of the GFs of the coordinated wh-words
- Chomsky (1986) (see also Chung and McCloskey 1983 on rel. clauses): embedded wh-subjects show fewer island effects than non-subjects; problem: Igbo does not have embedded questions of the English type, they are relative clauses (strong islands)
- material preceding the SU (XSVO) and its position relative to a wh-/foc-SU; problem: no element can precede the SU in declaratives in Igbo, ADJs need to be clause-final
- fragment questions/answers: no asymmetry between SU and non-SU at all in Igbo – possible for all GFs, *kà* excluded for all GFs
- echo interpretation: only possible for in situ wh-words in English; problem: Igbo wh-/foc-in-situ XPs do not necessarily have an echo interpretation
- Lasnik and Saito (1992): topicalization of SUs is impossible in English, non-SUs are fine; both can be topicalized in Igbo, but it can be shown that topicalization targets a position higher than the one targeted by wh-/foc-movement, and topical. doesn't involve movement

2.4 The notion of “subject”

Which elements count as “subjects” wrt. the SU/non-SU extraction asymmetry?

- θ -role: agents
- case: nominative
- position: struct. highest XP

(30) Test 1 – unaccusative verbs:

- | | |
|--|--|
| a. Ó nwùrù
3SG.NOM died
“He died.” | c. Ó dàrà (ádá)
3SG.NOM fell BC(fall)
“He fell.” |
| b. Ònyé nwùrù
who died
“Who died?” | d. Ònyé dàrà (ádá)
who fell BC(fall)
“Who fell?” |

- the sole argument bears the patient role but is still incompatible with *kà*-marking in wh-/foc-contexts \Rightarrow $\not\Leftarrow$ θ -role
(note: ‘BC’ in (30-c-d) = bound complement, nominalized form of the verb)

(31) Test 2 – experiencers in ICV-constructions + S-O-inversion:⁴

- a. Újō nà-àtú ḡ
fear PROG-grip 2SG.ACC
“You are afraid. (lit.: Fear is gripping you.)”
- b. Ònyé kà/*Ø újō nà-àtú ___
who FOC fear PROG-grip 2SG.ACC
“Who is afraid?” (lit.: Who does the fear grip?)
- c. Í nà-àtú újō
2SG.NOM PROG-grip fear
“You are afraid. (lit.: You are gripped by fear.)”
- d. Ònyé Ø/*kà ___ nà-àtú újō
who PROG-grip fear
“Who is afraid?” (lit.: Who is gripped by fear?)”

- the θ -role of the pronoun does not change under inversion, but *kà*-marking is influenced by inversion \Rightarrow \downarrow θ -role
- the structural position of the pronoun changes under inversion (reversed word order, change of case on the pronoun)

(32) Test 3 – long SU-extraction:

- a. Úchè chère nà Òbí hùrù Àdá n’-áhiá
Uche thinks that Obi saw Ada P-market
“Uche thinks that Obi saw Ada at the market.” *declarative*
- b. Ònyé **kà** Úchè chère (*nà) ___ hùrù Àdá n’-áhiá
who FOC Uche thinks (*that) saw Ada P-market
“Who does Uche think saw Ada at the market?” *long SU question*
- c. Òbí **kà** Úchè chère (*nà) ___ hùrù Àdá n’-áhiá
Obi FOC Uche think (*that) saw Ada P-market
“It’s Obi that Uche thinks saw Ada at the market.” *long SU-focus*

- long questions/foc-movement: the wh-/foc-SU must be followed by *kà* \Rightarrow \downarrow θ -role, \downarrow case \hookrightarrow it can’t be an inherent property of “subjects” that makes them special.

CONCLUSION: It is *local* extraction of the structurally highest XP in TP (the sister of the wh-/foc-C-head) that is excluded.

2.5 Summary / structures

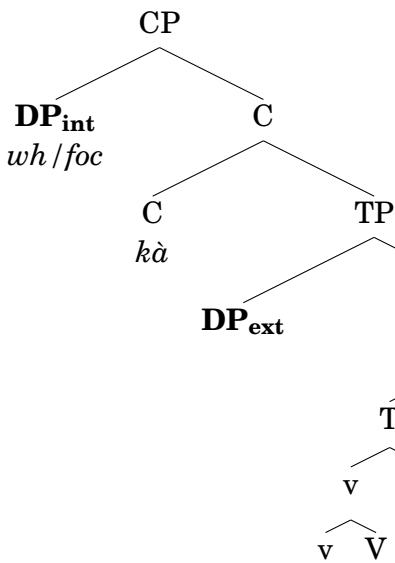
SUMMARY:

- the structurally highest XP in TP cannot move to the local SpecCP in Igbo \rightarrow suggests an analysis based on anti-locality (AL)
- further support for an AL-approach: McCloskey (1990:214) on coordination data from Irish: resumptives can’t appear in the highest subject position, but a resumptive inside the subject (replacing Poss or a conjunct) is fine – strongly reminiscent of the Igbo facts
- Other evidence for AL (adverb intervention, multiple wh-fronting, see e.g. Shlonsky 1992; Culicover 1993; Erlewine 2016) is not available in Igbo for independent reasons (adverbs must occur at end of the clause, multiple fronting is impossible).
- The focus marking strategy in Igbo is quite different from the strategies employed in the related Kwa and Gur languages (see Aboh et al. 2008; Aboh 2004; Fiedler et al. 2010)

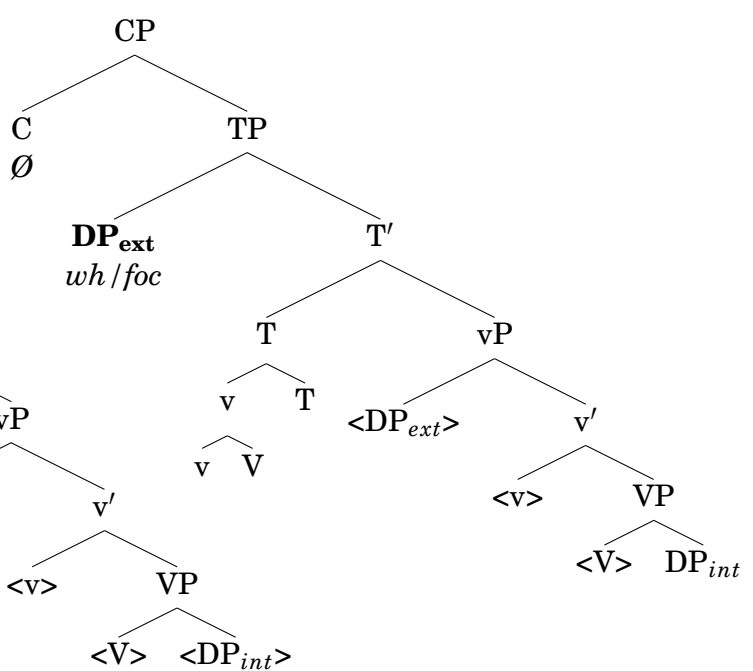
⁴Igbo does not allow for inversion of the pre- and post-XP in any kind of copula clause, so the effects of inversion on *kà*-marking cannot be tested in these constructions.

STRUCTURES:⁵

(33) Non-SU extraction:



(34) SU extraction:



⁵Indeed, the structure of the left periphery is more complex. We need CP-recursion because the declarative complementizer *nà* precedes ex-situ wh-/foc-XPs in embedded clauses, see (i); only the lower SpecCP can be targeted by \bar{A} -movement (wh-/foc-movement):

- (i) Úchè chère [*nà* Àdá kà Òbí hùrù ___ n'-Àbá]
 Uche thinks that Ada FOC Obi saw P-Aba
 “Uche thinks that Obi saw Ada in Aba.” *emb. OBJ-focus*

Furthermore, there is topic-projection above the (recursive) CP: topics are base-generated there (resumptive, no island-sensitivity); topics can co-occur with ex-situ wh-/foc-XPs but then topics precede the fronted wh-/foc-XPs:

- (ii) Topicalization + ex-situ foc/wh:
- a. Ákwúkwò àhù, Àdá kà Òbí nyèrè ___ yā
 book DEM Ada FOC Obi gave 3SG.ACC
 “As for the book, Obi gave it to ADA.” *OBJ-top + OBJ-foc*
 - b. Ákwúkwò àhù, ònyé kà Òbí nyèrè ___ yā
 book DEM who FOC Obi gave 3SG.ACC
 “As for the book, who did Obi give it to?” *OBJ-top + IO-wh*

Hence, the complete left periphery looks as follows:

- (iii) [_{TopP} Top [_{CP₁} C₁ [_{CP₂} wh/foc [_{C'₂} C₂ [_{CP₁} [TP ...]]]]]]

2.6 Another SU/non-SU-asymmetry in Igbo: the *that-trace effect*

(35) Long questions:

- a. Úchè chère **nà**/*Ø Òbí hùrù Àdá n'-áhíá
 Uche thinks that Obi saw Ada P-market
 “Uche thinks that Obi saw Ada at the market.” *declarative*
- b. Ònyé kà Úchè chère **nà**/*Ø Òbí hùrù ___ n'-áhíá
 who FOC Uche thinks that Obi saw P-market
 “Who does Uche think that Obi saw at the market?” *long OBJ qu.*
- c. Ònyé kà Úchè chère ***nà**/*Ø ___ hùrù Àdá n'-áhíá
 who FOC Uche thinks (*that) saw Ada P-market
 “Who does Uche think saw Ada at the market?” *long SU question*

(36) Long focus:

- a. Úchè chère **nà**/*Ø Òbí hùrù Àdá n'-áhíá
 Uche think that Obi saw Ada P-market
 “Uche thinks that Obi saw Ada at the market.” *declarative*
- b. Àdá kà Úchè chère **nà**/*Ø Òbí hùrù ___ n'-áhíá
 Ada FOC Uche think that Obi saw P-market
 “It’s Ada that Uche thinks Obi saw at the market.” *long OBJ-focus*
- c. Òbí kà Úchè chère ***nà**/*Ø ___ hùrù Àdá n'-áhíá
 Obi FOC Uche think (*that) saw Ada P-market
 “It’s Obi that Uche thinks saw Ada at the market.” *long SU-focus*

OBSERVATION:

- The declarative C-head *nà* is obligatory in embedded declarative clauses.
- exception: When the embedded SU is extracted, *nà* must be absent = **that-trace effect** (see Pesetsky 2015 for an overview)
- repairs (cf. Rizzi and Shlonsky 2004; Rizzi 1990):
 - *nà* deleted, see (35-c)
 - *nà* remains but a resumptive is added after *nà*, see (37-a)
 - in some dialects, *nà* is replaced by the complementizer *si* (agreeing C?), see (37-c) (and the examples in Uwalaka 1991: 196)

- (37) a. Ònyé kà Úchè chère **nà ò** hùrù Àdá n'-áhíá
 who FOC Uche thinks that 3SG.NOM saw Ada P-market
 “Who does Uche think s/he saw Ada at the market?”
- b. Ònyé kà Úchè chère **sí** ___ hùrù Àdá n'-áhíá
 who FOC Uche thinks that.AGR saw Ada P-market
 “Who does Uche think saw Ada at the market?”

3 On (anti-)locality

3.1 An AL-analysis of Igbo: possibilities and challenges

How can we enforce a wh-SU to stay in SpecTP? The Igbo facts are compatible with

- Spec-to-Spec AL (see e.g. Bošković (1994; 1997); Erlewine (2016)): movement from SpecTp to SpecCP is too short
- criterial freezing Rizzi and Shlonsky (2004): SU frozen in SpecTP
- OP-SPEC approach (Grimshaw 1997) to wh-ex-situ: wh-SU must c-command the verbal extended projection – it does so from SpecTP⁶
- ...

CHALLENGES POSED BY AL:

- motivation: Why should there be a ban on too local movement?
 - ⇒ Do we really need a new concept? Some (if not all) of the SU-extraction facts can be analysed as a consequence of the interaction of established concepts: locality + economy (see the analysis of Igbo below).
- uniformity: many different definitions of what counts as ‘too close’
 - ⇒ see e.g. Saito and Murasugi (1999), Bošković (1994) et seq. vs. Abels (2003) vs. Grohmann (2003) vs. Cheng (2006) (see also Schneider-Zioga 2007) vs. Erlewine (2016) (and Brillman and Hirsch (2015); Bošković (2016); Douglas (2017) for further applications)
- AL heavily depends on
 - clause-structure (postulated projections, cf. Georgi 2014; Baier 2017)
 - the number/location of intermediate landing sites (\neq every XP = phase)
- accessibility: if wh-SUs can’t move to the local SpecCP, long SU-movement should be impossible given the PIC – new definition of accessible domain necessary? see e.g. Douglas (2017) for discussion
- universality: not all languages ban local movement from SpecTP to SpecCP
 - ⇒ language-specific (active only in some languages) or a violable constraint (OT, see Erlewine 2016)
- long vs. short SU-extraction asymmetries: long and short SU-extraction do not always pattern alike, sometimes only one of them has a “special effect”, and it’s not always local SU-movement – unexpected under a strict AL constraint
 - ⇒ also suggests violability of AL; reference to terminal vs. intermediate movement steps necessary, see the appendix for examples
- Spec-to-Spec AL: what about other short movement steps? e.g. SU movement from SpecvP to SpecTP, scrambling below the SU in German, ... – need to be reinvestigated

⁶problem for Grimshaw’s approach: Igbo has wh-/foc in-situ, and this can’t be reanalysed as overt movement + spell-out of the lowest copy given that the wh-word can occur inside an island, see (i):

(i) Àdá zúrú nwááhnyị àhú zúrú gíní
 Ada met woman DEF bought what
 ‘Lit.: Ada met the woman who bought what?’

3.2 An alternative: locality + economy

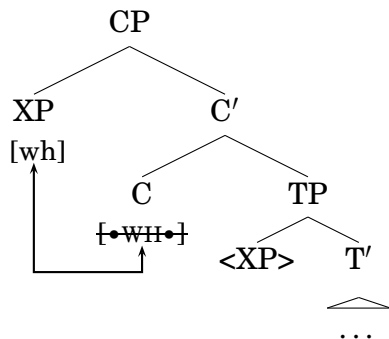
Following ideas by Agbayani (1997); Ishii (2004), we adopt an approach that derives AL-effects without an AL-constraint; rather, the effect follows from locality + economy⁷.

A wh-SU in SpecTP is close enough to the [\bullet WH \bullet]-feature (born) on C to check this feature from SpecTP without moving to SpecCP. This is impossible for lower wh-non-SUs, for them movement is the only option to check [\bullet WH \bullet]. For wh-SUs economy considerations block movement.

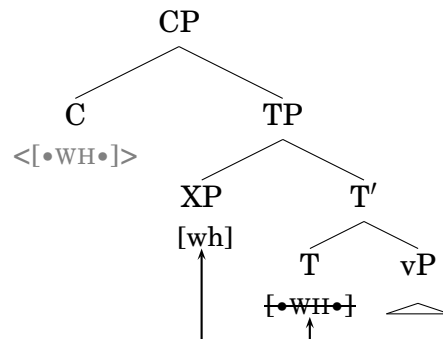
OT-ANALYSIS:

- checking condition: [\bullet WH \bullet] is checked by a matching [wh]-feature if [wh] c-comm. [\bullet WH \bullet]⁸
- crucial ingredient = **feature inheritance** (FI, Chomsky 2004; Richards 2007): [\bullet WH \bullet] is born on C but can be handed down to a lower head through FI
- FI = feature movement from one head to another (see Chomsky 1995 on [F]-movement), subject to (inviolable!) **locality constraint**: FI targets the head of the complement of C
- consequences (see the structures below):
 - SU-questions: FI applies, [\bullet WH \bullet] moves to T, [\bullet WH \bullet] discharged on T by the c-commanding [wh]-feature on the SU-DP⁹
 - non-SU-questions: if FI applied, it wouldn't lead to [\bullet WH \bullet]-discharge on T because the wh-XP is not in SpecTP (not an intermed. landing site) → FI is 'useless'
 - movement of any wh-XP to SpecCP also leads to [\bullet WH \bullet]-discharge on C (without FI)
 - if FI is less costly than movement (→ OT), wh-SUs will stay in SpecTP and can still discharge [\bullet WH \bullet] on T; since FI is useless for wh-non-SUs, they still need to move

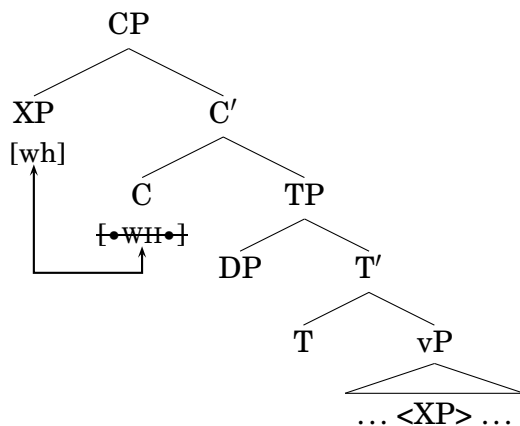
(38) wh-SU mvt. to SpecCP, no FI:



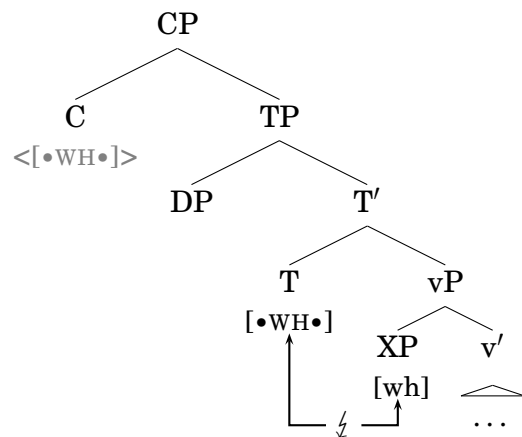
(39) FI + wh-SU in SpecTP, no wh-mvt.:



(40) wh-non-SU mvt. to SpecCP, no FI:



(41) FI + wh-non-SU in SpecvP, no wh-mvt.:



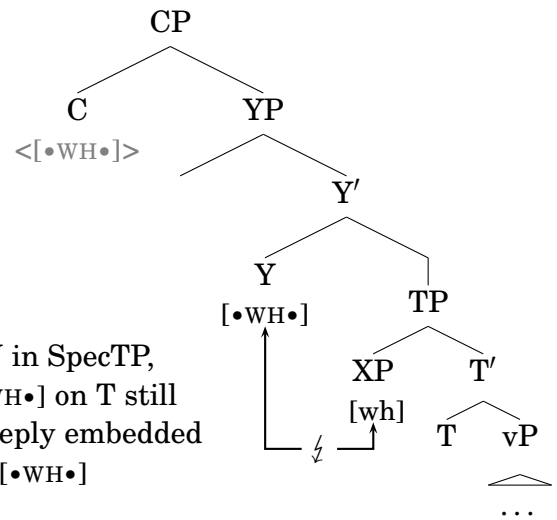
⁷On the role of economy in the derivation of the *that*-trace effect, see also Pesetsky and Torrego (2001).

⁸This feature thus corresponds to Abels's (2003) [F \uparrow]-feature and to Martinović's (2015) type 2 [F $^\circ$]-feature.

⁹See also Martinović (2015) for the close link of the features of C and T, but with a different implementation.

- (ADV) intervention: If there's a projection YP between C and T, FI – a local operation – will target the head of YP; consequence: even a wh-SU in SpecTP cannot check the lowered [**WH**] on anymore, because it does not c-command [**WH**] on the structurally higher head Y, see (42); this also derives the long wh-/foc-SU facts in Igbo (movement = obligatory)
- coordination facts: no matter how complex the SU in SpecTP, FI targets the head of its complement = T; but [**WH**] on T still can't be checked since the matching [wh] is too deeply embedded inside the SU-&P and hence does not c-command [**WH**] → extraction of the wh-element necessary

(42) Intervention effect for wh-SUs:



CONSTRAINTS:

- FEATURE INHERITANCE: Assign a violation mark for every application of FI.
- STAY (cf. Grimshaw 1997): Assign a violation mark for every movement of a category.
- DISCHARGE (DIS) (cf. Heck and Müller 2000 for related constraints) : Assign a violation mark for every operation-inducing feature ([**F**]) in the structure.
- Igbo ranking: DIS >> STAY >> FI

(43) wh-SU:

Input: [_{C'} C [WH]] [_{TP} DP [_{wh}]] [_{T'} T ...]]	DIS	STAY	FI
a. [_{C'} C [WH]] [_{TP} DP [_{wh}]] [_{T'} T ...]]	*!		
b. [_{C'} C <[WH]>] [_{TP} DP [_{wh}]] [_{T'} T [// WH //] ...]]			*
c. [_{CP} DP [_{wh}]] [_{C'} C [// WH //]] [_{TP} <DP [_{wh}]>] [_{T'} T ...]]		*!	

(44) wh-OBJ:

Input: [_{C'} C [WH]] [_{TP} DP [_{T'} T [_{vP} DP [_{wh}] [_{v'} <DP> ...]]]]	DIS	STAY	FI
a. [_{C'} C [WH]] [_{TP} DP [_{T'} T [_{vP} DP [_{wh}] [_{v'} <DP> ...]]]]	*!		
b. [_{C'} C <[WH]>] [_{TP} DP [_{T'} T [WH]] [_{vP} DP [_{wh}] [_{v'} <DP> ...]]]]	*!		*
c. [_{CP} DP [_{wh}]] [_{C'} C [// WH //]] [_{TP} DP [_{T'} T [_{vP} <DP [_{wh}]>] [_{v'} <DP> ...]]]]]]		*	

FACTORIAL TYPOLOGY:

- DIS >> STAY >> FI: wh-SU stays in SpecTP, wh-non-SU moves to SpecCP
 - DIS >> FI >> STAY / FI >> DIS >> STAY: both wh-SU + wh-non-SU move to SpecCP
 - STAY >> FI >> DIS / FI >> STAY >> DIS: wh-SU + wh-non-SU stay in-situ (SpecT, CompV) [**WH**] remains unchecked in both cases (repair needed, e.g. insertion of scope marker)
 - STAY >> DIS >> FI: wh-SU + wh-non-SU stay in-situ (SpecT, CompV); wh-SU checks FI-ed [**WH**], wh-non-SU don't discharge [**WH**](see above)
- ⇒ both wh-SU + wh-non-SU move to SpecCP / neither moves / only wh-non-SUs move

ACCESSIBILITY PROBLEM:

- assumption: vP and CP are phases (Chomsky 2000; 2001; van Urk and Richards 2015)
- long SU-movement: if the intermediate movement step to the embedded SpecCP were triggered by an (edge) feature in a language like Igbo, it could (probably) be checked by the wh-SU in SpecTP given the application of FI \rightarrow wh-SU wouldn't be accessible for the matrix [\bullet WH \bullet]-feature
- same inaccessibility problem potentially arises for a strict AL-account
- solution: intermediate movement steps are not feature-driven but repair-driven, see Heck and Müller (2000; 2003) (this could also be modelled in a Greed-based or a repel-based approach to movement, see Bošković 2007; Stroik 2009)
- movement of a wh-XP to the phase edge (SpecCP) is enforced by the constraint in (45):

(45) PHASE BALANCE (PB):

Phases must be balanced: If P is a phase candidate, then for every feature F in the numeration there must be a distinct potentially available checker for F.

(46) Potentially available:

Syntactic material counts as potentially available within the current phase P if it is either part of the numeration or at the left edge (i.e., in SpecC) of P.

- ranking in Igbo: PB \gg DIS \gg STAY \gg FI
- effect for a wh-SU that is to undergo long movement: high-ranked PB enforces non-feature-driven movement of wh-SU to the embedded SpecCP, where it is available for operations from outside the phase

4 Conclusion

- Igbo exhibits a SU/non-SU-asymmetry in focus marking: questioned/focused non-SUs require the presence of the morpheme *kà*, while this morpheme cannot co-occur with questioned/focused SUs
- empirical evidence: a syntactic asymmetry underlies this morphological asymmetry: wh-/foc-SUs (usually) do not move to SpecCP but stay in SpecTP, unlike wh-/foc-non-SUs
- analysis:
 - the inversion facts suggest that the crucial factor is the high structural position of the SU \Rightarrow compatible with an AL-based approach to extraction asymmetries: SUs are too close to the target position SpecCP
 - there are quite a few empirical/conceptual questions that an AL-account raises
 - proposal: the AL-effect can be imitated by locality + economy, no additional AL-constraint is necessary to derive the Igbo facts; ingredients: FI from C to the head of C's complement + upward probing + competition (between FI and \bar{A} -movement)
- future research:
 - integration of long vs. short SU-movement asymmetries
 - Can the locality + economy approach be extended to other SU/non-SU asymmetries?
 - \rightarrow non-AL-based approaches to various SU/non-SU extraction asymmetries do exist (see e.g. Georgi 2014; Baier 2016b on anti-agreement, the summary of analyses in Pesetsky 2015 on the *that*-trace effect, Deal 2016; Polinsky in press for a summary of analysis of the ban on ergative movement, Salzmann 2017 on analyses of the Highest Subject Restriction, ...)

A Long vs. short SU-extraction

OBSERVATION:

- languages with SU/non-SU asymmetries differ in whether the “special” device required for SU-extraction also occurs under long SU-extraction (in the embedded clause)
- Patterns:
 1. short and long SU-extraction pattern alike: CP_{emb} exhibits the same special device as the matrix CP under short SU-extraction
 2. short and long SU-extraction pattern differently:
 - (a) only long SU-extraction has a special effect
 - (b) only short SU-extraction has a special effect
- pattern 1.: expected under an AL-account if long movement applies in a successive-cyclic fashion (standard assumption)
- pattern 2: puzzling if AL is a strict constraint;
- 2a: could be explained if local wh-SUs don’t move to SpecCP due to AL, but long SU-movement requires an intermediate step to the emb. SpecCP → AL must be violable shows that it’s not always just *local* SU-movement that is ‘special’
- 2b.: puzzling under AL if long movement applies successive-cyclically; common reaction (Ouhalla 1993; Grohmann 2003; Takahashi and Gračanin-Yuksek 2005; Cheng 2006; Schneider-Zioga 2007; Henderson 2013): in languages with this pattern long movement applies in one fell swoop rather than successive-cyclically

EXAMPLES:

- anti-agreement (AAE, see e.g. Ouhalla 1993; Richards 1997; Phillips 2001; Baier 2016a)

(47) *AAE in Tarifit Berber: short vs. long wh-movement (Ouhalla 1993: 479f., 487):*

- a. **zri-n** imhdarn Mohand
saw-3PL students Mohand
‘The students saw Mohand.’ *no movement, full agr.*
- b. man tamghart ay **yzrin** Mohand
which woman C see.PARTCP Mohand
‘Which woman saw Mohand?’ *local SU-extraction, default agr.*
- c. *man tamghart ay **t-zra** Mohand
which woman C 3SG.FEM-saw Mohand
‘Which woman saw Mohand?’ *local SU-extraction, full agr.*
- d. man tamghart ay nna-n qa **t-zra** Mohand
which woman C said-3PL that 3SG.FEM-saw Mohand
‘Which woman did they say saw Mohand?’ *long SU-extraction, full agr.*

(48) *AAE in Fiorentino: short = long wh-movement (Ouhalla 1993; Campos 1997):*

- a. Quante ragazze gli ha parlato con te
how.many girls CLT.3SG have.3SG spoken to you
‘How many girls (it) has spoken to you?’
- b. *Quante ragazze le hanno parlato con te
how.many girls CLT.3PL have.3PL spoken to you
‘How many girls have spoken to you?’
- c. Quante ragazze tu credi che gli ha telefonato
how.many girls you think that clt.3SG have.3SG phoned
‘How many girls do you think have phoned?’

d. *Quante ragazze tu credi che le hanno telefonato
 how.many girls you think that CLT.3PL have.3PL phoned
 ‘How many girls do you think have phoned?’

- short = long movement: see also Erlewine (2016) on Kaqhikel Agent Focus
- *that*-trace effect (TTE) / *que-qui*-alternation (see Pesetsky 2015 for an overview):
 - Wolof (Martinović 2015): TTE under short and long movement (in the embed. CP)
 - Norwegian varieties: only long SU-extraction exhibits the TTE, see Lohndal (2007)
 - Québec French: *que-qui*-alternation under short and long SU-extraction

(49) Rizzi and Shlonsky (2004: 131):

- a. Qui *que*/**qui* [tu as vu t]?
 ‘Who *QUE* you have seen?’
- b. Qui *qui*/**que* [t est venu]?
 ‘Who *QUI* has come?’

(50) a. Quelle étudiante crois-tu [t' *qui*/**que* [t va partir]]?

‘Which student do you believe *QUI*/**QUE* will leave?’

b. Quelle étudiante crois-tu [t **qui*/*que* [Marie va aider t]]?
 ‘Which student do you believe **QUI*/*QUE* Marie is going to help?’

- Haitian Creole (Takahashi and Gračanin-Yuksek 2005): *que-qui*-alternation under short but not under long SU-extraction (for one group of speakers)

(51) a. Kilès *(*ki*) te wè Mari?

who *KI* *ANT* see Mari
 ‘Who saw Mari?’

b. Kilès (**ki*) Mari te wè?

who *KI* Mari *ANT* see
 ‘Who did Mari see?’

c. Kimoun ou kwè (**ki*) pral vini?

who you believe *KI* will come
 ‘Who do you believe will come?’

group B

- Rizzi and Shlonsky (2004): Imbabura Quechua – local wh-SU-movement to SpecCP is unproblematic, but long wh-SU-extraction requires clausal pied-piping; this is not because embedded clauses are islands! Wh-OBJs can undergo long and short wh-movement
- note: some SU/non-SU asymmetries have been reduced to wh-agreement (see e.g. Baier (2016*b*) on the AAE), but cross-linguistically, wh-Agr shows the same split between terminal and intermediate movement steps, see Georgi (2014; 2017) for data and an analysis

Implications:

- any implementation of AL must integrate the terminal vs. non-terminal distinction
- solution 1 (Brandi and Cordin 1989; Ouhalla 1993; Cheng 2006): languages differ in whether long-distance \bar{A} -movement makes a stop-over in the embedded SpecCP or not: symmetric behaviour – intermed. step, asymmetric behaviour (type 2b) – no intermed. step¹⁰ → not satisfactory, especially under Minimalist assumptions
- solution 2: two indexed AL-constraints: $AL_{terminal}$ vs. $AL_{intermed.}$
 - only one of them is active in the languages with long vs. short asymmetries
 - they can be ranked (in OT)

¹⁰Representational version of this logic in \bar{A} -binding approaches, see Haik 1990; Chung 1998: languages differ in whether traces count as binders or not.

References

- Abels, K. (2003): Successive Cyclicity, Anti-Locality, and Adposition Stranding. PhD thesis, University of Connecticut, Storrs, Connecticut.
- Aboh, E. (2004): *The morphosyntax of complement-head sequences: Clause structure and word order patterns in Kwa*. Oxford University Press, Oxford.
- Aboh, E., K. Hartmann and M. Zimmermann (2008): *Focus Strategies in African Languages. The Interaction of Focus and Grammar in Niger-Congo and Afro-Asiatic*. De Gruyter Mouton, Berlin, Boston.
- Agbayani, B. (1997): 'Wh-Subjects in English and the Vacuous Movement Hypothesis', *Linguistic Inquiry* **31**(4), 703–713.
- Baier, N. (2016a): A Survey of Anti-Agreement Effects. Ms., University of California, Berkeley; available at http://linguistics.berkeley.edu/nbbaier/documents/baier_prospectus.pdf.
- Baier, N. (2016b): Unifying Anti-Agreement and Wh-Agreement. Ms., University of California, Berkeley.
- Baier, N. (2017): 'Antilocality and Antiagreement', *Linguistic Inquiry* **48**(2), 367–377.
- Blench, R.M. (1989): 'New Benue-Congo: A definition and proposed internal classification', *Afrikanistische Arbeitspapiere* **17**, 115–147.
- Bošković, Ž. (1994): 'D-Structure, Theta-Criterion, and movement into theta-positions', *Linguistic Analysis* **24**, 247–286.
- Bošković, Ž. (1997): Fronting wh-phrases in Serbo-Croatian. In: M. Lindseth and S. Franks, eds, *Formal Approaches to Slavic Linguistics: The Indiana Meeting 1996*. Michigan Slavic Publications, Ann Arbor, p. 86–107.
- Bošković, Ž. (2007): 'On the Locality and Motivation of Move and Agree: An Even More Minimal Theory', *Linguistic Inquiry* **38**, 589–644.
- Bošković, Ž. (2016): 'On the timing of labeling: Deducing Comp-trace effects, the Subject Condition, the Adjunct Condition, and tucking in from labeling', *The Linguistic Review* **33**(1), 17–66.
- Brandi, L. and P. Cordin (1989): Two Italian dialects and the Null Subject Parameter. In: O. Jaeggli and K. Safir, eds, *The Null Subject Parameter*. Kluwer Academic Publishers, Dordrecht, pp. 111–142.
- Brillman, R. and A. Hirsch (2015): An anti-locality account of English subject/non-subject asymmetries. Handout, LSA Annual Meeting, Portland.
- Campos, H. (1997): 'On Subject Extraction and the Antiagreement Effect in Romance', *Linguistic Inquiry* **28**, 92–119.
- Carrel, P.N. (1970): *A transformational grammar of Igbo. West African languages Monograph 8*. Cambridge University Press, Cambridge.
- Cheng, L. L-S. (2006): Decomposing Bantu Relatives. In: C. Davis, A. R. Deal and Y. Zabbal, eds, *Proceedings of NELS 36*. GLSA, Amherst, Mass, pp. 197–215.
- Chomsky, N. (1986): *Barriers*. Linguistic Inquiry Monographs 13, MIT Press, Cambridge, Mass.
- Chomsky, N. (1995): *The Minimalist Program*. MIT Press, Cambridge, Mass.
- Chomsky, N. (2000): Minimalist Inquiries: The Framework. In: M. Roger, M. David and J. Uriagereka, eds, *Step by Step*. MIT Press, Cambridge, Mass., pp. 89–155.
- Chomsky, N. (2001): Derivation by Phase. In: M. Kenstowicz, ed., *Ken Hale: A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.
- Chomsky, N. (2004): Beyond Explanatory Adequacy. In: A. Belletti, ed., *Structures and Beyond. The Cartography of Syntactic Structures Vol. 3*. Oxford University Press, Oxford.
- Chung, S. (1998): *The Design of Agreement: Evidence from Chamorro*. University of Chicago Press, Chicago.
- Chung, S. and J. McCloskey (1983): 'On the Interpretation of Certain Island Facts in GPSG', *Linguistic Inquiry* **14**(4), 704–713.
- Culicover, P.W. (1993): 'Evidence against ECP accounts of the that-t effect', *Linguistic Inquiry* **24**, 557–561.
- Deal, A.R. (2016): 'Syntactic Ergativity: Analysis and Identification', *Annual Review of Linguistics* **2**, 165–185.
- Douglas, J. (2017): 'Unifying the that-trace and anti-that-trace effects', *Glossa: a journal of general linguistics* **2**(1), 1–28. DOI: <http://doi.org/10.5334/gjgl.312>.

- Emenanjo, E.N. (2015): *A grammar of contemporary Igbo: Constituents, features and processes*. LAN & M & J Grand Orbit Communications Ltd, Port Harcourt.
- Erlewine, M.-Y. (2016): 'Anti-locality and optimality in Kaqchikel Agent Focus', *Natural Language and Linguistic Theory* **34**, 429–479.
- Fiedler, I, K. Hartmann, B Reineke, A. Schwarz and M. Zimmermann (2010): Subject focus in West African languages. In: M. Zimmermann and C. Féry, eds, *Information structure from different perspectives*. Oxford University Press, Oxford, pp. 234–257.
- George, L. (1980): Analogical generalization in natural language syntax. PhD thesis, MIT, Cambridge, MA.
- Georgi, D. (2014): Opaque Interactions of Merge and Agree. On the Nature and Order of Elementary Operations. PhD thesis, Leipzig University.
- Georgi, D. (2017): 'Patterns of movement reflexes as the result of the order of Merge and Agree', *Linguistic Inquiry* **48**(4).
- Goldsmith, J.A. (1981): 'The structure of wh-questions in Igbo', *Linguistic analysis* **7**, 367–393.
- Green, M. (1997): Focus and Copular Constructions in Hausa. PhD thesis, SOAS, London.
- Green, M.M. and G.E. Igwe (1963): *A descriptive grammar of Igbo*. Akademie-Verlag, Berlin.
- Grimshaw, J. (1997): 'Projection, Heads, and Optimality', *Linguistic Inquiry* **28**, 373–422.
- Grohmann, K. (2003): *Prolific Domains: On the Anti-Locality of Movement Dependencies*. John Benjamins, Amsterdam, Philadelphia.
- Haik, I. (1990): 'Anaphoric, Pronominal and Referential INFL', *Natural Language and Linguistic Theory* **8**, 347–374.
- Hartmann, K. and M. Zimmermann (2012): 'Focus Marking in Bura: Semantic Uniformity matches syntactic heterogeneity', *Natural Language and Linguistic Theory* **20**(4), 1061–1108.
- Heck, F. and G. Müller (2000): Successive Cyclicity, Long-Distance Superiority, and Local Optimization. In: R. Billerey and B. D. Lillehaugen, eds, *Proceedings of WCCFL*. Vol. 19, Cascadilla Press, Somerville, MA, pp. 218–231.
- Heck, F. and G. Müller (2003): 'Derivational Optimization of Wh-Movement', *Linguistic Analysis* **33**, 97–148. (Volume appeared 2007).
- Henderson, B. (2013): 'Agreement and person in anti-agreement', *Natural Language and Linguistic Theory* **31**, 453–481.
- Ikekeonwu, C.I. (1987): 'Igbo interrogatives - a revisitation', *Nsukka Journal of Linguistics and African Languages* **1**, 20–29.
- Ishii, T. (2004): 'The Phase Impenetrability Condition, the Vacuous Movement Hypothesis, and *that-t* effects', *Lingua* **114**, 183–215.
- Lasnik, Howard and Mamoru Saito (1992): *Move α* . MIT Press, Cambridge, Mass.
- Lohndal, T. (2007): 'That-t in Scandinavian and elsewhere: Variation in the position of C', *Working Papers in Scandinavian Syntax* **79**, 47–73.
- Manfredi, V. (1991): Agbo and Ehugbo: Igbo linguistics, consciousness, its origin and limits. PhD thesis, Harvard University, Cambridge, MA.
- Martinović, M. (2015): Feature geometry and head-splitting: Evidence from the Wolof clausal periphery. PhD thesis, University of Chicago, Chicago.
- Mbah, B.M. (2006): *GB syntax: Theory and application to Igbo*. St. Jon-Afam Publications, Enugu.
- McCloskey, J. (1990): Resumptive pronouns, \bar{A} -binding and levels of representation in Irish. In: R. Hendrick, ed., *Syntax of the Modern Celtic Languages*. Academic Press, New York and San Diego, pp. 199–248. Vol. 23 of *Syntax and Semantics*.
- Mmaduagwu, G.O. (2012): 'Interrogative construction: A case for content question in Igbo', *African Education Indices* **4**(1), 24–39.
- Nwachukwu, P.A. (1987): 'Conjunctions in Igbo syntax', *Nsukka Journal of Linguistics and African Languages* **1**, 63–86.
- Nwachukwu, P.A. (1995): 'Tone in Igbo syntax', *Studies in Igbo Linguistics* **2**.
- Nwankwegu, J. (2015): Microparametric syntax of interrogatives in north eastern group of Igbo dialects. PhD thesis, niversity of Nigeria, Nsukka.

- Ogbulogo, C.U. (1995): A comparative study of movement rules in English and Igbo syntax. PhD thesis, University of Lagos, Lagos.
- Ouhalla, J. (1993): 'Subject-Extraction, Negation and the Antiagreement Effect', *Natural Language and Linguistic Theory* **11**, 477–518.
- Pesetsky, D. (2015): Complementizer-trace effects. encyclopedia article, MIT, to appear in *Companion to Syntax*, second edition, available at Lingbuzz: lingbuzz/002385.
- Pesetsky, D. and E. Torrego (2001): T-to-C Movement: Causes and Consequences. In: M. Kenstowicz, ed., *Ken Hale: A Life in Language*. MIT Press, Cambridge, Mass., pp. 355–426.
- Phillips, C. (2001): Disagreement between Adults and Children. In: A. Mendikoetxea and M. Uribe-Etxebarria, eds, *Theoretical Issues on the Morphology-Syntax Interface*. ASJU, San Sebastian, pp. 359–394.
- Polinsky, M. (in press): Syntactic ergativity. to appear in *The Blackwell Companion to Syntax*, second edition.
- Richards, M.D. (2007): 'On feature-inheritance: an argument from the Phase Impenetrability Condition', *Linguistic Inquiry* **38**, 563–572.
- Richards, N. (1997): What Moves Where When in Which Language. PhD thesis, MIT, Cambridge, Mass.
- Rizzi, L. (1990): *Relativized Minimality*. MIT Press, Cambridge, Mass. Linguistic Inquiry Monographs 16.
- Rizzi, L. and U. Shlonsky (2004): Strategies for subject extraction. In: U. Sauerland and H.-M. Gärtner, eds, *Interfaces + recursion = language? Chomsky's minimalism and the view from syntax-semantics*. Mouton de Gruyter, Berlin, pp. 115–160.
- Saito, M. and K. Murasugi (1999): Subject predication within IP and DP. In: K. Johnson and I. Roberts, eds, *Beyond principles and parameters: Essays in memory of Osvaldo Jaeggli*. luwer Academic Publisher, Dordrecht, pp. 167–188.
- Salzmann, M. (2017): *Reconstruction and Resumption in Indirect \bar{A} -dependencies. On the Syntax of Prolepsis and Relativization in (Swiss) German and beyond*. De Gruyter Mouton, Berlin/Boston.
- Schneider-Zioga, P. (2007): 'Anti-agreement, anti-locality and minimality. The syntax of dislocated subjects', *Natural Language and Linguistic Theory* **25**, 403–446.
- Shlonsky, U. (1992): 'Resumptive Pronouns as a Last Resort', *Linguistic Inquiry* **23**(3), 443–468.
- Stroik, T.S. (2009): *Locality in Minimalist Syntax*. Vol. 51 of *Linguistic Inquiry Monographs*, MIT Press, Cambridge, Mass.
- Takahashi, S. and M. Gračanin-Yuksek (2005): Morphosyntax of Movement Dependencies in Haitian Creole. In: L. Bateman and C. Ussery, eds, *Proceedings of the North Eastern Linguistic Society 35*. GLSA Publications, Amherst, MA, pp. 615–629.
- Tuller, L. A. (1985): 'Tense Features and Operators in Hausa', *Rapport de recherches du groupe de linguistique africainiste, année 1985-1986*, pp. 493–516.
- Uwalaka, M.A. (1988): *The Igbo verb: A semantico-syntactic analysis*. Afro-Pub, Universität Wien, Wien. Beiträge zur Afrikanistik, Vol. 35.
- Uwalaka, M.A. (1991): 'Wh-movement in Igbo', *UCL Working Paper in Linguistics* **3**, 185–209.
- van Urk, C. and N. Richards (2015): 'Two Components of Long-Distance Extraction: Successive Cyclicity in Dinka', *Linguistic Inquiry* **46**, 113–155.