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

- 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 i
  - u u
  - o o
  - e a
- three level tones: low (à), high (á), downstep (ã); 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:

<table>
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<tr>
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<th>Nom</th>
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<td>3pl</td>
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*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  gà ég ò nà mgbèdè
Obi give-PST Ada money P evening
“In the evening Obi gave Ada money.”

• clause structure:

(5) Transitive verb:

\[
\begin{align*}
\text{CP} & \rightarrow \text{C TP} \\
\text{C} & \rightarrow \text{DP}_{ext} \rightarrow \text{T'} \\
\text{T} & \rightarrow vP \\
\text{v} & \rightarrow T \rightarrow v' \rightarrow <\text{DP}_{ext}> \\
\text{v'} & \rightarrow <v> \rightarrow VP \\
<\text{v}> & \rightarrow \text{DP}_{int}
\end{align*}
\]

– 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.”  \(\text{declarative}\)

b. Ònyé hù-rù  Àdá n’-áhiá
who saw  Ada P-market
“Who saw Ada at the market?”  \(\text{SU question}\)

c. Ònyé kà  Òbí hù-rù n’-áhiá
who  FOC Obi saw  P-market
“Who did Obi see at the market?”  \(\text{OBJ}_{anim} \text{question}\)

d. Gìnì kà  Òbí hù-rù n’-áhiá
what  FOC Obi saw  P-market
“What did Obi see at the market?”  \(\text{OBJ}_{inanim} \text{question}\)

e. Èbéè kà  Òbí hù-rù  Àdá
where  FOC Obi saw  Ada
“Where did Obi see Ada?”  \(\text{ADJ question}\)
(7) Short questions, ex-situ strategy, \( V_{ditrans} \):

a. Òbí nyèrè Àdá égô
   Obi gave Ada money
   “Obi gave Ada money.”  \( \text{declarative} \)

b. Ònyé nyèrè Àdá égô
   who gave Ada money
   “Who gave Ada money?”  \( \text{SU question} \)

c. Ònyé kà Òbí nyèrè ___ égô
   who FOC Obi gave money
   “Who did Obi give money to?”  \( \text{IO question} \)

d. Gíñi kà Òbí nyèrè Àdá ___
   what FOC Obi gave Ada
   “What did Obi give to Ada?”  \( \text{DO question} \)

- 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 ìgbèdè n’-áhiá
   Obi saw Ada P evening P-market
   “Obi saw Ada in the evening at the market.”  \( \text{declarative} \)

b. Ó bù Òbí hùrù Àdá nà ìgbèdè n’-áhiá
   3sg COP Obi saw Ada P evening P-market
   “It is Obi who saw Ada in the evening at the market.”  \( \text{SU-focus} \)

c. Àdá kà Òbí hùrù ___ nà ìgbèdè n’-áhiá
   Ada FOC Obi saw P evening P-market
   “It is Ada that Obi saw in the evening at the market.”  \( \text{OBJ\text{anim}-focus} \)

d. Na ìgbèdè 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.”  \( \text{ADJ-focus} \)

- 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 \textit{can} also be clefted\(^2\))
- cleft = ólica (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.

\(^2\)Both 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. Ûché chèrè nà Òbí hùrù Ìdá n’-áhíá
      Uche thinks that Obi saw Ada P-market
      “Uche thinks that Obi saw Ada at the market.”
      declarative
   b. Ónyé kà Ûché chèrè nà Òbí hùrù ___ n’-áhíá
      who foc Uche thinks that Obi saw
      “Who does Uche think that Obi saw at the market?”
      long OBJ quest.
   c. Èbé kà Ûché chèrè nà Òbí hùrù Ìdá ___
      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. Ìdá kà Ûché chèrè nà Òbí hùrù ___ n’-áhíá
      Ada foc Uche think that Obi saw
      “It’s Ada that Uche thinks Obi saw at the market.”
      long OBJ focus
   b. N’-áhíá kà Ûché chèrè nà Òbí hùrù Ìdá ___
      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. Ûché pùrù tùpú Òbí àhú Ìdá n’-áhíá
      Uche left before Obi saw Ada P-market
      “Uche left before Obi saw Ada at the market.”
      declarative
   b. *Ónyé kà/O Ûché pùrù tùpú Òbí àhú ___ n’-áhíá
      who foc Uche left before Obi saw
      “Lit.: Who did Uche leave before Obi saw ___ at the market?”
      OBJ-question
   c. *Èbé kà/O Ûché pùrù tùpú Òbí àhú Ìdá ___
      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. Ûché mà nwókè àhú hùrù Ìdá n’-áhíá
      Uche know man DEM saw Ada P-market
      “Uche knows the man who saw Ada at the market.”
      SU-RC
   b. *Ónyé kà/O Ûché mà nwókè ahú hùrù ___ n’-áhíá
      who foc Uche know man DEM saw
      “Lit.: Who does Uche know the man who saw ___ at the market?”
      DO-focus
(13) Focus construction, adjunct island:
   a. Úchè pùrù òbí hàù ãdà n'-áhiá
      "Uche left before Obi saw Ada at the market.”
   b. *Àdá kà/Ø Úchè pùrù òbí hàù ___ n'-áhiá
      Ada FOC Uche left before Obi saw P-market?
      “Lit.: (It is) ADA (that) Uche left before Obi saw at the market”

(14) Focus construction, CNP-island:
   a. Úchè mà nwókè hàù nyèrè ãdà égō n'-áhiá
      "Uche knows the man who gave Ada money at the market.”
   b. *Àdá Ada kà/Ø FOÇ Úchè mà nwókè hàù nyèrè ___ 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.”

2.1.2 Reconstruction effects / SCO

(15) Focus construction, Principle A:
   a. Òbí hùrù fotó [ ònkwé yà ]/place
      "Obi saw a picture of himself.”
   b. [ Fotó [ ònkwé yà ] ] kà Òbí
      “It’s a picture of himself that Obi saw .”

(16) Questions, SCO:
   a. Òbí hàù fotó [ ònkwé yà ]i
      "Obi saw a picture of himself.”
   b. [ Fotó [ ònkwé yà ] ]i kà FOÇ Òbí
      “He thinks that Obi saw Ada.”

(17) Focus construction, scope:
   Baby kà nwátà òbúlà hùrù ___
   “A TOY every child saw.”  ∀ > ∃, ∃ > ∀
   Gĩñĩ kà nwátà òbúlà hùrù ___
   “What does every child see” ∀ > wh, wh > ∀

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. ìdá kà òbí hùrù ___ nà ìgbèdè n'-áhiá
   Ada FOC Obi saw evening P-market
   “Obi saw ADA in the evening at the market.”
   b. *Ada ìbì (kà) hùrù (kà) ___ nà ìgbèdè (kà) n'-áhiá (kà)
   Ada FOC Obi (FOC) saw (FOC) P-market (FOC)
   “Obi saw ADA at 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 (*kà) ochie i ] kà òbí hùrù ãdã
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 ónyé (*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’èbè (*kà)
      Obi saw Ada P-where (FOC)
      “Where did Obi saw Ada?”
      in-situ qu. of ADJ

(22) In-situ focus:
   a. Òbí hùrù Àdá n’áhíá
      Obi saw Ada P-market
      “Obi saw Ada at the market.”
      declarative
   b. Òbí hùrù Àdá (*kà) n’áhíá
      Obi saw Ada (FOC) P-market
      “Obi saw ADA at the market.”
      in-situ OBJ-focus
   c. Òbí hùrù Àdá n’áhíá (*kà)
      Obi saw Ada P-market (FOC)
      “Obi saw ADA AT THE MARKET.”
      in-situ ADJ-focus
   d. Òbí hùrù sòsò Àdá (*kà) n’áhíá
      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’áhíá (*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 ⇒ 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 ⇒ kà is a focus marker, it’s not a focus sensitive particle
⇒ kà does not realize an inherent feature of an XP (like [foc] or [wh])
⇒ 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-Abá
   “Obi saw Ada in Aba.”
   \textit{declarative}

b. Ònyé hùrù ònyé n’-èbèé
   who saw who P-where
   “Who saw whom where?”
   \textit{wh: SU, OBJ, ADJ}

c. N’-èbèé kà ònyé hùrù ònyé
   foc who saw who
   “Who saw whom where?”
   \textit{wh: SU, OBJ, ADJ}

d. Ònyé kà ònyé hùrù n’-èbèé
   who foc who saw where
   “Who saw whom where?”
   \textit{wh: SU, OBJ, ADJ}

e. Ònyé kà ònyé hùrù n’Àbá
   who foc who saw P-Abá
   “Who saw who in Aba?”
   \textit{wh: SU, OBJ}

f. *Ònyé ònyé kà ònyé hùrù n’Àbá
   who who foc saw P-Abá
   “Who saw who in Aba?”
   \textit{wh: SU, OBJ}

g. Ònyé kà Òbí hùrù n’-èbèé
   who foc Obi saw P-where
   “Who did Obi see where?”
   \textit{wh: OBJ, ADJ}

h. N’-èbèé kà Òbí hùrù ònyé
   P-where foc Obi saw who
   “Who did Obi see where?”
   \textit{wh: OBJ, ADJ}

i. *Ònyé kà n’-èbèé kà Òbí hùrù
   who foc who foc Obi saw
   “Who did Obi see where?”
   \textit{wh: OBJ, ADJ}

j. Ònyé hùrù Àdá n’-èbèé
   who saw Ada P-where
   “Who saw Ada where?”
   \textit{wh: SU, ADJ}

k. N’-èbèé kà ònyé hùrù Àdá
   P-where foc who saw Ada
   “Who saw Ádá where?”
   \textit{wh: SU, ADJ}

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 \textit{kà} or the order of the wh-elements at the left edge)
  \Rightarrow there’s exactly one \textit{Â}-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)
- \textbf{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:
Ex-situ focus + wh-movement:

a. Òbí nyèrè Àdá [ sòósò ákwúkwô ñké mbû ]
   Obi gave Ada only book ORD one
   “Obi gave Ada only the first book.” in-situ OBJ-foc

b. [ sòósò ákwúkwô ñké mbû ] 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 ___ [ sòósò ákwúkwô ñké mbû ]
   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 ákwúkwô ñké mbû ] 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 [ sòósò ákwúkwô ñké mbû ] kà Òbí nyèrè

(f) [Sooso ákwúkwô ñké mbû ] kà Ònyé nyèrè Òbí nyèrè
   who gave Ada only book ORD one

g. [ Sooso ákwúkwô ñké mbû ] kà Ònyé nyèrè Òbí
   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 [ sòósò ákwúkwô ñké mbû ] kà Òbí nyèrè Òbí?

(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

RC + focus:

a. Úchè chọrọ ihé [CP Ádá nyèrè Òbí ___ ]
   Uche wants thing Ada gave Obi
   “Uche wants the thing that Ada gave to Obi.” DO-RC

b. Úchè chọrọ ihé [CP sòósò Ádá 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 chọrọ ihé [CP ó bù (sòósò) Ádá 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 chọrọ ihé [CP Ádá nyèrè sòósò 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 chọrọ ihé [CP (sòósò) Òbí ] kà Òbí 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

(26) Coordination and wh-pronouns:
   a. Ézè hùrũ [ Àdá nà Úchẽ ]
      Eze saw Ada and Uche
      “Eze saw Ada and Uche.”
      declarative
   b. Ézè hùrũ [ Àdá nà onyẽ ]
      Eze saw Ada and who
      “Eze saw Ada and who?”
   c. *Ónyẽ kà Ézè hùrũ [ Àdá nà ___ ]
      who FOC Eze saw Ada and
      “Lit.: Who did Eze see Ada and?”
      ex-situ OBJ-question of Conj2
   d. Ónyẽ kà Ézè hùrũ [ Àdá nà yă ]
      who FOC Eze saw Ada and 3SG.ACC
      “Lit.: Who did Eze see Ada and her/him?”
      ex-situ OBJ-question of a Conj2 + RP
   e. [ Àdá nà Úchẽ ] rìrì jí
      Ada and Uche ate yam.
      “Ada and Uche ate yam.”
      declarative
   f. [ Àdá nà onyẽ ] rìrì jí
      Ada and who ate yam
      “Ada and who ate yam?”
      in-situ SU-question of Conj2
   g. [ Ónyẽ nà Úchẽ ] rìrì jí
      who and Uche ate yam
      “Who and Uche ate yam?”
      in-situ SU-question of Conj1
   h. Ónyẽ kà [ yă nà Úchẽ ] rìrì jí
      who FOC 3SG.ACC and Uche ate yam
      “Lit.: Who s/he and Uche ate yam?”
      ex-situ SU-question of Conj1 + RP

(27) Coordination and focus:

(28) Wh-possessors:

   a. [ Úchẽ nà Àdá ] rìrì jí
      Uche and Ada ate yam
      “Uche and Ada ate yam.”
   b. Úchẽ kà [ yă nà Àdá ] rìrì jí
      Uche FOC and Ada ate yam
      “UCHE and Ada ate yam.”
   a. [ ñńé Àdá ] biārã
      father Ada.GEN came
      “Ada’s father came.”
   b. [ ñńé onyẽ ] biārã
      father who came
      “Who’s father came?”
   c. Ónyẽ kà [ ñńé yă ] biārã
      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 Úchẽ ] zúrũ
    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. Önýé hùrù Àdá
      who saw Ada
  b. *Önýé kà ó hùrù Àdá
     who 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
c. Ó dàrà (ádá)
3SG.NOM died
3SG.NOM fell BC(fall)
“He died.”
“He fell.”
b. Önýé nwùrù
d. Önýé dàrà (ádá)
who died
who fell BC(fall)
“Who died?”
“Who fell?”

- the sole argument bears the patient role but is still incompatible with kà-marking in wh-/foc-contexts ⇒ \( \downarrow \) 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

a. Újọ nà-átú ṣi
fear PROG-grip 2SG.ACC
“You are afraid. (lit.: Fear is gripping you.)”
b. Ónyé kà/*Ø újọ nà-átú ___
who FOC fear PROG-grip 2SG.ACC
 “Who is afraid?” (lit.: Who does the fear grip?)
c. Í nà-átú újọ
2SG.NOM PROG-grip fear
“You are afraid. (lit.: You are gripped by fear.)”
d. Ónyé Ø/kà ___ nà-átú újọ
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 ⇒ 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. Úchê chèrè nà Óbi hùrù Àdá n’-áhíá
Uche thinks that Obi saw Ada P-market
 “Uche thinks that Obi saw Ada at the market.”
   declarative
b. Ónyé kà Úchê chèrè (*nà) ___ 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
c. Óbi kà Úchê chèrè (*nà) ___ 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

• long questions/foc-movement: the wh-/foc-SU must be followed by kà ⇒ θ θ-role, θ case ← 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 → 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.
Indeed, 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 Á-movement (wh-/foc-movement):

(i) Úchě chèrè [ nà Ǽdà kà Ǽbì hùrù ___ n'-Àbá ]
Uche thinks that Ada FOC Obi saw ___ P-Aba
“Uche thinks that Obi saw Ada in Aba.”

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 àhú, Ǽdà kà Ǽbì nyèrè ___ yà
      book DEM Ada FOC Obi gave 3SG.ACC
      “As for the book, Obi gave it to Ada.”
   b. Ákwúkwò àhú, ònyé kà Ǽbì nyèrè ___ yà
      book DEM who FOC Obi gave 3SG.ACC
      “As for the book, who did Obi give it to?”

Hence, the complete left periphery looks as follows:

(iii) [TopP Top [CP₁ C₁ [CP₂ wh/foc [C₂ C₂ [CP₁ [TP ...]]]]]
2.6 Another SU/non-SU-asymmetry in Igbo: the \textit{that-trace effect}

(35) Long questions:

a. Úchè chèrè nà/Ø Òbi hùrù Àdá n'-áhiá
   \[\text{Uche thinks that Obi saw Ada at the market.} \]
   \textit{declarative}

b. Ónyé kà Úchè chèrè nà/Ø Òbi hùrù ___ n'-áhiá
   \[\text{Who does Uche think that Obi saw at the market?} \]
   \textit{long OBJ qu.}

c. Ónyé kà Úchè chèrè *nà/Ø ___ hùrù Àdá n'-áhiá
   \[\text{Who does Uche think saw Ada at the market?} \]
   \textit{long SU question}

(36) Long focus:

a. Úchè chèrè nà/Ø Òbi hùrù Àdá n'-áhiá
   \[\text{Uche thinks that Obi saw Ada at the market.} \]
   \textit{declarative}

b. Àdá kà Úchè chèrè nà/Ø Òbi hùrù ___ n'-áhiá
   \[\text{It's Ada that Uche thinks Obi saw at the market.} \]
   \textit{long OBJ-focus}

c. Òbi kà Úchè chèrè *nà/Ø ___ hùrù Àdá n'-áhiá
   \[\text{It's Obi that Uche thinks saw Ada at the market.} \]
   \textit{long SU-focus}

\textbf{Observation:}

- The declarative C-head \(nà\) is obligatory in embedded declarative clauses.
- exception: When the embedded SU is extracted, \(nà\) must be absent = \textit{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 \(C\)?)
    (and the examples in Uwalaka 1991: 196)

(37) a. Ónyé kà Úchè chèrè nà ő hùrù Àdá n'-áhiá
   \[\text{Who does Uche think s/he saw Ada at the market?} \]
   \textit{long OBJ-focus}

b. Ónyé kà Úchè chèrè sí ___ hùrù Àdá n'-áhiá
   \[\text{Who does Uche think saw Ada at the market?} \]
   \textit{long SU-focus}
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 SpecTP
- ...

CHALLENGESPOSEDBYAL:

- 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’

- AL heavily depends on
  - the number/location of intermediate landing sites (≯ 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

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problem 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 nwáányí àhú zúrú gíñí
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 + economy.

A wh-SU in SpecTP is close enough to the [●WH•]-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 [●WH•]. For wh-SUs economy considerations block movement.

OT-ANALYSIS:
- checking condition: [●WH•] is checked by a matching [wh]-feature if [wh] c-comm. [●WH•][7]
- crucial ingredient = feature inheritance (FI, Chomsky 2004; Richards 2007): [●WH•] 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, [●WH•] moves to T, [●WH•] discharged on T by the c-commanding [wh]-feature on the SU-DP[8]
  - non-SU-questions: if FI applied, it wouldn’t lead to [●WH•]-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 [●WH•]-discharge on C (without FI)
  - if FI is less costly than movement (→ OT), wh-SUs will stay in SpecTP and can still discharge [●WH•] 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.:
• (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

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.
• Igbo ranking: DIS >> STAY >> FI

42) Intervention effect for wh-SUs:

\[
\begin{array}{ccc}
\text{Input: } [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T T ...]:]}} & \text{DIS} & \text{STAY} & \text{FI} \\
\text{a. } [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T T ...]:}] & \text{!*} & \text{ } & \text{ } \\
\text{b. } [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T[\(\prime\)wh\(\prime\)] ...]:}] & \text{*} & \text{ } & \text{ } \\
\text{c. } [\text{CP DP}_\text{[wh]} [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T ...]:}]]] & \text{!*} & \text{ } & \text{ }
\end{array}
\]

43) wh-SU:

\[
\begin{array}{ccc}
\text{Input: } [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T T ...]:}]} & \text{DIS} & \text{STAY} & \text{FI} \\
\text{a. } [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T T ...]:}]} & \text{!*} & \text{ } & \text{ } \\
\text{b. } [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T[\(\prime\)wh\(\prime\)] ...]:}]} & \text{!*} & \text{ } & \text{ } \\
\text{c. } [\text{CP DP}_\text{[wh]} [c’ C_{\text{[\(\bullet\)wh\(\bullet\)]}} [\text{TP DP}_\text{[wh]} [\text{[\(\prime\)T ...]:}]]] & \text{!*} & \text{ } & \text{ }
\end{array}
\]

FACTORY TYPOLY: E

• 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 >> 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 → wh-SU wouldn’t be accessible for the matrix [•WH-] 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 Ā-movement)
- future research:
  - integration of long vs. short SU-movement asymmetries
  - Can the locality + economy approach be extended to other SU/non-SU asymmetries?
  - 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, ...)

17
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 $\rightarrow$ 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)


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 Kaqchikel Agent Focus
- *that*-trace effect (TTE) / *que*-qui-alternation (see Pesetsky 2015 for an overview):
  - Wolof (Martinovic 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 (2016b) 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 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)

\footnote{Representational version of this logic in Á-binding approaches, see Haïk 1990, Chung 1998: languages differ in whether traces count as binders or not.}
References


Quirks of SU-extraction, Singapore


