A negative alternation: Negation head movement allomorphy in Igala

Brandon Chaperon ACAL 54

1 Introduction

- Igala (Volta–Niger) is spoken in Nigeria by 2 million speakers (Eberhard, Simons and Fennig, 2021).
- In Igala, negation is bi-partite:
  1. Pre-verbal morpheme, which changes forms.
  2. Sentence-final particle (SFP): '*n*'.
- I am not concerned with the SFP, I investigate the two different exponents of pre-verbal negation:
  1. *Finite clauses*: super high tone on subject (present across Niger-Congo; Essien, 1990; Mensah, 2001; Obiamalu, 2013)[1].

(1) a. *Neutral finite clause*
è dʒ(ē) ɔ̄dā ɔ̀nálɛ́.
2SG eat pear yesterday
'You ate a pear yesterday.'

b. *Negated finite clause*
ɛ̋ dʒ(ē) ɔ̄dā ɔ̀nálɛ́ ň.
2SG.NEG eat pear yesterday SFP_{NEG}
'You did **not** eat a pear yesterday.'

  2. *A'-movement or nominalizations*: pre-verbal particle *mɑ́*[2].

(2) *Negation with object extraction*

a. * ɛ̋n(ɛ̋)$_i$ ɛ̋ lí t_i ń?
who 2SG.NEG see SFP_{NEG}

b. ɛ̋n(ɛ̋)$_i$ è mɑ́ lí t_i ń?
who 2SG NEG see SFP_{NEG}
'WHO did you **not** see?'

- Similar alternations in Niger-Congo: *e.g.* Kirundi (Bantu)
  - *Finite matrix clauses*: prefix *nti-* prior to subject marking.
  - *A'-movement (or subordinate clauses)*: prefix *ta-* following subject marking.

(3) a. *Negated finite matrix clause*
Yohani nti-a-a-funguye.
John NEG_1-1SM-PST-eat
'Yohani did **not** eat.'

b. *Negation with subject extraction*
ni-ndé Yohani a-ta-a-bonye?
COP-who John 1SM-PST-NEG_2-see
'WHO did John **not** see?'
(Chaperon, to appear)

- In some Niger-Congo languages, negation occurs in distinct surface positions depending on the syntactic context.

  ⇒ This is not apparent in Igala, but I argue that it is the right way to view this alternation.

Proposal:

1. Negation moves to C^0 where it surfaces as super high tone on the subject.
2. When this movement is disallowed, it surfaces as the particle *mɑ́*.

[0]Many thanks to Professor Martina Martinović for her immense help and for extensive notes on many drafts. I also thank all members of the Montreal Underdocumented Languages Linguistics Lab for their comments. All errors are my own.

[1]All non-cited Igala examples are from my own field work elicited with a native speaker, Dorcas Otu, to which I am forever grateful.

[2]Gloss abbreviations are taken from the standard Leipzig Glossing rules with the addition of DJ: disjoint marker, NEG_1: high negation, NEG_2: low negation, SFP: sentence-final particle, SM: subject marker, STR: strong pronoun. Foci are formatted using SMALL CAPS.

Sections

2 Distribution of Negation

- Igala is isolating, SVO, tenseless and has several aspectual morphemes.
- It has one left peripheral position for Topic and another for Focus.

(4) ímɔ̄tɔ̄ lɛ́$_k$ tʃ(e) ɔ̄w(ɔ) ɔ̄nɛ̄kɛ̀lɛ̄ lɛ́$_i$ ī$_k$ g^{w}ɔ́ɲú ì:?
Child the COP hand male the 3SG hold FOC$_Q$
'As for [the child]$_k$, it's [the man's hand]$_i$ that sh/e$_k$ is holding.'

- Negation surfaces as a super high tone on subject ('tonal negation') or as the particle *mấ* ('particle negation'; Ejeba, 2016).

2.1 Tonal Negation

- Occurs in *declaratives*, *polar interrogatives*, and *imperatives*.
- Potsdam (2013) argues that in English these are the exact clauses where negation occurs in C^0.
- *Tonal negation* surfaces as a super high tone on the last vowel of the subject.

(5) a. *Neutral declarative*
Tʃìd ɛ̀ l(í) ádʒúwɛ̀ lɛ́.
Chide see chicken the
'Chide saw the chicken.'

b. *Negated declarative*
Tʃìd ɛ̌ l(í) ádʒúwɛ̀ lɛ́ ń̩.
Chide.NEG see chicken the SFP$_{NEG}$
'Chide did **not** see the chicken.'

- *Tonal negation* is used in polar questions, which are marked by sentence-final length (ː).

(6) a. *Neutral polar question*
ɛ̄ dʒ(ɛ̄) ɔ̄d(ā) ɔ̀nálɛ́ː.
2SG eat pear yesterday.SFP$_Q$
'Did you eat a pear yesterday?'

b. *Negated polar question*
ɛ̋ dʒ(ɛ̄) ɔ̄d(ā) ɔ̀nálɛ́ ň̩ː.
2SG.NEG eat pear yesterday SFP$_{NG.Q}$
'Did**n't** you eat a pear yesterday?'

- In imperatives, the subject is usually not overt, but is required when negating.

(7) a. *Neutral imperative*
(ɛ̄) dʒɛ́!
2SG eat
'Eat!'

b. *Negated imperative*
*(ɛ̋) dʒɛ́ ń̩!
2SG.NEG eat SFP$_{NEG}$
'Do**n't** eat!'

- *Tonal negation* surfaces in *declaratives*, *polar interrogatives*, and *imperatives*.
- I will argue that in these contexts, negation moves to C.

2.2 Particle Negation

- Surfaces as the particle *mấ* in clauses involving extraction and in nominalizations.

2.2.1 A'-extraction

- *Wh*-questions, focus fronting, and relative clauses[3].

(8) *Subject extraction*

a. ɛ̋nɛ̋$_i$ t_i ŋà lɔ́ í?
who FUT go FOC
'WHO will go?'

b. ɛ̋nɛ̋$_i$ t_i mấ lɔ́ ń ì?
who NEG go SFP$_{NEG}$ FOC
'WHO will **not** go?'

(9) *Non-subject extraction*

a. ɔ̄ŋ^{w}ú$_i$ è fɛ́dɔ̄ t_i í.
3SG.STR 2SG love FOC
'It's HIM you love.'

b. ɔ̄ŋ^{w}ú$_i$ è mấ fɛ́dɔ̄ t_i ń í.
3SG.STR 2SG NEG love SFP$_{NEG}$ FOC
'It's HIM you do **not** love.'

2.2.2 Nominalizations

(10) [é *(mấ) tʃ(e) ìskúlù kpā ń] tʃ(e) ɛ̀ŋ^w(u) bjénɛ̄.
NMLZ NEG do school finish SFP$_{NEG}$ COP thing bad
'**Not** finishing school is a bad thing.'

- By hypothesis, nominalizations do not contain the C domain, they take clauses up to *v*P or AspP.

1. They can contain inflectional elements (*e.g.* aspect)

(11) a. *Nominalization with perfective marker*
[é f(i) ìskúlù tʃē kpā] tʃ(e) ɛ̄ŋ^{w}ū ògbɔ̄gágá ì tʃē.
NMLZ PFV school COP finish COP thing important 3SG COP
'Having finished school is an important thing.'

b. *Nominalization with progressive marker*
[é nâ tʃ(e) ìskúlù kpā] tʃ(e) ɛ̄ŋ^{w}ū ògbɔ̄gágá ì tʃē.
NMLZ PROG COP school finish COP thing important 3SG COP
'Finishing school is an important thing.'

2. They cannot contain an overt subject, unless it is external.

(12) a. *Nominalization with external subject*
òŋ^w(u) [é l(a) ímōtò] ì tʃ(e) ìbè ɔ̄mɛ̀lɛ̀lɛ̄ ĭ tʃě ń̃.
3SG.STR NMLZ buy car 3SG COP thought good 3SG.NEG COP SFP$_{NEG}$
'Him buying a car was a bad idea.'

b. *Nominalization with possessor*
ímòtò [é lá] ŋ^{w}ū ì tʃ(e) ìbè ɔ̄mɛ̀lɛ̀lɛ̄ ĭ tʃě ń̃.
car NMLZ buy 3SG.POSS 3SG COP thought good 3SG.NEG COP SFP$_{NEG}$
'His buying of a car was a bad idea.'

- *Particle negation* surfaces when extraction has occurred and inside nominalizations.
- I will argue that in these contexts, Neg-to-C movement is blocked.

[3] An optional sentence-final focus particle *i* can occur in these clauses.

3 Neg-movement and contextual allomorphy

Assumption: all finite clauses contain a CP (Chomsky, 2007).

Claims:
1. When movement to C is blocked, negation surfaces as the pre-verbal particle *mā́*.
2. When it does move to C, pre-verbal negation surfaces as a super high tone on the subject.
3. The different phonological forms of negation are the result of contextual allomorphy.

1. *Particle negation* surfaces *in-situ* in clauses involving A'-movement and inside nominalizations.

   I stipulate that these environments share a common property – the C-domain is not available for head movement.

   - *A'-movement*: [+wh] C blocks movement to it, which blocks Neg-to-C movement[4].
   - *Nominalizations*: Not clausal (§2.2), negation has no C to move to.

     ⇒ Both environments are unified in that the left periphery inaccessible.

2. *Tonal negation* moves to C in *declaratives*, *imperatives*, and *interrogatives*.
   - Potsdam (2013) argues that in English these are exact clauses in which negation occurs in C^0.
   - Déchaine and Wiltschko (2001, 2002) argue that in Algonquian and Salish, negation can be found close to C and "may raise to higher positions outside of IP".

3. The alternate exponents are due to contextual allomorphy (Embick, 2010; Marantz, 2013).

   (13) *Vocabulary entries for pre-verbal negation*

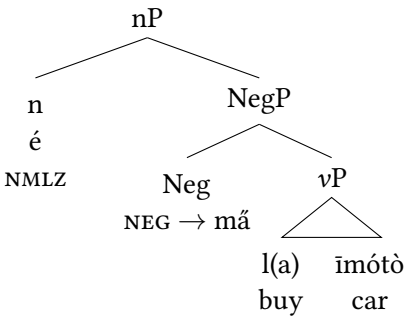
$$[\textsc{Neg}] \Leftrightarrow \begin{cases} \text{mā́} \\ \text{˝} \end{cases} \quad / \quad [_C \_\_]$$

3.1 Particle negation account

3.1.1 Nominalizations

(14) [é *(mā́) tʃ(e) ìskúlù kpā ń] tʃ(e) ɛ̀ŋʷ(u) bjɛ́nɛ̄.
NMLZ NEG do school finish SFP_{NEG} COP thing bad
'**Not** finishing school is a bad thing.'[5]

(15)

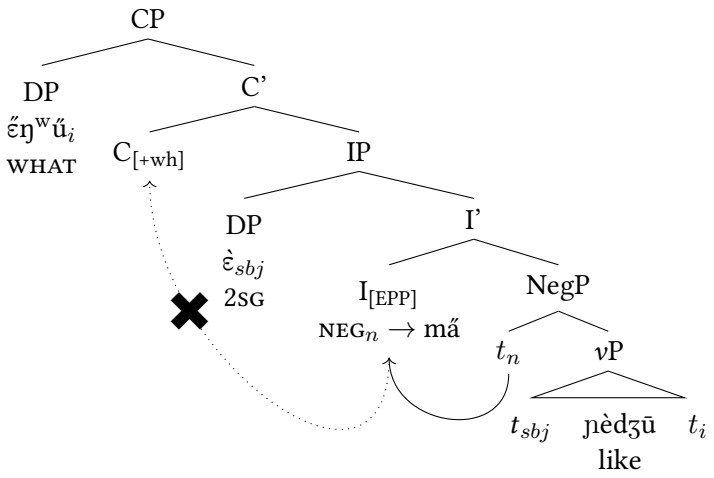


[4]It has been argued that A'-movement and some types of negation are incompatible (Roberts, 2018).
[5]I do not include sentence-final particles in trees for simplicity.

3.1.2 A'-movement

(16) ɛ̋ŋʷű$_i$ ɛ̀ mā̋ ɲèdʒū t_i ń ì?
what 2SG NEG like SFP$_{NEG}$ FOC
'WHAT do you **not** like?'

(17)



- *Nominalizations*: surfaces as *mā̋* since no C position for negation to move to.
- *A'-movement*: surfaces as *mā̋* since the [+wh] C^0 is incompatible with Neg-to-C movement.

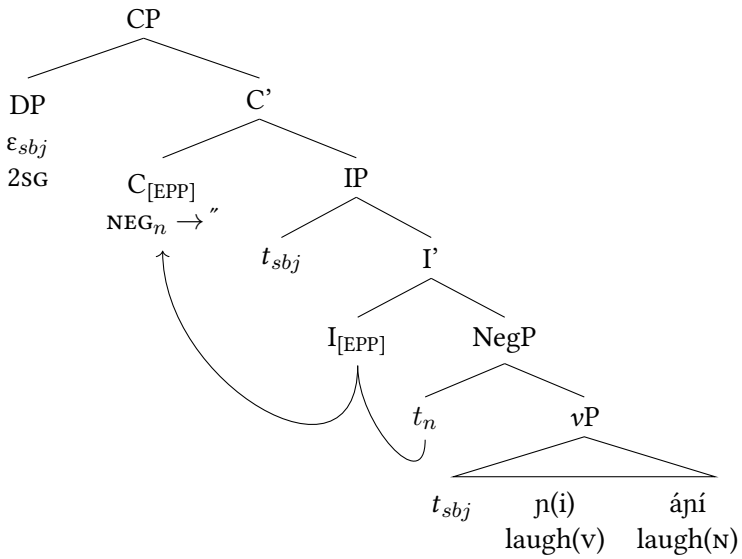
3.2 Tonal negation account

3.2.1 Declaratives

(18) ɛ̋ ɲ(i) áɲí ń.
2SG.NEG laugh(V) laugh(N) SFP$_{NEG}$
'You did **not** laugh.'

- Negation moves to C, but it surfaces on the subject, so the subject must be in C too.
- Aboh (2006) argues that both I and C have an [EPP] feature in Gungbe (Volta-Niger).

(19)



- Subjects surface in the specifier to the left of C, and pre-verbal negation occurs immediately to its right.

(20) *Linearization of tonal negation*

$$[_{CP}[_{spec,CP}\ (\ldots CV.C)V\ ][_{C'}[_{C^0}\ ^{\prime\prime}\ ][\ldots]]] \Longrightarrow (\ldots CV.C)\mathbf{\acute{\acute{V}}}$$

- Accounts for why *tonal negation* anchors to the last syllable of subjects.

> In *declaratives*, *polar questions*, and *imperatives*, negation moves to C^0 and is realized as a super high tone.

4 Additional evidence

4.1 Modals

Recall: Tonal negation surfaces on the last vowel of its specifier.

- If there was another head found in C^0 that does not block the movement of negation, we might expect *tonal negation* to be able to surface on it.

Proposal: modal-like element, *ki* 'should', is exactly such a head.

- *Tonal negation* surfaces on the subject but not elements in the inflectional domain (*e.g.* aspect).

(21) *Negation with progressive marker*

a. í̋ nâ l(a) īmótô ń.
3SG.NEG PROG buy car SFP_{NEG}
'S/he was not buying a car.'

b. * í nấ l(a) īmótô ń.
3SG PROG.NEG buy car SFP_{NEG}

- However, *tonal negation* surfaces on the modal 'ki'[6].

(22) *Negation with modal 'ki'*

a. ī kī t(ē̄) ēnè.
3SG should ask question
'S/he should ask a question.'

b. ī kǐ t(ē̄) ēnè ń.
3SG should.NEG ask question SFP_{NEG}
'S/he should **not** ask a question.'

Claim: 'ki' is not in the inflectional domain, but is generated in C.

- Aboh (2004, 2006) and Damonte (2002) argue similarly in Saramaccan and Gungbe (Niger–Congo).

  ⇒ This predicts that it would be incompatible with A'-movement.

- Elements in the inflectional domain are compatible with A'-movement.

(23) *Extraction with progressive marker*

ɛ̋nɛ̋$_i$ t_i nâ kɔ̄ ì?
who PROG bark FOC
'Who is barking?'

[6] Whether the tone can optionally appear on the subject instead must be checked.

- However, with 'ki' the verb *dukpe* 'suppose to' must be used instead.

(24) *Extraction with modal 'ki'*

a. * ɛ̋fū (i)klâʃ(i)$_i$ òŋ^{w}ū$_i$ ì kī t(ɛ̄) ám(a) ēnè t_i.
inside class 3SG.STR 3SG should ask PL question

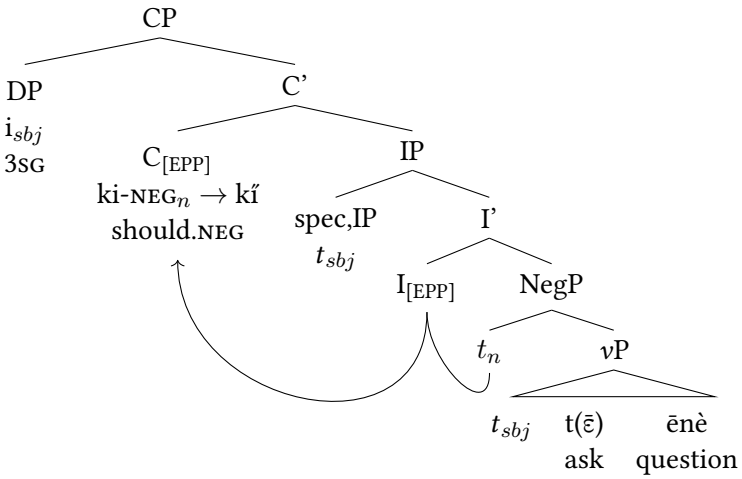
b. ɛ̋fū (i)klâʃ(i)$_i$ òŋ^{w}ū$_i$ ì dúkpē k(i)-ì t(ɛ̄) ám(a) ēnè t_i.
inside class 3SG.STR 3SG supposed SBJV-3SG ask PL question
'It's IN CLASS s/he should ask questions.'

- The parallel behavior of 'ki' and *tonal negation* suggests that they share the same position.
- Assume *tonal negation* anchors to the C head but in other cases must affix to its specifier.

(25) *Linearization of tonal negation* ***(updated)***

1. $[_{CP}[_{spec,CP}$ (...CV.C)V $][_{C'}[_{C^0}$ (...CV.C)V + ˝ $][...]]] \Longrightarrow$ (...CV.C)V (...CV.C)$\mathbf{\acute{V}}$
2. $[_{CP}[_{spec,CP}$ (...CV.C)V $][_{C'}[_{C^0}$ ǿ $][...]]] \Longrightarrow$ (...CV.C)$\mathbf{\acute{V}}$

(26)



- In finite clauses pre-verbal negation surfaces as super high tone on C or its specifier.
- When modal *ki* 'should' is expressed, *tonal negation* surfaces on it.

4.2 Embedding complementizers

2 types of languages:

1. Complementizer embeds left periphery, C is higher than topic and focus (*e.g.* Wolof and Italian; Dunigan, 1994; Rizzi, 1997).
2. Complementizer embeds IP, shares the A' slot (*e.g.* ...;).

- **Prediction:** variation in left peripheral structure should affect type of negation in embedded clauses.
  1. Languages with high embedding complementizer should allow Neg-to-C movement.
  2. Those with a low embedding complementizer should block this movement.
- This is exactly the contrast found in Igala vs. Kirundi (Bantu).

4.2.1 Igala

- Can focus constituents within embedded clauses ⇒ complementizer can embed whole CP.

(27) *Extraction of embedded object*

a. ɔ̋jǎ-à Pítà tʃé má [kàkíní Pítà k(à) ɔ̀là kp(àí) Ána].
wife Peter do know that Peter speak word with Anna
'Peter's wife knows that Peter spoke to Anna.'

b. ɔ̋jǎ-à$_j$ Pítà tʃé má [kàkíní Ánà$_i$ Pítà k(à) ɔ̀là kp(àí) ònᵚ̄ū$_i$ (í)].
wife Peter do know that Anna Peter speak word with 3SG.STR FOC
'Peter's wife$_j$ knows that it's ANNA$_i$ that Peter spoke to.'

- Following "split-CP" *á la* Rizzi (1997), posit that *kakini* is higher embedding complementizer in Force.

  ⇒ Negation same as in matrix clauses (i.e. *tonal negation*)[7].

(28) *Negated embedded clause*

ì kà [kàkíní ǐ mà ń].
3SG say that 3SG.NEG know SFP$_{NEG}$
'S/he said s/he did **not** know.'

4.2.2 Kirundi

- *Kirundi* (Bantu) uses the complementizer *ko* to embedded clauses[8]:

(29) Keezá a-rá-zi [ko Juma a-somye igitabo].
Keezá 1SM-DJ-know that Juma 1SM-read.PFV 7book
'Keeza knows that Juma read a book.'

- Focus constructions are made by extraction of foci to the left periphery with the particle *ni*.

(30) *Extraction of object*

a. Yohani a-á-guze igitabo.
John 1SM-PST-buy.PFV 7book
'John bought a book.'

b. ni igitabo yohani a-á-guze.
COP 7book John 1SM-PST-buy.PFV
'It's A BOOK John bought.'

- Various claims about *ni*, Gatchalian (to appear) argues that it is a copula found in the left periphery.
- Complementizer cannot embed foci, or the whole left periphery more generally, in contrast to Igala.

(31) * Keezá a-rá-zi [ko ni igitabo Juma a-somye].
Keezá 1SM-DJ-know that COP 7book Juma 1SM-read.PFV
Intended: 'Keeza knows that it's A BOOK Juma read.'

- Complementizer 'ko' is located lower in C^0 and not in Force^0.

  ⇒ As predicted, lower non-matrix form (equiv. *particle negation*) must be used.

(32) *Negated embedded clause*

a. * Keezá a-rá-zi [ko Juma nti-a-somye igitabo].
Keezá 1SM-DJ-know that Juma NEG$_1$-1SM-read.PFV 7book

b. Keezá a-rá-zi [ko Juma a-ta-somye igitabo].
Keezá 1SM-DJ-know that Juma 1SM-NEG$_2$-read.PFV 7book
'Keeza knows that Juma did **not** read a book.' (Chaperon, to appear)

[7] Appears on the subject and not the complementizer due to movement not being possible to a higher head.

[8] I would like to thank Benilde Mizero, a Kirundi consultant, and members of the Montreal Underdocumented Languages Linguistics Lab for additional Kirundi data.

- Kiparsky (1995): V-to-C movement is blocked in Germanic subordinate clauses due to the complementizer filling the C^0 position.

- Analysis accounts for the height of complementizers.
  1. Igala: high complementizer in $Force^0$ ⇒ negation can move to C^0 in embedded clauses.
  2. Kirundi: low complementizer in C^0 ⇒ negation cannot move to C^0 in embedded clauses.

5 Conclusion

- Igala negation is bi-partite: Pre-verbal forms and sentence-final particle.
- Pre-verbal negation surfaces as super high tone when it moves to C^0 but as particle *mấ* when movement blocked.
- Restriction occurs in two types of clauses:
  1. *A'-movement*: [+wh] C head blocks negation from movement to it.
  2. *Nominalizations*: not clausal, so negation has no C to move to.

Shortcomings: not derived; a blocking property has to be stipulated or not for each separate C.

- I argue that in Igala the [+wh] C^0 blocks the movement of negation to it.
- On the other hand, those in *declaratives*, *imperatives*, *polar questions*, and even those filled with overt material, like the modal 'ki', do not block the movement of negation.

Next steps:

- See how this could be captured in a more principled way.
- Investigate more languages since common across Niger-Congo.
- Relationship between the pre-verbal and sentence-final negation.

References

Aboh, Enoch Oladé. 2004. *The morphosyntax of complement-head sequences: Clause structure and word order patterns in Kwa.* Oxford University Press on Demand.

Aboh, Enoch Oladé. 2006. "Complementation in Saramaccan and Gungbe: The case of C-type modal particles." *Natural Language & Linguistic Theory* 24(1):1–55.

Chaperon, Brandon. to appear. "Unravelling the 'not': left peripheral blocking of negation in Kirundi." *Toronto Working Papers in Linguistics* 45.

Chomsky, Noam. 2007. "Approaching UG from below." *Interfaces+ recursion= language* 89:1–30.

Damonte, Federico. 2002. The complementizer layer in Saramaccan. In *Current Issues in Generative Grammar.* Editorial Universidad de Alcalá pp. 31–50.

Dunigan, Melynda B. 1994. *On the clausal structure of Wolof.* The University of North Carolina at Chapel Hill.

Déchaine, Rose-Marie and Martina Wiltschko. 2001. Negation at the left periphery. Evidence from Algonquian and Salish. In *Proceedings of WECOL.*

Déchaine, Rose-Marie and Martina Wiltschko. 2002. The Position of Negation and its Consequences. In *University of British Columbia Working Papers in Linguistics.* Vol. 10 pp. 29–42.

Eberhard, David M., Gary F. Simons and Charles D. Fennig. 2021. *Ethnologue: Languages of the World.* SIL International.

Ejeba, Ochala. 2016. *A Grammar of Igala.* M & J Grand Orbit Communications.

Embick, David. 2010. *Localism versus globalism in morphology and phonology.* Vol. 60 MIT Press.

Essien, Okon E. 1990. *A grammar of the Ibibio language.* Univ. Press Ltd.

Gatchalian, Terrance. to appear. "What's in a copula? The syntax of Kirundi's multiple copulas." *Toronto Working Papers in Linguistics* 45.

Kiparsky, Paul. 1995. "Indo-European origins of Germanic syntax." *Clause structure and language change* 140169.

Marantz, Alec. 2013. "Locality domains for contextual allomorphy across the interfaces." *Distributed morphology today: Morphemes for morris halle* pp. 95–115.

Mensah, Eyo O. 2001. "Negation in Efik." *Kiabara: Port-Harcourt Journal of Humanities* 7(2):61–67.

Obiamalu, Greg Orji. 2013. "On the role of tone in Igbo negation." *Journal of West African Languages* 40(2):13–26.

Potsdam, Eric. 2013. "CP-negation and the domain of quantifier raising." *Linguistic inquiry* 44(4):674–684.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar.* Springer pp. 281–337.

Roberts, Ian. 2018. Two types of head movement in Romance. In *Diachronic and Comparative Syntax.* Routledge pp. 334–368.