# Conditionals in Igala

Chase Boles and Michaela Socolof
McGill University
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## 1 Introduction

- There is a debate in the literature about whether conditional antecedents are a type of relative clause.
- Conditional-as-relative-clause analyses are based on similarities between conditional antecedents and:
  - temporal clauses (Haegeman, 2010; Bhatt and Pancheva, 2006),
  - yes-no questions (Arsenijević, 2009; Geis, 1985; Larson, 1985),

  specifically showing that relative clause phenomena also occur in conditionals, and that readings available for conditionals suggest a cyclic movement derivation of an operator.
- Analyses against conditionals as relative clauses highlight possibilities of control and asymmetries between *whether* and *if* (Iatridou, 1991; Kayne, 1990).
- We argue with data from Igala (Yoruboid; Nigeria) that while some conditional antecedents involve relative clauses, **a relative clause is not required for conditional interpretation.**
- Igala has two structures for conditional antecedents. The first strategy is to embed the antecedent in *ɛ̄ŋʷū k-*. This also involves a cleft *í tʃ(e)*. We call these "relative clause conditionals."[1]

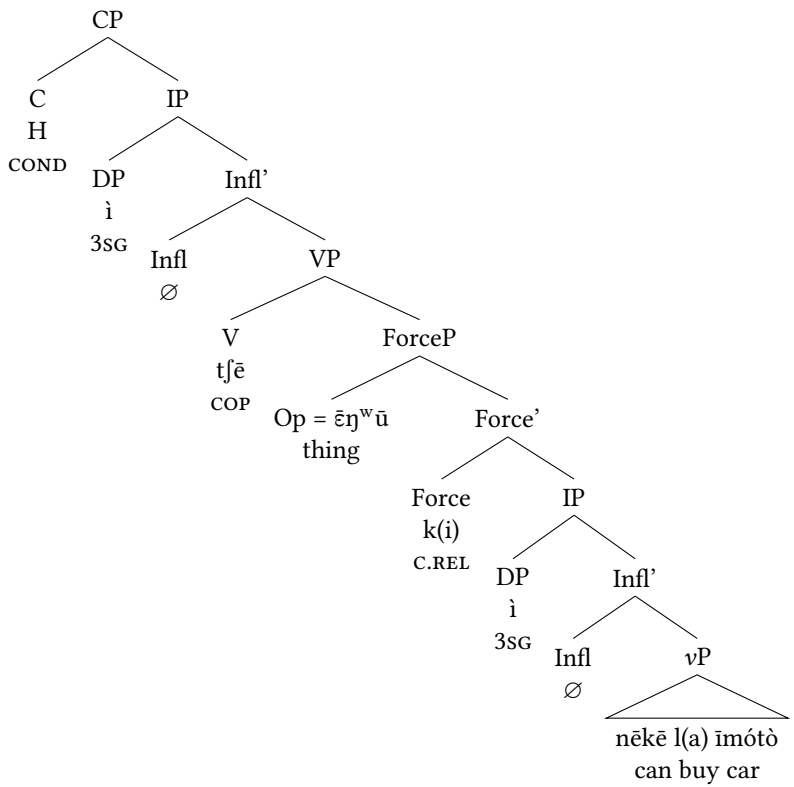
(1) [**í** **tʃ(e)** ɛ̄ŋʷ**ū** **k**=ì nēkē l(a) īmótò] j=ǎ wá
3SG.COND COP thing C.REL=3SG can buy car 3SG=IMPF come
'If (s)he can buy a car, (s)he will come.'

- The second strategy for making a conditional antecedent is to mark the subject of the antecedent with a high tone. We call these "high-tone conditionals."

(2) [**í** nēkē l(a) īmótò] j=ǎ wá
3SG.COND can buy car 3SG=IMPF come
'If (s)he can buy a car, (s)he will come.'

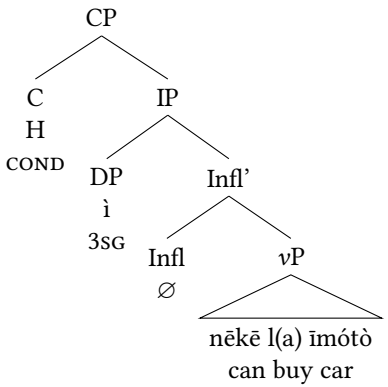
- We will show that relative clause conditionals are clearly relative clauses andd high-tone conditionals cannot be.
- This suggests that while conditional antecedents may (and often do) involve relative clause structures, **this is not necessary** for something to be conditional antecedent.
- We propose that **the high tone is responsible for making something a conditional**, as it appears in both strategies. Relative clause structure is an optional addition.
- We propose the following structures for Igala conditional clauses:

(3) = (1) Relative clause conditional




[1] To be motivated.

(4) = (2) High tone conditional




**Roadmap:**



# 2 Background

- Igala (Yoruboid; Nigeria) is spoken by about 1.6 million people mainly in Kogi State in Nigeria (Eberhard, Simons and Fennig, 2021).

- Igala is a tenseless and isolating language. The surface word order is SVO.

(5) è dʒ(ɛ) òsìkápá
2SG eat rice
'You ate rice.'

- The verb follows all inflectional material.

(6) ù **nâ** t(a) īdó
1SG **PROG** strike dance
'I am dancing.'

- Note that the default tone for subject pronouns is low in finite clauses.

# 3 Tests for relative clauses

- We will discuss several diagnostics that clearly tease apart the two conditionals, showing that the relative clause conditionals truly involve relative clauses, while the high tone conditionals cannot.

## 3.1 Complementizer choice

- In Igala, all complementizers can appear as *k(i)*. However, in embedding contexts, the complementizer can be expressed as the longer version *kàkíní* or *kàkí*, whereas in relative clause contexts, only *k(i)* is possible.
- In embedding contexts where *kàkíní* or *kàkí* have been shortened to *k(i)*, they may be grammatically substituted back in.

(7) ɛ̋nɛ̂ è ŋédʒú **k(i)/kàkín(i)/kàk(i)** ɔ̌dʒálí tʃ(e) átèkò ŋʷù í?
who 2SG believe C.EMBED/C.EMBED/C.EMBED? Ọjali do help 3SG.OBJ FOC
'Who do you think Ọjali helped?'

- The embedding complementizers may **not** substitute for the relative clause *k(i)*.

(8) ābʲá **k=/*kàkín(i)/*kàk(i)** ɔ̀málɛ̄ d(u) ɛ̄lā ŋʷú dʒɛ̄ lɛ̄ ɹá!
dog C.REL=/*C.EMBED/*C.EMBED? Ọmalẹ give meat to eat DEF.DIST run
'The dog that Ọmalẹ fed meat ran away!'

### Relative clause conditionals

- The complementizer used for the embedded clause in relative clause conditionals surfaces as *k(i)*.

(9) Ōtʃál(a) ă ɲá w(ɔ) ɛ́dɔ̀ í tʃ(e) ɛ̄ŋʷū **k**=ùmà ɹ(e) ɔ́
Ochala IMPF FUT foam heart 3SG.COND COP thing C=3PL remember$_1$ 3SG.OBJ
wá
remember$_2$
'Ochala will get angry if he is reminded.'

- This *k(i)* **cannot** be replaced with the full form of an embedding complementizer.

(10) *Ōtʃál(a) ă ɲá w(ɔ) ɛ́dɔ̀ í tʃ(e) ɛ̄ŋʷū **kàkín(i)/kàk(i)** ùmà
Ochala IMPF FUT foam heart 3SG.COND COP thing C.EMBED/C.EMBED? 3PL
ɹ(e) ɔ́ wá
remember$_1$ 3SG.OBJ remember$_2$
Intended: 'Ochala will get angry if he is reminded.'

**Conclusion:** The relative clause conditionals use the relative clause complementizer.

### High-tone conditionals

High-tone conditionals don't have any complementizer.

## 3.2 Symmetry with temporal clauses

- Conditionals show parallels to temporal clauses (Haegeman, 2010), which are shown to be relative clauses (Geis, 1970; Larson, 1987, 1990; Declerck, 1997).
- Temporal clauses in Igala are also relative clauses. The head *ɛ̄gbà* both means 'period' and operates as the *wh*-word 'when'.

(11) èdɔ̀ mī tʃè bɔ́ ɛ̄gbà k=ómí mấ lɔ̄ ń.
heart 1SG.POSS COP cool period C=water NEG fall NEG
'I'm happy when it doesn't rain.'

### Relative clause conditionals

- The head of the relative clause in relative clause conditionals is *ɛ̄ŋʷū*, a word that means '(some)thing', but also 'what'.

(12) **í tʃ(e)** ɛ̄ŋʷ**ū k**=ì nēkē l(a) īmótò j=ă wá
3SG.COND COP thing C.REL=3SG can buy car 3SG=IMPF come
'If (s)he can buy a car, (s)he will come.'

**Conclusion:** Relative clause conditionals parallel relative temporal clauses.

- Due to the symmetry between relative clauses and relative clause conditionals, we suggest that relative clause conditionals show properties of relative clauses.
- The *wh*-word properties of *ɛ̄ŋʷū*, coupled with the symmetry to other relative clauses like *ɛ̄gbà*, lead us to posit that *ɛ̄ŋʷū* is the head of the relative clause.

### High-tone conditionals

High-tone conditionals do not have parallel structure to temporal clauses.

## 3.3 Topic and focus availability

- Igala is highly discourse-configurational (Kiss, 1995), with both topic and focus positions.
- Focused elements are fronted.

(13) [ītʃāká īmɔ̄t(ɔ) ɔ̄nɛ̀kɛ̀lɛ̄ lɛ́]$_i$ j=ă lɔ̄ $t_i$ ì
[trousers child male DEF.DIST]$_i$ 3SG=IMPF chew FOC
'He bit **the boy's trousers**.'

- Topicalized elements appear before focused ones, and are marked by a following *tʃɛ̄*.

(14) [ùdʒɛ̄ŋʷū lɛ́] tʃ(e) ókʷɔ̄ mì ónōbùlē hì ī
[food DEF.DIST]$_i$ TOP grandparent 1SG.POSS female cook FOC
'As for this dish, **my grandmother** cooked it.'

- Topic is also allowed in relative clauses.

(15) énēkɛ̀lē [$_{\text{ForceP}}$ k= [$_{\text{TopP}}$ Ŏtʃálā tʃ(e) [$_{\text{FocP}}$ [ībál òdūfā]$_i$ lè [$_{\text{IP}}$ ì dū
man C.REL= Ochala TOP ball blue DEF.DIST 3SG take
ɹɔ̄ $t_i$ ŋʷú]]]] lè Èfè kɛ̄ɹɛ̀bɔ́ ì
throw to DEF.DIST Efe meet FOC
'Efe met the man that Ochala threw **the blue ball** to.'

### Relative clause conditionals

- As would be expected of the relative clause conditionals if they are relative clauses, topic and focus are both allowed in the embedded clause of relative clause conditionals.

(16) í tʃ(e) [$_{\text{ForceP}}$ ɛ̄ŋʷū k= [$_{\text{TopP}}$ ītʃìdè tʃ(e) [$_{\text{FocP}}$ ɔ̀gɛ̀dɛ̀$_i$ [$_{\text{IP}}$ ì ɹɛ̄
3SG.COND COP thing C.REL= Chide TOP banana 3SG pick
$t_i$]]]] í n=ă ɲá tʃ(e) íbɹɛ̄dʲ ɔ̀gɛ̀dɛ̀
FOC 1SG=IMPF FUT do bread banana
'If Chide picks **bananas**, I will make banana bread.'

### High-tone conditionals

- If high-tone conditionals were also relative clauses, they should similarly allow the same range of topic and focus.
- High-tone conditionals do not allow for topic/focus.

(17) a. *ɔ̀gɛ̀dɛ̀ Tʃídê rē í n=ă ɲá tʃ(e) íbɹɛ̄dʲ ɔ̀gɛ̀dɛ̀
banana Chide.COND pick FOC 1SG=IMPF FUT do bread banana
Intended: 'If Chide picks **bananas**, I will make banana bread.'

b. *Tʃìdè tʃē í r(e) ɔ̀gɛ̀dɛ̀ n=ă ɲá tʃ(e) íbɹɛ̄dʲ ɔ̀gɛ̀dɛ̀
Chide TOP 3SG.COND pick banana 1SG=IMPF FUT do bread banana
Intended: 'If Chide picks bananas, I will make banana bread.'

- Placing the high tone above the left periphery does not repair the ungrammaticality.

(18) *[Tʃídé] tʃ(e) [ɔ̀gɛ̀dɛ̀] ì ɹɛ̄ í n=ă ɲá tʃ(e) íbɹɛ̄dʲ ɔ̀gɛ̀dɛ̀
[Chide.COND] TOP [banana] 3SG pick FOC 1SG=IMPF FUT do bread banana

Intended: 'If Chide picks **bananas**, I will make banana bread.'

- To focus with a high tone conditional, a cleft structure just like that of the relative clause conditionals must be used instead.

(19) í tʃ(e) [ɔ̋gɛ̀dɛ̀] Tʃìdè ɹɛ̄ í n=ă tʃ(e) ìbɹɛ̄dʲ ɔ̀gɛ̀dɛ̀
3SG.COND COP [banana] Chide pick FOC 1SG=IMPF do bread banana
'If Chide picks **bananas**, I'll make banana bread.'

- The conditional high tone expones a head lower than the extended left periphery. We presume this head is C.
- When a clause merges with the conditional C head, the high-tone conditional results.
- For relative clause conditionals (ForcePs) and clauses with topic/focus, a cleft structure must be built in order to merge the conditional C.

We have shown that one strategy of forming conditionals in Igala involves a relative clause and the other does not. This means that the relative clause is **not** what creates a conditional antecedent in Igala.

## 4 Negation

- As is common in Niger-Congo languages, negation has different forms in matrix clauses and embedded/A'-movement contexts.
- Negation in matrix and embedded clauses appears as a H tone on the first constituent of negated embedded clauses alongside an SFP *ń*.

(20) ì kà (ka)kĭní **ǐ́** mà **ń**.
3SG say C 3SG.NEG know NEG.SFP
'He said he did not know.'

- Negation in relative clauses appears as a preverbal particle *mấ* alongside the SFP *ń*.

(21) ù l(a) ɔ̀tấkĭdā k=ìTʃìdè **mấ** gbā **ń̋(i)** (lɛ̄).
1SG buy book C.REL=CHIDE NEG read NEG.SFP DET.DIST
'I bought the book that Chide did not read'.

- Both conditionals are negated via the preverbal particle *mấ*.

(22) ĭ tʃ(e) ɛ̄ŋʷū k=ījē mī **mấ** d(ɛ) údɔ̀ ń, n=ấ ɲá d(u)
3SG COP thing C.REL=mother 1SG.POSS NEG call.V call.N NEG 1SG=IMPF FUT take
ēdʒú dó ɔ̄dʒ(ɔ) álādì ñ.
eye place.on day Sunday NEG
'If my mother doesn't call, I won't visit on Sunday.'

(23) ì **mấ** mā gʷ(u) úɲí lɛ̀ dʒó ń à mā nâ fɛ́dɔ̀ ŋʷú
3SG.COND NEG PRF burn$_1$ house DEF.DIST burn$_2$ NEG 1PL PRF CONT love 3SG.OBJ
tá
still
'If (s)he hadn't set the house on fire, we would still love him(her).'

- We will argue that both of these are predicted by the analysis sketched out above.
- Chaperon (2023) argues that appearance of *mấ* results from an element blocking Neg$^0$ from undergoing head-movement up to the highest clausal head (see his work for details and evidence). We follow him in this assumption.
- In the case of relative clause conditionals, Neg$^0$ is blocked from head movement to the highest projection by the relative clause complementizer in Force$^0$, as in Chaperon (2023).
- In high tone conditionals, the conditional C exponed by the high tone also blocks negation from head-moving to the highest projection.
- In both cases, Neg$^0$ must stay low resulting in the form *mấ* (Chaperon, 2023).

## 5 Difference in distribution

- We have shown that relative clause conditionals have the same structure as true relative clauses, whereas high-tone conditionals do not.
- There is also a difference in distribution between relative clause conditionals and high-tone conditionals.
- Relative clause conditionals may appear before or after the consequent.

(24) a. [í tʃ(e) ɛ̄ŋʷū k=ì nēkē l(a) īmótò] j=ă wá
3SG.COND COP thing C.REL=3SG can buy car 3SG=IMPF come
'If (s)he can buy a car, (s)he will come.'
b. j=ă wá [í tʃ(e) ɛ̄ŋʷū k=ì nēkē l(a) imótò]
3SG=IMPF come 3SG.COND COP thing C.REL=3SG can buy car
'(S)He will come if (s)he can buy a car.'

- On the other hand, high-tone conditionals may only appear before the consequent.[2]

(25) a. [í nēkē l(a) īmótò] j=ă wá
3SG.COND can buy car 3SG=IMPF come
'If (s)he can buy a car, (s)he will come.'
b. *j=ă wá [í nēkē l(a) īmótò]
3SG=IMPF come 3SG.COND can buy car

[2]High-tone conditionals are allowed to follow the consequent, but require an large intonational break and receive an afterthought reading. This is different from relative clause conditionals, which follow consequents without any pause at all.

Intended: '(S)He will come if (s)he can buy a car.'

- Conditionals are typically taken to be adjuncts, so it is a puzzle why this asymmetry should arise.

## 6 Conclusion

- We have discussed two ways of forming conditional antecedents in Igala.
- We have shown that one strategy for forming conditional antecedents involves a relative clause.

  → **The presence of the relative clause does not make something a conditional.**
- Previous literature (Arsenijević, 2009; Bhatt and Pancheva, 2006; Haegeman, 2010; Larson, 1990) has suggested there is only one way to make a conditional antecedent: with a relative clause.
- This is **not compatible** with the data in Igala.
- There are multiple syntactic ways to express the semantics of a conditional.

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