

Diagnosing restrictivity & non-restrictivity in Ikpana relative clauses

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1 Introduction

Ikpana [ikpáná] (ISO 639-3: lgq) features 2 primary variants for relative markers in headed relative clauses, seen in (1):¹

- (1) a. jókple ikpeřípke m-ì-lì-ma [RC xé á-té
therefore everything NEG-3SG-be.located.there REL 3PL-say.PST
ɔ-ló-tɛ].
3SG-ASP-give.PASS
'Therefore, there was nothing there that he could be given.'
- b. Kofí ɔ-bámá té [RC a-zaì=je jé Fafa ɔ-kpé] m-a-zì.
Kofi SM-fear COMP CL-beans=the REL Fafa SM-eat NEG-SM-be.good
'Kofi fears that the beans that Fafa ate are bad.'

- The *xé* type has been previously (though not extensively) described by Dorvlo (2008)
- The *jé* type has not been previously documented
- Native speakers tend to judge these markers “the same”

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Questions:

- What is the difference between *xé* RCs and *jé* RCs?
- How do these fit into the semantic typology of RCs cross-linguistically?
- Do the different morphological marking strategies in these RCs align with well-studied semantic distinctions like restrictive and non-restrictive?
- How do we know?
- Do existing tests for (non-)restrictivity from other languages apply to Ikpana?

Aims & claims:

- Rely on what appear to be cross-linguistically valid syntactic & semantic diagnostics to go beyond intuitions (e.g. Del Gobbo 2005, Branchini & Donati 2009)
- Assess which of the existing diagnostics for distinguishing between restrictive and nonrestrictive RCs are relevant for Ikpana
- Show that diagnostics relying on the traditional restrictive vs. nonrestrictive distinction do always not seem applicable, but they may be testing for something else
- (In the Appendix) Provide preliminary evidence that Ikpana may be among the languages that have both integrated and non-integrated nonrestrictives (Cinque 2008, 2020)

Outline:

§2: General background

§3: *Xé* and *jé* RCs and (non-)restrictivity

§4: Conclusions

§5: Appendix: Further divisions for nonrestrictives

2 Background

2.1 General properties

Ikpana (also known by the Ewe-derived exonym “Logba”) is an endangered Kwa language spoken by about 7,500 Akpanawo (Dorvlo 2008, Eberhard et al. 2019) in southeast Ghana.

Principally spoken in a handful of towns at or near the Ghana-Togo border in the Volta Region, Ikpana is among the southernmost of the 15 languages from the Ghana-Togo Mountain (GTM) group (Ameka 2017).

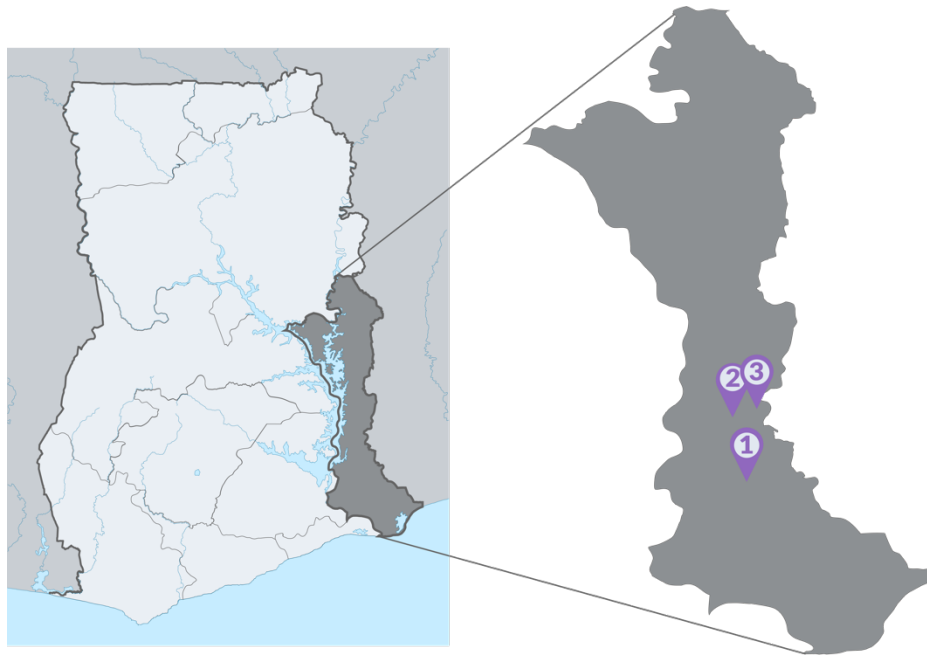


Figure 1. Map of Ghana with the Volta region highlighted and approximate locations for Ho (map ref #1), Logba Alakpeti (map ref #2), and Logba Tota (map ref #3). Map adapted from [Location of Volta in Ghana](#) by Profoss ([CC BY-SA 3.0](#)).

As is common among GTM languages, Ikpana is tonal and has SVO order (2a). Subject marking on verbs means that overt nominals in addition to such marking are not always required.

(2) a. Sása o-gá o-klòntǎ.
 Sasa SM-read.PST CM-book
 'Sasa read the book.'

b. o-gá o-klòntǎ.
 SM-read.PST CM-book
 'S/he read the book.'

2.2 Relative clauses in Ikpana: *xé* and *jé* relative clauses

Westermann (1903: 30)—the first published grammatical description of Ikpana—simply lists the following in his section “Relative”:

- (3) a. ina ome ‘derjenige, welcher [that, which]’ (Lit., ‘that person’)
 b. iva ime ‘das, was [that, what]’ (Lit., ‘that thing’)

- Perhaps expected in that demonstratives are a common source for grammaticalization of relative pronouns/markers
- However, these appear to be RC Heads, not relative pronouns/markers

Dorvlo (2008: 173)—the most extensive grammatical description of Ikpana to date—maintains that there is one “relative particle”/“relativizer,” *xé*:

(4) *iva=á* [_{RC} *xé* *e-te-mí* *be* *u-wá*] *i-ḍu* *i-fiami*
 thing=DET REL 3PL-HAB-take clear CM-forest 3SG-be CM-cutlass
 ‘the thing they use to clear the forest is cutlass’ (Dorvlo 2008: 174)

- *Xé* can be used for relativizing various nominals: subjects, direct objects, indirect objects, locatives, instrumentals
- Note: Texts provided by Westermann (1903) do illustrate this construction (e.g., *fē yē idie imue omi iva kura he [=xé] oblotē mloē*)

Revisiting examples from Dorvlo, we find evidence of another relative marker:

(5) *Ye a-la aganyi sé pétée, a-bó-zuzo ilubu=e;*
 then 2SG-remove palm.fronde finish all 2SG-FUT-roast small.pot=DET
ibe imé nu la, ilubu kpe asoti [_{RC} *yé* *atsi-lími*
 time that in CFM small.pot CONJ small.pot REL 1PL-PRS.PROG-take

blo-é].
 make=3SG.OBJ
 ‘After removing the palm fronds, you will roast the pots; those days it was pots and small pots that we used’ (Dorvlo 2008: 327)

- What we here gloss REL, *yé*, Dorvlo marked as 3SG
- Yet, *yé* here seems to introduce an embedded clause that restricts *ilubu kpe asoti* ‘pots and small pots’

Our work has shown that *yé* [jé] can indeed function as a relative marker:

(6) [_{RC} *ɔ-sa: jé/xé Sása ɔ-tó*] *ɔ-da.*
 CM-man REL Sasa SM-push.PST SM-be.big
 ‘The man who Sasa pushed is big.’

- Here, either *jé* or *xé* is possible
- *jé* can also be used for relativizing various nominals: subjects, direct objects, indirect objects, locatives, instrumentals

- Moreover, both *jé* and *xé* are judged by our speakers to be interchangeable or “the same”

2.3 Other (potential) relative clause types in Ikpana

In reviewing our own data (elicitation, grammaticality judgments, stories, songs) and extant materials (Westermann 1903, Dorvlo 2008, Agbaku 2015), we find potential evidence for the following types of relative clauses:

Headed relative clause with *menu* ‘where’ as a relative pronoun:

- (7) I-be i-kpɛ [RC **menu** a-gá ɔ-kpɛ alo i-nyɔ fɛ]
 CM-time AM-one where 2SG-leave CM-one or CM-two in
 ‘Sometimes you leave one or two in’ (Dorvlo 2008: 320)

Headed relative clause with a null relative marker:

- (8) Má dɛkúkú awú tonka a [RC à blò unámè] ɛ ó sé loo?
 1SG beg 2SG stew DEF 2SG prepare yesterday DEF 3SG finish Q
 ‘Please, did you use all the stew you prepared yesterday?’ (Agbaku 2015: 77)

- The presence of the determiner (definite marker) after the potential RC may be relevant, suggesting a type of clausal nominalization

Possible reduced relative clause introduced by *baté* ‘like’:

- (9) Atsa-wá té xé iva [RC **baté** ɔganyi kpɛ avudago xé
 1PL-say COMP COND thing like palm.fronde CONJ leaf REL
 á-lá-dzi té acheampɔŋ] xé ɔ-wɔ-wú-e
 3PL-PRS.PROG-call COMP Acheeampong.tree COND 3SG-prick-2SG.OBJ-CFM
 atsa-wá té xé a-mi auiɛɔtsɔɛ glí-e aɖi
 1PL-say COMP COND 2SG-take local.soap tie-3SG.OBJ poison
 á-tsa-ku ikpá.
 3PL-HAB-die true.Q

‘It is said that if something like palm frond and a leaf like Acheeampong tree pricks you, they say that if you tie it with local soap the poison die, is it true?’ (Dorvlo 2008: 348-349)

Possible free relative clause in a benefactive construction:

- (10) o-gridi kpem té o-to e-tfi té o-zó á-gù
 CM-story EMPH COMP 3SG-begin.PRS CM-earth COMP 3SG-go.PRS CM-sky
 [FR ɔ-mɔ ɔ-né].
 CM-who 3SG-receive.PRS
 ‘Here is a story that comes from the earth and rises to the sky for who receives it.’

Noun complement clause:

- (11) kpe a-susu té i-dzɔ=ɔ té i-zu ɖa
 CONJ CM-reason COMP CM-yam=DET COMP AM-be.big fat
 ‘with the reason that the yam becomes big’ (Dorvlo 2008: 321)

We simply mention these here to present a more complete picture of Ikpana RCs in terms of forms. We do not address these in detail below because instances of these in our and other’s data remain sparse.

3 Xé and jé relative clauses and (non-)restrictivity

3.1 Orienting to classic semantic distinctions

Recall in (5) above, repeated here as (12), that the relative marker *yé* seemed to encode a restrictive semantics:

- (12) Ye a-la aganyi sé pétée, a-bó-zuzɔ ilubu=e;
 then 2SG-remove palm.fronde finish all 2SG-FUT-roast small.pot=DET
 ibe imé nu la, ilubu kpe asoti [RC yé atsi-lími
 time that in CFM small.pot CONJ small.pot REL 1PL-PRS.PROG-take
 blɔ-é].
 make=3SG.OBJ
 ‘After removing the palm fronds, you will roast the pots; those days it was pots and small pots that we used’ (Dorvlo 2008: 327)

And, recall from (6) above, repeated here as (13),

- (13) [RC ɔ-sa: jé/xé Sása ɔ-tɔ] ɔ-da.
 CM-man REL Sasa SM-push.PST SM-be.big
 ‘The man Sasa pushed is big.’

One possible difference is that the *xé* vs. *je* distinction is a morphosyntactic reflex of a semantic distinction, (non-)restrictivity. The following non-restrictive *xé* RCs contrast with the aforementioned restrictive *je* RC:

(14) Non-restrictive *xé* RCs

a. i-ta-té atsú etsi=é [RC *xé* i-ɖu Ghana ume] —
 3SG-give-COMP 1PL land=DET REL 3SG-be Ghana here

koko mo-ó-nyɔ-n-zi ɔdzɔgbe nu.

cocoa NEG-3SG-stay-NEG-well savanna in

'It's that our land, which is here in Ghana—cocoa does not do well in the savanna.'

(Dorvlo 2008: 350)

b. ibibjén té a-gbí ɔ-ga kpɛ e-biwa a-ba-ka
 happen.PST COMP CM-spider CM-wife and CM-child.PL 3PL-ASP-make.PST

ú-bó nangò nangò ɔ-kpè [RC *xé* o-ɖu i-dzɔ-bo]
 CM-farm big big CM-one REL 3SG-be.PST CM-yam-farm

'It happened that the spider's wife and children made a very big farm, which was a yam farm...'

- Both of these *xé* RCs comment on the RC head and add additional or clarifying information rather than restricting the reference

These data suggest that *xé* and *jé* are not simply phonological variants. Focus constructions provide further support for this, as *jé* is available in these constructions while *xé* is illicit (see Kandybowicz, Baron Obi, Duncan & Katsuda, 2021):

(15) Focus constructions

a. mé *jé*/**xé* Fafa o-kplò a-fàn u-dântɕi-ɛ?
 what REL Fafa SM-fry CM-home CM-morning-DET
 'What is it that Fafa fried at home this morning?'

b. a-zàì *jé*/**xé* Fafa o-kplò a-fàn u-dântɕi-ɛ.
 CM-beans REL Fafa SM-fry CM-home CM-morning-DET
 'It is BEANS (as opposed to X) that Fafa fried at home this morning.'

- In Ikpana, focus constructions are cleft structures build on relative clauses
- Content interrogative expressions in interrogative clauses can be accompanied by *jé*, but not *xé*
- The restrictive nature of focus constructions makes it possible to entertain that *jé* is a restrictive operator

Of potential relevance, too, the relative marker *xé* in Ikpana is homophonous with the conditional marker and the marker that introduces *when*-clauses:

- (16) a. *jé* *o-wa* *ɔ-ga* *kpe* *e-bitoa* *té* [_{COND} *xé* *a-té*
 and 3SG-tell.PST CM-wife and CM-child.PL COMP if 3SG-happen
ole *o-ku-je*] *te* *a-kpa* *vla* *óle*
 3SG.SUBJ CM-die-DET COMP 3PL-should bury 3SG.OBJ
i-dzó-bo-je *nu*
 CM-yam-farm-DET in
 ‘And he told his wife and children that if he dies, they should bury him on the yam farm.’
- b. [*xé* *a-ló-zi=nɛ* *ta* *ba-ahá*] *alɛ* *é-bé-tse-ga*
 when 2SG-PRS.PROG-carry=3SG.OBJ give bar-people 3PL 3PL-FUT-HAB-pay
awú *gu*
 2SG price
 ‘When you are giving it to the sellers, they will be paying you.’ (Dorvlo 2008: 328)

- For cases like (16b), this is perhaps unsurprising given that *when*-clauses can be used as nonrestrictive RCs without an overt antecedent/Head (Declerck 1997)

3.2 Diagnosing (non-)restrictivity

To determine whether the *xé* vs. *jé* distinction might be a reflex of the semantic distinction of non-restrictive vs. restrictive, we applied the following diagnostics, which have been shown to distinguish between restrictive RCs and nonrestrictive RCs cross-linguistically:

Diagnostic	RRCs cross-linguistically	NRRCs cross-linguistically
Proper name heads	×	✓
Pronominal heads	×	✓
Sentential adverbs	×	✓
Non discourse referent-licensing quantified antecedents	✓	×
Matrix negation	✓	×
Stacking	✓	×
Intentional verbs	✓	×
Extraction	✓	×

Table 1. The properties of restrictive relative clauses (RRCs) and non-restrictive relative clauses (NRRCs) cross-linguistically.

The subsections that follow present our results for these tests.

3.2.1 Proper name Heads

Claim: Nonrestrictive RCs can be used to qualify unmodified proper names. Restrictive RCs cannot be used to qualify unmodified proper names. (Jackendoff 1977)

Ikpana RCs headed by proper names are incompatible with *jé* and well-formed with *xé*.

- (17) a. Kofi [RC **jé/xé* ɔ-tó Sása] ɔ-da.
 Kofi REL SM-push.PST Sasa SM-be.big
 ‘Kofi, who pushed Sasa, is big.’
- b. Mianíka [RC **jé/xé* ɔ-sa: je ɔ-tá u-ndú] o-zi.
 Mianika REL CM-man the SM-give.PST CL-water SM-be.good
 ‘Mianika, who the man gave water to, is good.’

This is consistent with *jé* being a restrictive relative pronoun and *xé* being a non-restrictive relative pronoun.

3.2.2 Pronominal Heads

Claim: Nonrestrictive RCs can modify pronouns. Restrictive RCs cannot modify pronouns. (Jackendoff 1977)

Ikpana RCs headed by pronouns are incompatible with *jé* and compatible with *xé*.

- (18) a. amú [RC **jé/xé* ma-tó Sása] ma-da.
 1SG REL SM-push.PST Sasa SM-be.big
 ‘I, who pushed Sasa, am big.’
- b. Fafa ɔ-tó awú [RC **jé/xé* a-tó Sása].
 Fafa SM-push.PST 2SG REL SM-push.PST Sasa
 ‘Fafa pushed you, who pushed Sasa.’

This is also consistent with *jé*’s status as a restrictive relative pronoun and *xé*’s status as a non-restrictive relative pronoun in a null-head appositive RC construction.

3.2.3 Sentential adverbs

Claim: Sentential adverbs can appear inside nonrestrictive RCs, but not inside restrictive RCs. (Ogle 1974)

This diagnostic ends up being not applicable in Ikpana because there is no asymmetry in the language. Sentential adverbs can appear in both restrictive and non-restrictive RCs.

- (19) a. Sása o-zá a-zàì je [RC jé/xé dzogbè dúkpà i-bliè Kofí ɔ-kpé].
 Sasa SM-cook CL-beans the REL fortune good SM-show Kofi SM-eat
 ‘Sasa cooked the beans that/which fortunately Kofi ate.’
- b. Sása o-zá a-zàì je [RC jé/xé gu Fafa í-lwa nu Kofí ɔ-kpé].
 Sasa SM-cook CL-beans the REL from Fafa 3SG-word on Kofi SM-eat
 ‘Sasa cooked the beans that/which according to Fafa, Kofi ate.’
- c. Sása o-zá a-zàì je [RC jé/xé i-léfegò nu Kofí ɔ-kpé].
 Sasa SM-cook CL-beans the REL CL-surprise on Kofi SM-eat
 ‘Sasa cooked the beans that/which surprisingly Kofi ate.’
- d. Sása o-zá a-zàì je [RC jé/xé i-bè kisai hè Kofí ɔ-kpé].
 Sasa SM-cook CL-beans the REL CL-time long now Kofi SM-eat
 ‘Sasa cooked the beans that/which long ago Kofi ate.’

3.2.4 Quantified antecedents

The asymmetries between *jé* and *xé* with respect to proper name & pronominal Heads lead to a generalization—RC heads that introduce discourse referents are compatible with *xé*.

This gives way to a prediction—RCs headed by quantifier phrases that license discourse referents (e.g., ‘someone’) should be possible with *xé* and RCs headed by quantified expressions that do not license discourse referents (e.g., ‘every child’, ‘no student’) should not be compatible with *xé*.

This is precisely what we find.

- (20) a. i-nɔkpe [RC jé/xé ɔ-da] ɔ-tó Sása.
 CL-one REL SM-be.big SM-push.PST Sasa
 ‘Someone that/who is big pushed Sasa.’
- b. e-bitfi ɔ-kpɛfiɔkpe [RC jé/*xé ɔ-tó Sása] ɔ-da.
 CL-child CL-every REL SM-push.PST Sasa SM-be.big
 ‘Every child that pushed Sasa is big.’

This suggests the following diagnostic, which builds on Ross' (1967) observation that unlike restrictive RCs, non-restrictive RCs cannot have quantifier antecedents:

Claim: Quantifier phrases that license discourse referents can be antecedents for nonrestrictive RCs. Quantifier phrases that do not license discourse referents cannot be antecedents for nonrestrictive RCs.

These facts, together with those observed in (15) & (18), reinforce the conclusion that in Ikpana, *jé* is a restrictive relative pronoun and *xé* is its appositive counterpart.

3.2.5 Matrix negation

Claim: Nominals modified by restrictive RCs can appear under the scope of matrix negation. Nonrestrictive RCs cannot appear under the scope of matrix negation. (Demirdache 1991)

In Ikpana, the reverse holds. Only non-restrictive *xé* RCs may be within the scope of matrix negation.

- (21) a. Sása m-o-zà-nu a-zài je [_{RC} *jé/xé Kofí ɔ-kpé].
 Sasa NEG-SM-cook.PST-NEG CL-beans the REL Kofi SM-eat.PST
 'Sasa didn't cook the beans, which Kofi ate.'
- b. Sása m-o-tò-nu e-bitfi [_{RC} *jé/xé Kofí ɔ-tá u-ndú].
 Sasa NEG-SM-push.PST-NEG CL-child REL Kofi SM-give.PST CL-water
 'Sasa didn't push a child, which Kofi gave water to.'

Because we find an asymmetry here, we have a potential diagnostic for (non-)restrictivity. However, Demirdache's (1991) diagnostic is not applicable in its current form to Ikpana.

3.2.6 Stacking

Claim: Restrictive RCs can stack. Nonrestrictive RCs cannot stack. (Jackendoff 1977, McCawley 1988)

By "stacking", we mean cases where RC₁ modifies a nominal, while RC₂ modifies the sequence [nominal + RC₁]. In other words, stacking involves an RC modifying another RC modifying an antecedent and not two conjoined RCs modifying the same antecedent or nesting, both of which are possible with non-restrictive RCs.

In Ikpana, there is no stacking asymmetry. Both *jé* and *xé* RCs can stack.

- (22) a. [[u-hé je *jé* Kofi ɔ-tó] *jé* Sása o-flí mángɔ kpɛ] ɔ-da.
 CL-knife the REL Kofi SM-push.PST REL Sasa SM-slice.PST mango with SM-be.big
 ‘The knife that Kofi pushed that Sasa sliced mango with is big.’
- b. [[u-hé je *xé* Kofi ɔ-tó] *xé* Sása o-flí mángɔ kpɛ] ɔ-da.
 CL-knife the REL Kofi SM-push.PST REL Sasa SM-slice.PST mango with SM-be.big
 ‘The knife, which Kofi pushed, which Sasa sliced mango with, is big.’
- c. [[u-hé je *jé* Kofi ɔ-tó] *xé* Sása o-flí mángɔ kpɛ] ɔ-da.
 CL-knife the REL Kofi SM-push.PST REL Sasa SM-slice.PST mango with SM-be.big
 ‘The knife that Kofi pushed, which Sasa sliced mango with, is big.’
- d. [[u-hé je *xé* Kofi ɔ-tó] *jé* Sása o-flí mángɔ kpɛ] ɔ-da.
 CL-knife the REL Kofi SM-push.PST REL Sasa SM-slice.PST mango with SM-be.big
 ‘The knife, which Kofi pushed, that Sasa sliced mango with is big.’

These facts are reminiscent of Dutch, where appositive RCs can stack (de Vries 2000).

3.2.7 *Intentional verbs*

Claim: Restrictive RCs can be in the scope of intentional verbs. Nonrestrictive RCs cannot be in the scope of intentional verbs. (Srivastav 1991, Zhang 2001)

This is not a useful diagnostic in Ikpana. Both restrictive *jé* and non-restrictive *xé* RCs in the language can appear under the scope of a variety of intentional verbs.

- (23) a. Kofi ɔ-blɔ a-sùsu té Sása o-zà [a-zài je *jé* Fafa ɔ-kpé].
 Kofi SM-take CM-thought COMP Sasa SM-cook CL-beans the REL Fafa SM-eat
 ‘Kofi thinks that Sasa cooked the beans that Fafa ate.’
 (Implies that Kofi thinks that Fafa ate the beans.)
- b. Kofi ɔ-blɔ a-sùsu té Sása o-zà [a-zài je *xé* Fafa ɔ-kpé].
 Kofi SM-take CM-thought COMP Sasa SM-cook CL-beans the REL Fafa SM-eat
 ‘Kofi thinks that Sasa cooked the beans, which Fafa ate.’
 (Implies that Kofi thinks that Fafa ate the beans.)
- c. Kofi ɔ-bámá té [a-zài je *jé* Fafa ɔ-kpé] m-a-zì.
 Kofi SM-fear COMP CL-beans the REL Fafa SM-eat NEG-SM-be.good
 ‘Kofi fears that the beans that Fafa ate are bad.’
 (Implies that Kofi fears that Fafa ate the beans.)

- d. Kofi ɔ-**bámá** té [a-zàì je xé Fafa ɔ-kpé] m-a-zì.
 Kofi SM-fear COMP CL-beans the REL Fafa SM-eat NEG-SM-be.good
 ‘Kofi fears that the beans, which Fafa ate, are bad.’
 (Implies that Kofi fears that Fafa ate the beans.)

3.2.8 Extraction

Claim: Extraction from restrictive RCs is possible. Extraction from nonrestrictive RCs is impossible. (Engdahl 1997)

This diagnostic is not applicable in Ikpana because both *jé* and *xé* RCs are islands in the language.

- (24) *[u-ndú]_i {jé/ka} Sása ɔ-tó [e-bitfi {jé/xé} Kofi ɔ-tá t_i].
 CL-water REL/FOC Sasa SM-push.PST CL-child REL Kofi SM-give.PST
 (Intended: ‘Sasa pushed the child that Kofi gave WATER to.’)

3.3 Interim summary

Table 2 summarizes the results we find in applying (non-)restrictivity diagnostics to *xé* and *jé* RCs in Ikpana:

Diagnostic	RRCs cross-linguistically	NRRCs cross-linguistically	Ikpana <i>jé</i> RCs	Ikpana <i>xé</i> RCs
Proper name heads	×	✓	×	✓
Pronominal heads	×	✓	×	✓
Sentential adverbs	×	✓	✓	✓
Non discourse referent-licensing quantified antecedents	✓	×	✓	×
Matrix negation	✓	×	×	✓
Stacking	✓	×	✓	✓
Intentional verbs	✓	×	✓	✓
Extraction	✓	×	×	×

Table 2. The properties of restrictive relative clauses (RRCs) and non-restrictive relative clauses (NRRCs) cross-linguistically vs. in Ikpana *xé* and *jé* RCs.

Implications:

- Matrix negation may not be the most reliable diagnostic cross-linguistically
- The sentential adverbs & extraction diagnostics may not be applicable for independent reasons (e.g., sentential adverb attachment may not be a Main Clause Phenomenon in some languages; restrictive RCs are islands in some but not all languages)
- That both *xé* and *jé* RCs stack and appear with intentional verbs is compatible with an analysis in which null-head *xé* RCs are actually restrictive RCs
- The difference between *xé* and *jé* RCs may not simply be one of (non-)restrictivity

4 Conclusions

We started out aiming to test whether *xé* and *jé* RCs mapped on to the traditional nonrestrictive vs. restrictive distinction, but...

- Turns out we may not be asking all the right questions
- As Cinque (2008, 2020) notes, assuming this distinction (without further differentiation) comes from English-centric expectations about nonrestrictives
- This English-centric lens can obscure distinctions that exist in other languages since English only has non-integrated nonrestrictives (Cinque 2008)
- This English-centric perspective precludes the possibility that there may be nonrestrictives that are fully integrated, which means that tests for “restrictivity” may be applicable to them

What can we say, then, about headed RCs in Ikpana?

- Ikpana has restrictive and nonrestrictive RCs
- The fact that asymmetries that we expect to obtain (from cross-linguistic diagnostics) don’t actually obtain suggests the need for further investigation
- The absence of certain asymmetries could mean that *xé* nonrestrictives are all integrated nonrestrictives (see Appendix for very preliminary discussion of this)

Broader implications?

- Following Cinque (2008, 2020), (non-)restrictivity diagnostics may not be purely diagnosing (non-)restrictivity
- Testing for (non-)integratedness is also needed

Anyíntsé!

References

- Agbaku, Komla Mawutor. 2015. Sociopragmatics of requests in Logba [Master's thesis]. Legon: University of Ghana.
- Ameka, Felix. 2017. The Ghana-Togo Mountain languages: Introduction. *STUF – Language Typology and Universals* 70(2): 239-244.
- Branchini, Chiara and Caterina Donati. 2009. Relatively Different: Italian Sign Language Relative Clauses in a Typological Perspective. In Anikó Lipták (ed.), *Correlatives Cross-Linguistically*, 157-191. Amsterdam: John Benjamins.
- Cinque, Guglielmo. 1978. La sintassi dei pronomi relativi 'cui' e 'quale' nell'italiano moderno. *Rivista di grammatica generativa* 3(1): 31-126.
- Cinque, Guglielmo. 1982. On the theory of relative clauses and markedness. *The Linguistic Review* 1: 247-94. Reprinted with corrections in G. Cinque 1995 *Italian Syntax and Universal Grammar*. Cambridge: Cambridge University Press. 54-103.
- Cinque, Guglielmo. 2008. Two types of non-restrictive clauses.
- Cinque, Guglielmo. 2020. *The Syntax of Relative Clauses: A Unified Analysis*. Cambridge: Cambridge University Press.
- Declerck, Renaat. 1997. *When-Clauses and Temporal Structure*. London: Routledge.
- Del Gobbo, Francesca. 2005. Chinese Relative Clauses: Restrictive, Descriptive or Appositive? In Nicola Munaro, Walter Schweikert and Giuseppina Turano (eds.), *Contributions to the 30th Incontro di Grammatica Generativa*, 207-305. Venezia: Libreria Editrice Cafoscarina.
- Demirdache, Hamida. 1991. Resumptive Chains in Restrictive Relatives, Appositives and Dislocation Structures. Doctoral dissertation, MIT.
- Dorvlo, Kofi. 2008. *A Grammar of Logba (Ikpana)*. Doctoral dissertation, Leiden University.
- Eberhard, David M., Gary F. Simons, and Charles D. Fennig. 2019. *Ethnologue: Languages of the world, twenty-second edition*. Dallas, TX: SIL International. <http://www.ethnologue.com>
- Engdahl, Elisabet. 1997. Relative Clause Extractions in Context. *Working Papers in Scandinavian Syntax* 60: 50-79.
- Jackendoff, Ray. 1977. *X-bar Syntax: A Study of Phrase Structure*. Cambridge, MA: MIT Press.
- Kandybowicz, Jason, Baron Obi, Bertille, Duncan, Philip T., & Katsuda, Hironori. 2021, to appear. Documenting the Ikpana interrogative system. *Journal of African Languages and Linguistics*.

McCawley, James D. 1988. *The Syntactic Phenomena of English*. Chicago: Chicago University Press.

Ogle, Richard. 1974. Natural Order and Dislocated Syntax. Doctoral dissertation, UCLA.

Ross, John. 1967. Constraints on Variables in Syntax. Doctoral dissertation, MIT.

Srivastav, Vaneeta. 1991. WH Dependencies in Hindi and the Theory of Grammar. Doctoral dissertation, Cornell University.

Vries, Mark de. 2000. Appositive Relative Clauses. *Linguistics in the Netherlands* 17: 221-231.

Zhang, Niina. 2001. On the Absence of Nonrestrictive Relatives (in Chinese). Ms. ZAS, Berlin.

5 Appendix: Further divisions for nonrestrictives

Cinque (1978, 1982, 2008, 2020) argues that an English-centric focus for nonrestrictive (appositive) RCs has led to overlooking a distinction between two types of nonrestrictives: “integrated” and “non-integrated”.

Table 3 summarizes key properties that distinguish these 2 types of nonrestrictive RCs:

Property/Diagnostic	Integrated	Non-integrated
Illocutionary independence (when matrix is decl.)	×	✓
Non adjacency	×	✓
Split antecedents	×	✓
Retention of the ‘internal’ Head	×	✓
Permit non identity of ‘external’ and ‘internal’ Heads	×	✓
Can take antecedents of categories beyond DP	×	✓
Preposability (of the sentential relative)	✓	×
Licenses parasitic gaps	✓	×
Allow temporal DPs as Heads	✓	×
Reflexive antecedents possible	✓	×
Allow coordination of the <i>wh</i> -pronoun w/ another DP	×	✓

Table 3. Properties of integrated and non-integrated RCs.

In the following subsections, we present preliminary discussion for a subset of these properties when possible given the available data. At present, we have only begun mining existing data (ours and that in other published sources).

5.1 Illocutionary independence

Claim: Non-integrated nonrestrictives can be a different illocutionary type than the matrix clause. Integrated nonrestrictives (and restrictives) can only be declarative. (Cinque 2008: 102-103, 2020: 145-146)

The following shows a *xé* RC, which is declarative, while the matrix clause has interrogative illocutionary force:

(25) A-saŋgbla=á [RC *xé* ó-zí lé] mɛ té blɔ?
 CM-tortoise=DET REL 3SG-lift 3SG.OBJ what COMP make
 ‘The tortoise that he took, what should he do?’ (Dorvlo 2008: 289)

Example (25) does show illocutionary independence. However:

- The RC is declarative
- Therefore, this does not help test for the integrated vs. non-integrated distinction

5.2 Non adjacency

Claim: Integrated nonrestrictives (and restrictives) must be adjacent to the Head. Non-integrated nonrestrictives can be separated from the Head. (Cinque 2008: 103)

Ikpana *xé* RCs can be non-adjacent:

(26) ɔpɛ atsi-tsi-mi tɔlɛ na ɔyɔ́ anú [RC *xé* atsi-ts-mi bi koko=é]
 “ɔpɛ” 1PL-HAB-take fix on tree mouth REL 1PL-HAB-take pluck cocoa=DET
 “ɔpɛ” we use to fix on the tree which we use to pluck the cocoa” (Dorvlo 2008: 352)

This suggests that *xé* nonrestrictives can be of the non-integrated type.

5.3 Split antecedents

Claim: Non-integrated nonrestrictives can have split antecedents. Integrated nonrestrictives (and restrictives) cannot. (Cinque 2008: 104-105, 2020: 147-148)

The following shows a *xé* RC with a potential (albeit questionable) split antecedent (*ɔhafi, aflanda, uzu, asɔtiwɔ*):

- (27) Iyé i-ɖu ɔhafi, aɫandza, uzu, asɔtiwɔ [RC xé_{i+j+k+1} a-bo-mi
 3SG SM-be ɔhafi cutlass uzu small.pots REL 2SG-FUT-take
 kpe a-be].
 tap CM-palm
 ‘It’s “ɔhafi,” cutlass, “uzu,” small pots, which you will take to tap the palm tree. (Dorvlo 2008: 326, translation ours)

The challenge here is that may not involve split antecedents, but a single antecedent involving (covert) coordination. If, however, this example does constitute split antecedents, it would again suggest that *xé* RCs can be of the non-integrated type.

5.4 Retention of the ‘internal’ Head

Claim: The internal Head, in spite of its identity with the ‘external’ one, can be retained in non-integrated nonrestrictives. It cannot be retained in integrated nonrestrictives (or restrictives). (Cinque 2008: 105, 2020: 148-149)

Ikpana *xé* RCs do appear to allow retention of the ‘internal’ Head:

- (28) Xé nɖú=e n-dze bia a-bó-tsúɖɔ nɖú n-mɛ [RC xé
 when water=DET SM-start boil 2SG-FUT-sieve water AM-DEM REL
 a-mi futɔ mawɔɛ...
 2SG-take mix dough
 ‘When the water starts to boil, you will sieve that water, which you use to mix the dough...’ (Dorvlo 2008: 339)

If (28) does involve retention of the ‘internal’ Head, this, too would be in line with treating *xé* RCs as non-integrated.

5.5 Non-identity of the ‘external’ and ‘internal’ Heads

Claim: Non-integrated nonrestrictives do not require absolute identity of the internal and external Heads. Integrated nonrestrictives (and restrictives) do. (Cinque 2008: 105, 2020: 149)

Example (29) may be an instance where the ‘internal’ and ‘external’ Heads are non-identical:

- (29) A-be xé a-bó-kpe-a iva xé i-to iyé yó i-ɖu
 CM-palm when 2SG-FUT-tap-CFM thing REL SM.SG-fix 3SG skin 3SG-be

te a-be a-shianu [RC xé a-bó-kpe] ibote ta kpe
 COMP CM-palm CM-quantity REL 2SG-fut-tap reason give know

iyé i-gago
 3SG CM-number

‘Palm tree, when you want to tap it, the things involved so that, palm tree, the quantity that you will tap, that is you know the number.’ (Dorvlo 2008: 326, translation ours)

If so, this again is in line with this *xé* RC can be of the non-integrated type.

5.6 Categorical nature of the Head (DP vs. XP)

Claim: Integrated nonrestrictives can only take nominal antecedents. Non-integrated nonrestrictives can take a larger class of antecedents. (Cinque 2008: 106-107, 2020: 150-151)

The following *xé* RCs appear to have non-DP Heads:

(30) a. jókple [XP ikpefikpe m-ì-li-ma] [RC xé á-té
 therefore everything NEG-3SG-be.located-there REL 3PL-say.PST
 ɔ-ló-ε]
 3SG-ASP-give.PASS
 ‘Therefore, there was nothing there that he could be given.’

b. ... a-bó-ñú kanyi té [XP iv(a)ikpe i-tsi sanu=é nu]
 2SG-FUT-see realize COMP thing.one 3SG-remain sieve=DET in
 [RC xé mi-ma te i-vé fe asó nu].
 REL NEG-stay COMP SM-pass into pot in
 ‘...you will realize that some will stay in the sieve which does not pass through the pot.’ (Dorvlo 2008: 340)

If so, this could again suggest that *xé* RCs can be of the non-integrated type.

5.7 Reflexive antecedents

Claim: Integrated nonrestrictives can have reflexive antecedents. Non-integrated nonrestrictives cannot. (Cinque 2020: 151-152)

Ikpana does allow *xé* RCs to take reflexive antecedents:

- (31) yedze gali ɔntá [RC xé o-ɔú ŋkpɔnyi witsi-witsi]...
 then gari itself REL 3SG-be eye small-small
 ‘then the gari itself, which eyes are small’ (Dorvlo 2008: XX, translation ours)

The challenge with this example is that it seems to involve nominal Head modified by an emphatic reflexive. However, if it counts, it could suggest that *xé* RCs can be of the integrated type.

5.8 Temporal DPs as Heads

Claim: Integrated nonrestrictives (and restrictives), but not non-integrated nonrestrictives can have a temporal adverbial DP as Head. (Cinque 2008: 108)

In the following, the *xé* RC has *ibjen* as Head, which could potentially be treated as a temporal adverbial DP.

- (32) alébé i-bjen [RC xé i-fò i-dzó-a kpe-je:]
 so.that CM-time REL 3SG-get CM-yam-DET eat-NMLZ
 à-bà-la gluí i-dzó-a jé a-la zá
 CM-ASP-3PL.SUBJ dig CM-yam-DET then CM-3PL cook
 ‘so that at the time when it gets to yam eating, they would dig yam and cook.’

If this were to be a valid case, it would provide support that *xé* RCs can be of the integrated type.

5.9 Summary

Table 4 summarizes the key properties that distinguish integrated and non-integrated nonrestrictive RCs, along with what properties may obtain for Ikpana *xé* RCs given the above examples (many of which bring notable challenges):

Property/Diagnostic	Integrated	Non-integrated	Ikpana <i>xé</i> RCs
Illocutionary independence (when matrix is decl.)	×	✓	?
Non adjacency	×	✓	✓
Split antecedents	×	✓	✓
Retention of the 'internal' Head	×	✓	✓
Permit non identity of 'external' & 'internal' Heads	×	✓	✓
Can take antecedents of categories beyond DP	×	✓	✓
Preposability (of the sentential relative)	✓	×	?
Licenses parasitic gaps	✓	×	?
Allow temporal DPs as Heads	✓	×	✓
Allow coordination of the <i>wh</i> -pronoun w/ another DP	×	✓	?

Table 4. The properties of integrated and non-integrated RCs and how Ikpana *xé* RCs pattern with respect to these ('?' means that we do not yet have evidence for a particular property).

Implications (assuming that we take the above as valid tests of (non-)integratedness):

- Ikpana *xé* RCs show properties of both integrated and non-integrated nonrestrictives
- Ikpana could be a language (like Italian) that has both integrated and non-integrated RCs
- The relative marker *xé* appears in integrated and non-integrated nonrestrictives