Unifying definite and indefinite free relatives: Evidence from Mayan

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North East Linguistics Society 46, Concordia, October 2015[1]

0 Introduction

Many languages have *free (or headless) relatives*, with an initial *wh*-word:

(1) **English definite free relative:**
I'll buy [$_{FR}$ **what** you're selling].
≈ I'll buy the thing(s) that you are selling.

Such free relatives have definite or universal interpretation (Jacobson, 1995, a.o.), are DPs, and islands for extraction. Call these *definite FRs*.

Some languages also have *indefinite free relatives*: (Pesetsky, 1982; Izvorski, 1998; Grosu and Landman, 1998; Grosu, 2004; Šimík, 2011, a.o.)

(2) **Hebrew definite FR:**
Ahav-ti et [$_{FR}$ **ma** she-kara-ti].
liked-1sg ACC what that-read-1sg
'I liked the thing I read.'

(3) **Hebrew indefinite FR:**
Yesh l-i [$_{FR}$ **ma** li-kro].
EXIST to-1sg what INF-read
'I have something (available for me) to read.'

- The indefinite FR (3) is nonfinite and disallows an independent subject.
- The indefinite FR has a modal flavor; also called *modal existential wh-constructions* (MECs).
- The indefinite FR is not an island for extraction.

Šimík (2011) presents primary evidence from 16 languages (7 Balto-Slavic, 6 Romance, Greek, Hebrew, Hungarian) and concludes **indefinite FRs are fundamentally different from definite FRs**. (A counterexample may be Italian (Caponigro, 2003), discussed by Šimík.)

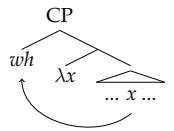
(4) **Šimík's Conjecture:**
Indefinite FRs are all modal existential *wh*-constructions (MECs).
a. Smaller structural size: explains nonfinite/subjunctive verb, no independent subject
b. Argument of a verb with existential semantics
c. No DP layer: explains free extraction

Today: Indefinite FRs that are more like definite FRs, in **Chuj** (Mayan; Guatemala).

- Chuj indefinite FRs are **the same size** as definite FRs, allowing subjects and all tense/aspects. They **lack modal semantics** of MECs.
- But they still have **limited distribution** and are **not islands** for extraction.

[1]We are especially grateful to Magdalena Torres for her time and patience in sharing her language with us. For comments and discussion we would like to thank Jessica Coon, Scott AnderBois, Radek Šimík, and Lizzie Carolan. Errors are each other's.

Definite and indefinite FRs share a common core syntax:
The CP is interpreted as a derived predicate of type $\langle e, t \rangle$.



- Definite FRs: add a DP layer ⇒ type e or $\langle\langle e, t\rangle, t\rangle$ argument
- Indefinite FRs: certain verbs can take predicate CP complements

1 Background

Chuj is a verb-initial language.[2]

(5) **Simple declarative sentences:**
a. Intransitive:
Ol-∅-wa ix.
PROSP-B3-eat CL.FEM
'She will eat.'

b. Transitive:
Ix-∅-in-wa ixim wa'il.
PRFV-B3-A1s-eat CL.GRAIN tortilla
'I ate the tortilla.'

(Verbs show ergative/absolutive agreement alignment: Set A = ergative, Set B = absolutive.)

☞ $\overline{\text{A}}$-operators move to pre-verbal position.

(6) **Simple *wh*-questions:**
a. **Mach** ix-∅-ulek'-i?
who PRFV-B3-come-ITV
'Who came?' intransitive subject

b. **Tas** ix-∅-a-man-a'?
what PRFV-B3-A2s-buy-TV
'What did you buy?' transitive object

c. **Mach** ix-in-il-**an**-i?
who PRFV-B1s-see-AF-ITV
'Who saw me?' transitive subject

(Verbs show a transitivity suffix when final in their phonological phrase. $\overline{\text{A}}$-movement of transitive subjects is marked on the verb with the *Agent Focus* (AF) morpheme and loss of Set A agreement.)

Headed relative clauses in Chuj are gapped clauses preceded by the nominal head that they modify.

(7) **Headed relative clauses:**
a. Ix unin [$_{RC}$ (***mach**) ix-∅-ulek'-i]
CL.FEM child who PRFV-B3-come-ITV
'the girl who came'

b. Jun (ch'anh) libro [$_{RC}$ (***tas**) ix-∅-w-awtej]
one CL.BOOK book what PRFV-B3-A1s-read
'the book that I read'

RCs show no overt complementizer akin to English *that*. *Wh*-words cannot be used as relative pronouns.[3]

[2]The following abbreviations are used in this presentation: A = Set A (ergative), AF = Agent Focus, B = Set B (absolutive), CL = classifier, IMPF = imperfective, ITV = intransitive verb, NML = nominal suffix, PSV = passive, POSS = possession, PRFV = perfective, PROG = progressive, PROSP = prospective, STAT = stative, SUB = subordinate, TOP = topic, TV = transitive verb. See Domingo Pascual (2007) on Chuj orthographic conventions. All uncredited data is from the authors' notes. See Kotek and Erlewine (2015) for additional data.

[3]Similar facts are presented for the San Sebastián dialect of Chuj in Maxwell (1976).

As with question formation, transitive subject relativization triggers Agent Focus on the embedded verb:

(8) **Transitive subject relative clause triggers Agent Focus:**

Winh unin [$_{RC}$ ix-∅-man-an ixim pastel]
CL.MASC child PRFV-B3-buy-AF CL.GRAIN cake

'the boy who bought the cake'

2 Free relatives in Chuj

Chuj has two kinds of free relatives:

(9) **Chuj definite FR:**
Ix-∅-in-mak [$_{FR}$ **mach** ix-∅-ulek'-i].
PRFV-B3-A1s-hit who PRFV-B3-come-ITV
✓ 'I hit the person who came.'
* 'I hit someone who came.'

(10) **Chuj indefinite FR:**
Ay [$_{FR}$ **mach** ix-∅-ulek'-i].
EXIST who PRFV-B3-come-ITV
* 'The person came.'
✓ 'Someone came.'

☞ Both FRs have the same syntactic size and no modal meaning.

2.1 Definite free relatives

Definite FRs are full clauses:

(11) **Independent DP subject in the definite FR:**

Ko-gana [$_{FR}$ **tas** ix-∅-s-man waj Xun].
A1p-like what PRFV-B3-A3-buy CL.NAME Juan

'We like [what Juan bought].'

(12) **Definite FR with progressive:**

A ix Malin s-∅-gana ix s-∅-il-a [$_{FR}$ **tas** lan hin-k'ul-an-i].
TOP CL.FEM Mari IMPF-B3-want CL.FEM IMPF-B3-see-TV what PROG A1s-do-AP-ITV

'Maria wants to see [what I am doing].'

(Progressive is larger than other aspects; Coon and Carolan 2015.)

Definite FR can be in any argument position:

(13) **Definite FR in object and subject position:**
a. Ix-∅-in-mak [$_{FR}$ **mach** ix-∅-ulek'-i].
PRFV-B3-A1s-hit who PRFV-B3-come-ITV
'I hit [the person who came].' (=9)
b. Ix-in-s-mak [$_{FR}$ **mach** ix-∅-ulek'-i].
PRFV-B1s-A3-hit who PRFV-B3-come-ITV
'[The person who came] hit me.'

(14) **Preverbal topic position is ok too:**

A [$_{FR}$ **mach** ix-∅-ulek'-i] ix-in-s-mag-a'.
TOP who PRFV-B3-come-ITV PRFV-B1s-A3-hit-TV

'[The person who came]$_i$, they$_i$ hit me.'

Definite FRs may be used as the domains of quantifiers:

(15) **Quantifiers taking definite FRs:**
a. [Jantak [$_{FR}$ **mach** ix-∅-ulek'-i]] ix-∅-w-il-a'.
many who PRFV-B3-come-ITV PRFV-B3-A1s-see-TV
b. Ix-∅-w-il [jantak [$_{FR}$ **mach** ix-∅-ulek'-i]].
PRFV-B3-A1s-see many who PRFV-B3-come-ITV
'I saw the many people who came.'

(16) a. [Juntzan [$_{FR}$ **mach** ix-∅-ulek'-i]] ix-∅-w-il-a'.
certain who PRFV-B3-come-ITV PRFV-B3-A1s-see-TV
b. Ix-∅-w-il [juntzan [$_{FR}$ **mach** ix-∅-ulek'-i]].
PRFV-B3-A1s-see certain who PRFV-B3-come-ITV
'I saw these people who came.'

2.2 Indefinite free relatives

Recall the properties of indefinite FRs discussed in the literature:

(17) **Properties of indefinite FRs, cross-linguistically:** (Šimík, 2011, a.o.)
a. narrow-scope indefinite
b. must be argument of verb with existential force
c. nonfinite/subjunctive
d. interpreted w/ existential modal of availability
e. no independent subject
f. transparent for extraction

These properties should go together, if Šimík's Conjecture is true: indefinite FRs are all modal existential *wh*-constructions (MECs) and structurally smaller than definite FRs.

Against this prediction, **Chuj indefinite FRs are not nonfinite**; for example, they show full tense/aspect contrasts:

(18) **Indefinite FRs with prospective and progressive aspect:**
a. Ay [$_{FR}$ **tas** ol-∅-k-aplej].
EXIST what PROSP-B3-A1p-try
'We will eat something.' literally 'There exists [what we will eat].'
b. Ay [$_{FR}$ **mach** lan-in y-il-an-i].
EXIST who PROG-B1s A3-see-SUB-ITV
'Someone is watching me.' literally 'There exists [who watching me].'

(19) **Indefinite FR with subject:**

Ay [$_{FR}$ **tas** ix-∅-s-man waj Xun].
EXIST what PRFV-B3-A3-buy CL.NAME Juan

'Juan bought something.'
literally 'There exists [what Juan bought].'

Their interpretations **lack the modal semantics** associated with modal existential *wh*-constructions.

☞ Indefinite FRs are **full clauses**—full tense/aspect, independent subject—and have no modal meaning, *just like definite FRs*.

An indefinite FR must be the complement of a small set of predicates, with existential force.

(20) **Existential predicates in Chuj:**

a. Ay jun uum sat te' mexa.
EXIST one book surface CL table
'There is a book on the table.'

b. Malaj ch'anh uum sat te' mexa.
NOT.EXIST CL book surface CL table
'There is no book on the table.'

c. Ch'ok ch'anh uum sat te' mexa.
OTHER CL book surface CL table
'There is a different book on the table.'

(21) **Indefinite FR with existential preds:**

a. Ay [$_{FR}$ **mach** ix-∅-ulek'-i].
EXIST who PRFV-B3-come-ITV
'Someone came.' (= 10)

b. Malaj [$_{FR}$ **mach** ix-∅-ulek'-i].
NOT.EXIST who PRFV-B3-come-ITV
'No one came.'

c. Ch'ok [$_{FR}$ **mach** ix-∅-ulek'-i].
OTHER who PRFV-B3-come-ITV
'Others came.'

In addition to these basic existential predicates, some other verbs that express the existence of their internal argument can license indefinite FRs:

(22) **Indefinite FRs with predicates with an existential component:**

a. Aj-nak [$_{FR}$ **mach** famoso].
born-STAT who famous
'Someone famous was born.' (e.g. 30 years ago)

b. Ix-∅-chash [$_{FR}$ **mach** ol-∅-po-an ke'n hin-carro].
PRVF-B3-find who PROSP-B3-fix-AF CL.METAL A1s-car
'Someone was found who will fix my car.'

c. Ko-say-an [$_{FR}$ **tas** ∅-ko-k'ulej].
A1p-look.for-SUB what B3-A1p-do
'We are looking for something to do' (Hopkins, 1967, 158)

☞ **Indefinite and definite FRs in Chuj have equal clause size**, against the Šimík (2011) claim that indefinite FRs are always modal existential *wh* constructions (MECs).

	Def FR	**MEC**	**Chuj indef FR**
interpretation	def	indef	indef
nonfinite/subjunctive	×	◯	×
modal interpretation	×	◯	×
no independent subject	×	◯	×
narrow-scope indefinite	N/A	◯	◯
must be argument of existential verb	N/A	◯	◯

3 Proposal

Definite and indefinite FRs have a common CP core:

(23) $[\![[_{CP}\ \text{mach}_i\ [_{TP}\ \text{ixulek'i}\ t_i]]]\!] = \lambda x\ .\ x \text{ came}$

Abstraction over movement of the *wh* pronoun generates a predicate denotation, type $\langle e, t\rangle$.

Indefinite FRs are the complement of existential verbs, e.g.:

(24) $[\![\text{EXIST } (ay)]\!] = \lambda P_{\langle e,t\rangle}\ .\ \exists x\ P(x)$
(cf analyses of English *there is*; Milsark, 1974; McNally, 1998; a.o.)

☞ This explains the limited distribution of indefinite FRs.

Definite FRs are formed by adding a D-layer to the FR.
The addition of a ι D forms a definite FR of type e:

(25) Ix-in-s-mak [$_{DP}$ ι [$_{CP}$ **mach** ix-∅-ulek'-i]].
PRFV-B1s-A3-hit who PRFV-B3-come-ITV
'[The person who came] hit me.' (=13b)

Other nominal material forms $\langle et, t\rangle$ DPs:

(26) [$_{DP}$ tzijtum [$_{CP}$ **tas** tz-∅-chonh-nax]]
many what IMPF-B3-sell-PASS
'many things that are sold' (Buenrostro, 2009)

☞ The DP layer makes definite FRs available in any argument position.

Alternative hypothesis: mach forms a constituent with *ay*, which is the argument of the verb:

(27) [Ay **mach**] ix-∅-ulek'-i.
EXIST who PRFV-B3-come-ITV
'Someone came.'

(28) [tzijtum **tas**] tz-∅-chonh-nax
many what IMPF-B3-sell-PASS
'many things that are sold'

(29) ***Ay* may be separated from *wh* by sentential material:**[4]

Ay pax [$_{FR}$ **mach** chanh y-iko'].
EXIST also who four A3-POSS
'There are also those who have four.' (Williams and Williams, 1971, 332)

(30) **Agent Focus marking in sister of *ay* when subject 'who' fronts:**

Ay [$_{FR}$ **mach** ix-∅-man-an ch'anh uum tik].
EXIST who PRFV-B3-buy-AF CL.BOOK book DEM
'Someone bought this book.'

Definite and indefinite FRs are similar internally but different externally:
- A subject is always possible, because these are CPs.
- No tense/aspect restrictions.
- No modal component to indefinite FRs.
- Different licensing environments lead to differences in distribution.

[4] The preposition/relational noun *'iko'* here expresses possession (Hopkins, 2012, 23).

3.1 Extraction

Support for this proposal comes from extraction.

Relative clauses in Chuj are islands for extraction:

(31) * *Mach* [$_{TP}$ ix-∅-y-awtej waj Xun
who PRFV-B3-A3s-read CL Juan

[$_{DP}$ jun libro [$_{RC}$ {ix-∅-s-tz'ib'ej, ix-∅-tz'ib'-an(-i)} __]]]?
one book {PRFV-B3-A3s-write, PRFV-B3-write-AF-ITV}

Intended: 'Who did Juan read a/one book that wrote?'

It is possible to extract out of indefinites FRs:

(32) Ay [$_{FR}$ **tas** ix-∅-s-man waj Xun].
EXIST what PRFV-B3-A3s-buy CL.MASC Juan
'Juan bought something.' baseline

(33) *Mach* [$_{TP}$ ay [$_{FR}$ **tas** ix-∅-s-man-a' ____]]?
who EXIST what PRFV-B3-A3s-buy-TV
'Who bought something?'

However, it is not possible to extract out of definite FRs:

(34) Ix-∅-y-il waj Xun [$_{FR}$ **mach** ix-∅-mak-an-poj te' mexa].
PRFV-B3-A3-see CL Juan who PRFV-B3-hit-AF-break CL table
'Juan saw [the person who broke the table].' baseline

(35) * *Tas* ix-∅-y-il waj Xun [$_{FR}$ **mach** ix-∅-mak-an-(poj) __].
what PRFV-B3-A3-see CL Juan who PRFV-B3-hit-AF-break
Intended: 'What$_i$ did Juan see [the person who broke it$_i$]?'

It is possible to extract out of indefinite free relatives but not out of definite free relatives.

☞ This is in line with Šimík's (2011) findings for free relatives cross-linguistically.

Our explanation: An indefinite FR is a (special kind of) CP complement with no DP layer, therefore not an island.

Possible alternative explanation: Extraction out RC is generally easier if the DP is indefinite than if definite.

Much literature on Scandinavian languages—see Engdahl (1997) and references there and Sprouse and Hornstein (2013) for recent discussion.

(36) **Swedish:** (Allwood 1976, reproduced in Engdahl 1997)

De blommorna känner jag [en man som säljer ____].
those flowers know I a man that sells

'Those flowers$_i$, I know [a man that sells them$_i$].'

See also Kuno (1976); McCawley (1981); Chung and McCloskey (1983) on English.

3.2 *Jun* free relatives

Chuj has a hybrid FR construction, with an indefinite meaning but definite-like distribution: the indefinite *jun* free relative.

(37) **A *jun* free relative:**

[**jun** [$_{FR}$ **mach** ix-∅-ulek'-i]]
one who PRFV-B3-come-ITV

'one/a person who came'

The *jun*-FR can be the argument of existential predicates:

(38) **Indefinite free relative, repeated:**

Ay [$_{FR}$ **mach** ix-∅-ulek'-i].
EXIST who PRFV-B3-come-ITV

'Someone came.' (possibly plural) (= 10)

(39) **A *jun* free relative, as the argument of *ay*:**

Ay **jun** [$_{FR}$ **mach** ix-∅-ulek'-i].
EXIST one who PRFV-B3-come-ITV

'One/a person came.'

Jun-FR can appear in any argument position:

(40) ***Jun* FR as object of 'see':**

Ix-∅-w-il [**jun** [$_{FR}$ **mach** ix-∅-ulek'-i]].
PRFV-B3-A1s-see one who PRFV-B3-come-ITV

'I saw one/a person who came.'

(41) ***Jun* FR as pre-verbal subject topic:**

[**Jun** [$_{FR}$ **mach** ix-∅-ulek'-i]] ix-∅-w-il-a'.
one who PRFV-B3-come-ITV PRFV-B3-A1s-see-TV

'[One/a person that came]$_i$, I saw them$_i$.'

☞ *Jun* creates indefinite DP free relatives.

The addition of *jun* is crucial. Without it, the FR is interpreted as definite:

(42) **FR without *jun* as the object of 'see' must be definite:**

Ix-∅-w-il [$_{FR}$ **mach** ix-∅-ulek'-i].
PRFV-B3-A1s-see who PRFV-B3-come-ITV

'I saw the person/people who came.'

It is not possible to extract out of *jun*-FRs:

(43) * *Tas* [$_{TP}$ ay [**jun** [$_{FR}$ **mach** ix-∅-awt-an(-i) ____]]]?
what EXIST one who PRFV-B3-read-AF
Intended: 'What did someone read?'

(44) * *Mach* [$_{TP}$ ix-∅-y-awtej waj Xun [**jun** [$_{FR}$ **tas** ix-∅-tz'ib-an(-i) ____]]]?
who PRFV-B3-A3-read CL.MASC Juan one what PRFV-B3-write-AF-ITV
Intended: 'Who$_i$ did Juan read [something that ____ wrote]?'

Recall our earlier observation: indefinite FRs (without *jun*) allow extraction. Two hypotheses:

(1) Indefinite FRs lack the DP layer of other FRs.

(2) It's easier to extract out of RCs on indefinites.

☞ **Extraction correlates with syntactic structure:**
It is possible to extract out of a FR only if they do not have a D layer; it is not indefiniteness that allows exceptional extraction.

4 Conclusion

4.1 Free relatives vs modal existential *wh*-constructions

Today we investigated indefinite free relatives in Chuj, which have a subset of the properties previously thought to hold for indefinite FRs cross-linguistically.

	Def FR	**Chuj indef FR**	**MEC**
interpretation	def	indef	indef
nonfinite/subjunctive	×	×	◯
modal interpretation	×	×	◯
no independent subject	×	×	◯
narrow-scope indefinite	N/A	◯	◯
must be argument of existential verb	N/A	◯	◯
transparent for extraction	×	◯	◯

☞ **Not all indefinite FRs are modal existential *wh*-constructions (MECs), contra Šimík's Conjecture.**

4.2 Nominal domains

An additional difference: Definite FRs may include overt nominal domains.

(45) **Nominal domains are possible with definite FR:**

Ix-∅-w-ilelta [$_{FR}$ **mach** winh unin ix-∅-ulek'-i].
PRFV-B3-A1s-meet who CL.MASC boy PRFV-B3-come-ITV

'I met the boy who came.'

In contrast, indefinite FRs (including *jun*-FRs) may not include domains.

(46) **No nominal domain with indefinite FR:**

* Ay (jun) [$_{FR}$ **mach** winh unin ix-∅-ulek'-i].
one EXIST who CL.MASC boy PRFV-B3-come-ITV

Intended: 'Some boy came.'

This seems to track indefiniteness, not syntactic size, and remains an open question. (See more in the Appendix.)

4.3 Indefinite FRs across Mayan

A similar construction is observed in Yucatec (AnderBois, 2012; Guttiérrez-Bravo, 2013, a.o.):

(47) **Indefinite free relative in Yucatec:** (AnderBois, 2012, 361)

Yan [$_{FR}$ **máax** t-u yuk'-aj le sa'-o'].
exists who PRFV-A3 drink-STATUS the atole-DISTAL

'Someone drank the atole.'

And similarly in Kaqchikel (Erlewine, to appear):

(48) **Indefinite FR in Kaqchikel:**

K'o [$_{FR}$ x-oj-tz'et-ö roj].
EXISTS COM-B1p-see-AF 1pl

'Someone saw us.'

(49) **Not an island for extraction:**

Achike [$_{TP}$ k'o [$_{FR}$ x-∅-tz'et-ö ___]]?
who EXISTS COM-B3s-see-AF

'Who did someone see?'

But this construction is not clearly a FR. There is no *wh*-word at the edge.

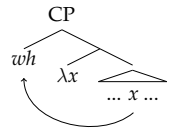
A *wh* appears when it pied-pipes material (here, a relational noun):

(50) K'o [$_{FR}$ [*achoj che*] x-∅-in-ya-wï ri pastel].
EXISTS whose RN COM-B3s-A1s-give-WI the cake
'I gave the cake to someone.'
literally 'There exists [[to whom] I gave the cake].'

We hypothesize that these existential constructions in Kaqchikel are also indefinite FRs, but in most cases with no pronounced *wh*-word.

4.4 A simple proposal

Definite and indefinite FRs share a common core syntax:



☞ Both are full CPs, with subject and full tense/aspect.

- Definite FRs: add a DP layer
- Indefinite FRs: complement of existential predicates

An open question: Why doesn't this happen more frequently, given how simple the analysis is?

Handouts and slides at `http://hkotek.com` and `http://mitcho.com`.
See also Kotek and Erlewine (2015) for this and other data.

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Appendix: Free relatives and nominal domains

Chuj forms complex *wh*-phrases by adding a nominal domain to simplex *wh*-words such as *who* and *what*. In questions, *wh*-words take domains to form *which*-phrases:

(51) ***Which*-questions:**
  a. **Mach** ix-∅-k-il-a'?
  who PRFV-B3-A1p-see-TV
  'Who did we see?'
  b. [**Mach** winh unin] ix-∅-k-il-a'?
  who CL.MASC child PRFV-B3-A1p-see-TV
  'Which boy did we see?'

(52) a. **Tas** ix-∅-y-awtej waj Xun?
  what PRFV-B3-A3-read CL.NAME Juan
  'What did Juan read?'
  b. [**Tas** libro-al] ix-∅-y-awtej waj Xun?
  what book-NML PRFV-B3-A3-read CL.NAME Juan
  'Which book did Juan read?'

Definite free relatives similarly allow the inclusion of a nominal domain:

(53) **Nominal domains are possible with definite FR:**
  a. Ix-∅-w-ilelta [$_{FR}$ **mach** ix-∅-ulek'-i].
  PRFV-B3-A1s-meet who PRFV-B3-come-ITV
  'I met the person who came.'
  b. Ix-∅-w-ilelta [$_{FR}$ **mach** winh unin ix-∅-ulek'-i].
  PRFV-B3-A1s-meet who CL.MASC boy PRFV-B3-come-ITV
  'I met the boy who came.'

(54) a. Ko-gana [$_{FR}$ **tas** ix-∅-s-man waj Xun].
  A1p-like what PRFV-B3-A3-buy CL.NAME Juan
  'We like the thing that Juan bought.'
  b. Ko-gana [$_{FR}$ **tas** libro-al ix-∅-s-man waj Xun].
  A1p-like what book-NML PRFV-B3-A3-buy CL.NAME Juan
  'We like the book that Juan bought.'

In contrast, indefinite free relatives may not include overt nominal domains:

(55) **No nominal domain with indefinite FR:**
  a. Ay [$_{FR}$ **mach** ix-∅-ulek'-i].
  EXIST who PRFV-B3-come-ITV
  'Someone came.'
  b. * Ay [$_{FR}$ **mach** winh unin ix-∅-ulek'-i].
  EXIST who CL.MASC boy PRFV-B3-come-ITV
  Intended: 'Some boy came.'

(56) a. Ay [$_{FR}$ **tas** ix-∅-s-man waj Xun].
  EXIST what PRFV-B3-A3-buy CL.NAME Juan
  'Juan bought something.'
  b. * Ay [$_{FR}$ **tas** (ch'anh) libro(-al) ix-∅-s-man waj Xun].
  EXIST what CL.BOOK book-NML PRFV-B3-A3-buy CL.NAME Juan
  Intended: 'Juan bought some book.'

Jun-FRs also do not allow nominal domains:

(57) ***Jun* FRs disallow nominal domains:**
  a. * Ix-∅-w-il **jun mach** winh unin ix-∅-ulek'-i.
  PRFV-B3-A1s-see one who CL.MASC boy PRFV-B3-come-ITV
  Intended: 'I saw one/a boy who came.' (cf 40)
  b. * [**Jun mach** winh unin ix-∅-ulek'-i] ix-∅-w-il-a'.
  one who CL.MASC boy PRFV-B3-come-ITV PRFV-B3-A1s-see-TV
  Intended: '[One/a boy that I saw] came.' (cf 41)

Here, then, we observe a difference between definite and indefinite free relatives that tracks not their syntactic size (as with extraction), but rather the definiteness status of the FR. This does not at the moment follow from our proposal, and we are open to suggestions for how to accommodate this fact into our analysis.