

Free relative clauses in Mam*

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Abstract: This paper provides novel description of free relative clauses in Mam (Mayan). In terms of their morphosyntax, free relatives in Mam fall into two types. The first kind is characterized solely by a left-peripheral *wh*-expression and a gap, and may be interpreted as definite or indefinite. The second kind is marked by a dedicated “free choice” clitic and is associated with inferences of speaker ignorance and/or indifference. Additionally, we show that a proper subset of *wh*-expressions that occur in content questions may appear in free relatives, however, unlike all of the Mayan languages discussed in Caponigro (2020), ‘why’-free relatives are freely available.

Keywords: free relative clauses, relative clauses, content questions, definiteness

1 Introduction

This paper examines the distribution of *wh*-elements in non-interrogative contexts in Mam, a Mayan language of Guatemala and Mexico. Specifically, we investigate free relative clauses (FRs): relative clauses which lack a nominal head and are introduced by a *wh*-expression. We show that in terms of their morphosyntax, Mam exhibits two types of FR: standard free relatives, which consist of a left-peripheral *wh*-expression and a gap; and free choice free relative clauses (FC-FRs), which are additionally marked by the free choice clitic =*x(a)*. In terms of their semantics, standard FRs may have a definite or indefinite meaning, respectively functioning as so-called maximal free relative clauses (Max-FRs) and existential free relative clauses (Ext-FRs) Caponigro (2020), while FC-FRs are associated with an inference of speaker ignorance or indifference.

We demonstrate that a proper subset of *wh*-expressions that appear in interrogative sentences appear in FRs. Specifically, two temporal *wh*-expressions *jtoj* ‘when (future)’ and *jtoo* ‘when (non-future)’ are prohibited from FRs. However, unlike all of the Mayan languages discussed in Caponigro (2020), the *wh*-expression corresponding to ‘why’ freely appears in FRs in Mam, suggesting that the ban on ‘why’-FRs in Mayan is not categorical.

This work builds on prior typological and descriptive work on relative clauses in Mam (England 2017; Scott 2023), free relatives/headless relatives in Mayan and Mesoamerican languages Caponigro (2020) and indefinite expressions more generally (Haspelmath 1997).

This paper proceeds as follows. Section 2 presents relevant background on Mam morphosyntax, Section 3 describes the patterns of \bar{A} -phenomena in Mam, Section 4 presents the core data on free relatives in Mam: Max-, Ext-, and FC-FRs, and Section 5 concludes.

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2 Background on Mam

Mam (iso: mam) is a member of the Mamean branch of the Eastern Mayan languages (England 1983). There are currently around 600,000 speakers, primarily in the Western Highlands of Guatemala and Southern Mexico, but also in significant diaspora communities in the United States.

Mam is known for its rich internal dialectal diversity (e.g. England (2017)). Although spoken within a relatively small geographic area, Mam varieties vary on essentially every linguistic dimension: lexical, morphosyntactic, phonological/phonetic. The variety of Mam we explore in this paper is Todos Santos Mam, spoken in the municipality of Todos Santos Cuchumatán, Guatemala. All uncited examples come from a combination of in-situ fieldwork in Todos Santos and California, and remote video conferencing.

2.1 Mam morphosyntax background

Mayan languages are ergative-aligned, and are often grouped by linguists based on their locus of absolutive case assignment. So-called “low-abs(olutive)” Mayan languages express their absolutive case post-verbally, whereas “high-abs(olutive)” languages express theirs pre-verbally. This classification as low- or high-abs is associated with a constellation of properties: high-abs Mayan languages exhibit extraction restrictions on transitive agents, cannot realize absolutive morphemes in non-finite embedded clauses, among other properties (see, e.g. Coon, Pedro, and Preminger (2014)); low-abs Mayan languages are not subject to any of these restrictions. Mam is analyzed as high-abs, since its absolutive case marking surfaces pre-verbally, and it is sensitive to the restrictions described above (see Section 3). The Mam verbal template is given below. Note that in Mayanist literature, ergative/possessive marking is labelled “Set A” and absolutive marking is labelled “Set B.”

(1) TAM – Set B – Directional(s) – Set A – Verb Root – (Transitivity suffix) – LP

(2) Ma tz’-ok t-pju’n=i Juan
PROX B2/3SG-DIR A2/3SG-hit-DS=LP Juan
‘You hit Juan.’¹

Some morphemes above require additional explanation. First, the directional is a verbal auxiliary that co-occurs with essentially every transitive verb, and conveys directional/deictic information about the verbal event. Next, the “transitivity suffix” is a suffix which occurs on certain verb roots that tracks whether the verb is transitive (-’n ‘DS’) or intransitive (-n ‘AP’). This differs somewhat from the “status suffixes” found across other Mayan languages, as it is somewhat more restricted in the verbs which realize them, and additionally does not occupy the final position within the

¹ The abbreviations used throughout are as follows: 1 = first person, 2 = second person, 3 = third person, A = set A person marker, AP = antipassive/intransitive suffix, B = set B person marker, CAUS = causative, CLF = classifier, COM = comitative, COMP = complementizer, COMPL = completive, DEM = demonstrative, DIR = directional, DIST = distal, DS = directional suffix, EMPH = emphatic, EXIST = existential, FC = free choice, INC = incomplete aspect, INDEF = indefinite determiner, INDF = indefinite, INF = infinitive, IPFV = imperfective, LP = local person enclitic, NEG = negative, NEG.EXIST = negative existential, OBL = oblique, PCL = particle, PL = plural, POT = potential aspect, PREP = preposition, PRON = pronoun, PROX = proximal, Q = question particle, RN = relational noun, SG = singular.

verbal complex. That slot is occupied by a morpheme glossed “LP”: this is a morpheme that cross-references certain local persons/speech act participants (precisely which ones varies across dialects; see Scott 2023 for discussion). LP marking can co-occur with either Set A or Set B. The full list of Todos Santos Mam person marking is given in the tables below.

Table 1: Set A (ergative/genitive) marking in Mam

	SG	LP	PL	LP
1 excl.	n- ~ w-		q-	=i
1 incl.			q-	
2	t-	=i	ch-	=i
3	t-		ch-	

Table 2: Set B (absolutive) marking in Mam

	SG	LP	PL	LP
1 excl.	chin		qo	=i
1 incl.			qo	
2	tz'- ~ tz- ~ Ø- ~ k'- ~ k-	=i	chi	=i
3	tz'- ~ tz- ~ Ø- ~ k'- ~ k-		chi	

Although Mam is a high-abs ergative-aligned language, there is evidence that the Todos Santos variety is better described as *tripartite* in its alignment, following insights by Scott (2023). While subjects of transitive verbs are marked with Set A, and subjects of intransitive verbs are marked with Set B, transitive objects are always cross-referenced by a “default” 2/3rd person Set B marker, with their person and number features realized on an overt pronoun in argument position. This is shown in the following examples, where blue indicates expected Set B, red indicates expected Set A, and simple boldface indicates objects cross-referenced with default agreement.

(3) Ma **chin** uul
 PROX B1SG arrive.here
 ‘I arrived here’

(4) Ma **tz'-ok** **t-pju-'n** xin xjaal **na'ya**
 PROX B2/3SG-DIR A2/3SG-hit-DS CLF man 1SG.PRON
 ‘The man hit me’

Last to note is that Mam has rigidly VSO word order in broad focus declaratives. Arguments can, however, be moved to pre-predicative position for topic/focus, questioning, and relativization, which we turn to now.

3 Questions, focus, and relativization

In Mam, as in other Mayan languages, the formation of content (or *wh*-) questions, topic/focus constructions, and relative clauses all involve the preposing of some element to a left-peripheral position within the clause. Compare below the baseline example in (5a) and the \bar{A} -constructions in (5b–5d). We explore each construction more thoroughly in this section as background for our discussion of free relatives in Section 4.

- (5) a. E- \emptyset -b'eet xin xjaal.
 COM-B2/3SG-walk CLF man
 ‘The man walked.’ Baseline
- b. Al [e- \emptyset -b'eet ____]?
 who [COM-B2/3SG-walk ____]
 ‘Who walked?’ Content question
- c. Ja q'a Juan [e- \emptyset -b'eet ____].
 DEM CLF Juan [COM-B2/3SG-walk ____]
 ‘It was Juan who walked.’ Focus/topic movement
- d. E- \emptyset -w-il ku'waal [e- \emptyset -b'eet ____].
 COM-B2/3SG-A1SG-see child [COM-B2/3SG-walk ____]
 ‘I saw the boy who walked.’ Relative clause

3.1 *Wh*-expressions and content questions

The *wh*-expressions in Todos Santos Mam are given in Table 3. We find three distinct lexical items that correspond to temporal *wh*-expressions: *jtoj* is used for questions about some future time, *jtoo* for non-future questions, and *n'iy(=x)* is used when a particular time or hour is requested. As we will see in Section 4, all of these *wh*-expressions except for *jtoj* and *jtoo* may appear in free relatives.

Mam	English
al	who
alchee	which
ti(=jelil)	what
ja(=tumil)	where
ti'n	why/how
(t-u'n) teqa	why (for what reason)
jtoj	when (future)
jtoo	when (non-future)
ni'y(=x)	when (what time)
jte'	how many
nich'in	how much

Table 3: *wh*-words in Mam

In content questions, *wh*-expressions must occur clause-initially (6) and may not appear in their in-situ argument positions (7). Multiple *wh*-questions are not possible (8). The ban on both *wh*-in-situ and multiple *wh*-questions is a characteristic shared with a number of Mayan languages, e.g. Ch'ol (Álvarez and Coon 2020) and Yucatec Maya (AnderBois and Dzul 2020).

- (6) a. E-∅-b'ixa t-anb'a Juan.
 COM-B2/3SG-dance A2/3SG-sister Juan
 'Juan's sister danced'
- b. Al e-∅-b'ixa ____?
 who COM-B2/3SG-dance ____
 'Who danced?'

- (7) *e-∅-b'ixa al?
 COM-B2/3SG-dance who
 Intended: 'Who danced?' No *wh*-in situ

- (8) a. *al x-∅-t-il ____ al?
 who DIST-B2/3SG-A2/3SG-see ____ who
- b. *al al x-∅-t-il ____ ____?
 who who DIST-B2/3SG-A2/3SG-see ____ ____
 Intended: 'Who saw who?' No multiple *wh*-

We see in Table 3 above that the *wh*- words *ti'* 'what' and *ja* 'where' occur with their own lexically-specific clitics (= *jelil* and = *tumil*, respectively, and both glossed 'PCL'). These render a more emphatic meaning when used, and are not obligatory.

- (9) *ti'* and *ti'*=*jela*
- a. Ti' e-∅-b'aj ewa?
 what COMPL-B2/3SG-happen yesterday
 'What happened yesterday?'
- b. Ti'=jela s'-ok t-che'ya q'a Juan?
 what=PCL DIST+B2/3SG-DIR A2/3SG-see.DS CLF Juan
 'What did Juan see?'
- (10) *ja* and *ja*=*tumil*
- a. Ja x-∅-kw'=a' t-q'o-'n=i lapiz?
 where DIST-B2/3SG-DIR=DIR A2/3SG-give-DS=LP pen
 'Where did you put the pen?'
- b. Ja=tumil n-∅-xi' t-xo-'n tey xaq?
 where=PCL INC-B2/3SG-DIR A2/3SG-see-DS 2SG2.PRON rock
 'Where are you throwing rocks?'

Finally, we remark upon Mam’s restriction against the extraction of transitive subjects, which is seen in certain instances of *wh*-questioning. As has been mentioned above, high-abs Mayan languages have a restriction against \bar{A} -movement of transitive subjects, which is not seen in low-abs Mayan (a generalization first noticed by Tada (1993)). This restriction is known as the ergative extraction constraint (EEC), and is sidestepped in Mam by means of the antipassive construction. The Mam antipassive involves the demotion of the absolutive object to an oblique phrase introduced by a relational noun/preposition, while the ergative subject is demoted to an absolutive (i.e. with set B). The appropriate transitivity suffix is also used. This circumvention of the EEC is only seen in the extraction of ergative arguments (11c): intransitive subjects (11a) and transitive objects (11b) freely extract without the appearance of any valency changing morphology.

- (11) a. Al e- \emptyset -chim?
whom COM-B2/3SG-die
‘Who died?’ Subject question
- b. Al e- \emptyset -kub’ t-b’iyo-’n jel b’alam?
who COM-B2/3SG-DIR A2/3SG-kill-DS CLF jaguar
‘Who did the jaguar kill?’ Object question
- c. Al e- \emptyset -kub’ b’iyoo-n t-e jel b’alam?
who COM-B2/3SG-DIR kill-AP A2/3SG-RN:OBL CLF jaguar
‘Who killed the jaguar?’ Agent question

3.2 Focus fronting

In the focus construction, the focused argument must be in clause-initial position, and optionally introduced by the demonstrative element *ja*. We see the same adherence to the EEC in focus fronting, which, like *wh*-questions above, is characterized by the presence of the antipassive suffix and the demotion of the object to an oblique phrase (12c).

- (12) a. Ja xin xjaal e- \emptyset -chim
DEM CLF man COM-B2/3SG-die
‘The man died’ Subject focusing
- b. Ja xin xjaal e- \emptyset -kub’ t-b’iyo-’n jel b’alam
DEM CLF man COM-B2/3SG-DIR A2/3SG-kill-DS CLF jaguar
‘The jaguar killed *the man*’ Object focusing
- c. Ja xin xjaal e- \emptyset -kub’ b’iyoo-n t-e jel b’alam
DEM CLF man COM-B2/3SG-DIR kill-AP A2/3SG-RN:OBL CLF jaguar
‘The man killed the jaguar’ Agent focusing

3.3 Relative clauses

Headed relative clauses are characterized by the preposing of some nominal phrase. As in these other \bar{A} -constructions, the EEC effect is also observed when relativizing an ergative agent (13c).

- (13) a. Ma tz-uul xin xjaal [ma Ø-jaw tz'aq]
 PROX B2/3SG-arrive.here CLF man [PROX B2/3SG-DIR fall]
 'The man who fell arrived here'
- b. Ma tz-uul xin xjaal [ma tz'-ok n-pju-'n]
 PROX B2/3SG-arrive.here CLF man [PROX B2/3SG-DIR A1SG-hit-DS]
 'The man I hit arrived'
- c. Ma tz-uul xin xjaal [ma tz'-ok pjuu-n t-e
 PROX B2/3SG-arrive.here CLF man [PROX B2/3SG-DIR hit-AP A1SG-RN:OBL
 na'ya]
 1SG.PRON]
 'The man who hit me arrived'

To summarize this section, we have given an account of Mam's inventory of *wh*-expressions and outlined the formation of content questions, focus constructions, and relative clauses. With this background in place, let us turn to the discussion of free relative clauses.

4 Free relative clauses

Free relative clauses (FRs) are clauses featuring a *wh*-expression and a gap, that additionally lack a nominal head. FRs also have the distribution of DPs and PPs. We see this in Mam in the following example, where the FR is replaceable with a DP.

- (14) Distribution of FRs
- a. ma Ø-txi' n-wa-'n [jun waab'j]
 PROX B2/3SG-DIR A1SG-eat-DS [INDEF tortilla]
 'I ate a tortilla' DP object
- b. ma Ø-txi' n-wa-'n [ti'=jela e-Ø-tz t-laq'o-'n]
 PROX B2/3SG-DIR A1SG-eat-DS [what=PCL COM-B2/3SG-DIR A2/3SG-buy-DS
 Juana]
 Juana]
 'I ate what Juana bought' FR object

We schematize the properties characterizing FRs more formally with the following description.

- (15) Properties characterizing Mam FRs (adapted from Caponigro 2020)
- a. [_{CP} *wh*- ... — ...]_{DP/PP}
- b. [-D, -N, +WH]

We propose that FRs in Mam have the following featural specifications: [-D], as FRs are not introduced by a D⁰-element; [-N], as FRs are not introduced by a nominal head; and [+WH], as FRs are introduced by a *wh*-element. Other combinations of these binary features are attested in Mam, which we note as areas of future research in the concluding section (Section 5).

In this section, we show that in terms of their morphosyntax, there are two types of FR in Todos Santos Mam: what we refer to as standard FRs and free choice FRs. Standard FRs may

function either as maximal FRs (Max-FRs) or existential FRs (Ext-FRs), roughly conveying definite or indefinite meanings; while free choice FRs (FC-FRs) are additionally marked by the clitic =*x(a)* and have added inferences of speaker ignorance or indifference. Mam thus patterns like Yucatec Maya in having a single FR construction that may be interpreted as definite or indefinite, while a separate, marked FR construction, is interpreted as a FC-FR (AnderBois and Dzul 2020).

4.1 Maximal free relatives

Per Caponigro (2020), a Maximal free relative clause is a FR that satisfies the properties in (16).

- (16) a. Definiteness. It can be replaced and paraphrased by a definite DP or by a PP with a definite DP as its complement.
 b. Referentiality. It refers to an individual.
 c. Maximality. It refers to the largest (“maximal”) individual of a set of individuals.

Standard FRs in Mam exhibit all of the properties in (16). The example in (17b) shows that the FR can be paraphrased by a DP/PP argument (satisfying Definiteness), and that it refers to a contextually salient entity/set of entities (satisfying Referentiality).

- (17) *Context: Juana is making dinner and wants to invite Pedro, Lucía, María and Alfonso over. She wants you to pick them up because it's raining and they're all elderly. You bring them all.*

- a. \emptyset - \emptyset -uul w-ii-n qa xjaal tey s'-aj
 COM-B2/3SG-DIR A1SG-bring-DS PL person 2SG.PRON DIST+B2/3SG-DIR
 t-chk'o-'n _____
 A2/3SG-invite-DS _____
 ‘I brought the people you invited.’
- b. \emptyset - \emptyset -uul w-ii-n [al tey s'-aj
 COM-B2/3SG-DIR A1SG-bring-DS [who [2SG.PRON DIST+B2/3SG-DIR
 t-chk'o-'n _____]
 A2/3SG-invite-DS _____]
 ‘I brought **who** you invited.’

Max-FRs in Mam also demonstrate the Maximality property, in that they refer to an entire set of individuals; an interpretation involving a subset of the individuals is not available. This interpretative quality of Max-FRs is shown in the following example.

- (18) *Context: Juana is making dinner and wants to invite Pedro, Lucía, María, and Alfonso over. She wants you to pick them up because it is raining and they're all elderly. María and Alfonso weren't around, but you did bring Pedro and Lucía.*

- # \emptyset - \emptyset -uul w-ii-n [al tey s'-aj
 COM-B2/3SG-DIR A1SG-bring-DS [who 2SG.PRON DIST+B2/3SG-DIR
 t-chk'o-'n _____]
 A2/3SG-invite-DS _____]
 Intended: ‘I brought **who** you invited’

- (24) Ma tz'-ok t-tx'a-'n txi'yaan [**alchee** s'-el t-wi'
 PROX B2/3SG-DIR A2/3SG-bite-DS dog [**which** DIST+B2/3SG-DIR A2/3SG-shout
 ____].
 ____]
 'The dog bit which (one) shouted.' 'which'
- (25) K'-e-l=itz n-laq'o-'n [**jte'** pelot ma tz'-ok
 B2/3SG-DIR-POT=DIR A1SG-buy-DS [**how.many** ball PROX B2/3SG-DIR
 t-xjo-'n q'a Juan ____].
 A2/3SG-kick-DS CLF Juan ____]
 'I will buy all the balls (lit. 'how many balls') Juan kicked.' 'how many'
- (26) W-aj=sa chin-waa-n [**nich'in** kjo'n x-Ø-ku'=x t-awa-'n
 A1SG=EMPH B1SG-eat-AP [**how.much** corn DIST-B2/3SG-DIR=DIR A2/3SG-plant-DS
 n-man ____].
 A1SG-father ____]
 'I want to eat as much corn as my father plants' 'how much'

Although the *wh*-expression for 'what time' *ni'y* may introduce Max-FRs, the words *jtoj* 'when (future)' and *jtoo* 'when (non-future)' cannot, as the following show.

- (27) *Chin-aa'-l **jtoj** tz-aaj tey
 B1SG-leave-POT **whenFUT** B2/3SG-leave 2SG.PRON
 Intended: 'I will leave when you leave'
- (28) *E-chin-aaj=tz we'ya **jtoo** tz-uul=txa María
 COM-B1SG-leave=go 1SG.PRON **when.NONFUT** B2/3SG-arrive.here=CLF María
 Intended: 'I left when María arrived.'

4.2 Existential free relatives

Next we turn to the second subtype of FR: existential free relative clauses. Per Caponigro (2020), an Existential free relative clause (Ext-FR) is a FR that satisfies the following properties.

- (29) a. Existential meaning. It can be replaced/paraphrased by an existentially quantified nominal expression.
 b. Existential predicate. If attested in a language, it can always occur as a complement of existential 'be' or 'have'.

Standard FRs in Mam may function as Ext-FRs and exhibit both of these properties. (30b) shows that a FR can replace/paraphrase an existentially quantified nominal expression and be the complement of an existential predicate such as *at*. Note that there is no overt linguistic material in FRs that function as Ext-FRs that differentiates them from those that function as Max-FRs.

- (30) a. At [t-qab' b'e' t-u'n q-poon t-u'j tnum].
 EXIST [A2/3SG-arm road A2/3SG-COMP A1PL-arrive A2/3SG-in pueblo]
 'There's a shortcut for us to get to the pueblo.'
- b. At [**ti' teen** t-u'n q-poon t-u'j tnum].
 EXIST [**what way** A2/3SG-COMP A1PL-arrive A2/3SG-in pueblo]
 'There's a shortcut for us to get to the pueblo' Lit: 'there's what way...'

Table 5 summarizes the *wh*-expressions attested in Ext-FRs. Just like in Max-FRs, the two temporal *wh*-expressions *jtoj/jtoo* cannot appear in Ext-FRs.

who	what	where	when	what time	how	why	which N	how much/many
✓	✓	✓	*	✓	✓	✓	✓	✓

Table 5: Distribution of *wh*-words in Ext-FRs in Mam

- (31) At=pa [**al** b'a'n ∅-b'inchaa-n ____ carro]?
 EXIST=Q [**who** good B2/3SG-fix-AP ____ car]
 'Is there someone good at fixing cars?' 'who'
- (32) At=pa [**ti'** s'-aj t-laq'o-'n Juana ____]?
 EXIST=Q [**what** DIST+B2/3SG-DIR A2/3SG-buy-DS Juana ____]
 'Is there something Juana bought?' 'what'
- (33) Nti' [**ja=tumil** b'a'n t-chaj teen=i ____].
 NEG.EXIST [**where=PCL** good B2/3SG-DIR be=LP ____]
 'There's nowhere for you to stay' 'where'
- (34) Nya nuq yaalx [**ni'y** q-i'ysa-'n q-e='ya ninq'ij ____]...
 NEG.INC just trifling [**what.time** A1PL-celebrate-DS A1PL-RN=LP party ____]
 'It's not a small thing when we have a party...' 'what time'
- (35) At [**ti'n/ti' teen** t-u'n q-poon t-u'j tnum ____]?
 EXIST [**how/what way** A2/3SG-PREP A1PL-arrive.there A2/3SG-PREP city ____]
 'Is there some way for us to get to the city?' 'how'
- (36) At [**teqa** x-∅-jaw t-ii-n xinaq t-tzi' machet
 EXIST [**why** DIST-B2/3SG-DIR A2/3SG-sharpen-DS man A2/3SG-mouth machete
 ____].
 ____]
 'There's some reason the man sharpened his machete blade.' 'why'

(37) At=x=pa [alchee tey ma Ø-txi' t-wa-'n ____]?
 EXIST=still=Q [which 2SG.PRON PROX B2/3SG-DIR B2/3SG-eat-DS ____]
 'Is there (one) which you ate?' 'which'

(38) At [nich'in ma Ø-kub' q'e'y ____].
 EXIST [how.much PROX B2/3SG-DIR rot ____]
 'There is quite a bit that went rotten.' 'how much'

(39) At [jte' ma Ø-kub' chim ____].
 EXIST [how.many PROX B2/3SG-DIR die ____]
 'There were quite a few that died.' 'how many'

Just like Max-FRs, Ext-FRs may not be introduced by *wh*-expressions corresponding to 'when' (see (40) and (41)). In order to express the intended meaning, a headed relative clause, e.g. by *jun q'ijj* 'one day' or *maaj* 'time, instance' is used instead of *jtoj/jtoo* (for example (42)).

(40) *At [jtoj k-jaw-il n-b'in-cha-'n jun ja' t-e
 EXIST [when B2/3SG-DIR-POT A1SG-build-CAUS-DS INDF house A2/3SG-RN:PAT
 iglesia ____]
 church ____]
 Intended: 'Someday I will build a building that will become a church.'

(41) *At [jtoo e-Ø-jaw t-b'in-cha-'n tey
 EXIST [when COM-B2/3SG-DIR A2/3SG-make-CAUS-DS 2SG.PRON
 t-ja=y]
 A2/3SG-house=LP]
 Intended: 'There was some time you built your house.'

(42) At maaj ja chme'y n-Ø-tzaj q-ii-n=a t-e
 EXIST instance DEM turkey INC-B2/3SG-DIR A1PL-bring-DS=LP A2/3SG-RN:OBL
 t-b'eel q-waa=ya
 A2/3SG-flavor A1PL-food=LP.
 'Sometimes it's turkey we bring for our meal.'

In this section and 4.1 we observed that standard FRs (that is, FRs that are characterized solely by the presence of a fronted *wh*-expression and a gap) may be interpreted as Max-FRs and Ext-FRs. Though we do not pursue an analysis of this here, we suggest, following AnderBois and Dzul (2020) that this interpretive difference is likely determined not by features internal to FRs, but rather the predicates that select for them. Let us now turn to Free-choice FRs.

4.3 Free-choice free relatives

Last in this section, we discuss Free choice free relatives (FC-FRs). Per Caponigro (2020), a FC-FR is a free relative clause that satisfies the following properties.

- (43) a. Free-choice inference. A sentence containing an FC-FR obligatorily triggers an inference of ignorance or indifference
 b. Free-choice marker. An FC-FR always contains a free-choice (FC) marker.

We see an explicit example of the ignorance reading below in (44), whereas many of the following examples throughout (45)–(53) showcase the indifference reading.

- (44) *Context: You were at a gathering and someone was playing the marimba. You didn't see who was playing it, but you noticed the music was bad. Later, you remark:*
 Al=x x-Ø-chiimb'a, nya=sa b'a'n
 who=FC DIST-B2/3SG-play.marimba.AP not.be=EMPH good
 x-Ø-chiimb'a.
 DIST-B2/3SG-play.marimba.AP
 'Whoever played the marimba, he/she played it poorly'

who	what	where	when	what time	how	why	which N	how much/many
✓	✓	✓	*	✓	✓	✓	✓	✓

Table 6: Distribution of wh-words in FC-FRs in Mam

- (45) K-xe'-l w-ooona [al=xa tz-uul t-i'j ____].
 B2/3SG-DIR-POT A1SG-help.DS [who=FC B2/3SG-arrive.here A2/3SG-PREP ____]
 'I will help whoever comes.' 'who'
- (46) K-w'-el n-wa-'n [ti'=xa=jelil tz-ul t-laq'o-'n txin
 B2/3SG-DIR-POT A1SG-eat-DS [what=FC=PCL B2/3SG-DIR A2/3SG-buy-DS CLF
 María ____].
 María ____]
 'I will eat whatever María buys.' 'what'
- (47) K-jaw-i=tz n-txjo-'n w-i'j=i [ja=xa=tumil tey
 B2/3SG-DIR-POT=DIR A1SG-wash-DS A1SG-clothes=LP where=FC=PCL 2SG.PRON
 k-tza'-l t-qb'a-'n ____].
 B2/3SG-DIR-POT A2/3SG-say-DS ____
 'I will wash your clothes wherever you say to.' 'where'

- (48) [Ni'y=xa tz-uul q'a Miguel ____], ja=tza chin-aa'-l
 [what.time=FC B2/3SG-arrive.here CLF Miguel ____] DEM=then B1SG-leave-POT
 we'ya.
 1SG.PRON
 'Whenever Miguel comes, I'll leave.' 'what time'
- (49) K'-ok-a=x n-b'in-cha-'n waab'j [ti'n=xa t-aj Juana
 B2/3SG-DIR-POT=DIR A1SG-make-CAUS-DS tortilla [how=FC A2/3SG-want Juana
 ____].
 ____]
 'I will cook the tortillas however Juana likes them.' 'how'
- (50) Chin-aq'ana-l [t-u'n teqa=xa t-aj=i ____].
 B1SG-work-POT [A2/3SG-RN why=FC A2/3SG-want=LP ____]
 'I will work for whatever reason you want.' 'why'
- (51) K-w'-el t-oonaa doctor [alchee=xa ku'waal t-aj ____
 B2/3SG-DIR-POT A2/3SG-help.DS doctor [which=FC child A2/3SG-want ____
 medicina]
 medicine]
 'The doctor will help whichever child needs medicine.' 'which'
- (52) K-xe'-l n-wa-'n [nich'in=xa b'uuch ma tz'-e=x
 B2/3SG-DIR-POT A1SG-eat-DS [how.much=FC nixtamal PROX B2/3SG-DIR=DIR
 t-tchi'ya María ____].
 A2/3SG-grind.DS María ____]
 'I'll eat as much nixtamal as María grinds.' 'how much'
- (53) K'-e-l=itz n-laq'o-'n [jte'=xa pelot ma tz'-ok
 B2/3SG-DIR-POT=DIR A1SG-buy-DS [how.many=FC ball PROX B2/3SG-DIR
 t-xjo-'n q'a Juan ____].
 A2/3SG-kick-DS CLF Juan ____]
 'I will buy however many balls Juan kicked.' 'how many'

As with standard FRs, FC-FRs do not utilize the *wh*-expression *jtoj/jtoo*. Instead, a non-interrogative temporal complementizer is used.

- (54) K-w'-el=ix n-tx'o-'n tchanaq oj=xa t-uul=i.
 B2/3SG-DIR-POT=DIR A1SG-cook-DS bean when=FC A2/3S-arrive=LP
 'I'll cook the beans **whenever** you arrive.' Non-interrogative 'when'

To sum up this section, FC-FRs are distinct from standard FRs in terms of their internal structure in that they are marked by a clitic =*x(a)*. We suggest that the presence of =*x(a)* is associated with the definitional inferences associated with FC-FRs, namely, speaker ignorance and/or indifference.

5 Conclusion

This paper provided a first pass at describing free relative clauses in Todos Santos Mam. This included an overview of associated \bar{A} -processes, including the formation of content questions, focus-fronting constructions, and relative clauses. We then turned to the three-way distinction between Max-FRs, Ext-FRs, and FC-FRs, as outlined in Caponigro (2020). We showed that, while Mam exhibits all three types, there appears to be no difference between clauses that function as Max-FRs and Ext-FRs in terms of their internal structure. That is, there is no overt element within the clause that distinguishes these two types of FR. FC-FRs were marked by the clitic $=x(a)$, which we glossed as a free-choice element. As far as we are aware, $=x(a)$ is restricted to free relative clauses. Two *wh*-expressions, *jtoj* and *jtoo* were prohibited from appearing in all three FR constructions.

This short paper leaves open many questions to be addressed in future work: why are *jtoj* and *jtoo* prohibited from appearing in FRs? How do we arrive at the definite and indefinite interpretations for “standard” FRs? What is the meaning contribution of $=x(a)$? We also leave unaddressed here, for reasons of space, those flavors of headless relative clause that lack a [+WH] feature, such as light-headed relative clauses (Citko 2004) or super-free relative clauses (Caponigro 2020).

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