

## HEADLESS RELATIVE CLAUSES IN TSELTALAN

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This chapter investigates headless relative clauses in Tselal and Tsotsil, languages which make up the Tselalan branch of Western Mayan. Headless relatives introduced by *wh*-interrogative expressions (free relatives) are associated with two interpretations: maximal and existential. There is no distinct free choice free relative construction, but free choice interpretations arise as possible readings of maximal free relatives. There are other headless relative clause constructions in Tselalan which involve an overt determiner combined with the *wh*-pronoun or which lack an overt *wh*-pronoun. We argue that some of these are derived from headed relative clauses, with discourse-conditioned elision of the head noun, while others are based on free relatives in which the *wh*-pronoun is augmented by a determiner.

### 1 Introduction

The classification of headless relatives adopted in this volume distinguishes several types, depending on whether they contain a *wh*-expression or not ( $\pm$ WH) and on whether they contain a determiner-like element or not ( $\pm$ D). Free relatives (FRs) are understood here to be those headless relatives which contain a *wh*-expression and no determiner, i.e., [+WH, -D]. Cross-linguistically, FRs are of particular interest since they can be associated with at least three interpretations without lexical or morphological marking (Caponigro, 2003): a maximal interpretation (like that of a definite noun phrase), an existential interpretation (like that of a narrow-scope indefinite), or a free choice interpretation. In this way they differ from headless relatives whose interpretations are fixed by nominal material like determiners or quantifiers. Languages vary according to which interpretations they associate with FRs. In Tsotsil and Tselal, FRs can have any of the three, depending on the larger syntactic-pragmatic context in which they occur. We document this pattern in §4.1.

The fact that FRs are semantically underspecified in Tselalan calls for an investigation into the factors which determine particular interpretations, a task we can only partly undertake here. It also raises the question how FRs function in the language and how they are related to (the presence or absence of) other constructions which express the same or similar meaning. Here we can make several relevant observations. First, both languages prefer to express the maximal reading associated with FRs via the addition of a definite determiner, forming a type of headless relative clause with a determiner (§4.2.1). Second, existential FRs are extremely common and, compared with other (non-Mayan) languages, relatively unrestricted, (§4.1.2). This is because existential FRs fill the expressive gap left by the absence of indefinite pronouns in Tselalan. And third, while there is no dedicated free choice FR construction, both languages have alternative morphosyntax for expressing free choice meaning (§4.1.3). In addition, maximal FRs can have free choice interpretations in some contexts. In short, FRs in Tselalan enter into a

network of relations with other constructions. In addition to documenting the form of FRs in Tseltalan, we will try to bring out some of these connections.

## 1.1 Background

Tsotsil and Tselal make up the Tselal subgroup within Western Mayan (see Polian 2017 for a sketch of the two languages). They are spoken in proximity to one another and have been separated for an estimated 14 centuries (Kaufman, 1976, 2017). Both are spoken in Chiapas, the southernmost state of Mexico, both languages show a moderate degree of dialect differentiation (Polian, 2017), and each has somewhere over 400,000 speakers. The data discussed in this chapter come primarily from the Zinacantec dialect of Tsotsil and from various dialects of Tselal. To the extent possible, we draw on naturally-occurring speech.<sup>1</sup> Basing the description of Tselal on data from several dialects has had the advantage of making available a much larger corpus of examples; as far as we know, the various dialects do not differ with respect to the issues discussed here. Likewise, Tsotsil and Tselal are very similar with respect to the morphosyntax of both headed and headless relative clauses. The few differences we have observed are noted below.

## 1.2 Grammatical features

Tsotsil and Tselal share a range of typological features with other Mayan languages (Polian, 2017). They are verb-initial and, more generally, head-initial: verbs precede their objects, the languages are prepositional, a possessed noun precedes its possessor, complementizers precede subordinate clauses, etc. Some of these properties are illustrated by (1) and (2):<sup>2</sup>

- (1) L-i-s-vula'an [s-me' li Xunka=e]  
CP-B1-A3-visit A3-mother DET Juana=CL  
'Juana's mother visited me.' [TSO, ELIC]

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<sup>1</sup> Data are cited as [TSE,...] (Tselal) or [TSO,...] (Tsotsil). The Tselal data cited by dialect were extracted from the different corpora gathered by the Tselal Documentation Project, coordinated by G. Polian and hosted at CIESAS-Sureste, Chiapas. Dialects represented are: Aguacatenango (AGUAC), Bachajon (BACH), Cancuc (CANC), Oxchuc (OXCH), Petalcingo (PET), San Pedro Pedrenal (SPP), Tenango (TENANGO), Tenejapa (TEN), Villa las Rosas (ROSAS) and Yajalón (YAJ). These represent over 500 hours of recorded speech, which we estimate to contain between 3 and 4 million words. Most Tsotsil examples come from the texts collected by R. Laughlin in Zinacantán and published in two volumes: Laughlin 1977 (abbreviated OCK in citations) and Laughlin 1980 (abbreviated SSS). The Tsotsil texts contain a total of about 200,000 words. Elicited examples are tagged with ELIC.

<sup>2</sup> The following abbreviations are used in glosses (note that only those which diverge from the Leipzig Glossing Rules are listed here): A1, 2,3: Set A 1st, 2nd, 3rd person; ABSTR: abstract noun suffix; AF: agent focus; B1, 2: Set B 1st, 2nd person; CL: clitic; CP: completive; DEIC: deictic; DIM: diminutive; DIR: directional; EVID: evidential; EXH: exhortative; ICP: incomplete; MOD: modal; NF: non-finite; NT: neutral aspect; P: preposition; PRON: pronoun; PT: particle; RN: relational noun; SUB: subordinator. For other abbreviations, see the Leipzig Glossing Rules.

- (2) La jk-ak'-b-at ul.  
 CP A1-give-APPL-B2SG atole  
 'I gave you atole.'

[TSE, OXCH; Polian 2013: 270]

Mayan languages are strongly head-marking, a fact also illustrated by (1), (2): verbs agree with their subjects and (primary) objects, and nouns agree with their possessors.<sup>3</sup> As in other Mayan languages, agreement is morphologically ergative. This pattern is realized through two sets of morphemes, termed Sets A and B by Mayanists. Set A registers person agreement with subjects of transitive verbs and with possessors of nouns; Set B registers the person (and sometimes the number) of subjects of intransitive verbs and (primary) objects of transitive and ditransitive verbs. Set A markers are prefixal in both languages, as is usual in Mayan. Set B markers are prefixal in some Mayan languages and suffixal in others. They are consistently suffixing in Tseltal and occur either prefixed or suffixed (sometimes both) in Tsotsil, depending on the dialect and the morphosyntactic context. Example (1) illustrates the use of Set B prefixes, which is the general rule in Zinacantec Tsotsil when the verb carries an aspectual prefix; (2) illustrates the use of Set B suffixes in Tseltal. There is also a separate set of plural suffixes which can mark plurality when not marked by Set A or B markers.

In addition to carrying Set A and B morphemes, verbs in Tseltalan inflect for aspect, mood, and (under some conditions) for transitivity status. The basic aspectual contrast in Tseltalan is between completive and incompletive. Both are marked by a preverbal particle or a prefix; completive is sometimes unmarked. Completive usually situates an event in past time; incompletive is compatible with past, present, and future events and is also found in irrealis contexts. Tsotsil also has a verb form which is termed 'neutral' in Haviland (1981) and Aissen (1987). It is obligatorily found in the complements to certain modals and, in addition, often occurs under negation. Combined with the particle *ta* (*ta* + neutral), it forms the incompletive in Tsotsil. Perfect aspect is formed derivationally by suffixation, with the form of the suffix distinguishing transitives (*-oj*), intransitives (*-em*), and passives (*-bil*). Other properties of verbal inflection will be noted when relevant. For full details, see Aissen (1987) on Tsotsil and Polian (2013) on Tseltal.

In the area of nominal syntax, there are two main points relevant to the material discussed here. First, both languages have a set of definite determiners (Table 1) which occur initially in noun phrases.<sup>4</sup>

	Tseltal	Z. Tsotsil
PROX	<i>(i)</i>	<i>li</i>
MEDIAL	<i>te</i>	<i>ti</i>
DISTAL	<i>(me)</i>	<i>taj</i>

Table 1: Determiners in Tseltal and Tsotsil

<sup>3</sup> There is also a class of 'relational' nouns, which are used like adpositions and which agree with their 'complements' in the same way that nouns agree with their possessors.

<sup>4</sup> All Tseltal dialects have the *te* form of the definite determiner, but some of them also present a proximal *i* and/or a distal *me*. The precise configuration of the different determiner systems in Tseltal is of no consequence for the purposes of this chapter.

Second, the definite determiners usually trigger the presence of the enclitic =*e*, which occurs at the right edge of an intonational phrase, i.e., before pause, as in (1) (for an account of =*e* in Tsotsil, see Aissen (2017)). Some of the determiners have other functions which will be relevant below: in particular, Tseltal *te* and Tsotsil *ti* function as clausal subordinators, particularly for complement clauses and conditional clauses. The other determiners (Tseltal *i*, *me*, Tsotsil *li*, *taj*) do not introduce complement clauses.

## 2 Wh-Interrogative Clauses

There are four basic wh-roots, corresponding to *who*, *what*, *where*, and *how much~how many* (see Table 2). Other wh-expressions (temporal, manner, cause, degree) are phrasal and are based on *bin~k'u* ‘what’ plus another element.<sup>5</sup> The meaning of these phrases is not always compositional. For example, *ora* is obviously borrowed from Spanish *hora* ‘hour’, but *bin ora* and *k'usi ora* do not mean ‘what time/hour’, but rather are general temporal interrogatives (see Polian 2013: 227, as well as (33) below). In all subsequent examples, we gloss these expressions as *what time*, *what way*, and *what cause*, and translate them as *when*, *how*, and *why*.<sup>6</sup>

		Tseltal	Tsotsil
HUMAN	‘who’	<i>mach'a</i> (pl.: <i>mach'atik</i> )	<i>buch'u~much'u</i> (pl.: <i>buch'utik~much'utik</i> )
NON-HUMAN	‘what’	<i>bin(ti)</i> (pl.: <i>bintik</i> )	<i>ku(si)</i> (pl.: <i>k'usitik</i> )
LOC(ATIVE)	‘where’	<i>ba(y)~ban(ti)</i> (pl.: <i>batik</i> )	<i>bu(y)</i> (pl.: <i>butik</i> )
AMOUNT	‘how much’~ ‘how many’	<i>jay</i> +CLF	<i>jay</i> +CLF
DET(ERMINER)	‘which N’	<i>mach'a</i> [+HUM] <i>bin(ti)</i> [-HUM], <i>ban(ti)</i> [±HUM]	<i>buch'u~much'u</i> [+HUM], <i>k'u(si)</i> [-HUM]; <i>bu</i> [±HUM]
TEMP(ORAL)	‘when’	<i>bin ora</i>	<i>k'u(si) ora</i>
MANNER	‘how’	<i>bin ut'il~bi-t'il</i>	<i>k'u cha'al</i> , <i>k'u(si) xi</i>
CAUSE	‘why’	<i>bin y-u'un</i>	<i>k'u y-u'un</i> , <i>k'u cha'al</i>
DEGREE	‘how A’	<i>bin</i> + possessed N	<i>k'u</i> + possessed N

Table 2: Wh-expressions in Tseltal and Tsotsil

<sup>5</sup> As we are dealing with a large number of dialects, there are many dialectal differences in form related to the wh-words. We omit these details here. In addition, we will not discuss degree constructions.

<sup>6</sup> In both Tseltal and Tsotsil, the expressions for ‘how’ involve forms derived from verbs meaning ‘do’. Tseltal *ut'il* is derived from the passive participle of the verb *ut-* ‘do’ (Polian 2013:228); *cha'al* in Tsotsil is derived from the reconstructed root *CHA* ‘do, act as if’; the form *cha'al* itself does not occur outside the expression *k'u cha'al* (Laughlin 1975:107). In both languages, the expression for ‘why’ is based on the relational noun *-u'un* ‘cause’, with the wh-word functioning as its formal possessor. We ignore its internal structure here and represent it as *yu'un*.

All the *wh*-expressions in Table 2 function as interrogatives, with no change in form. Interrogative *wh*-expressions appear at the beginning of the clause (i.e., there are no *in situ* interrogative *wh*). There are also no cases of multiple *wh* questions (Aissen, 1996). Examples (3)-(10) illustrate the main forms of Table 2 (examples are generally presented in pairs, first Tseltal (TSE), then Tsotsil (TSO); see fn. 1 for abbreviations of sources).

+HUM

(3) **Mach'a** la s-pas?  
 who CP A3-do'  
 'Who did it?' [TSE, CANC]

(4) **Buch'u** l-a-y-ak'-be l-av-ikats=e?  
 who CP-B2-A3-give-APPL DET-A2-load=CL  
 'Who gave you your load?' [TSO, OCK 52]

-HUM

(5) **Bin** a-le?  
 what A2-look.for  
 'What are you looking for?' [TSE, CANC]

(6) **K'usi** ch-a-k'an?  
 what ICP-A2-want  
 'What do you want?' [TSO, OCK 47]

LOC

(7) **Ba** x-ba j-ta-b-at pox?  
 where ICP-go A1-find-APPL-B2SG medicine  
 'Where could I go to get you medicine?' [TSE, OXCH; Polian 2013: 224-5]

(8) **Bu** ch-a-bat?  
 where ICP-B2-go  
 'Where are you going?' [TSO, OCK 70]

TEMP

(9) **Bin ora** x-lok'-ex bahel?  
 what time ICP-leave-B2PL DIR  
 'When are you all going to leave?' [TSE, BACH]

(10) **K'u ora** ch-a-tal un?  
 what time ICP-B2-come PT  
 'When are you coming?' [TSO, OCK 298]

A feature of *wh* interrogatives in Tseltalan which will be useful below in distinguishing them from relative clauses is that they exhibit pied piping (with inversion) (Aissen 1996, Polian 2013,

229ff). In (11)-(12), questioning the possessor involves fronting of the possessum, along with the possessor, and the usual order (possessed-possessor) is reversed:

(11) [**Mach'a** x-nich'an] bejk'aj?  
 who A3-son.of.male be.born'  
 'Whose son was born?' [TSE, OXCH; Polian 2013: 230]

(12) [**Buch'u** y-ajnil] i-cham?  
 who A3-wife CP-die  
 'Whose wife died?' [TSO, ELIC]

The wh-expressions used in matrix interrogatives are also used in embedded interrogatives with no change in morphology or syntax.

-HUM  
 (13) La s-jojk'o-be-n [**binti** ya j-pas].  
 CP A3-ask-APPL-B1SG what ICP A1-do  
 'He asked me what I do.' [TSE, TEN]

+HUM  
 (14) [J]-na'-tik [**buch'u** y-elk'an-oj].<sup>7</sup>  
 A1-know-1.INCL who A3-steal-PRF  
 'Who knows who stole it.' [TSO, OCK 215]

The only difference is that any embedded interrogative clause can be preceded by a determiner, (15)-(16).<sup>8</sup>

(15) Ma x-na'baj [**te mach'a** la s-pas=e].  
 NEG ICP-be.known DET who CP A3-do=CL  
 'Nobody knows who did it.' [TSE, OXCH]

(16) K'ot av-al-be y-a'i [**ti k'usi** k'as-em un=e].  
 arrive A2-tell-APPL A3-hear DET what break-PRF PT=CL  
 'You told them what was broken.' [TSO, SSS 136]

Although the bracketed material in (15)-(16) is identical to a class of headless relative clause with determiner (§4.2.1), evidence that it is really an embedded interrogative comes from the fact that pied piping with inversion is possible, (17). This contrasts with relative clauses. In

<sup>7</sup> *j-na'-tik* (with 1st person plural inclusive inflection) is an idiomatic expression which corresponds to English "who knows + interrogative clause" – with the implication, "no one knows + interrogative clause". The initial Set A prefix is sometimes elided in this idiom.

<sup>8</sup> The conditions which motivate the use of the determiner remain to be investigated. See fn. 23 for related discussion.

relativization of the possessor, the possessum can be stranded, (18a), but cannot be pied piped, (18b).

(17) L-i-s-jak'-be [li buch'u y-ajnil i-cham=e].  
 CP-B1-A3-ask-APPL DET who A3-wife CP-die=CL  
 'He asked me whose wife died.' [TSO, ELIC]

(18) a. Ch-'ok' [li buch'u i-cham y-ajnil=e].  
 ICP-cry DET who CP-die A3-wife=CL  
 'The one whose wife died was crying.' [TSO, ELIC]

b. \*Ch-'ok' [li buch'u y-ajnil i-cham=e].  
 ICP-cry DET who A3-wife CP-die=CL

### 3 Headed Relative Clauses

#### 3.1 Relative subordinators

Headed relative clauses (RCs) in Tseltalan are post-nominal and contain a gap in the position of the relativized constituent. Tsotsil and Tseltal differ from the other Mayan languages described in this volume in the proliferation of elements that can introduce headed relatives (we refer to these descriptively as 'subordinators' without implying anything about how they end up in initial position). They can be introduced (i) by a wh-expression identical to those used in interrogatives; (ii) by an element drawn from the class of determiners, but which we analyze here as a complementizer (COMP); (iii) by both of these combined, i.e., COMP+WH; and (iv) by what we refer to as a  $\emptyset$  subordinator, no overt subordinator at all.

The four options are not equally available in headed relatives. As shown in Table 3, the available options depend on the semantic class of the relativized constituent, i.e., whether it refers to a human, a non-human, or a place (LOC).

	+HUM	-HUM	LOC
WH	✓	*	✓
COMP	✓	✓	*
$\emptyset$	✓	✓	*
COMP+WH	✓	*	✓

Table 3: Distribution of subordinators in headed RCs

The generalizations which emerge from Table 3 are that all four options are possible for human antecedents;<sup>9</sup> the WH option is not available for non-humans, whether combined with a complementizer or not; and conversely, a wh-expression is required for a locative antecedent.<sup>10</sup>

Examples (19)-(24) illustrate the distribution of the wh-option for RCs with +HUM, -HUM, and LOC antecedents.

+HUM: WH

(19) Ma k'an-ot y-u'un away te ants [**mach'a** mero ya s-k'an=e]  
 NEG love-PASS A3-RN PT DET woman who very ICP A3-love=CL  
 'He wasn't loved by the woman whom he really loved.' [TSE, OXCH; Polian 2013: 786]

(20) S-pas kanal li vinik [**buch'u** lok' ta ch'en].  
 A3-do win DET man who leave P cave  
 'The man who came out of the cave won.' [TSO, OCK 151]

-HUM: Ø/\*WH

(21) Te ak [Ø/\***binti** ya a-tuuntes-ik], ay=bal s-biil?  
 DET thatch SUB/what ICP A2-use-PL EXIST=Q A3-name  
 'The thatch you use, does it have a name?' [TSE, CANC]

(22) Sutes-b-on tal li aniyo [Ø/\***k'usi** av-elk'an-b-on=e].  
 return-APPL-B1SG DIR DET ring SUB/what A2-steal-APPL-B1SG=CL  
 'Return to me the ring that you stole from me.' [TSO, ELIC]

LOC: WH/\*Ø

(23) Ijk'=nanix=a te lumilal [**banti**/\*Ø x-'a'tej-at].  
 black=very=PT DET earth where/SUB ICP-work-B2SG  
 'The earth where you're going to work is very black.' [TSE, TEN]

(24) Pojwáke s-bi li bamil [**bu**/\*Ø nakal un]=e.  
 Pojoaque A3-name DET land where/SUB living PT=CL  
 'The place where he lives is called Pojoaque.' [TSO, SSS 26]

Analytically, we assume that wh-relatives involve movement of the wh-pronoun from within the RC to clause-initial position (in phrase-structural terms, to specifier of CP).

RCs can also be introduced by a complementizer (see Table 3). Some examples are shown in (25)-(26).

<sup>9</sup> The possibility of the +HUM wh pronoun in headed RCs contrasts with Ch'ol (Vázquez Álvarez & Coon, this volume) and with Yucatec, where the pronoun is possible only with pied piping (Gutiérrez Bravo (2013), AnderBois & Chan Dzul (this volume)).

<sup>10</sup> In Tsotsil, the locative WH-word *bu* is often augmented by the particle *yo'* when it functions as a relativizer (no corresponding particle exists in Tseltal).



- (25) Mach'a into te ermano [te y-ak'-oj-b-otik tel  
 who DEM DET brother COMP A3-send-PRF-APPL-B1.INCL DIR  
 te jtatik Gabriel]  
 DET Father Gabriel  
 'Who is this brother that Father Gabriel sent to us?' [TSE, CANC]
- (26) Buch'u y-ak'-oj taj k'in [ti bats'i x-nik=xa ts-na rey un=e]?  
 who A3-give-PRF DEM fiesta COMP very NT-shake=now P.A3-house king PT=CL  
 'Who's giving the fiesta that's really swinging at the king's house?' [TSO, OCK 220]

As indicated in Table 3, the  $\emptyset$  subordinator occurs in the same contexts as the complementizer alone. We assume the complementizer is simply optional, though there are certain contexts which favor its absence, namely when the RC modifies the theme argument in an existential construction, or when inanimates are relativized.

The identification of the subordinators in (25)-(26) as complementizers seems straightforward since *te* and *ti* are the basic complementizers for complement clauses. However, in Tsotsil, the proximal determiner *li*, which does not occur elsewhere as a complementizer, also appears as a subordinator in RCs (it is glossed here as  $C_d$ ):

-HUM:  $c_d$

- (27) Bat k-ak'-tikotik il-uk li j-vun-tikotik [li lok'-em ta Tuxta un=e].  
 go A1-give-1.EXCL see-SBJV DET A1-paper-1.EXCL  $C_d$  leave-PRF P Tuxtla PT=CL  
 'We went to show our papers that had been issued in Tuxtla.' [TSO, SSS 55]

What is striking in (27) is that the relativizer *li* matches the determiner associated with the head noun. This is a general restriction, one which holds throughout our Tsotsil corpus and has been confirmed by Tsotsil speakers: *li* introduces a RC only when the RC modifies a noun with the determiner *li*. We assume in what follows that when it introduces a RC, *li* is an underlying complementizer which agrees in deixis with a proximal determiner in the matrix noun phrase (on this kind of agreement, see Torrence (2013) on Wolof and Ba (2015) on Pulaar). When it does not agree, it surfaces as the default complementizer *ti*.

With this as background, we turn to the most complex subordinator in RCs, the one which combines the complementizer with a *wh*-expression (COMP+WH):

- (28) Ay ox-tul winik-etik [te mach'a-tik te ma la s-k'an  
 EXIST three-CLF man-PL COMP who-PL COMP NEG CP A3- want  
 x-ch'uun te Dios]  
 A3-believe DET God  
 'There are three men who didn't want to believe in God.' [TSE, OXCH]
- (29) ti jun vinik [ti buch'u ba'yi i-y-il li ch'en=e]  
 DET one man COMP who first CP-A3-see DET cave=CL  
 'the man who first saw the cave [died]' [TSO, OCK 146]

Before turning to our analysis, we want to consider (and reject) an analysis which would identify the bracketed RCs in (28)-(29) with a type of headless relative that exists in these languages. The RCs in (28)-(29) are identical to headless RCs introduced by DET+WH (see §4.2.1). Compare (29) to (30):

- (30) [ti buch'u ba'yi i-y-il li ch'en=e]  
 DET who first CP-A3-see DET cave=CL  
 'the one who first saw the cave' [TSO, ELIC]

A possibility then is that the structures in (28)-(29) simply involve the loose juxtaposition of a headless RC to a noun phrase, with the headless relative understood to characterize (and thus restrict) the same referent. We reject this because while the -HUM wh-pronoun (*binti~k'usi*) is grammatical in headless RCs (31a), it is ungrammatical in a headed one (31b).

- (31) a. [li k'usi av-elk'an-b-on=e]  
 DET what A2-steal-APPL-B1SG=CL  
 'what you stole from me'  
 b. Sutes-b-on tal li aniyo [li (\*k'usi) av-elk'an-b-on=e].  
 return-APPL-B1 DIR DET ring C<sub>d</sub> what A2-steal-APPL-B1SG=CL  
 'Return to me the ring that you stole from me.' [TSO, ELIC]

From this, we conclude that the RCs of the type (28)-(29) are not simply juxtaposed to the modified noun phrase, but are syntactically integrated into the phrase containing the head noun and treated as headed, not headless.

What we propose for (28)-(29) is that the two overt subordinators are combined but maintain their identities as complementizer and WH-pronoun.<sup>11</sup> The principal motivation for this analysis is that we find (in Tsotsil) the same complementizer agreement here that we find in examples like (27). The basic complementizer (*ti*) is always possible, but can be replaced by *li* if (and only if) the matrix determiner is *li*.

- (32) Mu s-k'an li/??ti krem [li much'u i-jak'-on=e].  
 NEG A3-want DET boy COMP/C<sub>d</sub> who CP-ask-AF=CL  
 'She did not like the boy who had asked for her.' [TSO, TEXT/ELIC]

Table 4 summarizes our analyses of the four subordinators in headed RCs in Tseltal and Tsotsil.

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<sup>11</sup> Structurally, this could be accommodated by assuming a recursive CP structure, with the higher CP headed by the complementizer and the lower one housing the wh-expression. The order COMP+WH is unusual, though it is not unprecedented, cf. Nez Perce (Deal, 2016). A recursive CP would also provide space for a second complementizer, after the wh-expression, as in (28), for example.

SUBORDINATOR	ANALYSIS	EXAMPLES
[1] WH	[1] fronting of wh-pronoun	19, 20, 23 24
[2] C~C <sub>D</sub>	[2] COMP (with optional agr)	25, 26, 27 (w/agr)
[3] ∅	[3] optional realization of COMP	21, 22
[4] C~C <sub>D</sub> +WH	[4] COMP+WH (with optional agr)	28, 29, 32 (w/agr)

Table 4: Subordinator types in headed relative clauses

### 3.2 Range of WH-elements in headed RCs

The range of wh-elements which occur in headed RCs is limited by several factors. First, as already noted, the -HUM wh-pronoun never occurs in headed RCs, leaving -HUM and LOC wh-pronouns as the most common wh-relativizers (see Table 3). Further, relativization of adjuncts other than locatives is rare in headed RCs. For manner and cause, this is presumably because abstract nouns corresponding to manner and cause do not exist. RCs to temporal heads (e.g., ‘day’, ‘year’, ‘month’) are possible, though not the usual way of expressing the target meaning.

- (33) Ti k’ak’al [k’usi ora l-i-’ayan=e] ta 24 junio.  
 DET day what time CP-B1-born=CL P 24 June  
 ‘The day when I was born was June 24.’ [TSO, ELIC]

Finally, the RC to a plural head can be introduced by a wh-expression of amount. Although the wh-expression is internal to the RC, it has a universally quantifying effect on the matrix noun phrase.

- (34) Ja’=xix ya j-mali-tik j-lumal-tik [jay-eb]  
 FOC=only ICP A1-wait-1.INCL A1-countryman-1.INCL how.many-CLF  
 x-’och tal li’ pajel=i].  
 ICP-go.in DIR here tomorrow=CL  
 ‘Now we just have to wait for as many of our people as will come here tomorrow.’  
 (lit. ‘Now we have to wait for our countrymen how many will enter here tomorrow.’)  
 [TSE, SPP]
- (35) Kap-em=la li viniketik [jay-vo’ i-kol un=e].  
 anger-PRF=QUOT DET men how.many-CLF CP-rescue PT=CL  
 ‘All the men who were saved were angry.’ (lit. ‘The men how many were saved were angry.’)  
 [TSO, OCK 272]

Table 5 summarizes the distribution of WH-expressions in headed RCs. The asterisk in the DET+N column refers to the fact (not discussed above) that the wh-expressions do not function as determiners (with a pronounced N) in RCs. That is, the equivalent of ‘they saved the men which men were drowning’ is no more possible in Tselalan than it is in English. As in most languages, the relativized constituent must be reduced to (at most) a pronoun.

+HUM	-HUM	LOC	TEMP	MANNER	CAUSE	DET+N	AMOUNT
✓	*	✓	✓	*	*	*	✓

Table 5: Distribution of WH-expressions in headed RCs in Tseltal and Tsotsil

✓: acceptable; \*: not acceptable

## 4 Headless Relative Clauses

Our discussion of headless RCs considers first those which are introduced by a wh-expression, free relatives (§4.1), and then and those which are not (§4.2). The latter category simply contains all those headless relatives which are not free relatives, so there is no reason to expect it to be homogeneous; indeed, we will see that it is not.

### 4.1 Free Relative Clauses

This volume distinguishes three types of FR, according to their interpretations: maximal (interpreted like a definite noun phrase), existential (interpreted like a narrow-scope indefinite), and free choice. As noted earlier, FRs in Tseltal and Tsotsil can be understood as having any of the three interpretations without a change in form. The distinction between existential and maximal FRs is clear, as the contexts in which they occur are different. The distinction between maximal FRs and free choice FRs is less clear, with many examples allowing both interpretations, e.g.,

- (36) I-s-man='o [k'u s-lajes-ik].<sup>12</sup>  
 CP-A3-buy=INS what A3-eat-PL  
 'They bought with it (i.e., the money) what/whatever they (wanted to) eat.'  
[TSO, OCK 245]

Following Jacobson (1995) and others, we take both the ('standard') definite and the free choice interpretations to involve maximality, and thus to be simply alternative interpretations for maximal FRs. However, in accord with the format of this volume, we discuss the 'standard' interpretation in §4.1.1 and the free choice interpretation in §4.1.3.

Finally, we note that while existential FRs are frequent in Tseltalan, maximal FRs are infrequent as there is a strong preference to mark their definiteness (maximality) by an explicit definite determiner, e.g.:

- (37) [li buch'u muk' lek x-tak'av=e]  
 DET who NEG well NT-answer=CL  
 'whoever/the one(s) who didn't answer properly'  
[TSO, OCK 335~ELIC]

<sup>12</sup> The 'o which occurs in this example is the instrumental clitic, which attaches to the right edge of the verb in Tsotsil.

Because the term ‘free relative’ is restricted here to headless relatives whose initial element is a wh-expression, the bracketed construction in (37) is not a FR. Accordingly, it is discussed in §4.2.1.

#### 4.1.1 Maximal Free Relatives

Maximal FRs (Max-FRs) are introduced by a wh-expression and are interpreted like definite noun phrases. Examples of singular and plural human-referring Max-FRs are illustrated by (38)-(39).

(38) Ha'nax a s-yom s-bah-ik [**mach'a** y-a'iy-ej=e].  
 only ICP A3-gather A3-REFL-PL who A3-hear-PRF=CL  
 ‘Only [those] who have heard about it gather.’ [TSE, BACH]

(39) *"There was a man who found a ring. It was a treasure. The ring was stolen. The ring was taken, since [that person who found the ring had many friends].*

Ep x-chi'il-tak [**buch'u** i-s-ta li ixtalal=e].  
 many A3-friend-PL who CP-A3-find DET ring=CL  
 [That person] who found the ring had many friends.

*It was discovered. They stole it from his house. He saw that the ring was no longer there."* [TSO, OCK 142]

Evidence that the FRs in (38) and (39) have definite interpretations comes from several directions. As expected, such a FR can be appropriately replaced by an explicitly definite noun phrase. Thus (38) could be replaced by (40), which contains a definite determiner and a headed RC.

(40) Ha'nax a s-yom s-bah-ik [te winik-etik [te y-a'iy-ej=e]].  
 only ICP A3-gather A3-REFL-PL COMP man-PL COMP A3-hear-PRF=CL  
 ‘Only the men who have heard about it gather.’ [TSE, ELIC]

The interpretation of the bracketed FR in (39) as definite (“the one who found the ring”) is clear from its anaphoric relations with other expressions. On the one hand, it cannot be indefinite because it is anteceded by an indefinite (“There was a man who found a ring.”). On the other, it cannot be quantificational (e.g., ‘everyone who found the ring’) because it antecedes a definite, singular pronoun (“they stole it from his house, he saw that...”).

More generally, like other definite noun phrases, FRs interpreted as definite have the property of maximality. If a noun phrase has a maximal interpretation, then all the individuals within some context set meeting the description of the noun phrase have the property expressed by the predicate of the sentence. When there is only a single (unique) individual in the relevant domain that meets the description, the result is a standard singular definite interpretation, as in



- (47) I-s-mala [k'u ora i-k'ot ti y-ajnil=e].  
 CP-A3-wait what time CP-arrive DET A3-wife=CL  
 'He waited for his wife to return.' (lit: he waited for when his wife returned.)  
 [TSO, OCK 74]

MANNER

- (48) Y-u'un=bal ay s-wentail ts'in [bi-t'il ay x-ch'in  
 A3-RN=Q EXIST A3-meaning PT what-way EXIST A3-DIM  
 s-tsaj-al sok s-sak-ilal]?  
 A3-red-ABST and A3-white-ABST  
 'Is the way it has red and white parts meaningful?' [TSE, OXCH; Polian 2013: 560]

- (49) Ch-a-j-pech' komel lek [k'u cha'al pech'-bil-on vo'on=e].  
 ICP-B2-A1-bind DIR well what way bind-PASSPTCP-B1SG PRON:1SG=CL  
 'I'll bind you up well, just the way I'm bound.' [TSO, OCK 66]

FRs based on the wh-expressions for amount seem to be possible, as in (50).

- (50) S-tak' ta k'el-el ti kajvaltik [jay-vo' kom-em] un=e.  
 A3-can P watch-NF DET our.lord how.many-CLF remain-PRF PT=CL  
 'Those who were left could see Our Lord.' [TSO, OCK 258]

But these are rare and the maximal interpretation generally requires the presence of a definite determiner, as in (112-113) below.

As in many other languages (Caponigro 2003, 37), the expressions for 'why' do not form Max-FRs.<sup>15</sup>

- (51) a. \*La j-pas [bin yu'un la a-pas].  
 CP A1-do what cause CP A2-do  
 (Intended: 'I did it for the reason you did it.') [TSE, ELIC]
- b. \*I-j-pas [k'u yu'un a-pas].  
 CP-A1-do what cause A2-do  
 (Intended: 'I did it for the reason you did it'). [TSO, ELIC]

Wh-determiners too do not form Max-FRs:

---

CP A3-take DIR when go=CL  
 'He took it away when he left.' [TSE, BACH]

<sup>15</sup> However, there is an alternative wh-expression for 'why' in Tsotsil, namely *k'u cha'al* 'how, why' (see Table 2). Max-FRs interpreted as 'why' FRs are possible in Tsotsil when introduced by *k'u cha'al*.

- (52) \*I-k'ot [bʊch'u vinik ta x-'abtej].  
 CP-arrive which man ICP NT-work  
 (Intended: 'The man who is working arrived.') [TSO, ELIC]

An obvious hypothesis is that wh-determiners do not form Max-FRs because the target interpretation can be expressed more directly via a definite determiner (*the man*). We suggest then that the absence of wh-determiners in Max-FRs, as in (52), is due to a blocking effect. See §4.1.3 for some further support for this approach.

Table 6 summarizes the distribution of WH-expressions in Max-FRs.

+HUM	-HUM	LOC	TEMP	MANNER	CAUSE	DET+N	AMOUNT
✓	✓	✓	(✓)	✓	*	*	(✓)

Table 6: Distribution of WH-words in Max-FRs in Tselal and Tsotsil

✓: acceptable; \*: not acceptable; (✓): uncommon.

#### 4.1.2 Existential Free Relatives

Structures which look identical to Max-FRs can also be interpreted as indefinite in certain contexts, namely when they function as arguments to stative existential predicates (Table 7) and to several dynamic predicates which entail 'coming into existence' or 'becoming available', e.g., verbs with the meanings 'look for', 'find', 'buy'.

	POSITIVE	NEGATIVE
TSELTAL	<i>ay</i>	<i>ma'yuk, mayuk</i>
TSOTSIL	<i>oy (o, u)</i>	<i>mu'yuk, muk', ch'abal</i>

Table 7: Stative existential predicates

- (53) Ay [mach'a ya j-k'opon].  
 EXIST who ICP A1-talk.to  
 'I have someone I can talk to.' [TSE, ELIC]
- (54) Muk' [bʊch'u ta j-nak'-be].  
 NEG.EXIST who ICP A1-hide-APPL  
 'I don't have anyone to keep it for.' [TSO, SSS 199]
- (55) La s-lej [mach'a lo'es-on tal].  
 CP A3-look.for who take.out-AF DIR  
 'He looked for someone who could get him out of there.' [TSE, ROSAS]
- (56) Ta j-man-tik [k'usi a-lajes].  
 ICP A1-buy-1.INCL what A2-eat.SBJV  
 'We'll buy you something to eat.' [TSO, TEXT]

The Ex-FRs in (53)-(56) are interpreted as indefinite and can be replaced by indefinite noun phrases.



- (57) a. Ay [[j]-jo'-tak ya j-k'opon].  
 exist A1-friend-PL ICP A1-talk.to  
 'I have friends to talk to.' [TSE, ELIC]
- b. Ta j-man [vaj a-lajes].  
 ICP A1-buy tortilla A2-eat.SBJV  
 'I'm going to buy you tortillas to eat.' [TSO, ELIC]

Ex-FRs also pattern with simple indefinites with respect to word order, an observation we borrow from the discussion of Ch'ol in Vázquez Álvarez & Coon (this volume). This is particularly clear in clauses headed by *ay/oy*, which function as copulas both in existential clauses and in locative clauses. The two clause-types differ in word order: in existential clauses the theme precedes the locative (THEME >> LOC, (58a)). In locative clauses, the theme follows the locative (LOC >> THEME, (58b)) (Haviland 1981:37; Polian 2013:623ff).

- (58) a. Te oy [jun baso] ta mexa.  
 there EXIST one glass P table  
 'There is a glass on the table.'
- b. Te oy ta mexa [li baso=e].  
 there COP P table DET glass=CL  
 'The glass is on the table.' [TSO, ELIC]

These word order differences correlate with the definiteness of the theme: an indefinite theme precedes the locative, (58a); a definite theme follows it, (58b). Although the definiteness of the theme is marked by articles in (58a,b),<sup>16</sup> neither the interpretation of the theme as definite or indefinite nor its position relative to the locative depends on the article. This becomes clear when the theme argument is a FR. FRs can function as themes in both existential clauses and in locative clauses with absolutely no change in form. But their interpretation as definite (Max-FR) or indefinite (Ex-FR) is determined by their order relative to the locative. In existential clauses, they precede the locative and are interpreted as indefinite, (59a); in locative clauses, they follow the locative and are interpreted as definite, (59b).

- (59) a. Te oy [k'usi ta j-lajes-tik] ta mexa.  
 there EXIST what ICP A1-eat-1.INCL P table  
 'There's something for us to eat on the table.'
- b. Te oy ta mexa [k'usi ta j-lajes-tik].  
 there COP P table what ICP A1-eat-1.INCL  
 'What we're going to eat is on the table.' [TSO, ELIC]

The minimal pair in (59) provides evidence for the definiteness/indefiniteness of the two types of FRs and at the same time illustrates how the interpretation of a FR emerges via the syntactic context in which it occurs.

<sup>16</sup> *jun* translates 'one', but also functions as the (only) indefinite article in both Tsotsil and Tselal.

A common cross-linguistic feature of Ex-FRs is their association with the modality of possibility (Grosu 2004, Šimík 2011). This association is so common that it is often taken to be a defining feature of Ex-FRs. Indeed, it is a feature of the examples in (53)-(56). Cross-linguistically, modal Ex-FRs are characterized by restrictions on tense, aspect, or mood (TAM). In Tseltalan, restrictions on TAM vary, depending on whether the governing predicate is a stative existential or a dynamic existential. With stative existential predicates, modal Ex-FRs occur in incomplete or neutral aspect, aspects which are associated with irrealis mood. Dynamic predicates permit incomplete or neutral aspect in modal Ex-FR complements, but also allow two other options, both of which can be characterized as ‘dependent’ forms. One, found in (56), is the so-called ‘subjunctive’ (Haviland 1981:330), a verb form which marks person but not aspect.<sup>17,18</sup> The other is for the TAM of the Ex-FR to be assimilated to that of the main clause. In (55), the Ex-FR is in complete aspect, which is interpreted in the main clause (but not in the relative clause) as referring to past time.<sup>19</sup>

Ex-FRs in a number of Mayan languages, including Tsotsil and Tseltal, can occur without modal semantics (see Kotek and Erlewine 2016 on Chuj and, in this volume, the chapters by Royer (on Chuj), AnderBois & Chan Dzul (on Yucatec), and Vázquez Álvarez & Coon (on Chol)). This is surely related to the fact that these languages lack indefinite pronouns corresponding to *someone*, *no one*, *anyone*, *something*, etc., and use Ex-FRs in construction with existential predicates to express indefinite pronominal meaning.

- (60) Ay [bin ya s-k’an-ik].  
 EXIST what ICP A3-want-PL  
 ‘They want something.’ [TSE, OXCH; Polian 2013: 803]
- (61) Mu’nuk o [buch’u i-y-il].  
 NEG.because EXIST who CP-A3-see  
 ‘[I saw it myself.] There wasn’t anyone [else] who saw it.’ [TSO, OCK 200]

Not surprisingly, non-modal interpretations are possible in any aspect. The Ex-FR in (60) is in incomplete aspect; the one in (61) is in complete aspect. The aspect in (62) is progressive, but could equally well be replaced by complete or perfect.

- (62) May-uk [mach’a yak niub] awile.  
 NEG.EXIST-IRR who PROG warp you.see  
 ‘No one is weaving, as you know.’ (lit: no one is making (the) warp, i.e., setting up the lengthwise threads, first step in the process of weaving) [TSE, OXCH]

<sup>17</sup> For transitive verbs in Tsotsil, subjunctive and neutral aspect are not always distinct, due to the fact that the neutral prefix *x-* deletes before the A1 and A3 prefixes to consonant-initial verbs. Thus while it is clear in (56) that *a-lajes* is subjunctive; it is not clear whether *j-lajes-tik* in (63) is in neutral aspect or in subjunctive.

<sup>18</sup> The subjunctive is found in various contexts, including destinative (purpose) clauses which are semantically related to modal Ex-FRs. Note that the clause consisting of *a-lajes* in (56) is not a purpose clause, i.e., not a VP-adjunct. It forms a FR with the fronted wh-expression *k’usi*. If *a-lajes* were a VP-adjunct, *k’usi* would be an object of the main predicate and would occur in situ, which is not possible.

<sup>19</sup> The use of irrealis in both the Ex-FR and the main clause in (68) might also be a case of TAM ‘agreement’.

Table 8 summarizes the restrictions on TAM in Ex-FRs.

Interpretation	TAM
Modal EX-FR w/ stative existential pred	incompletive or neutral
Modal EX-FR w/ dynamic pred	incompletive, neutral, or dependent form (subjunctive or assimilation to TAM of matrix verb)
Non-modal EX-FR	unrestricted

Table 8: TAM in EX-FRS in Tseltalan

As shown in Table 9, Ex-FRs admit all wh-expressions, with most occurring with great frequency. This is not surprising, since Ex-FRs provide the means for expressing indefinite pronouns of all sorts. Possible but uncommon are ‘why’, ‘how much/how many’ and in determiner function (‘which N’). Some wh-expressions are found only with stative existential predicates (because dynamic predicates impose selectional restrictions on their complements).

+HUM	-HUM	LOC	TEMP	MANNER	CAUSE	DET+N	AMOUNT
✓	✓	✓	✓	✓	(✓)	(✓)	(✓)

Table 9: Distribution of wh-expressions in Ex-FRs in Tseltal and Tsotsil

✓: acceptable; (✓): possible but infrequent

Examples (63)-(76) illustrate the full range of wh-expressions in Ex-FRs, mostly as complements to the existential stative predicates of Table 7.

-HUM

- (63) Ba j-sa'-tik [k'u j-lajes-tik].  
 go A1-look.for-1.INCL what A1-eat-1.INCL  
 ‘Let’s go look for something to eat.’ [TSO, OCK 325]

LOC

- (64) Ma'y-uk [ban a x-'och ha'].  
 NEG.EXIST-IRR where ICP ICP-enter water  
 ‘There is no place through which water could go inside (said of a well-made thatch roof).’ [TSE, BACH]

- (65) Mu j-na' mi o [bu j-ta abtel].  
 NEG A1-know if EXIST where A1-find work  
 ‘I don’t know if I’ll find work anywhere.’ [TSO, OCK 32]

TEMP

- (66) May-uk [bi ora ya s-pijt'es-at].  
 NEG.EXIST-IRR what time ICP A3-abandon-B2SG  
 ‘He will never abandon you.’ [TSE, OXCH; Polian 2013: 803]

- (67) Mi oy [k'usi ora ta j-k'opon]?  
 Q EXIST what time ICP A1-talk.to  
 'Do I have time to talk to him?' [TSO, ELIC]

MANNER

- (68) Ay-uk [bi-t'il jil-uk ta jun k-u'un-tik].  
 EXIST-IRR what-way stay-IRR P book A1-RN-1.INCL  
 'There must be a way for it to be preserved in a book for us.'  
 [TSE, OXCH, Polian 2013: 803]

- (69) Aver mi u [k'u cha'al x-lok' tal]=e.  
 let's.see if EXIST what way NT-go.out DIR=CL  
 'Let's see if there's a way for it to come out.' [TSO, OCK 353]

Ex-FRs denoting cause ('why') are possible, although not common, as in (70)-(71). This contrasts with their non-occurrence in headed RCs and in Max-FRs, cf. (51a,b).

- (70) Ay [bin yu'un nolp'ij ton ta ban yakal ta a'tel].  
 EXIST what cause fall stone P where PROG P work  
 'There is a reason why a stone fell down on the place where he was working.'  
 [TSE, PET]

- (71) Oy [k'u yu'un] ch-a-bik'tajes a-ba.  
 EXIST what cause ICP-A2-lower A2-REFL  
 'There's a reason for you to lower yourself.' [TSO, ELIC]

Wh-determiners are also possible in Ex-FRs ('which N'). We have several examples from our corpora of spontaneous speech, e.g., (75), and they are readily accepted in elicited examples, (72)-(74).

DET, -HUM

- (72) Ay [bin we'lil la y-ak'-be-k-on].  
 EXIST what food CP A3-give-APPL-PL-B1SG  
 'They gave me some food.' (lit: 'there is what (some) food that they gave me')  
 [TSE, TEN, ELIC]

- (73) Ch'abal [k'usi tsekilal ta j-lap].  
 NEG.EXIST what skirt ICP A1-wear  
 'I don't have any skirt to wear.' (lit: 'there isn't what (any) skirt for me to wear')  
 [TSO, ELIC]

DET, +HUM

(74) May-uk [mach'a alal a tal].  
NEG-IRR who child CP come  
'No child came.'  
[TSE, TEN, ELIC]

(75) ...oy [buch'u yan vinik ch-k'ot ve'-uk y-uch' vo' xchi'uk]?  
...EXIST who other man ICP-arrive eat-SBJV A3-drink water with.her  
'[Are you telling the truth, that] there is another man who arrives to eat and drink with her?'  
[TSO, OCK 279]

Also possible in Ex-FRs is the wh-expression for amounts ('how much/how many'):

AMT

(76) Ay=to [jay-eb xan k'al i tul-kajpe].  
EXIST=still how.many-CLF more day DET pick-coffee  
'The coffee harvest is still a couple of more days away.'  
[TSE, TEN]

### 4.1.3 Free Choice Free Relatives

Tseltal and Tsotsil both have unambiguous grammatical devices to express free choice meaning. However, these devices do not involve FRs. Nonetheless, a free choice interpretation can arise as a possible interpretation of a Max-FR (with no change in form). As Jacobson (1995) has pointed out, this is not so surprising, since an (ordinary) definite noun phrase can, under the right conditions, have a free choice interpretation (e.g., I'll eat [the dishes you cook], whatever they are; I know you're a good cook). Below, we discuss first some of the explicit grammatical devices which give rise to free choice meaning (ones not involving FRs) and then the possibility of free choice interpretations for Max-FRs.

#### Free choice morphosyntax

On the morphological side, explicit free choice items (pronouns and determiners) can be derived from the basic wh-forms of Table 2 by the addition of the suffix *-uk*, which functions in other contexts as an irrealis marker. This is illustrated for human and non-human pronouns/determiners in (77)-(80). Like wh-phrases in other functions, they are always clause-initial. But unlike the wh-forms which introduce Max-FRs and Ex-FRs, free choice wh-expressions do not introduce relative clauses, i.e., the construction is mono-clausal.<sup>20</sup>

+HUM

(77) Mach'a-uk=nax ya y-ak'-b-on ch'in ixim.  
who-IRR=just ICP A3-give-APPL-B1SG DIM corn  
'Anyone at all would give me some corn.'  
[TSE, OXCH; Polian 2013: 809]

<sup>20</sup> In the terminology of Giannakidou and Cheng (2006), these are free choice nominals rather than free choice FRs.

- (78) **Buch'-uk** av-ilbajin, **buch'-uk** a-k'opon.  
 who-IRR A2-bother who-IRR A2-talk.to  
 'You bother anyone, you talk to anyone.' [TSO, OCK 309]
- HUM  
 (79) Ora ini, **bil-uk** j-pas-tik, **bil-uk** a'telil j-pas-tik chi.  
 now DEM what-IRR A1-do-1.EXCL what-IRR work A1-do-1.INCL PT  
 'Nowadays, we can do anything, we can do any work.' [TSE, CANC]
- (80) **K'us-uk=nox** k-uch'.  
 what-IRR=just A1-drink  
 'I'll drink anything.' [TSO, Aissen 1996:475]

As in other languages, free choice items are restricted in Tseltalan to non-episodic contexts. They occur under negation, in modal contexts, etc.

On the syntactic side, Tseltal has a free choice construction in which a clausal constituent introduced by a *wh*-expression functions as the subject of the stative predicate *chikan* 'it depends, it doesn't matter',<sup>21</sup> see (81). However, this construction involves an embedded interrogative clause, not a FR (cf. Rawlins 2013; AnderBois 2014). Evidence for this is the fact that the subject clause of *chikan* can be an embedded polar question headed by the conditional subordinator *teme* 'if', as in (82), and by the fact that pied-piping is possible, as in (83). Recall that pied piping is possible in interrogatives in Tseltalan, but not in RCs (cf. the discussion around (11)-(12), (17)-(18)).

- HUM  
 (81) Chikan [**mach'a** x-baht sok].  
 no.matter who ICP-go with  
 'He goes with anyone.' [TSE, BACH]
- (82) Chikan [**teme** ba-at-ik beel=e].  
 no.matter if go-B2-PL walk=CL  
 'It's up to you if you (want to) go walking.' [TSE, OXCH]
- (83) Chikan [**mach'a** x-nich'an] bejk'aj.  
 no.matter who A3-son.of.male be.born  
 'It doesn't matter whose son was born.' [TSE, ELIC]

### Free-choice interpretation of Max-FRs

Although there is no dedicated free choice FR construction in Tseltalan, free choice meaning can be conveyed, in appropriate contexts, by Max-FRs. The following examples are potentially ambiguous between a standard, definite interpretation and a free choice interpretation.

<sup>21</sup> This predicate in its basic sense relates to perception: 'it is perceptible', from which the indifference reading emerges: 'it is to be seen (whether.../what...), it depends (whether.../what...), it doesn't matter (whether.../what...)'.

-HUM

- (84) Ch-av-ich' ech'el [**k'usi** ch-a-k'an].  
ICP-A2-take DIR what ICP-A2-want  
'You can take whatever (or the thing(s)) you want.' [TSO, OCK 150]

LOC

- (85) Bayal y-utsil k-ot'an ta [**banti** yak-on ta beel].  
much A3-happiness A1-heart P where PROG-B1SG P walking  
'I feel happy wherever (or where) I am walking.' [TSE, OXCH]

Under the free choice interpretation, the FR still has the property of maximality: all the individuals meeting the description (of the noun phrase) have the property expressed by the predicate, e.g., in (84), for any/every choice of element that you might want, you can take it. The free choice interpretation differs from the standard one in that the domain of individuals is 'widened' or 'broadened' to include individuals from situations other than the actual one or to emphasize that the predicate holds regardless of the choice of individual. Such interpretations are particularly compatible with modal and generic sentences, so are often found in these contexts, as in (84, 85).

An idiomatic way to produce a free choice reading for a FR is by repeating the main predicate within the relative clause, as in 'I eat what I eat' for 'I eat anything'. This turn of phrase particularly invites a free choice interpretation, but again, nothing in its morphosyntax makes it different from a Max-FR with a standard definite interpretation.

+HUM

- (86) Ya x-tal-ik [**mach'a** x-tal-ik].  
ICP ICP-come-PL who ICP-come-PL  
'Anyone can come.' (lit. '[those] who (PL) come come') [TSE, YAJ]

-HUM

- (87) Ay mach'a x-kuch-oj tel [**bi** x-kuch tel=e].  
EXIST who A3-carry-PRF DIR what A3-carry DIR=CL  
'Someone was carrying whatever he was carrying.' [TSE, OXCH]

- (88) Ch-[y]-ak'-ik [**k'u** ch-[y]-ak'-ik].  
ICP-A3-give-PL what ICP-A3-give-PL  
'They give whatever they give.' [TSO, OCK 200]

LOC

- (89) X-i-bat-tik [**bu** x-i-bat-tik].  
NT-B1-go-1INCL where NT-B1-go-1.INCL  
'We'd go wherever we were going.' [TSO, OCK 192]

Free choice interpretations of Max-FRs arise with most wh-expressions (-HUM, -HUM, and LOC are illustrated above). They are also possible with wh-expressions of time, manner, and amount, as well as in determiner function, (90)-(93).

## TEMP

- (90) [K'u ora x-a-k'an x-a-lo'=e] x-a-tal-ik.  
 what time NT-A2-want NT-A2-eat=CL NT-B2-come-PL  
 'Whenever you want to eat some, come back.' [TSO, OCK 290]

## MANNER

- (91) Pas-a [bi-t'il ya xu' aw-u'un=e].  
 do-IMP what-way ICP can A2-RN=CL  
 'Do it in whatever way you can.' [TSE, ELIC, TEN]

## AMT

- (92) Ya j-man-be-t [jay-p'ej tomut ya a-chon-be-n=e].  
 ICP A1-buy-APPL-B2SG how.many-CLF egg ICP A2-sell-APPL-B1SG=CL  
 'I'll buy from you however many eggs you will sell to me.' [TSE, ELIC, TEN]

## DET+N

- (93) Ta s-tsob i s-grupo=e [buy kolonyail k'ot-em]  
 ICP A3-gather DET A3-group=CL which colony arrive-PRF  
 [buy asyentoal k'ot-em=e].  
 which hacienda arrive-PRF=CL  
 'They formed a group at whichever colony they arrived, at whichever hacienda they arrived.' [TSO, OCK 231]

The only wh-expression which does not support a free choice interpretation is the one denoting cause. This is presumably related to the fact that it does not form a standard definite Max-FR either (cf. 51a, b), though the reason for this gap remains unclear.

- (94) \*Ya j-pas [bin yu'un ya a-pas].  
 ICP A1-do what cause ICP A2-do  
 (Intended: 'I will do it for whatever reason/for the reason you do it.') [TSE, ELIC]

In summary, there is no distinct free choice FR construction in Tseltal or Tsotsil. Free choice is either expressed by constructions distinct from free relatives or emerges as a potential interpretation of Max-FRs, context permitting. Table 10 summarizes the distribution of WH-expressions in Max-FRs with free choice interpretations.

+HUM	-HUM	LOC	TEMP	MANNER	REAS	DET+N	AMOUNT
✓	✓	✓	✓	✓	*	✓	✓

Table 10: Distribution of wh-expressions in Max-FRs with a free choice interpretation

✓: acceptable; \*: not acceptable



#### 4.1.4 Conclusions

In terms of surface form, there is a single FR construction in Tseltal and Tsotsil whose interpretation is determined by the syntactic and/or pragmatic context in which it occurs. Ex-FRs are found as the complements to existential predicates and to several dynamic predicates which denote ‘coming into existence’ or ‘becoming available’. Max-FRs are found in syntactic positions that support definite noun phrases. Max-FRs receive either standard interpretations or free choice interpretations depending on context.

Table 11 synthesizes the distribution of wh-expressions in various constructions and under various interpretations, starting with those in which they have the widest distribution (interrogatives and Ex-FRs), to ones in which they are most restricted (headed RCs). Max-FRs are intermediate.

	+HUM	-HUM	LOC	TEMP	MANNER	CAUSE	DET+N	AMT
WH-INTERROGATIVE	✓	✓	✓	✓	✓	✓	✓	✓
EX-FR	✓	✓	✓	✓	✓	(✓)	(✓)	(✓)
MAX-FR	✓	✓	✓	(✓)	✓	*	*/✓	(✓)
HEADED RC	✓	*	✓	(✓)	*	*	*	✓

Table 11: Distribution of wh-words across constructions in Tseltal and Tsotsil

✓: acceptable; \*: not acceptable; (✓): possible but uncommon;

The gaps in Table 11 (the contexts in which wh-expressions do not occur) are due to a variety of restrictions. Starting with headed RCs, the most striking gap is the impossibility of the non-human wh-pronoun. This distinguishes headed RCs from all types of FRs. We have attributed the absence of headed relatives of manner and cause to the fact that these languages lack abstract nouns corresponding to ‘way’ and ‘reason’. And the fact that wh-elements do not function as *determiners* in headed relatives simply reflects the fact that the relativized constituent must be reduced to (at most) a pronoun, as in many other languages. The other gaps are found in Max-FRs. We have no explanation for the non-existence of Max-FRs of ‘cause’, but again, this is a property shared with many other languages (Caponigro 2003:37). As for wh-determiners in Max-FRs, the situation is mixed (as indicated by the \*/✓ notation). They do not occur with the ‘standard’ interpretation and we have suggested that this is a blocking effect, due to the fact that the target meaning can be expressed more simply via a definite determiner. Interestingly, the same blocking effect is not found with the free choice reading of Max-FRs. Indeed, the fact that wh-determiners are found, but only with the free choice interpretation, appears to support the blocking account. Even if the definite determiner allows a free choice reading in these languages, this is certainly not the usual interpretation.

#### 4.2 Other headless relatives

There are several headless relative constructions in Tseltal and Tsotsil which do not qualify as FRs as defined here, i.e., although they lack a nominal head, they are not introduced by a wh-expression. These fall into three classes: constructions with the same internal structure as Max-FRs and the same interpretations (standard or free choice), but which overtly mark their

definiteness via a determiner [+D, +WH] (§4.2.1); constructions which are introduced by a determiner, but which lack a wh-expression [+D, -WH] (§4.2.2); and constructions which lack both a wh-expression and a determiner [-D, -WH] (§4.2.3). (This typology is filled out by the FRs, discussed in §4.1, as these are [-D, +WH].)

A central issue in the analysis of headless relatives is the status of the head. Clearly headless relatives have no pronounced head, but this could be either because there is no syntactic head at all, or because there is a syntactic head, but it remains unpronounced. In Tseltalan, both possibilities exist, but they occur in different discourse contexts. The truly headless construction occurs in non-anaphoric contexts. The headed construction – but with elision of the head – is possible when the head has an antecedent in the immediate discourse context. This generalization emerges clearly in headless RCs with non-human referents because the -HUM WH-words (*bin(ti)*, *k'u(si)*) are possible only in truly headless constructions and, furthermore, are obligatory in those constructions. Hence, we find sharply different distributions for non-human headless relatives with wh-expressions (non-anaphoric) and without (anaphoric). The distinction between the elided construction and truly headless RCs is obscured for human referents since the +HUM wh-words can occur both in headed and in headless relatives,

#### 4.2.1 [+D, +WH]

Max-FRs are, by definition, introduced by a wh-expression. These occur in Tsotsil and Tseltal (§4.1.1, §4.1.3), but as we have noted several times, it is more common to add a definite determiner before the wh-expression. Examples (95)-(98), formed with the human and non-human wh-pronouns, illustrate this construction.<sup>22</sup>

+HUM

(95) Ja' och [te mach'a y-ich'-oj guitarra=e].  
 FOC enter DET who A3-get-PRF guitar=CL  
 'The one who had a guitar went inside.' [TSE, AGUAC]

(96) [ti buch'u-tik tsots y-abtel-ik=e]  
 DET who-PL strong A3-work-PL=CL  
 'the ones with influential jobs' [TSO, SSS 67]

-HUM

(97) Ya jk-al-tik ta tseltal [te bin la jk-al ajk'tonax=e].  
 ICP A1-say-1.INCL P tseltal DET what CP A1-say a.while.ago=CL  
 'We'll say in Tseltal what I said a while ago.' [TSE, OXCH; POLIAN 2013: 799]

<sup>22</sup> DET+WH can be followed by a complementizer:

(i) May-uk bi y-ich'=ix al-el [te mach'a te och-em ta protestante=e]?  
 NEG.EXIST-IRR what A3-get=now say-NF DET who COMP enter-PRF P protestantism=CL  
 'The person who joins protestantism isn't told anything?' [TSE, OXCH]

Compare (i) with (28), a headed relative where COMP+WH is followed by a complementizer.

- (98) Sutes-b-on tal [li k'usi av-elk'an-b-on=e].  
 return-APPL-B1SG DIR DET what A2-steal-APPL-B1SG=CL  
 'Return to me what you stole from me.' [TSO, ELIC]

The precise semantic contribution of the determiner is elusive; we will not attempt to characterize it here (but see fn. 23). Example (99) suggests it is minimal, since the two headless relatives, one with the determiner and one without, are treated as equivalent.

- (99) ...[ti buch'u mas pukuj-ik=e] [buch'u mas s-toy-oj... s-ba-ik=e].  
 ...DET who more devil-PL=CL who more A3-raise-PRF A3-REFL-PL=CL  
 '[That's a prison. That's where they put] the most evil people, the ones who cause the  
 most trouble [lit. who elevate themselves, JA].' [TSO, SSS 102]

Examples like (95)-(98) in Yucatec are analyzed by Gutiérrez Bravo (2012) as having the syntax of headed relatives, but with a null noun head. Per his discussion, the null head is licensed under an anaphoric relation with a preceding antecedent, i.e., what we will refer to as 'elision'. We reject this analysis for the Tzeltalan construction for a number of reasons. First, the *wh*-expressions for non-humans (*bin*, *k'u(si)*) do not occur in headed relatives, but are fully well-formed in this construction, see (97), (98), and compare with (21), (22), also (31a,b). Second, with the -HUM *wh*-expression, there is no antecedent for the elided noun. Or to put this in another way, the RC is not interpreted as restricting a nominal domain. This is observable in several contexts: [1] cases in which there is no antecedent (these are often translated with free choice expressions); [2] cases where there is an antecedent, but one which refers to an unidentified entity. Because it is unidentified, there is no recoverable nominal which delimits the domain for the referent (these are surprisingly common); [3] cases in which the RC is in apposition to a nominal, and provides an alternative description (but does not restrict). These three cases are illustrated by (100)-(102), respectively, from Tsotsil.

- (100) X-tal j-pas-tik avil [ti k'usi x-a-k'an=e],  
 NT-come A1-do-1.INCL EVID DET what NT-A2-want=CL  
 'We'll come and do whatever you want.' [TSO, OCK 219]

- (101) [Something came to call out, but he didn't know what it was. It was lying on top of a stump. "Tortor beebie, papa!"]

xi=la [ti k'usi te ch-'ok' un=e].  
 said=QUOT DET what there ICP-cry PT=CL  
 'said the thing that was calling there' [TSO, OCK 42]

- (102) pero ti trago=e pero [ti k'usi j-k'an ch-k-uch'-tik=e], ...  
 but DET liquor=CL but DET what A1-want ICP-A1-drink-1.INCL=CL  
 'but cane liquor, the thing we like to drink, [there wasn't any].' [TSO, OCK 291]

Third, the full range of WH-expressions that introduce FRs can be combined with a determiner, and for many of these, there either is no appropriate noun head in the language (i.e., FRs of manner, (109)-(110)), or the noun is internal to the RC, (111). For all these reasons, we believe these cases cannot involve an elided head.

Instead, we assume the analysis of Citko (2004), which posits a structure in which the determiner takes as its complement a free relative: [<sub>DP</sub> D FR]. None of the problems noted above arise under this analysis. Furthermore, it predicts that the full range of FRs will combine with a determiner. This appears to be correct, and is documented by the (95)-(102), together with (103)-(113) below.<sup>23</sup>

#### LOC ARG

- (103) Wokol a x-lahmaj bal [**te ban** k'ux a y-a'iy=e].  
 difficult ICP ICP-subside DIR DET where painful ICP A3-feel=CL  
 'The part (of the body) where they feel pain gets relief with difficulty.' [TSE, BACH]
- (104) Ta ts'akal muy j-k'el-tikotik [**ti bu** ayan ti jch'ulme'tik vo'ne=e].  
 P later go.up A1-see-1.EXCL DET where appear DET Virgin long.ago=CL  
 'Later we climbed up to see where the Virgin appeared long ago.' [TSO, SSS 9]

#### LOC ADJUNCT

- (105) La'=me [**te banti** ay-on=e].  
 come=CL DET where COP-B1SG=CL  
 'Come where I am.' [TSE, OXCH; Polian 2013: 794]
- (106) Te=nox i-butk'ij [**taj bu** chotol ta nail.chukel un=e].  
 there=only CP-fall.over DET where seated P jail PT=CL  
 'He toppled over there where he was seated in the jail.' [TSO, OCK 25]

#### TEMP

- (107) K'ax nop-on=to=a [**te bi ora** hu' ini].  
 very small-B1SG=still=ADV DET what time happen DEM  
 'I was still very young when this happened.' [TSE, PET]

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<sup>23</sup> The very generality of this structure, however, itself raises an issue which was noted by one of our reviewers. In this analysis, all headless relatives introduced by a determiner are DP's, yet some of them (e.g., locatives) occupy positions not usually filled by DP's. Our assumption here is that the distribution of FRs (without determiners) is determined not by their syntactic category (we assume they are all CP's), but by their semantic category (human and non-human objects, locations, times, manners, etc.). Further, the semantic category of the FR is determined by the particular wh-expression that introduces it. The addition of the determiner changes the syntactic category (from CP to DP), but it does not change the semantic category of the FR: it simply registers its maximality in overt form. Caponigro (2004) proposes that the basic denotation of a FR is a set, but that maximal FRs undergo an operation ('iota') which shifts their denotation from a set to that of the maximal individual in that set. From this perspective, the addition of the determiner can be seen as the overt realization of 'iota'.

- (108) Li'=me ch-tal j-k'opon-ot vo'ot [**ti k'u ora** nakal  
 here=MOD ICP-come A1-talk.to-B2SG PRON:2SG DET what time dwelling  
 l-a-tot=e xchi'uk l-a-chi'il-tak un=e].  
 DET-A2-father=CL and DET-A2-sibling-PL PT=CL  
 'I'll come talk to you when your father and brothers are at home.' [TSO, SSS 144]

MANNER

- (109) May-uk mach'a s-k'an s-lap=ix [**i bi-t'il** ay-on=to].  
 NEG.EXIST-IRR who A3-want A3-put.on=now DET what-way COP-B1SG=DEIC  
 'Nobody wants to get dressed the way I am now.' [TSE, OXCH]

- (110) ...[**ti k'u cha'al** i-k-ak'-be uk=e]  
 ...DET what way CP-A1-give-APPL also=CL  
 '[He should return it] just as I gave it to him.' [TSO, SSS 204]

DET+N

- (111) Ak'a ma x-y-ak'=ix lok'el a [**te bin** chopol chambahlam  
 EXH NEG MOD-A3-cause=now DIR ADV DET what bad animal  
 a k-xi'tes-wan=e].  
 ICP ICP-scare-ANTIP=CL  
 '(We pray to the lord of the mountain) lest he let [the (different kinds of) bad animals that  
 scare people] go out anymore.' [TSE, PET]

AMT

- (112) Ya=bal x-lok'=ix jun oxom=a [**te jay-eb**  
 ICP=Q ICP-go.out=already one pot=INS DET how.much-CLF  
 a-jots'-oj=ix=e]?  
 A2-dig-PRF=already=CL  
 'Can one pot be made with the amount [of clay] you've extracted?'  
 [TSE, OXCH; Polian 2013: 799]

- (113) Ts'akiebal=xa=ox [**ti jay-ib** k'ak'al k-al-oj-tik  
 deadline=already=PAST DET how.many-CLF day A1-say-PRF-1.INCL  
 ch-i-paj-otikotik=e].  
 ICP-B1-stop-1.EXCL=CL  
 'The time was up for the number of days that we had said we would stay.'  
 [TSO, SSS 136]

4.2.2 [+D, -WH]

Headless relatives introduced by DET with no WH-pronoun also occur. The determiner can be a definite article, as in (114), (115) or a demonstrative, (116), (117).

- (114) Ja' ya x-tuun [te ay y-ech=e].  
 FOC ICP ICP-be.used DET EXIST A3-fork=CL  
 'We're going to use the one that has a forked end.' (talking about sticks)  
 [TSE, CANC]
- (115) Bi s-biil aw-al-be-ik [i lamal ta lum to]?  
 what A3-name A2-say-APPL-PL DEM laid.out P ground DEM  
 'How do you call these that are laid out in the ground here?' (showing some plants)  
 [TSE, OXCH; Polian 2013: 793]
- (116) Li' la s-ta-ik lok'el [am ay ta iglesia ine].  
 here CP A3-find-PL DIR DEM EXIST P church DEM  
 'From here they took out that which is (now) in the church.' (talking about a statue depicting a Christ)  
 [TSE, YAJ]
- (117) Toyol s-tojol [taj i-s-jak' un=e].  
 high A3-price DEM CP-A3-ask PT=CL  
 'The one he asked about was too expensive.' (talking about clothing for sale)  
 [TSO, SSS 129]

A characteristic of [+D, -WH] headless relatives is that they are restrictive. They restrict an identifiable (but unpronounced) domain nominal, as indicated by the context next to each translation. Consider, for example, the narrative fragment in (118) from Tsotsil. The first line contains the nominal *aktavus* 'bus' (as well as the number + classifier *j-kot*), which provides the antecedent for the headless RC in the second line. It is clear that *li chlok' ta jlikele* 'the one which was leaving right away' refers to the bus introduced in the previous line; as the continuation makes clear, this bus contrasts with other buses leaving later in the day or the following day.

- (118) Muk'=xa j-ta-tikotik s-vunal [li j-kot aktavus sak i-lok' tal]=e.  
 neg=already A1-find-1.EXCL A3-paper DET 1-CLF bus early CP-leave DIR=CL  
 Ch'abal=xa bu xokol [li ch-lok' ta jlikel=e]. ...  
 NEG.EXIST=CL where empty DET ICP-leave P right.away=CL

'We couldn't get tickets for the bus that left in the daytime. There were no empty seats on the one which was leaving in a few minutes. ["*You can't go until the next one, if there are free [seats] later on, otherwise not 'til tomorrow,*" the person told us who gave out the tickets for getting on the bus].'  
 [TSO, SSS 114]

Hence, while Gutiérrez Bravo's (2012) elision analysis for [+D,+WH] headless relatives in Yucatec is problematic for Tseltalan, it is much more promising for the [+D,-WH] type. This converges with the conclusions of Álvarez Vázquez & Coon (this volume) for Ch'ol and those of AnderBois & Chan Dzul (this volume) for Yucatec, conclusions reached on other grounds. If this is correct, then [+D,-WH] 'headless' relatives in Tseltalan are, syntactically speaking, headed

relatives, but with covert (elided) heads. That is, they instantiate structures of the form [<sub>DP</sub> D N [<sub>RC</sub> Ø . . . ]], with the head noun elided, and with the RC introduced by a Ø subordinator.

If they are headed relatives, several predictions follow. First, the -HUM wh-pronoun should not be possible. This seems to be correct in the sense that when that pronoun does occur we are in the [+D,+WH] construction and, as laid out in §4.2.1, that construction occurs in entirely different contexts than the [+D,-WH] type: in the latter, the missing head is anaphoric to a noun which is supplied by the immediate context, while in the former, no such relation holds. Second, we expect to find the [+D, -WH] construction only in cases where headed relatives can lack an overt subordinator (WH or COMP), namely only in cases where a human or non-human is relativized. Relativization of a locative requires a wh-expression, so should not be possible in a [+D, -WH] relative (Table 2). This too seems to be correct. In (119), omission of *bu* results in ungrammaticality:

- (119) O te beetik x-muy [ti \*(bu) j-k'an-tik x-i-kom-otik=e]  
 EXIST there roads NT-ascend DET where A1-want-1.INCL NT-B1-stay-1.INCL=CL  
 'There were paths that went up to where we wanted to stay.' [TSO, SSS 132]

The [+D,-WH] construction should also be impossible when headed relatives are impossible due to the lack of an appropriate nominal head in the language, e.g., with relative clauses of manner. This also seems to be correct; (120) can only be interpreted as a manner RC if the wh-expression is pronounced. Without *k'u cha'al* 'how', (120) can only mean, '[he should return] the thing that I gave to him'.

- (120) . . . [ti \*(k'u cha'al) i-k-ak'-be=e].  
 . . . DET what way CP-A1-give-APPL=CL  
 '[he should return it] just as I gave it to him.' [TSO, based on SSS 204]

A final observation is that since the +HUM wh-pronoun can occur both in headed relatives and in truly headless ones, headless relatives of the form D+*mach'a/buch'u* should be ambiguous between true headless relatives, and headed ones with an elided head. The first derivation simply combines a determiner with a FR. This must be the derivation for (121), as there is no antecedent for a potential domain nominal.

- (121) Ja' y-eklixya [ti buch'u mu s-na'-ik riox=e].  
 FOC A3-church DET who NEG A3-know-PL god=CL  
 'It was a church for those who don't believe in God.' [TSO, SSS 97]

The second derivation might be at play in (122), which involves a man who has helped the narrator and his friends to get bus tickets (it is part of the same narrative as (118) above).<sup>24</sup>

<sup>24</sup> Speakers prefer to use the [+D, +WH] construction when referring to humans with recoverable domain nominals over the [+D,-WH] construction. This might be because it provides a way of distinguishing human referents from non-human ones, such as gender systems do.

(122) . . . *He went to get the tickets. He gave them to us. "It's a half an hour 'til it goes," he told us. "Fine!" we said. We waited a little while. "Well, go on now, it's that bus that's leaving..."*

[li buch'u l-i-y-ak'-b-otikotik s-vunal=e].  
 DET who CP-B1-A3-give-APPL-1.EXCL A3-paper=CL  
 'the person who had given us the tickets [told us].' [TSO, SSS 114-5]

But there is no way to be sure that there is an elided head in (122), since a headless relative of the form [DET + FR] is a definite nominal and does not require a head in order to refer to a given discourse referent.

#### 4.2.3 [-D, -WH]

Finally, there are cases where a constituent superficially identical to a simple clause, with no determiner or wh-expression, functions as a headless relative. As observed in Gutiérrez Bravo (2012) for Yucatec, this occurs regularly in existential clauses, as in (123), (124), where the bracketed material is the argument of the existential.

(123) Ay [ya x-ch'i-ik ta tsa'-wakax].  
 EXIST ICP ICP-grow-PL P dung-cow  
 'There are some (species) that grow on cow dung.' (talking about mushrooms)  
 [TSE, CANC]

(124) O [te av-ich'-oj] ka'uktik.  
 EXIST there A2-bring-PRF really  
 'There's some there that you've brought.' (talking about liquor) [TSO, SSS 183]

As indicated by the contexts, both bracketed clauses are interpreted as anaphoric, with a domain nominal recoverable from the immediate linguistic context. That suggests that these examples are related to the [+D, -WH] construction, but with the determiner covert (or absent) as well (this coincides with the analysis of Gutiérrez Bravo (2012) for the corresponding construction in Yucatec). When the referent is indefinite (as it will be in existentials) and plural or mass (as it is in the above examples), this is exactly as expected, since indefinite plural and mass nouns lack a determiner (or alternatively, have a  $\emptyset$  determiner).

A FR without a determiner or WH-expression occurs occasionally with other predicates, as in (125), where the FR is interpreted as definite.

(125) Ma x-tuhun [la aw-ich'-ik tal] che.  
 NEG ICP-be.useful CP A2-take-PL DIR PT  
 'The one you brought is useless.' (talking about sticks required to make a trap)  
 [TSE, BACH]

Such examples tend to come from informal fast speech, where elision of determiners is not uncommon. We hypothesize then that we are dealing here with two different constructions: one



in which no pronounced determiner is expected and which is not restricted to a particular speech-style, as in (123), (124), and one, typical of fast speech, with an elided definite determiner, as in (125). Ultimately, both relate to the [+D, -WH] construction.

## 5 Conclusions

We have provided here a preliminary description of headed and headless relatives in Tseltal and Tsotsil. We close by foregrounding what we take to be the most important results, and by pointing out some of the areas which deserve further research.

In contrast to Chol and Yucatec, headed relative clauses in Tseltal and Tsotsil are introduced by a rich set of elements. In addition to  $\emptyset$ , these include wh-pronouns and elements which look like determiners, but which we have analyzed as complementizers, (§3). Although some headed relative clauses look like *headless* relatives (those in (28)-(29), for example), we have argued that they are, in fact, headed (§3.1). At the same time, it is worth exploring the possibility that they are historically derived from headless relatives. In this scenario, they would have originally stood in apposition to a noun phrase but would, over time, have been reanalyzed as part of that noun phrase. Such a development might explain some of their present properties.

The domain of headless relatives is also quite rich. On the syntactic side, headless relatives are introduced by the same set of elements that introduce headed ones: wh-pronouns, (elements which actually are) determiners, and  $\emptyset$ . On the semantic side, headless relatives receive three interpretations: maximal, existential, and free choice. Free relatives (introduced by wh-elements) have been privileged in this chapter because they can be associated with all three readings (§4.1.1, §4.1.2, §4.1.3).

However, it would be a mistake to come away with the impression that the three interpretations have the same status. First of all, there is no distinct free choice FR construction in these languages: free choice readings arise in certain contexts as an alternative interpretation for maximal FRs (what those contexts are deserves further study) (§4.1.3). And second, FRs are most often associated with an existential interpretation (§4.1.2), not with a maximal one (whether standard or free choice). This is due to two factors: first, the languages lack dedicated indefinite pronouns and use free relatives based on the wh-pronouns in their place. Thus, in most contexts where a language like English would use an in situ indefinite pronoun (*I saw someone*), Tseltal and Tsotsil use a FR construction introduced by a fronted wh-pronoun or determiner (*there is who I saw*). Second, there is a strong preference in both languages to express the maximal interpretation via the addition of a definite determiner to the FR (§4.2.1). This is observable with all the wh-expressions and in some cases, for example with FRs denoting amounts, it is close to a requirement (see the discussion around (52)). In general, definite determiners have a wider distribution in Tseltalan than they do in a language like English (for example, as noted, they can introduce embedded interrogatives). What their semantic contribution is and to what extent it might be related to maximality remains to be investigated (cf. fn. 23).

Finally, headless relatives other than FRs are not a homogeneous class. There are (at least) two types. The first is truly headless in the sense that it entirely lacks a syntactic noun head (a domain nominal) (§4.2.1). The second is only superficially headless – it has a syntactic head (a domain nominal), but the head is elided by virtue of its anaphoric relation to a local antecedent

(§4.2.2). The second type can be assimilated to headed relatives, while the first cannot. The elided structure also occurs without an overt determiner in some contexts, creating a headless relative that is identical (on the surface) to a simple clause (§4.2.3).

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