

Relative Clauses in Coahuilán Totonac

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Relatively little has been published concerning relative clause constructions in Totonacan languages. This paper describes the relative clauses of Coahuilán Totonac, describing a robust system in terms of Andrews' (2007) typology of relative clauses. Data was gathered from elicitation, a small experiment, and textual analysis. Coahuilán Totonac shows remarkable flexibility in allowance of different head types, head positions, and accessibility. Light and nominal head relative constructions are joined by a third type that seems to juxtapose a light element and a nominal head. The head of a relative clause may occur both internally and externally, without apparent semantic motivation or clear preference between internal and external heads. Each position of the Accessibility Hierarchy is accessible to relativisation¹.

Keywords: relative clauses, typology, Coahuilán Totonac, Totonacan languages

1. Introduction

Coahuilán Totonac is a Northern Totonacan language spoken by around 3,800 speakers in the community of Coahuilán, located in the northern part of the state of Veracruz, Mexico. This paper describes the robust system relative clauses in Coahuilán Totonac. I begin with some aspects of the grammar Coahuilán Totonac to assist those unfamiliar with Totonacan languages. Because, like all Totonacan languages, Coahuilán Totonac has extremely flexible constituent order, grammatical relations are marked primarily by a detailed system of agreement markers. The subject agreement markers, which mark for both person and number, are given in Table 1.

	SINGULAR	PLURAL	
1	k-	EXC	k- -w
		INC	-w
2	-		-tit
3	∅		ta-

TABLE 1: Subject agreement for person and number

The second person singular subject agreement is variable and irregular, for which reason it is not shown on this table. It often involves a leftward stress shift and laryngealisation of the final vowel, and several verbal markers, both inflectional and quasi-inflectional, have a distinct, suppletive form for second person singular agreement. Object agreement markers do not

¹ My thanks to helpful, patient, and supportive consultants in Coahuilán: *paškát kqci:na!* Thanks are also due to Jordan Lachler and David Beck, though of course all faults are my own.

combine person and number. Instead, there is a person-neutral plural object agreement marker *ka:-*, and the person agreement markers shown in Table 2.

1	2	3
kin-	-n	∅

TABLE 2: Object agreement for person

For both subject and object, the third person singular is marked by the absence of any other person agreement, or by a zero-morpheme. In addition, there is a great deal of syncretism in the full paradigm of agreement, and some non-compositional forms. These non-compositional forms are combined with a specific set of affixes and are used for a fixed set of subject-object patterns. Two notable ones involve situations where subject and object are first and second person. The first is marked by the combination of first person object *kin-*, reciprocal marker *la:-*, and the first person plural subject *-w*. This form, as shown in (1), signals any combination of second person subject and first person object, where either the subject, object, or both is plural; that is: 2PL > 1SG, 2SG > 1PL, and 2PL > 1PL².

- (1) kila:pucayá:w
 kin-la:-puca-ya-w
 1OBJ-RECIP-search-IMPF-1PL.SUBJ
 ‘you_{PL} look for me’, or ‘you_{SG} look for us’, or ‘you_{PL} look for us’

This combination of affixes forms a syncretic verbal complex which is non-compositional and ambiguous between the three possible meanings. Although we might expect some of these meanings to be coded compositionally, e.g., the second plural subject marker and first singular object marker for a plural second person acting on a singular first person, this construction is the only way to mark each of these three cases.

The second notable non-compositional form is composed of the first person singular subject *k-*, the plural object *ka:-*, and the second person object *-n*. This form, as shown in (2), marks any combination of first person subject and second person object, where either subject, object, or both is plural; that is: 1PL > 2SG, 1SG > 2PL, and 1PL > 2PL.

² Abbreviations used in this paper: 1, 2, 3 = person, AGT = agentive, COM = comitative, CSV = causative, DCS = decausative, DCT = deictic, DEM = demonstrative, DIST = distal, DTR = detransitive, DTV = determinative, EXC = exclusive, FUT = future, HREL = human relativiser, IMPF = imperfective, INC = inclusive, INSTR = instrumental, INTENS = intensifier, NEG = negative, NMLSR = nominaliser, NP_{mat} = matrix noun phrase, NP_{rel} = relative noun phrase, NREL = non-human relativiser, OBJ = object, PL = plural, PO = possessive, PTCL = particle, QUOT = quotative, RECIP = reciprocal, REL = relativiser, REP = repetitive, SG = singular, S_{rel} = relative subordinated clause, SUBJ = subject, TR = transitiviser. This paper uses an Americanist form of IPA commonly used by Totonacists, with the following notable differences from IPA: c = voiceless alveolar affricate, λ = voiceless lateral affricate, y = palatal approximant, : after a vowel indicates length, ˀ after a vowel indicates laryngealisation, and ˈ above a vowel indicates stress. All uncited data comes from my fieldwork of Coahuilán Totonac.

- (2) ka:pucayá:n
 k-ka:-puca-yá:-n
 1SG.SUBJ-PL.OBJ-hit-IMPF-2OBJ
 ‘we hit you_{SG}’, or ‘I hit you_{PL}’, or ‘we hit you_{PL}’

Beck & Mel’čuk discuss these (and other) verbal complexes, and describe them as morphological idioms (2011). With the system of verbal agreement for subject and object, it is somewhat rare to see fully realised arguments even for transitive verbs. Despite the system of verbal agreement, however, interpretation of argument structure and word order often comes down to pragmatic or contextual cues. This is because of syncretic forms, like those discussed above, and other factors including: the inability of the third person plural subject marker to co-occur with the plural object marker; and the zero markers for third person agreement.

While the agreement patterns help identify subject and object, in verbs that take multiple objects, it is not clear that much difference is made between direct and indirect (or primary and secondary) objects. This can be seen in (3), where plural object agreement is able to agree with either the theme or the recipient of the verb ‘to give’.

- (3) ka:maškj:yá:tít cumaxá:t šánat
 ka:-maškj:-yá:-tít cumaxá:t šánat
 PL.OBJ-give-IMPF:2SUBJ-2PL.SUBJ girl flower
 ‘you_{PL} gave flowers to the girl,’ or ‘you_{PL} gave a flower to the girls’,
 or ‘you_{PL} gave flowers to the girls’

In this phrase, the ambiguity of the plural object marker *ka:-* yields three possible meanings. Because nouns do not obligatorily carry number marking, there could either be some flowers and one girl, some girls and one flower, or some girls and some flowers. Although there are many indications that Coahuilán should be considered a verb-initial language, the constituent order is extremely flexible, and any order of V, S, and O is possible.

This paper describes the relative clauses of Coahuilán Totonac, a robust system with many distinct types of relative clause, in terms of head type, head position, and accessibility. Coahuilán Totonac allows relative clauses to be headed by both nominals and light-heads, and an additional type which juxtaposes a light element and a nominal head, and which may be unique to Totonacan languages. Coahuilán Totonac allows the head of a relative clause to occur internally or externally. It is notable that there does not seem to be a clear semantic motivation or a general preference for either head or positional type. Each position of the Accessibility Hierarchy is accessible to relativisation. These types will be described on the framework of Andrews’ (2007) typology of relative clauses. Section 0 describes the data and methodology used, before entering into the discussion of relative clauses in Section 0.

2. Methodology

Fieldwork in Coahuilán is at an early stage, with available materials mostly limited to a cross-Totonacan survey (Kaufman et al. 2004), which was reconducted in Coahuilán by the author; and a modest collection of nearly thirty texts collected during the author’s fieldwork. The data for this paper are largely drawn from this collection of texts, a number of relative clauses gathered in a small experimental elicitation, and direct elicitation to supplement the textual and experimental data.

Many of the texts are traditional stories, often involving anthropomorphic animals and *naguals*, people with the power to transform themselves into animals (or more rarely, other objects like trees). These stories are often widely known and well practised, and thus easy to collect, but they include genre-specific features not common in spoken speech. I have texts of two other genres, both of which aim to provide more natural speech. The first type deals with current or recent events and village life. These are less-practised and can involve more variation in narrative form, i.e., two texts are given from a first-person perspective unusual in *cuentos*, but presumably more common in spoken language. Those of the second type were collected by showing a consultant a short animated clip (a “short”), and asking for the consultant to retell the story in Totonac. These are obviously more spontaneous and do not have as many genre-specific features. From the collected texts, nearly one hundred relative clauses were identified and analysed.

In addition to the textual examples, a small experiment was devised to elicit spontaneous relative clauses. There does not seem to be much information available on the practice of collecting relative clauses in a fieldwork setting. This paper uses a method loosely copied from a paper by Gennari et al. (2012) published in *Cognitive Psychology*. A set of pictures was made, using clipart freely available from www.classroomclipart.com. In each picture, multiple referents are placed together, and a number of questions are asked which seek responses that use a relative clause to identify a specific referent. For example, in Figure 1, there are two boys, one in a yellow shirt and red cape standing on a table, and another in a white shirt running to show his mother a piece of paper.



Figure 1: An example relative clause Elicitation picture set

A number of questions might be asked, including “Which boy is wearing yellow?” (The boy *who is standing on the table*), or “Which boy is running to his mother?” (The boy *who is carrying a bag*). The obvious drawback of this method is that consultants are capable of answering these types of questions using numerous strategies in addition to relative clauses; however, a large number of spontaneous relative clauses was successfully obtained.

3. Relative Clauses in Coahuilán Totonac

This paper follows Andrews (2007), defining relative clauses as follows: “A relative clause is a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the relative clause”. The NP delimited has a role in the matrix clause, and so is called NP_{mat}. The relative clause is often referred to as RC or S_{rel}.

Andrews' typology is largely based on this structural understanding of the parts of relative clauses; however, another important part of understanding relative clauses is the domain nominal, or head. The head is defined by the "semantic function of identifying the domain of objects upon which the relative clause imposes a further restriction" (Andrews 2007). Lehmann stresses that the head, the NP modified by the relative clause, is primarily a semantic and not a syntactic notion (1986). The head has a role in both clauses, described as NP_{mat} function and NP_{rel} function.

In Coahuilán Totonac, Relative clauses are introduced by a relativiser, *tu:* or *ti:*, the choice of which is made by the animacy of the head. *Ti:* is used with animate heads, (4), and *tu:* for inanimate, (5). These two sentences show typical relative clauses with overt nominal heads, shown in bold, which are modified by subordinate clauses, enclosed in square brackets.

- (4) y šconejo ti: namakta:yá, namaklakaskín
 y **š-conejo** [ti: na-makta:yá] na-maklakaskín
 and **3PO-rabbit** [HREL FUT-help] FUT-use
 'and he will use the rabbit who is going to help him'
- (5) čúnca la: kací: qo:č tu: ču namaklakaskín li:pálnj
 čúnca la: kací: qó:ča [tu: ču na-maklakaskín **li:-pál-ni**]
 now NEG know boy [NREL PTCL FUT-use **INSTR-sweep-NMLSR**]
 'and now the boy didn't know which broom he would use'

In (1), the head *conejo* 'rabbit' is introduced by the animate relativiser *ti:*. NP_{mat} function of the head *conejo* is object of the matrix verb 'use' and NP_{rel} function is that of subject of the embedded verb 'help'. The head is realised in NP_{mat}, outside of the relative clause. In (5), the head *li:pálnj* 'broom' is introduced by the inanimate relativiser *tu:*. NP_{mat} function of the head *li:pálnj* is object of the matrix verb 'know' and NP_{rel} function is the object of the embedded verb 'use'. However, in (5) the head is not realised in NP_{mat}, but is realised within the relative clause. Coahuilán Totonac also allows relative clauses where the head is not expressed at all, like that in (6).

- (6) minča špuská:t pus lakmíl, čon ti: tali:míl táłca
 min-ča š-puská:t pus lak-mín-li, čo [ti: ta-li:mín-li]
 come-DIST 3PO-woman well leg-come-PFV, PTCL [HREL 3PL.SUBJ-bring-PFV=now]

 ta-ən-li=ca
 3PL.SUBJ-go-PFV=now
 'his wife came, well, she came, and those who brought him, they left'

In this sentence, the relative clause has no overt nominal head; however, the semantic definition of head applies: the head is understood to be the entity, person or thing, whose reference is modified or restricted by the relative clause. In this case, the subject of matrix verb *ən* 'go', and the subject of embedded verb *li:mín*, 'bring' is the group of people who brought him, the man whose wife is referenced in the matrix clause, and then left. We know it is a group because of the 3rd plural subject agreement on both verbs, and the relativiser *ti:* indicates an animate head.

As these examples demonstrate, Coahuilán Totonac allows many different types of relative clauses. I will use Andrews' typology of relative clauses to organise this examination of

Coahuilán Totonac relative clauses. This typology, elaborated by Andrews (2007), identifies four dimensions of variation: the structural relationship between S_{rel} and NP_{mat} , the treatment of NP_{rel} function, the constraints on NP_{rel} function, and the treatment of S_{rel} as a whole. In addition to Andrews' four dimensions, Coahuilán Totonac allows some variation in what may constitute the head of NP_{rel} , including nominals, light heads, and an interesting construction involving both. I will begin in Section 0 with a discussion of the head. Andrews' dimensions are discussed in the next sections: the structural relationships between S_{rel} and NP_{mat} (Section 0); the treatment of the NP_{rel} function (Section 0); constraints on the possibilities for what the NP_{rel} function can be (Section 0); and the treatment of S_{rel} as a whole (Section 0).

3.1 Head & Type of Head

Coahuilán Totonac has four types of relative clause determined by head type: nominal, headless, light, and light-appositive. Relative clauses headed by nominals are seen in (4) and (5), and a headless relative clause in (6). In addition to headless and nominal headed relative clauses, Citko (2004) observes that some languages allow a type of relative construction headed by morphologically 'light' elements, called light-headed relative clauses. Citko gives the following Polish example, (7). Light-heads are underlined.

Polish

- (7) Jan czyta to [co Maria czyta]
 Jan read this [what Maria read]
 'Jan reads what Maria reads'

(Citko 2004:96)

This example is similar to headless relative clauses, except for the presence of the demonstrative pronoun *to*. Citko also describes, for Polish, other ways the treatment of light-headed relative clauses differs from nominal headed. Coahuilán Totonac has a type of light-headed relative clause, most typically with the demonstrative *u:*, (8).

- (8) štali:laqapásnĭ u:n ti: šmaqni:nĭ:
 š-tali:laqapásni u: [ti: š-maqní:-nĭ:]
 3PO-acquaintance DEM [HREL PAST-kill-PERF]
 'he was the friend of him whom [the hunter] had killed'

Like in Polish, the head of the relative clause is the person who was killed by the hunter, but the only overt expression of this head is the demonstrative *u:*. In the first line of (8), this demonstrative presents a prosodic juncture phenomena—an epenthetic /n/ following *u:*. This phenomenon, while not yet fully understood, seems to occur between members of a phonological constituent. It is commonly observed on a demonstrative before the relativisers *ti:* and *tu:*, and often on the relativisers themselves. A similar juncture phenomenon has been described as prenasalisation in Ozelonacaxtla Totonac, a member of the Sierra Totonac branch (Román Lobato 2008). Unlike Polish, where light-heads impose restrictions on the relative pronouns used, light-headed relative clauses in Coahuilán Totonac do not seem to receive any special treatment compared to nominally headed or headless relative clauses.

Citko further shows that demonstratives, indefinites, negative indefinites, and universals can all function as light heads in Polish. In Coahuilán Totonac light-headed relative clauses

maybe headed by *u:*, other demonstratives, positive and negative indefinites, and universals. Totonacan languages have a complex system of deictic and demonstrative elements, albeit one that may be suffering from language attrition. In Upper Necaxa Totonac, a geographically and genetically close variety, Beck (2011) describes a system where deictic roots are marked for demonstrativeness (non-demonstrative and demonstrative) and distance (proximate, medial, distal; and also specific, though specific does not mark demonstrativeness) and can occur alone as deictic adverbs or combine with roots to form more restricted senses, such as determiners, local, non-local, and temporal adverbs. While the full system has not been observed in Coahuilán Totonac, many of the elements of the system are in use. There are at least three demonstrative elements that are quite common, and can occur as light-heads: *u:*, *a:má*, and *cqmá*. (8), above, shows *u:* as the light-head of a relative clause. (9) and (10) show *a:má* and *cqmá* as light heads.

(9) *a:mán tu: céqa kqaí talakapastáknj šalakwán*
a:má [tu: céqa k–qaí **ta–lakapastak–ni**] ša–lakwán
 DEM [NREL secret.ADV 1SG.SUBJ–hold **INCH–remember–NMLSR**] DTV–good
 ‘that thought which I hold secret is a good thing’

(10) *cqmá ti: šma:ša:qaninan laqsqalálan pus tasqalát*
camá [ti: š–ma:–ša:qán–ni–nan] lak–sqalála pus ta–sqala–li
 DEM [HREL PAST–CSV–bathe–BEN–DTR] PL.ADJ–wise well 3PL.SUBJ–spy–PFV
 ‘those who helped to bathe [the baby] (the midwives) were wise, so they were watching’

In each of these sentences, the light head comes before the relativiser, *tu:* or *ti:*. In (9), in addition to the light head *a:má*, there appears to be a nominal head *talakapastákni* ‘thought, idea’. I will return to this interesting case below.

Coahuilán has both positive and negative indefinites, both of which are related to the relativisers (and interrogatives). Positive indefinites are formed with the formula *ka-REL-wa*, yielding *kati:wa* ‘someone, anyone’ and *katu:wa* ‘something, anything’. Both of these can act as light heads, (11) and (12).

(11) *katí:wan ti: klakapása*
katí:wa [ti: k–lakapás–a]
 someone [HREL 1SG.SUBJ–know–IMPF]
 ‘someone, some people whom I know’

(12) *katú:wan tu: nakto:yáw*
katu:wa [tu: na–k–to:–ya–w]
 something [NREL FUT–1SG.SUBJ–do–IMPF–1PL.SUBJ]
 ‘something that we are going to do’

Negative indefinites combine the negative morpheme with the relativiser or interrogative, giving *la:ti:* ‘no one, nobody’ and *la:tu:* ‘nothing’. These are also both capable of being light heads, (13) and (14).

(13) *la:ti: ti: li:qama:namá: pelota*
la:ti: [ti: li:-qama:nan-má: pelota]
nobody [HREL INSTR-play-PROG ball]
 ‘there is no one who is playing with the ball’

(14) *la:tu: tu: škayáwa*
la:tu: [tu: škayáwa]
nothing [NREL green]
 ‘there is nothing that is green’

Coahuilán also allows the universal *pu:tím* ‘all’ to function as the head of a relative clause, (15)

(15) *pu:tím ti:n taqosnún*
pu:tím [ti: ta-qosnún]
all [HREL 3PL.SUBJ-run]
 ‘everyone who is running’

As we saw in (9) above, a light element can co-occur with a nominal head. This intriguing relative construction allows different light elements which occur directly before the relativiser, and a nominal head which can occur externally, (16), and internally (17) and (18). I follow Beck (2014) in calling this a light-appositive construction, because the light element is in apposition to the nominal.

(16) *čə:tím čiškú u:n ti:n te:wa:nj: qəłwati aca ká:tac*
čə:-tím čiškú u: [ti: te:-wa:-nj: qəłwati aca ká:ta=ca]
CLF-one man DEM [HREL PATH-eat-PERF egg there year=now]
 ‘one man who came by and ate an egg a year ago’

(17) *es queca pa:canqá:l u:n tu: šli:wát*
es que=ca pacanqa-li u: [tu: š-li:wát]
it.is that=now forget-PFV DEM [NREL **3PO-food**]
 ‘now he forgot (that which was) his food’

(18) *la:ti: ti: šta:la:to:ná šxúruł*
la:ti: [ti: š-ta:-la:-to:-ná š-xuru-li]
nobody [HREL **3PO-COM-RECIP-do-AGT** PAST-defeat-PFV]
 ‘there was no one there, the opponent who beat him’

In (16), the relative clause is introduced with *ti:*, the animate relativiser. The relative clause has both a light element and a nominal head: *u:*, directly preceding the relativiser, and the nominal *čə:tím čiškú* ‘one man’, which is external to the relative clause. (17) shows a relative clause introduced with *tu:* with both a nominal head, *šli:wát* ‘his food’ and a light element *u:*. In this sentence, the nominal head is embedded inside the relative clause. The interesting sentence in (18) comes from a story where a man is playing a game against himself, and even though there is no one there, his opponent is beating him. The nominal *šta:lato:ná* ‘his opponent’ is joined by the light element *la:ti:* ‘no one’.

All four of these types—nominal, headless, light, and light-appositive—show up in the textual and experimental examples, as shown in Table 3.

	Textual		Experimental	
Headless:	28	31%	1	1%
Light:	11	12%	39	57%
Nominal:	41	45%	12	18%
Light-appositive:	11	12%	16	24%
Total:	91	100%	68	100%

Table 3: Distribution of head type by data source

In textual examples, nominal are the most frequent, followed by headless, while in the experimental data, light and light-appositive are the most frequent, and there is only one headless relative clause. This marked difference is probably due in large part to the nature of the task. While the semantic differences between the different types of relative clause are not yet understood, the experimental context involved pointing at pictures and dealing with specific referents that were continually pointed at (see Section 2). In this situation, it is no surprise that a great deal of the examples involved demonstrative elements, and thus light and light-appositive heads. The most natural responses in this pointing context seemed to be light headed, but interestingly, the two types with an overt nominal, nominally-headed and light-appositive, were roughly equal. In the experimental data, *u:* was the only light element used as a head. While it seems that *u:* is the most frequent demonstrative or light element associated with relative clauses, changes in the task, such as pointing at an object further away, would likely influence this result. That is, the demonstrative used likely is due in part to the physical configuration of the experimental situation. In textual examples, where the physical configuration is likely less influential, *u:* still accounted for most of the light elements, used in 82% of both light headed and light-appositive relative clauses (18 of 22). *A:má* and *cqmá* were each used once in light headed relative clauses, and in light-appositive clauses there was one example of *a:má* and one of the negative indefinite *la:ti:*.

3.2 Relation between S_{rel} & NP_{mat}

The first dimension of Andrews' (2007) typology is the relationship between S_{rel} and NP_{mat} , specifically, whether or not S_{rel} is embedded in NP_{mat} . While some languages allow relative clauses with S_{rel} outside of NP_{mat} , there does not seem to be evidence for this kind of relative clause in Coahuilán Totonac. However, there are three major subdivisions of embedded relative clauses based on the relationship between the head and S_{rel} . External relative clauses have the head outside of S_{rel} , while internal relative clauses have their head within S_{rel} , and free relative clauses have no overt expression of the head. Free relative clauses are discussed in Section 0, there called “headless”, and they will not be discussed further in this section.

As we have seen above, Coahuilán has external and internal relative clauses. These configurations are illustrated again in the following examples: external (19), and internal (20).

- (19) skúxma: lakacuná cumaxá:tin ti: lakatíł
 skúx–ma: lakacuná **cumaxa:t** [ti: lakatí–li]
 work–PROG near **girl** [HREL like–PFV]
 ‘the girl whom he likes works near here’

The head of this phrase is *cumaxá:t* ‘girl, young woman’, and comes just before the relativiser.

- (20) porque šamaktím pał ca tamakštímí tu: la: ceya u:n
 porque ša–mak–tím pał ca ta–mak–štím–i [tu: la: **ceya u:n**]
 because DTV–CLF–one if PTCL DCS–together–TR [NREL NEG **good wind**]
 ‘because the winds which are bad could join together’

This phrase is an idiom, the bad winds coming or joining together means that bad things will happen. The head *u:n* ‘wind’, is a predicate complement, and sits inside the relative clause. (21), where we see the flexible ordering possible in relative clauses, shows that the head truly occurs within the relative phrase.

- | | |
|---|------------|
| (21) tu: laktá:yama: pelota qó:čą | NREL V O S |
| [tu: lak–ta:ya–ma: pelota qó:čą] | |
| [NREL leg–stand–PROG ball boy] | |
| ‘the ball which the boy is kicking’ | |
|
 | |
| [tu: laktá:yama: qó:čą pelota] | NREL V S O |
| [tu:n qó:čą laktá:yama: pelota] | NREL S V O |
| [tu:n pelota laktá:yama: qó:čą] | NREL O V S |
| [tu:n pelota qó:čą laktá:yama:] | NREL S O V |
| [tu:n qó:čą pelota laktá:yama:] | NREL O S V |

While some of the orderings are not as felicitous, especially without context, each of the orderings is possible with the meaning ‘the ball which the boy kicked’. Given the freedom of placement in these orderings, it is clear that the head *pelota* is within the relative clause. I return to the matter of constituent ordering in relative clauses in Section 0.

Nominal heads can occur both externally and internally as in (20) and (21). The nominal head in the light-appositive construction can also occur externally or internally, as we saw above in (16) and (17). While the nominal part of the light-appositive construction can appear internally or externally, the light element always comes before the relativiser. The light element in light-headed relative clauses behaves the same, as in (22), where *camá* comes before *ti:*.

- (22) camán ti: makasa:namá:
camá [ti: maka–sa:na–má:]
DEM [HREL hand–make.noise–PROG]
 ‘those (women) who are clapping (making tortillas by hand)’

Rather than saying that light-headed relative clauses only occur externally, it may be that the relation is better described by saying the relationship between the head and S_{rel} is free. Citko (2004) also discusses the similarity between light-headed and headless, or free, relative clauses.

Table 4 presents the distribution of nominal and light-appositive relative clauses by position of head.

	Textual		Experimental	
Nominal relative clauses				
Internal:	8	20%	3	25%
External:	33	80%	9	75%
Total:	41	100%	12	100%
Light-appositive relative clauses				
Internal:	7	64%	15	94%
External:	4	36%	1	6%
Total:	11	100%	16	100%

Table 4: Distribution of internal and external nominals

In the textual data, nominal heads are more likely to be external, and light-appositive heads are slightly more likely to be internal, a relationship seen more strongly in the experimental results. This is interesting because it could preclude an argument of either internal or external relative clauses being more unmarked. Typologically, it is somewhat rare for a language to have both internal and external relative clauses. It would be extremely rare for a language to have both constructions without one of them being more ‘basic’ or unmarked.

3.3 Treatment of NP_{rel}

Andrews explains that in many languages, NP_{rel} receives special treatment, typically some combination of marking, movement, omission, or reduction. In Coahuilán Totonac, there is no special treatment of NP_{rel} in terms of movement or marking. The question of omission is made interesting by how easily Coahuilán Totonac allows the different types of relative construction. Coahuilán Totonac allows NP_{mat} to be omitted in internally-headed relative clauses as easily as NP_{rel} is omitted in externally-headed relative clauses, or for no overt expression to be made in headless relative clauses. Consider the elicited relative clauses in (23), (24), and (25).

- (23) tu: laktá:yama: pelota qó:ča
 [tu: lak-ta:ya-ma: pelota qó:ča]
 [NREL leg-stand-PROG **ball** boy]
 ‘the ball which the boy kicked’
- (24) pelota tu: laktá:yama: qó:ča
pelota [tu: lak-ta:ya-ma: qó:ča]
ball [NREL leg-stand-PROG boy]
 ‘the ball which the boy kicked’
- (25) tu: laktá:yama: qó:ča
 [tu: lak-ta:ya-ma: qó:ča]
 [NREL leg-stand-PROG boy]
 ‘that (ball) which the boy kicked’

The first relative clause is internally headed, the second externally headed. In the first two cases, the head appears only in one clause, the matrix in externally headed (24), and NP_{rel} in internally headed (23). Because the head appears in only one clause, but has a function in both, we can say that the head is omitted in the clause where it does not appear. In the headless clause, (25), the head is not overtly expressed at all, and is omitted from both. The same principles which determine omission and ordering in a matrix clause seem to be at play, and could potentially determine even whether a relative clause is internally- or externally-headed. Some discussion of this is made in Beck (to appear).

3.4 Constraints on Function of NP_{rel}

Typologically, the main constraint on the function of NP_{rel} involves the Accessibility Hierarchy introduced by Keenan and Comrie (1977), concerning the grammatical functions accessible to NP_{rel}. The Accessibility Hierarchy puts grammatical functions on a hierarchy, with the implication that if a grammatical function is accessible to relativisation, all grammatical functions higher on the hierarchy will also be accessible. Coahuilán Totonac allows the relativisation of grammatical functions of all ranks on the hierarchy: subject, objects, adjuncts, predicates, possessors, and objects of comparison. Examples were found in the texts for relative clauses in each function except comparatives, which were, however, easily elicited in the experimental data, as well as direct elicitation.

3.4.1 Subject-centred

Subject-centered relative clauses are common, like that in (26).

- (26) to:w agradecimientos a dios porque u:n ti: škinka:ma:su:niparanj:tán a:má taqałi:n
 to:~w agradecimientos a **Dios** porque u:
 do~1PL.SUBJ thanks to **God** because DEM

[ti: š-kin-ka:-ma:-su:-ni-para-nj:tan a:má taqałi:n]

[HREL PAST~1OBJ~PL.OBJ~CSV~be.visible~REP~PERF DEM animal]

‘we thanked God because it was he who helped us find the animal’

This sentence contains a light-headed subject-centred relative clause. The verb in the relative clause agrees with a first person plural object and a third person singular subject, and the larger context of the sentence shows that this third person is *Dios* ‘God’, who the family was thanking because they had prayed to find their mule, and had then found it. The following two clauses show nominally headed subject-centred clauses, with an internal head, (27), and with an external head, (28).

- (27) ašni čon či cukulça qotanu, čon ka:waní, ti: štata:an̄j: qalatátj
 ašni čo či cuku–li=ca qotanu, čo ka:–wan–ní,
 when PTCL manner begin–PFV=now afternoon PTCL PL.OBJ–say–BEN

[ti: š–ta–ta:–an–n̄j: **qala–tati**]

[HREL PAST–3PL.SUBJ–COM–go–PERF **CLF–four**]

‘and now when it began to be afternoon, he said to the four who had went out with him’

- (28) tigre ti: sta:lanimá: cásankā
tigre [ti: sta:la–ni–má: cásanka]
jaguar [HREL follow–BEN–PROG peccary]
 ‘the jaguar who was following the peccary’

In the first sentence, *qalatátj* ‘the four’ is the head of the relative clause, acting as the subject of the verb ‘to go’. In the matrix clause, it is the object of the verb *ka:waní* ‘to tell them’. The matrix verb agrees with a plural object, and the relative verb agrees with a third person plural subject. In the second sentence, the Spanish loan *tigre*, referring here to a jaguar, is external to the relative clause, but controls subject agreement on the verb of Srel.

3.4.2 Object-centred

There are many examples of object-centred relative clauses in Coahuilán Totonac, such as (29).

- (29) qó:čə maškj:kā čə:timi cumaxá:tin ti: lu: šlakatí
 qó:ča maškj:–kā **čə:–tim cumaxá:t** [ti: lu: š–lakatí]
 boy give–INDEF:PFV **CLF–one girl** [HREL very PAST–like]
 ‘they gave the girl whom he liked very much to the boy’

This sentence has a externally-headed relative clause, the object of ‘to like’ in the relative clause is *cumaxá:t* ‘the girl’, which is also an object in the matrix clause (the theme). As this example shows, there can be multiple objects in a phrase. At this time, I can make no definite distinctions between the different types of objects for Coahuilán.³ However, I present two relative clauses involving the ditransitive verb ‘give’, one in which the theme is relativised, (30), and the other in which the recipient is relativised, (31).

- (30) čo wa:paraqó:l laktó:paraqó:l xon tu: maškj:l ští:lan
 čo wa:–para–qo:–li lak–to:–para–qo:–li xo [tu: maškj:–li ští:lan]
 PTCL eat–REP–TOT–PFV INTENS–do–REP–TOT–PFV PTCL [NREL give–PFV hen]
 ‘and again he wasted all that which the hen gave to him’

- (31) qó:čə u:n ti: maškj:má: poqos šacíkan šnaná u:n kintála
qó:ča u: [ti: maškj:–má: poqos ša–cíkan š–naná] u: kin–tála
boy DEM [HREL give–PROG balloon DTV–grandma 3PO–mother DEM 1PO–friend]
 ‘the boy, to whom his grandmother gave him balloons, is my friend’

³ See (Beck, 2016) for a discussion of multiple objects in Upper Necaxa Totonac.

In the first relative clause, the theme of ‘give’, the item given, which in this case is money, is the head of the relative clause, although it is not overtly expressed. In the second case, the recipient of ‘give’ is the boy who heads the external light-appositive relative clause.

3.4.3 Adjunct-centred

In Coahuilán, locative-centred adjuncts can be relativised, (32), although with special relativiser *la:*, which is also the interrogative ‘where’.

- (32) *čo wí tala:li:łkaníł la: ču nata:tanóqłą*
čo wí ta-la:-li:-łka-nín-li [la: ču na-ta:ta-noqł-a]
 PTCL sit 3PL-RECIP-INSTR-agree-DTR-PFV [where PTCL FUT-COM-INCH-meet-IMPV]
 ‘they agreed on where they would meet together’

This is a headless clause where the location is ‘where they would meet together’. This kind of relative clause can also occur with the light head *ancá:*, a local deictic, (33). Another example is given which is nominally headed,

(34).

- (33) *ancá: la: wí puská:t ti: wa:má: kséqni*
ancá: [la: wí puská:t [ti: wa:-má: k-séqni]]
 DCT [where sit woman [HREL eat-PROG 3PO-banana]]
 ‘there where the woman who is eating her banana sits’

- (34) *kintalá tamá:wa:ł carro la: akpu:wáka spu:n*
kin-talá tamá:wa:-ł carro [la: akpu:-wáka spu:n]
 1PO-brother buy-PFV **car** [where crown-be.high bird]
 ‘my brother bought the car where the birds are sitting on it (with the birds sitting on it)’

In (33), there are two relative clauses, the first is our locative-centered light headed relative clause ‘there where the woman sits’. The woman is further modified by an exterior nominally-headed relative clause ‘who is eating her banana’. The nominally headed locative-centred relative clause in (34) is headed by *carro* ‘car’. The car is the location where the birds are sitting; the entire relative clause serves to delimit the reference of car by specifying which car was bought.

3.4.4 Predicate-centred

In Coahuilán Totonac the copula, *wan*, is not expressed without additional morphology; i.e., future *na-*, past tense *š-*, or one of several quasi-inflectional markers, such as the repetitive *-para*. In predicate-centred relative clauses, the predicate complement is the head of the relative clause, as we saw above in (20), repeated here as (35).

- (35) *porque šamaktím pał ca tamakštímí tu: la: ceya u:n*
porque ša-mak-tim pał ca ta-mak-štím-i [tu: la: **ceya u:n**]
 because DTV-CLF-one if PTCL DCS-together-TR [NREL NEG **good wind**]
 ‘because the winds which are bad could join together’

In this relative clause, the nominal *u:n* ‘wind’ appears inside the relative clause, and is the predicate complement modified by the adjective *la: ceya* ‘bad’. The copula is not overtly realised in the present tense. Another predicate-centred relative clause is shown in (36).

- (36) *čon cíkan ti: šta:lakacuná*
 čo **cíkan** [ti: š-ta:lakacuná]
 PTCL **old.woman** [HREL 3PO–neighbour]
 ‘the old woman who is his neighbour’

In this relative clause, the nominal head *cíkan* ‘old woman’ is external to the relative clause.

3.4.5 Possessive-centred

Possessive constructions involve a set of affixes, which are attached to the possessed and agree with person and number of the possessor, shown in Table 5.

	SINGULAR	PLURAL
1	kinčík	kinčíkan
2	minčík	minčíkan
3	ščik	ščikan

Table 5: Possessive affixes with *čík* ‘house’

The morphemes /kin-/ and /min-/ for first and second person each have an allomorph without final /n/ that occurs before liquids and nasals. The final /n/ for each is also involved in place assimilation with following consonants. The third person /š-/ has allomorphs {/s-/ , /k-/}. /s-/ occurs before the alveolar affricate: *scumaxá:t* ‘his daughter’. /k-/ occurs before the alveolar, post-alveolar, and lateral fricatives: *kserviéta* ‘his napkin’; *kška:n* ‘his water’; *kłúky:* ‘his cave’. The marked possessed comes before the possessor, as in (37).

- (37) *kłúky: kuyú:*
 š-*kłúky:* kuyú:
 3PO–cave armadillo
 ‘the armadillo’s cave’

This example has the /k-/ allomorph of the third-person possessive marker. A possessor-centered relative clause is given in (38).

- (38) *čo mati ka:waní ti: ščík*
 čo mat ka:–wan–ní [ti: š–čík]
 PTCL QUOT PL.OBJ–say–BEN [HREL 3PO–house]
 ‘and the owner of the house told them ...’

In this case, the head of the relative clause is the possessor of *čík* ‘house’, which is not overtly expressed. This is the same person who, in the matrix clause, is the subject of the verb ‘to tell’. Internally- and externally-headed nominal relative clauses are shown in (39) and (40).

- (39) tu: qosmá: nakšákpú:n kíwǐ spu:n
 [tu: qos–ma: nak=š–ákpú:n kíwǐ spu:n]
 [NREL fly–PROG LOC=3PO–crown tree bird]
 ‘the tree over which the bird is flying’
- (40) cumaxá:t u:n ti: šcin šaspín ma:qosuł pelota
cumaxá:t u: [ti: š–cin ša—spín] ma:–qos-u:–ł pelota
girl DEM [HREL 3PO–clothing DTV–red] CSV–fly–CSV–PFV ball
 ‘the girl whose clothes are red threw the ball’

The first phrase is internally-headed by *kíwǐ* ‘tree’, which is the possessor of the relational part ‘crown’ to give the meaning ‘over’. Locational information is often encoded with relational parts in possessive constructions (Levy 1999). The second example is light-appositive, externally-headed by *cumaxá:t* ‘girl’.

3.4.6 Comparative-centred

Comparative constructions involve a standard and a marker of comparison. The marker is the noun phrase which is the focus of the construction, compared against the standard. (41) is an example of a comparative construction in Coahuilán Totonac.

- (41) cumaxá:t taq šapi:pí či maqapicin cumaxá:t
 cumaxá:t taq ša–pi:pí či maqapicin cumaxá:t
 girl more DTV–older how some girl
 ‘the girl is older than the other girls’

In this construction, the marker is ‘the girl’ compared with the adjective *šapi:pí* ‘older (used only for females)’ to the standard of ‘the other girls’. The standard is marked by the manner particle *či*, which acts in several ways to indicate or question the manner of an action. (42) and (43) are comparative-centered relative clauses.

- (42) ti: cumaxá:t taq šapi:pí či ča:to lakcumaxá:n čipaní čáčač
 [ti: **cumaxá:t** taq ša–pi:pí či ča:–to lak–cumaxá:t–n] čip–a–ní čáčač
 [HREL **girl** more DTV–older how CLF–two PL–girl–PL] grasp–IMPFV–BEN frog
 ‘the girl who is older than the other two girls holds a frog’
- (43) cumaxá:t ti: taq šapi:pí či maqapicin cumaxá:t čipaní čáčač
cumaxá:t [ti: taq ša–pi:pí či maqapicin cumaxá:t] čip–a–ní čáčač
girl [HREL more DTV–older how other girl] grasp–IMPFV–BEN frog
 ‘the girl who is older than the other girls holds a frog’

In both these clauses, ‘the girl’ is the head of the relative clause, the subject of the matrix verb ‘to hold’, and the marker of comparison, against a standard of comparison. Plural marking is optional and appears on the ‘other two girls’ in (42), but not on ‘the other girls’ in (43). The primary difference between these two clauses is that in (42), the head *cumaxá:t* is internal, while (43) is externally headed.

3.5 Treatment of *S_{rel}*

There does not appear to be much apparent difference between S_{rel} and matrix clauses (S_{mat}). One of the notable features of relative clauses in Coahuilán Totonac is the flexibility of constituent ordering. This is shown above in (21), which I repeat here as (44).

(44) tu: laktá:yama: pelota qó:čə	NREL V O S
[tu: lak-ta:ya-ma: pelota qó:čə]	
[NREL leg-stand-PROG ball boy]	
‘the ball which the boy is kicking’	
[tu: laktá:yama: qó:čə pelota]	NREL V S O
[tu:n qó:čə laktá:yama: pelota]	NREL S V O
[tu:n pelota laktá:yama: qó:čə]	NREL O V S
[tu:n pelota qó:čə laktá:yama:]	NREL S O V
[tu:n qó:čə pelota laktá:yama:]	NREL O S V

This ordering matches the flexibility of matrix clauses, (45).

(45) laktá:yama: pelota qó:čə	V O S
lak-tá:ya-ma: pelota qó:čə	
leg-stand-PROG ball boy	
‘the boy is kicking the ball’	
laktá:yama: qó:čə pelota	V S O
qó:čə laktá:yama: pelota	S V O
pelota laktá:yama: qó:čə	O V S
qó:čə pelota laktá:yama:	S O V
pelota qó:čə laktá:yama:	O S V

Matrix and relative clauses both show flexible constituent ordering. Other than the relativiser, there is little to differentiate matrix and relative clauses.

4. Discussion

The dimensions discussed in this paper show that there are many different types of relative clause, with different types of heads, heads occurring in different positions, and different positions on the Accessibility Hierarchy. Coahuilán is remarkable for its flexibility in filling each of the possibilities expressed by these dimensions. Coahuilán Totonac allows many types of head: nominal, free, light, and light-appositive; is very free in allowing different positions on the Accessibility Hierarchy to be relativised; and is especially remarkable in the high frequency of both internally- and externally-headed relative clauses. Given the range of possibilities to the formal type of relative clause, the great question is what principles and factors influence the selection of one type over another. This is especially intriguing considering the relative ease with which speakers allow variation in a specific phrase under discussion. However, it is unlikely that this question will be answered through elicited data or translated glosses.

There has been very little descriptive material published on Totonacan relative clauses, except for some preliminary work by Beck (2014, to appear). The current paper contributes a

description of the flexible and varied relative system in Coahuilán Totonac. In addition to the variation described within Coahuilán, there seems to be an interesting amount of variation between the systems of Totonacan languages. Further research is needed in comparing this variety and other Totonacan languages. A better understanding of relative clauses in Coahuilán Totonac and other Totonacan languages will be a valuable contribution to our understanding of this family and of relative clauses.

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