Relative Clause Structure in Mesoamerica Languages.

Enrique L. Palancar, Roberto Zavala Maldonado, Claudine Chamoreau

Relative Clause Structure in Mesoamerican Languages

Brill's Studies in the Indigenous Languages of the Americas

Series Editors

David Beck (*University of Alberta*)
Mily Crevels (*Leiden University*)
Hein van der Voort (*Museu Paraense Emílio Goeldi*)
Roberto Zavala (*CIESAS-Sureste*)

Editorial Board

VOLUME 16

The titles published in this series are listed at *brill.com/bsila*

Relative Clause Structure in Mesoamerican Languages

Edited by

Enrique L. Palancar
Roberto Zavala Maldonado
Claudine Chamoreau

BRILL

LEIDEN | BOSTON

Contents

Preface

This book is on relative clause structure in the Mesoamerican languages. The book consists of a total of nine chapters in the form of independent articles. We use the concept 'RC structure' as an umbrella term here to refer to relevant aspects of linguistic structure that revolve around relative clauses (RCs) and relative constructions. Seven chapters are on different language families of the Mesoamerica linguistic area, including Nahuatl, Mayan, Mixe-Zoquean, Chatino, Zapotec and Otomian, while an eighth chapter is on Pesh, a Chibchan language spoken in Honduras, outside the limits of Mesoamerica. While we do not consider Pesh a Mesoamerican language, we include it in the book to show the extent to which the relative constructions found in the other languages of this book can indeed be said to be Mesoamerican. In this connection, the first article in the book sets the typological scene, as it were, taking an areal view of the phenomenon and thus allowing us to propose what type of RC structure is typically Mesoamerican.

The study of relative constructions is a powerful descriptive enterprise. This is because RC syntax is placed at the very center of the grammar of a language. We believe that to understand the RC structure of a given language adequately, the analyst has to amass a substantial descriptive knowledge from other domains of the syntax and morphosyntax of that language. This expertise must include an understanding of nominal phrase syntax, the syntax of both simple clauses and subordination, the grammatical treatment of arguments and obliques, syntactic operations such as movement, agreement and binding, the syntax and morphology of nominalization, word order configurations, and the constructional realization of information structural categories such as focus and topic. In addition to all this knowledge, we must of course add the constructional idiosyncrasies and structural richness of RCs and relative constructions in the language under study. All this makes the study of RC structure particularly challenging, and it becomes all the more so where poorly described languages are concerned, because a good description can only be based on a good understanding of the structure being described. The challenge becomes greater still in the context of conducting a typological survey on RC structure in a specific linguistic area, because a comprehensive typology must be based on a good descriptive knowledge of the RCs of a representative sample of languages. The purpose of this book is to fill in many gaps in our understanding of RCs in Mesoamerican languages.

In the previous linguistics literature on Mesoamerican languages, the best studied family by far is the Mayan family. This also holds true for the study of the

syntax of RCs at large, but even in Mayan languages relative constructions have often been tackled indirectly as a means to achieving a different goal, which often involved the understanding of syntactic phenomena that are of interest for generative approaches to syntax such as extraction, movement, etc. Notable exceptions are the monographs on the RCs of Yucatec Maya by Gutiérrez Bravo (2015), the RCs of Kaqchikel by Guarcax González (2016), and the RCs of Chol by Martínez Cruz (2007) (with a special emphasis on the encoding of property concepts). Beyond Mayan, our knowledge of RC structure was in general poor until the recent monographs by De la Cruz Cruz (2010) on Tepostec Nahuatl and Jiménez Jiménez (2014, 2019) on San Miguel Chimalapa Zoque. Apart from these works, information about RCs in the different languages of the area is often just touched on in grammatical sketches. Even the recent edited book by Comrie and Estrada Fernández (2012) on the RCs in languages of the Americas has only one paper on a Mesoamerican language, namely Yucatec Maya by Gutiérrez Bravo (2012), whose proposal is taken up and developed in more depth in Gutiérrez Bravo (2015).

Against this background, and having in mind the aim to produce the right context to generate a new body of knowledge of RC structure in Mesoamerican languages, we embarked on the 2015–2017 CNRS-PICS research project "Mésoamérique et la syntaxe de la proposition relative" ("Mesoamerica and the syntax of the relative clause"). This large project involved a group of linguists who are experts in different Mesoamerican languages and who participated in various syntax workshops at CIESAS-Sureste, San Cristobal de las Casas. The workshops were led by linguists, including Judith Aissen, Christian Lehmann, Ivano Caponigro and Harold Torrence. This project was followed by the 2017–2018 UC-Mexus project on "Headless RCs in Mesoamerican languages" coordinated by Ivano Caponigro, Harold Torrence and Roberto Zavala Maldonado.

The workshops produced numerous high-quality research outcomes. The book by Caponigro, Torrence and Zavala Maldonado (2021) includes contributions on the relation between wh-words and headless RCs. In this book, the contributions have a wider focus, as they study different aspects of RCs in the various languages of study: while some just cover headed RCs (Flores Nájera, López Nicolas, and Chamoreau) others include both headed and headless RCs (Jiménez Jiménez, Mateo Toledo, Campbell, and Palancar). In addition to these, the book also includes one chapter on a whole family (Zavala Maldonado) and an overview chapter by Palancar, Zavala Maldonado and Chamoreau.

Apart from its thematic coherence, to give the volume editorial coherence we have ensured that the contributions abide by the following conventions:

1. *Natural examples*: The book only includes papers by authors who have a large natural text corpus on which to base their linguistic analysis. We

believe that modern linguistic research should be carried out primarily on natural examples, and only revert to elicitation when a construction is not attested in the natural corpus or when testing the limits of the grammaticality of a construction. Scientifically, this is the right thing to do. Accordingly, in contradistinction to most previous literature on RCs that uses elicited examples, which for the most part are not even full sentences, we have encouraged authors to use as many natural examples from texts as possible. Textual examples are indicated as {Txt}.

2. *Consistent terminology*: The articles in this book share a similar terminology. This is especially relevant regarding two areas where terminological confusion abounds in the linguistic literature. One concerns the way we talk about the elements that introduce a RC. The other concerns the way we categorize RCs according to their function in the matrix clause and the structural types that arise as a result.[1]

     As for the former, we distinguish three elements: (i) the term '**subordinator**' is used for a conjunction that introduces RCs and other types of subordinate clauses like complement clauses; (ii) the term '**relativizer**' is used for a conjunction that is only used to introduce RCs; and (iii) the term '**complementizer**' is reserved for a conjunction that introduces complement clauses, but not RCs.

     As for the function of RCs, we distinguish headed RCs from headless ones. A **headed RC** is a modifier of a domain nominal that serves as its head. The domain nominal can be a (full) noun (i.e., the canonical headed RC), a pronominal (i.e., equivalent to light-headed RCs), or a determiner (only in some languages). A **headless RC** is a RC that functions as an argument or an adjunct of the predicate of the matrix clause. There are two main types of headless RCs, those that exhibit a gap strategy and those introduced by a relative pronoun. We reserve the term '**free relative**' for a headless RC that is introduced by a relative pronoun that is also a WH-word.

3. *Consistent abbreviations*: Throughout the book, we use the same abbreviations for glosses in the examples.

4. *Consistent representation of RCs*: Throughout the book, in examples of relative constructions, the RC is always placed in between brackets and, if the RC is a headed RC, the head appears underlined.

---

1 All RCs in Mesoamerican languages are finite. This is the reason why we do not deal with nominalization issues in this book. The notable exception is Chamoreau's contribution on Pesh, where this problem needs to be addressed.

In our chapter "A typological overview of RC structure in Mesoamerican languages", we identify what constitutes the canonical profile of a relative construction in the Mesoamerican languages. We propose that the typical Mesoamerican RC is a morphosyntactic finite RC with a gap, but when the relativized position is that of locative, a relative pronoun is typically used (with this pattern reaching out beyond Mesoamerica). To corroborate their Mesoamerican peculiarity, we compare these features with the ones found in the relative constructions of languages spoken outside Mesoamerica, both to the north and to the south of the area. In our proposal, we have identified three structural traits that we take to be Mesoamerican: (i) RCs introduced by determiners which agree in deixis with the determiner of the DP in which the domain nominal is embedded; (ii) so-called 'pied-piping with inversion' introduced by Smith-Stark (1988) for interrogatives that has percolated into RC structure; and (iii) headless RCs with a gap, that is, headless RCs where there is little indication as to the role of the relativized element. To illustrate this typological overview we use data from the papers in this volume, and also from other works that were research outcomes of the RC syntax workshops at CIESAS-Sureste.

The paper by Zavala Maldonado provides a general overview of the relativization strategies in headed RCs in the two branches of the **Mixe-Zoquean family**: Mixean and Zoquean. Zavala Maldonado shows that there are three major relativization strategies: gapping, relative pronoun, and non-reduction with internal head. The first two are present in all languages of the family while internally-headed RCs are restricted to few and exhibit features that are typologically uncommon in other world's languages that share this strategy. Both the gapping and the internally-headed strategy are basic in the languages that have them, but the accessibility of the relative pronoun strategy varies much across the different members of the family. Zavala Maldonado further shows that it is common in the Mixe-Zoquean languages to convert extrathematic relations into core arguments for relativization purposes.

In his paper, Jiménez Jiménez proposes a typology of domain nominals in the relative constructions of **San Miguel Chimalapa Zoque** (Chiapas Zoque, Mixe-Zoquean) that helps to explain how the different relative constructions in this language are used, covering both scope of relativization and the three types of relativization strategy (i.e., by a gap, by a relative pronoun and by an internal head). More specifically, Jiménez Jiménez proposes five different types of domain nominals: (i) full head; (ii) elided head; (iii) light head; (iv) determiner head; and (v) non-overt domain nominal. All these domain nominals have been identified in the typological literature, except for the determiner head, which constitutes an important intermediary type between the elided head and the light head.

Jiménez Jiménez's contribution is followed by Mateo Toledo's paper on the RCs of **Q'anjob'al** (Mayan), which also departing from a typology of heads proposes a typology of relative constructions in Q'anjob'al. Among the features of RCs discussed that are common to all Mayan languages are: they are finite, post-nominal with an external head; the use of the same interrogative expressions in questions, interrogative complements and relative clauses; and restrictions on the relativization of agent arguments. Taking into account both the form and the type of expression of the head, Mateo Toledo shows that Q'anjob'al has four types of RCs: (i) nominal-headed RCs that contain a nominal or a pronoun head; (ii) determiner-headed RCs that contain a determiner or a demonstrative as head; and (iii) headless RCs of two subtypes: free relatives, which are headless RCs exhibiting a relative pronoun based on a wh-word, and headless RCs with a gap. The four types of RCs differ in lexical and syntactic features, relativization strategies, and meaning.

Flores Nájera's paper explores some puzzling word-order phenomena involving discontinuity of constituents in the relative constructions of **Tlaxcala Nahuatl** (Uto-Aztecan) under the notion of non-configurational syntax. Tlaxcala Nahuatl exhibits externally-headed relative constructions in which the RC may precede, follow, or be discontinuous with respect to the DP containing the domain nominal, which Flores Nájera calls 'the domain DP'. One question which arises is how to show that discontinuous RCs are subordinate to the domain DP. In addition to externally-headed RCs, in Tlaxcala Nahuatl the domain DP can also be located within the RC with or without the co-occurrence of a relative pronoun. Flores Nájera proposes two possible analyses for this phenomenon. The first one is that Tlaxcala Nahuatl has internally-headed relative constructions with particular features that are different from those described in the literature for this type of construction. The second analysis is that there are no relative constructions with internal heads and that the position of the domain DP within the RC is due to the fact that the relative constructions of Tlaxcala Nahuatl have non-configurational features. Under the non-configurational analysis, the RC and the domain DP do not form a constituent at a syntactic level and they can be contiguous or discontinuous in any place of the complex DP with respect to the matrix sentence. In this paper, the author presents evidence in favor of this second analysis.

Following Flores Nájera's paper are three contributions from three Oto-Manguean languages: two from the Zapotecan branch and one from the Oto-Pamean branch.

In his contribution, Campbell shows that relative constructions in **Zenzontepec Chatino** (Zapotecan; Chatino) display a range of nuanced syntactic differences. Some are syndetic (i.e., a RC introduced by a subordinator), while

others are asyndetic (i.e., introduced by no subordinator). Some are externally headed, while others have external light heads or are headless. Some display a gap strategy, others have relative pronouns, and a pronoun retention strategy may be used for disambiguation. While some of the differences are syntactic, being based on the syntactic function of the head in the RC, Campbell claims that asyndesis and the cline of headedness are not based on syntax *per se*, but are largely driven by information structure and discourse, especially specificity and topicality. Thus the syntax of RCs is like much of the rest of the syntax of the language and cannot be easily understood without considering data from natural discourse.

López Nicolás studies headed RCs with a full nominal head in **Zoochina Zapotec** (Zapotecan; Zapotec). The study focuses on the structural and morphosyntactic properties of headed RCs. He discusses the relativization strategies used in the language, namely, the gap strategy and the relative pronoun strategy, the latter derived from interrogative pronouns and pronominal classifiers with anaphoric function. To complement his study of the different constructions, the author further introduces the different syntactic roles for which there is access to relativization.

Palancar's contribution is on the relative constructions of **Tilapa Otomi** (Oto-Pamean; Otomian). Palancar claims that this language has three types of RCs in headed relative constructions: (i) asyndetic RCs; (ii) RCs introduced by a determiner that the author argues functions as a relativizer; and (iii) RCs introduced by a relative pronoun derived from WH-words. Types (i) and (ii) reveal a gap relativization strategy, and they have a wide functional scope in the relativization hierarchy, while type (iii) only allows for WHO and WHERE in headed relative constructions. The type (iii) construction is remarkable in two ways. On the one hand, the locative relative pronoun strategy based on WHERE is the only construction that is available to relativize a locative adjunct. On the other hand, the RC based on WHO can only relativize a human subject or a human possessor, which is typologically surprising, although also found in Zenzontepec Chatino. All three types of RCs can be used as headless RCs with the addition of a fourth type involving a light head. In contrast to what happens in headed relative constructions, when type (iii) is used as a headless RC it involves a larger set of relative pronouns with a wider functional scope.

The book finishes with Chamoreau's paper on the restrictive headed relative constructions of **Pesh**, a Chibchan language from Honduras, which, not being Mesoamerican, serves as a control for the rest of the languages in the book. Chamoreau shows that Pesh follows three relativization strategies: (i) internally-headed RCs in which the head nominal of the RC, which is a core argument or a genitive, occurs inside the RC. This is the most frequent and

primary strategy in Pesh, as it is used to relativize subjects; (ii) externally-headed RCs in which the head nominal, which has a peripheral role in the RC, occurs outside the RC, being represented in the RC by a gap; and (iii) RCs introduced by a WH-word but only involving the locative WH-words *piah* 'where' and *pikan* 'where, in which direction'. The distribution of the three RCs in Pesh clearly responds to accessibility restrictions of specific functions: argument and genitive with internally-headed RCs, oblique and adjunct (comitative, instrumental, locative, and object of comparison) with externally-headed RCs, and locative with WH-word RCs. This paper also explores the relation between relative strategies and degree of finiteness. Internally-headed RCs and externally-headed RCs are less finite and exhibit some features of nominalization in the scalar phenomenon of nominalization, since the marker that obligatorily occurs at the end of the relative construction in internally-headed RCs and at the end of the RC in externally-headed RCs is a case or a topic enclitic marker prototypically used at the end of noun and postpositional phrases. In contrast, RCs bearing a WH-word are most finite, and their subordinate feature is marked by a subordinator at the end of the verb.

<p style="text-align:center">∴</p>

to Judith Aissen, for her teaching, for the generosity of her time, and for her professional commitment to creating high-quality linguistics scholarship and research in Mexico.

In the times of confinement of 2020 ...

Enrique L. Palancar
Roberto Zavala Maldonado
Claudine Chamoreau

Bibliography

Caponigro, Ivano, Harold Torrence and Roberto Zavala Maldonado (eds.). 2021. *Headless relative clauses in Mesoamerican languages*. Oxford: Oxford University Press.

Comrie, Bernard and Zarina Estrada Fernández (eds.). 2012. *Relative clauses in languages of the Americas: A typological overview*. Amsterdam: John Benjamins.

De la Cruz Cruz, Victoriano. 2010. Las oraciones relativas en el náhuatl de Teposteco, Chicontepec, Veracruz. MA Thesis in Indoamerican Linguistics, CIESAS, Mexico.

Guarcax González, José Celestino. 2016 Las cláusulas relativas en el kaqchikel de Sololá. MA Thesis in Indoamerican Linguistics, CIESAS, Mexico.

Gutiérrez-Bravo, Rodrigo. 2012. Relative clauses in Yucatec Maya: Light headed vs. null domain. In Bernard Comrie and Zarina Estrada Fernández (eds.), *Relative clauses in languages of the Americas: A typological overview*, 253–268. Amsterdam: John Benjamins.

Gutiérrez-Bravo, Rodrigo. 2015. *Las cláusulas relativas en maya yucateco*. México: El Colegio de México.

Jiménez Jiménez, Silviano. 2014. Esbozo gramatical y oraciones de relativo en el zoque de San Miguel Chimalapa. MA Thesis in Indoamerican Linguistics, CIESAS, Mexico.

Jiménez Jiménez, Silviano. 2019. Estudios de la gramática de la oración simple y compleja en el zoque de San Miguel Chimalapa. PhD dissertation in Indoamerican Linguistics, CIESAS, México.

Martínez Cruz, Victoriano. 2007. Los adjetivos y los conceptos de propiedad en chol. MA Thesis in Indoamerican Linguistics, CIESAS, Mexico.

Smith Stark, Thomas C. 1988. Pied-piping con inversion en preguntas parciales. Seminario de Estudios Lingüísticos y Literarios: El Colegio de México. MS

Figures and Maps

Figures

Map

Abbreviations

1	first person
2	second person
3	third person
A	agent
A.D	agent for dependent clauses
A.I	agent for independent clauses
ABS	absolutive; unpossessed noun (in Nahuatl)
ACC	accusative
ADJ	adjective
ADJZ	adjectivizer
ADJTFOC	adjunct focus
ADLAT	adlative
ADV	adverb; adverbial inflection (in Otomi)
AF	agent focus
AFFIR	affirmative
AGR	aggregative
AMBU	ambulative
AN	animate
ANA	anaphoric demonstrative
AND	andative
ANIM	animal
ANT	anterior past
AP	antipassive
API	antipassive of incorporation
APPL	applicative
AS	adjusted stem
ASSERTV	assertive (mood)
ASUNT	asuntive
AUG	augmentative
AUX	auxiliary
CAUS	causative
CENTRIP	centripetal
CL	phrase-final clitic
CLF	nominal classifier
COM	comitative
COMP	complementizer
COND	conditional

CONJ	conjunction
CONS	consequence
CONTR	contrafactual
COP	copula
CP	completive aspect
CP.D	completive for dependent clauses
CP.I	completive for independent clauses
CP.TR	completive for transitives
CRT	certainty subordinator
DAT	dative
DBT	dubitative subordinator
DCM	discourse continuity marker
DECAUS	decausative
DEF	definite
DEIX	deixis
DEL	delimitative
DEM	demonstrative
DEP	dependent
DEP1	dependent aspect 1
DEP2	dependent aspect 2
DERG	derogatory
DES	desiderative
DET	determiner
DIM	diminutive
DIR	directional
DIST	distal
DISTR	distributive
DM	dependent marking
DP	determiner phrase
DPS	depositive
DTR	ditransitive stem
DTV	derived transitive verb
DU	dual
DUR	durative aspect
EMPH	emphasis
ENCL	enclitic
ERG	ergative
EXCL	exclusive
EXHOR	exhortative
EXIST	existential

EXLOC	exlocative
EXPL	expletive
EXT	external
F	feminine
FOC	focus
FORM	formal
FRUST	frustative
FS	final suffix
FT	formative
FUT	future
GEN	genitive
GEN.APPL	general applicative
HAB	habitual
HES	hesitation
HON	honorific
HUM	human
ICP	incompletive
ICP.D	incompletive for dependent clauses
ICP.I	incompletive for independent clauses
IMM	immediate
IMP	imperative
IMPER	impersonal
IMPF	imperfect
IMPFV	imperfective
INAN	inanimate
INCH	inchoative
INCL	inclusive
INDF	indefinite
INF	infinitive
INFL	inflectional class marker
INFORM	informal
INSTR	instrumental
INT	intensifier
INTER	interrogative
INTERJ	interjection
INTR	intransitive
INV	inverse
IO	indirect object
IPFV	imperfective
IRR	irrealis

IRR.D	irrealis for dependent clauses
ITER	iterative
IV	intransitive verb
LEN	lenis stem
LIG	ligature
LOC	locative
M	masculine
MANN	manner
MED	medial
MIDD	middle
MIR	mirative
NC	noun class marker
NCLF	numeral classifier
NEG	negative
NEUT	neutral aspect
NF	non-finite
NHUM	non-human
NMLZ	nominalizer
NOM	nominative
NOM.PRED	nominal predication
NON.PST	non-past
NON.SPEC	non-specific
NVIS	non-visual
O	object
OBJ	object (as a syntactic function)
OBJC	object of comparison
OBJT	objetive case (i.e. accusative)
P	preposition
PASS	passive
PAT	patient
PERLOC	perlocative
PERS	personal
PFV	perfective
PL	plural
PL.D	plural for dependent clauses
PNT	punctualizer
PO	primary object
POS	positional
POSSD	possessed
POSS	possessive

POT	potential
PRF	perfect
PRG	progressive
PRL	perlative
PRO	pronominal
PROX	proximal
PRS	present
PRTCL	particle
PRX	proximal aspect
PSSD	possessed
PST	past
PTCP	participle
PURP	purposive
PV	preverb
Q	quantifier
R	recipient
REC	recent
RECP	reciprocal
RED	reduplication
REF	point of reference
REFL	reflexive
REL	relativizer
REL.PRO	relative pronoun
REP	reportative
REPTV	repetitive
RN	relational noun
RR	reflexive-reciprocal
RSN	reason
RSP	respectful
S	subject (as inflection)
SG	singular
SIM	simulative
SO	secondary object
S$_{o}$	subject of an inactive predicate
SAP	speech act participants
SS	secondary stem
ST	stative
SUB	subordinator
SUBJ	subject (as a syntactic function)
TEMP	temporal

TERM	terminative
TOP	topic
TS	tertiary stem
TR	transitive
TRNZ	transitivizer
TV	transitive verb
UNCRT	uncertainty subordinator
VBZR	verbalizer
VEN	venitive
VOC	vocative
VRS	versive
WH	constituent question

Notes on Contributors

Eric W. Campbell

is Assistant Professor at the Linguistics Department of the University of California at Santa Barbara. He received his PhD from the University of Texas at Austin in 2014. He is a field linguist who is interested in all levels of linguistic structure and who approaches language in its social and cultural context. His area of expertise is the Oto-Manguean languages of Mexico and California, especially those of the Zapotecan and Mixtecan branches.

Claudine Chamoreau

is Senior Researcher at the French National Center for Scientific Research (CNRS). She received her PhD from the *Université René Descartes* in 1998. Her research is in the domains of morphology, syntax and information structure in Purepecha (a language isolate from Mexico) and Pesh, a Chibchan language from Honduras, on which she carries extensive language documentation. Her broad interest is in the linguistic typology of Mesoamerican languages and on the documentation and description of Chibchan languages.

Lucero Flores Nájera

is Researcher at the Institute of Anthropology and Professor at the Faculty of Anthropology of the *Universidad Veracruzana*. She received her PhD from the *Centro de Investigaciones y Estudios Superiores en Antropología Social* (CIESAS) in San Cristóbal de las Casas in 2019. In 2020, she won the award for the best doctoral thesis by the *Instituto Nacional de Antropología e Historia* (INAH). She is interested in topics related to syntactic categories, the tense-aspect-mood system, word order, configurationality, interrogative clauses, and relative clauses in Nahuatl, a language of which she is a native speaker.

Silviano Jiménez Jiménez

teaches at the *Escuela Normal Bilingüe e Intercultural de Oaxaca* (ENBIO). He received his PhD from *Centro de Investigaciones y Estudios Superiores en Antropología Social* (CIESAS) in San Cristóbal de las Casas in 2016. He is a native speaker of the Zoque language spoken in the community of San Miguel Chimalapa.

Oscar López Nicolás

is Research Professor at *Centro de Investigaciones y Estudios Superiores en Antropología Social* (CIESAS) in Oaxaca. He received his PhD from CIESAS in San

Cristóbal de las Casas in 2016. His work focuses on the documentation and description of Zapotec languages, especially their morphosyntax and syntax. His interests also include the study of indexicality in Zapotec.

Eladio Mateo Toledo

is Research Professor at the *Centro de Investigaciones y Estudios Superiores en Antropología Social* (CIESAS) in San Cristóbal de las Casas. He received his PhD from the University of Texas at Austin in 2008. His work focuses on descriptive and documentary linguistics, community-based projects and native speaker training. His area of expertise are the Mayan languages, particulary Akatek and Awakatek but also Q'anjob'al, a language of which he is a native speaker.

Enrique L. Palancar

is Senior Researcher at the French National Center for Scientific Research (CNRS). He received his PhD from the Complutense University of Madrid in 2000. His area of expertise is the Oto-Manguean languages of Mexico, especially those of the Oto-Pamean branch. He has a broad interest in the linguistic typology of Mesoamerican languages from the perspective of inflectional morphology, morphosyntax and syntax.

Roberto Zavala Maldonado

is Research Professor at the *Centro de Investigaciones y Estudios Superiores en Antropología Social* (CIESAS) in San Cristóbal de las Casas. He received his PhD from the University of Oregon in 2000. His primary research area is the documentation of Mayan and Mixe-Zoquean languages, with particular emphasis on historical and comparative syntax, as well as language contact in Mesoamerica.

CHAPTER 1

A Typological Overview of Relative Clause Structure in Mesoamerican Languages

Enrique L. Palancar, Roberto Zavala Maldonado and Claudine Chamoreau

1.1 Introduction

The goal of this chapter is to introduce a number of relevant aspects concerning relative clause (RC) structures in Mesoamerican languages. The aspects that we discuss here are aimed at providing a better understanding of what constitutes the Mesoamerican linguistic area as introduced in Campbell et al. (1986). We present an overview of the wide range of possible RC structures that we have observed through the study of RC structures in a broad sample of Mesoamerican language families. We concentrate on aspects of clausal syntax as well as phenomena at the morphology-syntax interface. We do not give examples from all families here, only from a selected set of languages that we believe serve as illustrations of the relevant constructions. This perspective establishes what is structurally expected in the RCs of a Mesoamerican language, and thus provides a reference point to understand the typological relevance of other possible phenomena that stray from the structures that we discuss in this chapter.

The typical RC in a language of Mesoamerica is a morphosyntactic finite RC—this fact holds to the extent that no language in the area has non-finite RCs. We discuss this trait in §1.2. The typical RC has a gap. Asyndetic RCs (i.e., those not introduced by a conjunction) are also very common in the area, although they are by no means exclusive to the area or present in all languages. Similarly, having a locative pronoun as the only manifestation of the relative pronoun strategy is typically Mesoamerican; we discuss this in §1.4.2. Aside from the commonality of certain patterns, there are at least three structural traits that appear to be uniquely Mesoamerican: (i) RCs introduced by determiners which agree in deixis with the determiner of the DP in which the domain nominal of the RC is embedded (we discuss this trait in depth in §1.4.1.1); (ii) so-called 'pied-piping with inversion' introduced by Smith-Stark (1988) for interrogatives that has percolated into RC structure (discussed in §1.5.1); and (iii) headless RCs with a gap (covered in §1.6.3).

This chapter is divided in five sections. In §2, we discuss the finiteness of RCs in Mesoamerican languages. In §1.3 we tackle a number of phenomena relevant to the word-order position of the RC in headed RC constructions. In §1.4, we deal with the different ways in which the domain nominal in headed RC constructions is realized in the RC. In §1.5, we revisit the correlations that exist between relativization strategy and the relativization hierarchy. Sections 1.2–1.5 deal with RCs headed by a full nominal. In §1.6, we introduce some relevant constructions that involve other types of heads, from null-nominal to fully headless RCs. The chapter concludes in §1.7.

1.2   Finiteness and Nominalization

In all Mesoamerican languages, RCs are finite both morphologically and syntactically. A typical example of this is the headed RC in Texistepec Popoluca (Gulf Zoquean; Mixe-Zoquean) in (1). Here the RC (in brackets) is postnominal, it is headed by the noun *pelota* 'ball' (in italics) and it is introduced by a relativizer that occurs as a second position clitic. The predicate in the RC is finite because the verb is inflected for person of core arguments and for TAM.[1]

(1)   TEXISTEPEC POPOLUCA (MIXE-ZOQUEAN)
        ... byatiŋ kyet pelota ma'pɨ' wiipke'm
        *y-batiŋ   y-ket   pelota [**ma'=pɨ'**   y-wêêp-kê'm**]
        A3-hear S3D-fall ball   [PFV=REL A3-throw-go.up]
        '... He heard the falling of the ball that he had thrown.' {Txt} (Díez Alejandre 2019: 29; *apud* Wichmann 1996: 159)

Broadly speaking, the correlation between finiteness and RC structure can be taken to be a Mesoamerican trait. Beyond the borders of Mesoamerica to the North, languages treat RCs as nominalizations in many respects. A typical case is Yaqui, a Uto-Aztecan language of northern Mexico, as illustrated in (2). Here the nominalization of a RC can be observed at both an internal and external level, and at both a morphological and syntactic level. Internally, as is common in languages with RC nominalizations, there is distinct nominalizing morphology associated with the predicate of the RC to indicate subject vs. object relativization: in (2a) *–m* marks subject relativization, whereas *-'u* in (2b) marks

---

1   Whenever the sources make possible, we use examples that come from texts. Textual examples are indicated by {Txt}. When two or more examples from the same source are given under the same example number, we only indicate the source in the last example.

object relativization. Furthermore, as shown in (2b), the notional subject in the RC is encoded with a genitive phrase or a possessive instead of a nominative. Externally, the RC agrees in case (2a) or in number (2b) with the head noun.

YAQUI (UTO-AZTECAN)
(2) a. *Joan uka*   chu'u-***ta*** [*Maria-ta ke'e-ka-**m***]-***ta***   *me'a-k*
         John DET.ACC dog-ACC Mary-ACC bite-PFV-S.REL-ACC kill-PFV
         'John killed the dog that bit Mary.' (Álvarez González 2012: 72)

     b. *u-me*   bisikleeta-***m*** [*in*   *jinu-ka-'u*]-***m***   *sikili*
         DET-PL bicycle-PL   GEN1SG buy-PFV-O.REL-PL red
         'The bicycles that I bought are red.' (Álvarez González 2012: 73)

Further evidence that finite RCs constitute a Mesoamerican trait comes from the fact that, while nominalization is common among the Northern Uto-Aztecan languages, the Uto-Aztecan languages found in the Mesoamerican area exhibit finite RCs. For instance, this can be seen in Cora, as shown in (3). Here a RC is not introduced by any linker, but a special set of pronouns that agree in person/number with the subject of the subordinate clause (i.e., the equivalent pronoun for 3SG subject in a matrix clause would have been *pu*; but see §1.4.1.2 for more on the nature on these pronouns).

CORA (UTO-AZTECAN)
(3) *ɨ̀*   t,á:taʔat [***tɨ***   *ru-íh*   ***wa-té-kúʔustiʔa-sɨ***]
     DET man   S3SG[SUB] POSS3SG-wife CP-PFV-hit-PFV
     'The man who hit his wife.' (Vázquez Soto 2002: 299)

Towards the south of the Mesoamerican area, languages start having traits of nominalization again in RC structure. Pesh, a Chibchan language, has RCs with finite predicates and syntax, but the clauses themselves are treated externally as syntactic nominals, because they can receive nominal case. This is shown in (4) where the comitative/instrumental case enclitic =*yo* occurs at the right edge of the RC to mark the role of a relativized instrument. Note that in (4) the domain nominal is the object of the matrix predicate.

PESH (CHIBCHAN)
(4) *kúkàrskà yèʔhá tàkìɨ́yó úhàrí*
     kukarska [*yeʔ-ha   ta-ka-Ø-i*]=***yo***   *Ø-uh-a-ri*
     hoe   small-NMLZ O1-hit-S3SG-PST=INSTR O3SG-hide-S1SG-PST
     'I hid the hoe with which the small boy hit me.' (Chamoreau this volume)

Further south from the Mesoamerican area, in Central America, the typical syntax of relativization starts looking much like the nominalizations in the languages of northern Mexico. This again confirms that the finiteness of RCs in the Mesoamerican geographical area is a typical areal characteristic. In the following sections, from § 1.3 to § 1.5, we study various aspects of the syntax of headed RCs. We turn to headless RCs in § 1.6.

1.3   Word Order

To illustrate word order as it relates to RC structure, we can start by first considering the RC construction in (5) from Kaqchikel (K'ichean; Mayan).

KAQCHIKEL (MAYAN)
(5) *kan*   *n-Ø-a-k'oxa-j*   *ri'*   *ri*   wnäq   [*y-e-sewö*]
     INTERJ ICP-O3SG-A2SG-listen-TR DEM DEF person ICP-S3PL-breathe
     'You can hear very clearly those people who are breathing.' {Txt} (Guarcax
     González 2016: 101)

Example (5) is an instance of a headed RC construction and shows typical traits of the type of construction that we find in other languages in the Mesoamerican area. Let us first concentrate on the relative order of the RC with respect to the domain nominal. The domain nominal in (5) is *wnäq* 'people', which appears in the NP that functions as the object of the main clause. The RC *yesewö* 'who are breathing' follows the head noun, so here we have a postnominal RC.

Kaqchikel, as is typical of Mayan languages, is a verb-initial language. For this language, having postnominal RCs is consistent with the implicative word order correlation of a V-initial language (Dryer 2007).[2] All Mesoamerican languages, except Mixe-Zoquean, are V-initial and in most of them we also find postnominal RCs. Zoquean languages display structures that reveal traces of having historically had a V-final word order. Some of them, like Santa María Chimalapa Zoque (Oaxaca Zoquean; Mixe-Zoquean), still have a predominant V-final order. In all such languages, we also find examples of prenominal RCs. The examples in (6) from San Miguel Chimalapa Zoque show a prenominal and a postnominal RC in two matrix clauses with V-final order, respectively. Here

---

2   Also characterized as Universal 107 from The Universals Archive at the University of Konstanz (based on Greenberg 1963): "Nominal modifiers (such as relative, adjectival, and attributive expressions) follow nouns in VO languages and precede nouns in OV languages" (http://typo .uni-konstanz.de/archive).

the RCs are introduced by a relativizer (i.e., a subordinator that only introduces a RC), but interestingly there are two distinct relativizers, one for each type of RC (see Jiménez this volume for further differences in prosody).

SAN MIGUEL CHIMALAPA ZOQUE (MIXE-ZOQUEAN)

(6) a. *tsijpa'k pɨn 'ɨy nukokmangxukkɨ*
     [Ø=tsij-pa=pɨ'k]   pɨn 'ɨy=nuk-'ok.mang-xuk-wɨ
     s3.I=stone-ICP.I=REL man a3.I=grab-start-3PL-CP.I
     'They started attacking the man that throws stones.' {Txt} (Jiménez this volume)

     b. *bi mɨ'a 'in niwaktammɨ' 'in pɨnik tɨkjonang*
     bi   mɨ'a [PAUSE] ['in=nɨwak-tam-wɨ=pɨ']   'in=pɨk-nɨk-wɨ
     DET deer   a1.I=steal-PL.SAP-CP.I=REL a1.I=grab-go-CP.I
     tɨk=jo=nang
     house=LOC=PERLOC
     'The deer we stole (from the tiger) we brought it home.' {Txt} (Jiménez this volume)

Gulf Zoquean languages are V-initial, but they have retained prenominal RCs only in specific circumstances, as illustrated in (7) from Texistepec Popoluca. Here the RCs are also introduced by the enclitic *=pɨ'/=pu'*, a cognate of San Miguel Chimalapa's *=pɨ'* in (6b). In these languages, prenominal RCs are only used with intransitive predicates, where they are mainly used with stative predicates for the expression of property concepts, like in (7a). We also find prenominal RCs with the stative verb *-'ech* 'be located', like in (7b), and to construct agent nouns, like in (7c). Such prenominal RCs in Texistepec Popoluca can be contrasted with the postnominal RC in (1) above, which is the default type.

TEXISTEPEC POPOLUCA (MIXE-ZOQUEAN)

(7) a. *'entonse ma' Ø-nim* [*Ø-tɨw-kɨ'da'a=pɨ'*] kaaŋ-da'a
     then   PFV s3.I-say s3.I-big-ADJ=REL tiger-AUG
     'Then the largest tiger said [...].' {Txt} (Díez Alejandre 2019: 29; *apud* Wichmann 1993)

     b. [*Ø-'ech=pu'* *njem*] suutu'
     s3.I-be=REL there young.man
     'The young man who is over there.' {Txt} (Díez Alejandre 2019: 31; *apud* Wichmann 1993)

    c. [*'u=pu'   y-'a'ŋyɨ-jo'y*]   yoomɨ'
       IPFV=REL S3.D-teach-AND woman
       'teacher' (Lit. 'the woman who teaches') {Txt} (Díez Alejandre 2019: 31;
       apud Wichmann 1993)

Prenominal RCs bring us to the phenomenon of the borrowing of RC syntax. The relativizers of the Mayan languages of the Cholan branch have been borrowed from some ancient Zoquean language. Chol has the relativizer *=bɨ*, which is a cognate of Texistepecan *=pɨ'* or San Miguel Chimalapa's *=pɨ'*. An example is given in (8) from Tila Chol, which additionally shows that in Chol, like in Kaqchikel in (5) above, the canonical RC is postnominal.

    CHOL (MAYAN)
(8) *tyi k-mɨñ-i-Ø*   ixim [*chonkol=bɨ i-choñ-Ø   li   x-ixik*]
    PFV A1-buy-TV-PO3 corn PRG=REL   A3-sell-PO3 DET CLF-woman
    'I bought the corn that the woman is selling.' (Vázquez Álvarez 2011: 174)

The borrowing of a relativizer reveals intense language contact between some form of proto-Cholan and some branch of proto-Zoquean. But the impact of language contact on RC structure goes beyond the word and involves RC syntax too, because Chontal and Chol (both belonging to the Cholan branch) are the only two Mayan languages that can also have prenominal RCs. In Tabasco Chontal, like in the Gulf branch of Zoquean, the use of such prenominal clauses is mainly restricted to the expression of property concepts by means of intransitive stative predicates. Prenominal RCs are also highly integrated into the phrasal syntax of the domain nominal. This can be seen in the Chol example in (9), where the determiner of the DP occurs to the left of the RC that precedes the domain nominal.[3]

    CHOL (MAYAN)
(9) *che' bajche ixɨ* [*p'el-el-Ø=ix=bɨ*]   tye'=*i*
    so   like   DEM saw-TS-S3=already=REL wood=CL
    'They are like those pieces of wood that are already sawn.' (Martínez Cruz 2007: 35)

---

3 Prenominal RCs are apparently also allowed with other intransitive predicates, but none of the sources (Martínez Cruz 2007; Vázquez Álvarez 2011; Vázquez Álvarez & Coon 2021) give actual examples from texts, so their degree of naturalness is uncertain. As for transitive clauses, authors do not agree; for Martínez Cruz (2007) they are possible, but for Vázquez Álvarez & Coon (2021) they are not.

Apart from the relativizer and prenominal RCs, Chol shows yet another trait in common with Gulf and Chiapas Zoquean languages: the fact that the relativizer is a second-position clitic. Cholan languages borrowed their RC syntax from Chiapas Zoquean. The structural commonalities involving RCs between different language families—as attested in Cholan, and Gulf and Chiapas Zoquean—provides evidence for two important facts which explain the commonalities we find among the RC constructions in different languages of Mesoamerica: (i) the syntax of RCs can indeed be borrowed; and (ii) RC syntax was indeed borrowed in historical times by the different linguistic communities sharing Mesoamerican culture in the Mesoamerica geographic area.

Further evidence that (i) and (ii) have happened in more recent times is borne out by the fact that some languages of the area have borrowed relative pronouns from Spanish, like in San Miguel Chimalapa Zoque, whose locative relative pronoun *donde* is from Spanish *donde* 'where', as shown in (10a), which is sometimes used in combination with native *ju*, as shown in (10b).

San Miguel Chimalapa Zoque (Mixe-Zoquean)
(10) a. *'axta gaja donde tijawɨ bi 'eskwela*
  'axta ka=ja [***donde*** Ø=tij-'a-wɨ   *bi 'eskwela*]
  up_to DIST=LOC WHERE S3.I=exist-INCH-CP.I DET school
  'Right up to there where the school is.' {Txt} (Jiménez 2014: 307, 308)

  b. *'ɨy nikwakxuk(kɨ) gaj(a) donju tejidam(mɨ)*
  'ɨy=nik-wak-xuk-Wɨ *ka=ja* [***don=ju***
  A3=body-break-3PL-CP.I DIST=LOC WHERE=WHERE
  Ø=teji-tam-Wɨ]
  S1.I=exist-PL.SAP-CP.I
  'They asaulted him over there where we were.' {Txt} (Jiménez 2014: 307, 308)

Similarly, Sierra Popoluca, a Gulf Zoquean language, has borrowed the subordinator *ʔiga* in (11a) from a Gulf variety of Nahuatl, but has extended its use to cover RCs, like in (11b). In Gulf varieties of Nahuatl, *iga* introduces complement clauses, as shown in (12) from Pajapan Nahuat. However, to introduce a RC the language uses another subordinator (see the discussion around examples (71–72) below in Section 1.5.2, and Section 1.4.1.1 for the categorical distinction we make between subordinator, complementizer and relativizer).

SIERRA POPOLUCA (MIXE-ZOQUEAN)

(11) a. *ʔiʔíxtyim ʔigaʔɨch dya ʔanhjoʔykáʔ*
    ʔi-ʔíx-W-tyi-ʔam   ʔiga=ʔɨch dya   ʔan-joʔy_kaʔ-W
    A3-see-CP-just-already SUB=1$_{PRO}$ NEG A1PL.EXCL-be.angry-CP
    'He saw that I wasn't angry.' {Txt} (Boudreault 2009: 596)

b. *miny jeʔm tzuʔsaawa ʔigaʔipaʔkpa mok*
    Ø=min-wɨ   jeʔm tzuʔu-saawa [ʔiga=ʔi=paʔk-pa mok]
    S3=come-CP DEF night-wind   SUB=A3=hit-ICP maize
    'The night wind that damages the maize crops came.' {Txt} (López 2021: 485)

PAJAPAN NAHUAT (UTO-AZTECAN)

(12) a. *Ø-neh-ihli:-keh   iga   ti-k-bi-skiya   mo-tomin*
    S3-PO1-tell.PFV-PL COMP S2-PO3-take-COND POSS2-money
    'They told me that you want your money.' (Peralta Ramírez 2017)

b. *nemi Ø-cho:ga ho:n   tago-tzin [yeh ti-k-ma:-chaloh]*
    PRG S3-cry   DEM.SG girl-DIM SUB S2-PO3-hand-hit.PFV
    'The girl you hit on her hand is crying.' (Peralta Ramírez 2017)

We can establish that the canonical RC in a Mesoamerican language is post-nominal. We find this situation by default, unless the language shows traces of V-final word order, like the conservative Mixe-Zoquean languages. Postnominal RCs are also the expected trait in V-initial languages. But note that postnominal RC syntax is also found to the south beyond Mesoamerica. For example, Pesh, a Chibchan language from Honduras outside the cultural area of Mesoamerica, is a V-final language with postnominal RCs, as shown in (13). But this trait cannot be attributed to a Mesoamerican influence, since postnominal and prenominal orders are about equally common among V-final languages (Dryer 2007: 97).

PESH (CHIBCHAN)

(13) *árwɜ̃ kápàʃʃkáwáyó kàkòrstá*
    arwã [kapaʃ-iʃ-k-a-wa]=yo
    man   speak-DES-K-S1SG-PRS=COM/INSTR
    Ø-ka-kors-t-a-wa
    O3SG-APPL:R-write-DUR-S1SG-PFV
    'I write to the man with whom I want to speak.' {Txt} (Chamoreau this volume)

In general, the position of the RC with respect to the head can be used as a good test for the degree of syntactic configurationality of the language in question. For instance, in Tlaxcala Nahuatl (Nahuan; Uto-Aztecan), a language argued by Flores Nájera (this volume) to have a great deal of non-configurational syntax, RCs can be postnominal, like in (14a), prenominal like (14b), or even extraposed with respect to the matrix clause and the constituent encoding the domain nominal, like in (14c).

TLAXCALA NAHUATL (UTO-AZTECAN)

(14) a. *yeka Ø-wits   se* interprete [*den*
now s3-come.IPFV INDF interpreter SUB
Ø-ki-mach-tia   nin]
s3-PO3SG-know-CAUS[IPFV] this
'Now an interpreter comes that teaches this.' {Txt} (Flores Nájera this volume)

b. [*den Ø-nen-chikawa-k*]   *in* kiawi-tl *Ø-wits*
SUB s3-much-fortify-ST[IPFV] DEF rain-ABS s3-come.IPFV
'Rain comes that is fierce.' {Txt} (Flores Nájera this volume)

c. *kox   in* onwito   *sirbe*   [*den*
perhaps DEF mushroom be.useful[S3] SUB
o-ti-k-walika-keh]?
PST-S1PL-PO3SG-bring.PFV-PL
'Does the little mushroom we brought with us perhaps work?' {Txt} (Flores Nájera this volume)

In contrast, languages with V-final traits and with predominantly configurational syntax tend to have RCs that are extraposed. This is the case with Mixean languages like Tamazulápam Mixe (Mixean; Mixe-Zoquean), where all headed RCs, like any other subordinate clause, occur extraposed at the right edge of the matrix clause (see Zavala Maldonado this volume). This is illustrated in (15a) and contrasted with the ungrammaticality of (15b); in (15b), the RC is prenominal, but postnominal RCs are also ungrammatical.

TAMAZULÁPAM MIXE (MIXE-ZOQUEAN)

(15) a. *ka't ëjts jä'äy ntseky mte'p jajp tsënnaatyëp*
ka't ëjts   jä'äy *n-tsok-y*   [*mëte'p jaaj-p*
NEG 1SG_PRO person A1.D-want-ICP.D REL   there-NVIS

Ø-tsën-naay-të-p]
S1.I-sit-ASSUMPTIVE-PL-ICP.I
'I don't want those people that live over there.' (Santiago Martínez 2015:
83)
(Lit. 'I those people don't want, that live over there.')

b. **ka't ëjts*   [*mëte'p jaaj-p   Ø-tsën-naay-të-p*]
   NEG 1SG_PRO REL   there-NVIS S1.I-sit-ASSUMPTIVE-PL-ICP.I
   jä'äy   *n-tsok-y*
   person A1.D-want-ICP.D
   Intended reading: 'I don't want those people that live over there.' (Santiago Martínez 2015: 83)

A similar situation is found in Cora (Corachol; Uto-Aztecan) as illustrated in (16a). A postnominal RC is only found in Cora when the head appears in a syntactic phrase that has itself been extraposed to the right, as an elaboration of the referents already introduced in the matrix clause, like in (16b). However, nothing in the syntax of instances like (16b) assures us that the RC is really integrated in the DP encoding the domain nominal.

CORA (UTO-AZTECAN)
(16) a. kú:kuʔu *pu   wa-míʔɨ*   [*tɨ   mʷa-čéih*]
        viper   s3SG CP-die.SG s3SG_[SUB] O2SG-bite.PST
        'The viper that bit you died.' (Vázquez Soto 2002: 317)
        (Lit. 'The viper died, that bit you.')

    b. *wa-míʔɨ*   *ɨ*   kú:kuʔu [*tɨ   mʷa-čéih*]
       [s3SG]CP-die.SG DET viper   s3SG_[SUB] O2SG-bite.PST
       'It died, the viper that bit you.' (Vázquez Soto 2002: 317)

1.4   The Realization of the Domain Nominal in the Relative Clause

1.4.1   *The Gap Strategy*
The most common relativization strategy in the languages of Mesoamerica is the gap strategy, where there is no realization of the domain nominal within the RC. The examples in (17–19) illustrate this in different languages from different families: Mixe-Zoquean, Mayan and Oto-Pamean. The gap for the domain nominal is indicated by an underscore '__', which is located in the position in the RC where the domain nominal is most likely to have occurred, had the RC been a matrix clause.

OCOTEPEC ZOQUE (MIXE-ZOQUEAN)

(17) *te' yɨ'kida'mbɨ pɨt masuŋdena'ajk musoyajpabɨ*

te'   [__ *Ø-yɨ'=ki=ta'm=pɨ'*]   pɨn   *mas='uŋ=te=na'ak*
DET   S3-PROX=EXT.LOC=PL=REL man   more=REP=COP=CONTR

Ø-mus-'oy-yaj-pa=pɨ'
S3-know-AP-PL3-CP=REL

'The men who were from here they say they were the wisest.' {Txt} (de la Cruz Morales 2016: 113)

TSELTAL (MAYAN)

(18) *mach'a into te* ermano [*te* *y-ak'-oj-b-otik*   *tel* __
who   DEM DET brother SUB[4] A3-send-PFV-APPL:R-PO1.INCL DIR

te *jtatik Gabriel*]*?*
DET father G.

'Who is this brother that Father Gabriel sent to us?' {Txt} (Polian & Aissen 2021: 411)

TILAPA OTOMI (OTO-PAMEAN)

(19) *tó* *öt'u̱='mbe*   *ni*   nkü [*ra* *kha=ni*   __]
1.PFV paint.AS=PL.EXCL DEM.SG house [3]IPFV exist=there

'We painted the house that is over there.' {Txt} (Palancar this volume)

In the three RCs in (17–19) there is no trace of the domain nominal within the RC. They further instantiate two different types of RCs attending to the syntactic linking strategy they exhibit: (i) **syndetic** RCs, illustrated by (17 and 18), which are syntactically linked by means of an introductory element; and (ii) **asyndetic** RCs, like (19), which use no such introductory element. We will consider each type separately.

1.4.1.1 Syndetic Relative Clauses

When the RC is introduced by a subordinator that is *only* used in the context of a RC, we treat that subordinator as a **relativizer**. This is a common situation in the languages of the area. An example of such a language is Ocotepec Zoque (Chiapas Zoque; Mixe-Zoquean). Evidence that the RC subordinator =*pɨ'* in (17) is only used in RCs comes from the fact that in the syntax of complementation, the same subordinator is not used, but instead others like *ke* in (20a) (borrowed from Spanish *que*) and *wa'a* in (20b) are used. A subordinator that introduces

---

4   This conjunction is glossed as COMP in Polian & Aissen (2021).

complement clauses, but not RCs, is treated here as a **complementizer.** The same situation is found in Purepecha (isolate) in the contrast between (21a) and (21b), and in Chichimec (Pamean; Oto-Pamean), where syndetic RCs are introduced by the relativizer *ndi* (22a) while clausal complements in this language, as in other Oto-Pamean languages, are mostly encoded by means of asyndesis (22b).[5]

OCOTEPEC ZOQUE (MIXE-ZOQUEAN)

(20) a. *kuando diojsis 'yijsu 'uŋ ke ji' 'yidi sa'syapɨ' 'ijtku'y*
   kuando dios='ɨs   y-'is-u='uŋ   [ke   ji'n   y-'it-i
   when   God=ERG3   A3-see-CP=REP   COMP   NEG.ICP   S3D-exist-DEP1
   Ø-sa'sa=pɨ'   'it-kuy']
   S3-be.fine=REL   live-NMLZ
   'When they say that God saw that there isn't any life which is good.'
   {Txt} (Ramírez Muñoz 2016: 2)

   b. *rre'yis syutpa'uŋna'ajk wa'a syeyijtsijku kijpku'yis*
   rrey='ɨs   y-sun-pa='uŋ=na'ak   [wa'a   y-seyi-tsɨk-u
   king=ERG3   A3-want-ICP=REP=CONTR   COMP   A3-go.on-do-DEP2
   kip=ku'y='ɨs]
   fight=NMLZ=ERG3
   'The king wanted the fight to go on.' {Txt} (Ramírez Muñoz 2016: 2)

PUREPECHA (ISOLATE)

(21) a. *isɨ ari-s-p-ka=ni   ima achati-ni [inki t'u*
   SO   say-PFV-PST-ASSERTV[1/2]=1SG   that   man-OBJ   REL   2SG
   wanta-ni ja-Ø-Ø-ka]
   speak-NF   be-PFV-PRS-SBJV
   'So I told that man that you're speaking to.' {Txt} (Chamoreau 2019: 155, 142)

   b. *arhi-x-ka   [iska=ri   yóntani*
   say-PST-ASSERTV[1/2]   COMP=S2SG   late
   jo-nkwa-pirin-ka]
   come-CENTRIP-COND-SBJV
   'I said that you should come back late.' (Chamoreau 2019: 155, 142)

---

5 In the orthography, *ŋ* and *m̵* represent nasal approximants, umlaut is for a nasal vowel, and H is for high tone (low tone is not represented).

CHICHIMEC (OTO-PAMEAN)

(22) a. *uⁿ̣ne* kuzëᴴ [***ndi** taᴴ-tehe   gaᴴ-süʔü-kʔ*] *ki-ngwæᴴ   oɳe*
    that pig   REL FUT.S3-get.out FUT.S3-bite-O2 FUT.S2-hit[O3] or
    kɨⁿ-čiʔir
    FUT.S3-stab[O3]
    'Beat or kill the pig that may get out to bite you.' {Txt} (Lastra 2018: 128,
    227)

   b. *ikagᴴ eᴴ-nuʔu   [pahaᴴ eᴴ-ɳehe]*
    1SG_PRO PRS.S1-see bad   PRS.S3-get.out
    'I see that it comes out bad.' {Txt} (Lastra 2018: 128, 227)

In contrast, the RC from Tseltal in (18) above illustrates a situation where a RC
is introduced by a subordinator that has a wider syntactic scope. Authors com-
monly treat such a subordinator with the alternative label of 'complementizer',
but we prefer to call it a **subordinator**, reserving the term **complementizer** for
a subordinator that does not introduce RCs. The Tseltal case can be seen in (23),
where the same *te* that introduces the RC in (18) above is also used to introduce
a complement clause. Using a general subordinator is also a common strategy
to introduce a RC in languages of the Mesoamerican area. It may be seen in
Sochiapam Chinantec (Chinantecan) or in Ixcatec (Popolocan) in the contrasts
in both (24) and (25), respectively.

TSELTAL (MAYAN)

(23) *ya a-na'   [**te** ya=nanix   a-toj=a]*
    ICP A2-know[PO3] SUB ICP=EMPH+ASSERTV A2-pay[PO3]=ADV
    'You know that you'll have to pay for it.' {Txt} (Polian 2013: 816)

SOCHIAPAM CHINANTEC (CHINANTECAN)

(24) a. *kaᴸ-híeᴸᴹ   hnáᴴᴸ [ʔɨᴸ ŋaʔᴸ   ieʔᴸ]*
    PST-see.TR.INAN.1SG 1SG_PRO SUB go.home.INTR.AN.PST.3SG elder
    'I saw that the old man went home.' (Foris 2000: 320)

   b. *míᴹŋiíᴸ [ʔɨᴸ kaᴸ-kuéʔᴸ   ieʔᴸ ʔⁱᴴmiiʔᴹᴸ]*
    pig   SUB PST-give.DTR.INAN.3SG elder bread
    'The pig that the old man gave some bread to.' (Foris 2000: 314)

IXCATEC (POPOLOCAN)

(25) a. *ʔinánà tsukwa-ná [**la** ʃwi-ri]*
    1SG_PRO want-1SG SUB come-2HON
    'I want you to come (here).' {Txt} (Adamou & Costaouec 2013: 202)

b. *ʃuwa-ku   ka* tʃahmi [*la tú-tse   ʃàà*]
come-ANT all people SUB PRG.PL-do work
'All people who are working have arrived.' {Txt} (Adamou & Costaouec 2013: 200)

In most languages of the area, the relation between relativizers and complementizers is an intricate one. Just like English *that*, most such connectors have developed historically from determiners. For example, Tseltal *te*, which we gloss as SUB in (18) and (23), can also function as a determiner in nominal syntax (e.g. *into te ermano* 'this brother' or *te jtatik Gabriel* 'Father Gabriel'). Multifunctional elements like *te* are not easy to treat in a unified way for descriptive purposes, and consequently, authors commonly disagree in their analysis and their corresponding treatment in the glosses. Even the same author may suggest different treatments in different works. For example, in the spirit of using only one gloss per element, Polian (2013) glosses *te* in (23) as a 'determiner' (DET) rather than as a subordinator. We suggest that the functions of being a determiner, a relativizer or a fully-fledged subordinator should be kept apart in the glossing. The relation between determiner and subordinator can be subsumed in the grammaticalization path in (26), where we consider that an element's function as a relativizer precedes its change to a subordinator.

(26) DET → [REL → COMP]SUB

In the syntax of relativization of many Mesoamerican languages, we still find the DET → REL portion of the path. When this happens, the determiner introducing the RC is (more often than not) a copy of the determiner which heads the DP in which the the domain nominal is embedded. This can be seen in languages from different phyla with no history of contact, as exemplified by the two RCs of Acazulco Otomi (Otomian; Oto-Pamean) in (27),[6] or in K'ichee' (K'ichean; Mayan) in (28). Note that there are two different glossing strategies in the two sources, while the function of the elements remains the same. Hernández Green prefers to gloss the relativizer as a determiner (DET), while Velleman choses to gloss it as a complementizer (COMP).

---

6 Acazulco Otomi is a language with pervasive encliticization. The inflectional markers of the predicates of the two RCs in (27) (*grá* for IMPV.S2 and *bi* for PFV[S3]) encliticize to the determiners introducing the RCs, *na* and *k'a*, respectively, which in turn encliticize to the last word of the DP immediately preceding the RC, which in the examples happens to be the domain nominal.

ACAZULCO OTOMI (OTO-PAMEAN)

(27) *pero=**na***   ngü[=***na**=g_´ra*   *nü=a*]
but=DET.PROX.SG house=DET.PROX.SG=S2_IPFV see=ENCL
ko=´r='yo̲t'e   ***k'a**=´m=chí*
FOC=POSS3SG=property DET.NVIS.SG=POSS1=DIM
t'u̲=ga[=***k'a**=bi*   *dü=a*]
son=1=DET.NVIS.SG=IPFV[S3] LEN/die=ENCL
'But this house you see here, it's the property of my late son.' (Hernández Green 2021: 120)
(Lit. '... my son who died.') {Txt}

K'ICHEE' (MAYAN)

(28) a. *"k'amal b'eh" u-b'i̲'*   *ri'*   ***ri***   achih [***ri***
leader   road POSS3-name DEM   DET man   COMP
k-e'-to'w-a   *ri'*   *ri*   *jya'xeel*   *o* *ri*
ICP-[S3PL]come-help.AF-SS DEM DET son_in_law or DET
alib'atz]
daughter_in_law
'The man who comes and helps the son-in-law or the daughter-in-law (to make a formal proposal of marriage) is called "guide".' {Txt} (Velleman 2014: 80)

b. *tee*   *k'u*   *ri',*   *como k'oo*   ***le***   *peine* [***le***
when then DEM since [S3]EXIST DET comb COMP
ka-q'ax-wi   *taq*   *le*   *b'atz'*] *entonces*
ICP-[S3]pass-ADJTFOC DISTR DET thread then
ka-tiiq-ik   *ka-tiiq-ik*   *pa le*   *xyeb'*
ICP-[S3]plant.PASS-SS ICP-[S3]plant.PASS-SS P   DET comb
'After that, because there is a comb that the thread passes (through), then (the thread) is set up, is set up in the comb.' {Txt} (Velleman 2014: 80)

The functional relation between determiner and subordinator stems from the link that exists between the syntax of nominalization and the syntax of subordination. Disagreement in the glossing often reflects different theoretical conceptions of the syntax behind the structures. For example, Hernández Green (2021) analyzes the headed RC construction in (27) as if it consisted of a pronoun that stands for the domain nominal; that pronoun would also serve as head of the RC. This analysis is proposed in an attempt to preserve structural coherence between the headed RCs in (27) and the light-headed RCs

in (29) that function as arguments of the matrix predicate. In this spirit, the same determiner-like elements in all such RCs are all glossed as demonstratives.

ACAZULCO OTOMI (OTO-PAMEAN)

(29) *ya*[=*ra*   *'mbu̱h=ku=a*]
      PROX.PL_{PRO}=IPFV[S3] be.located=LOC.PROX=ENCL
      geh=ya[=*x=na*   *pǫ́ngi=a*]
      COP=**PROX.PL**_{PRO}=PFV=IPFV[S3] go.out=ENCL
      'These ones that are here are the ones that have been going out.' {Txt}
      (Hernández Green 2021: 135)

The analysis of the RCs in (29) as light-headed is based on Citko (2004), and they correspond to a well-known type in the typological literature. It is much less clear, however, what sort of headed RC type the one in the analysis proposed for (27) would be. Likewise, in the analysis of (27) it remains unclear what type of linkage relationship the RCs would have to the domain nominal (i.e., it appears to be an adjoining RC clause, when in reality it is not).

In this connection, for the same type of construction, Velleman (2016) treats the determiner in the K'ichee' RC in (28) as a 'complementizer', hence the gloss.[7] We treat all such clausal linkers as relativizers. The descriptive fact that a relativizer is a copy of the determiner in the DP in which the domain nominal is embedded is accounted for in Polian & Aissen (2021) as a case of a special type of agreement in deixis (DEIX) that targets the relativizer introducing the RC. The agreement in deixis is controlled by the head of the DP in which the domain nominal is embedded. This is shown in Tsotsil in (30), where it is claimed that the RC is introduced by the proximal determiner *li*, if and only if the head noun occurs in a DP that is also headed by *li*. In contrast, subordinator *ti* (cognate with Tseltal *te* in (18) and also a determiner), which introduces the RC in (31), does not show agreement properties. Note that both linkers are glossed as 'complementizers', regardless of their functional scope. Instead, we would gloss *li* in (30) as a 'relativizer', and *ti* in (31) as a 'subordinator'.

---

7   The term 'complementizer' is used by Velleman (2016) in a generic way equivalent to subordinating linker without having in mind any specific context of subordination.

TSOTSIL (MAYAN)

(30) *bat k-ak'-tikotik*   *il-uk*   ***li***   j-vun-tikotik   [***li***
go   A1-give-1PL.EXCL   see-SBJV   DET   POSS1-paper-1PL.EXCL   COMP_{DEIX}

kok'-em   ta Tuxta un=e]
leave-PFV   P T.   PRTCL=CL

'We went to show our papers that had been issued in Tuxtla.' {Txt} (Polian
& Aissen 2021: 411)

TSOTSIL (MAYAN)

(31) *buch'u y-ak'-oj   taj* k'in [***ti***   *bats'i x-nik=xa*
WHO   A3-give-PFV   DEM fiesta COMP   very   NEUT-shake=now

ts-na   rey   un=e]*?*
POSS3-house   king PRTCL=CL

'Who's giving the fiesta that's really swinging at the king's house?' {Txt}
(Polian & Aissen 2021: 411)

Note that the element *li* in the RC in (30) is not analyzed as a relative pronoun, because deixis is not conceived of as being a feature of the head noun, but as a property of the DP in which the head noun is embedded. A relativizer that serves as a target of agreement in deixis is typologically uncommon, but as the construction is widespread in Mesoamerican languages, it should be seen as particular to this linguistic area. It is found from languages that lie geographically at the core of the area to languages that are spoken at its fringes, such as Cora, in (32), where Vázquez Soto (2002: 330) glosses the element *ɨ* introducing the RC as a determiner (just as Hernández-Green (2021) does for (27), and Polian (2013) does for (18)). Instead, we analyze it as a relativizer that agrees in deixis. This type of RC alternates with asyndetic RCs (see next section).

CORA (UTO-AZTECAN)

(32) *ne-wáʔa-u-séih*   *ɨ*   tiʔiɾí:-¢e [*ɨ*   *ti*   *Petra tekʷáraʔi-se*
1SG-PO3PL-CP-see   DET   child-PL REL_{DEIX} S3SG_[SUB] P.   hen-PL

wáʔa-u-tatíhči-teʔe]
PO3PL-CP-grasp-APPL:R

'I saw them, the children who Petra gave some hens to.' (Vázquez Soto 2002: 330)

In our view of things, concepts such as 'relativizer', 'complementizer' and 'subordinator' are not just terminological trifles, but powerful descriptive categories that are informative about the syntactic functional scope of subordinating linkers. Furthermore, the syntactic properties behind the relative con-

structions in (27), (28), (30) and (32) can only be explained in morphosyntactic terms if the category of a 'relativizer' is taken to be a distinct entity from a 'complementizer' or a 'subordinator'. The linker *ti* in Tseltal in example (31) stops showing agreement properties the moment it stops being a relativizer like *li* still is in (30). Only relativizers can be the target of agreement with the head of the DP in which the domain nominal is embedded, while a subordinator may show agreement in feature values associated with the clause, such as TAM, although more typically person/number of the subject (see Fuß 2005).

1.4.1.2   Asyndetic Relative Clauses

In the previous section, we have seen cases where the RC is introduced by a linking element. It is equally common to find RCs with a gap that have no linking word introducing them. We treat such cases as instances of asyndetic RCs. In the literature, analyses inspired by generative models of syntax often treat such RCs as bearing a zero complementizer, that is, a subordinator that happens to have no phonological expression, but which is, nonetheless, interpreted as being present in the syntax in order to make sense of the arboreal structure proposed in such models. An example of an asyndetic RC was already shown in Tilapa Otomi in (19). Asyndetic RCs are widespread in Mesoamerica, as they are found in genetically unrelated languages, such as: Mayan, as shown in Tseltal in (33) (comparable with (18) above) or in Q'anjob'al (Q'anjob'alan; Mayan) in (34); Tlaxcala Nahuatl (Nahuan; Uto-Aztecan) in (35); or Zenzontepec Chatino (Chatino; Zapotecan) in (36).

TSELTAL (MAYAN)

(33) *la=bal   aw-il*   te   mensaje [*la   j-tikun-b-at*
     CP.TR=INTER A2-see[PO3]   DET   message CP.TR A1-send-APPL:R-PO2
     bel]=*e?*
     DIR+NF=DET
     'Did you see the message I sent you?' {Txt} (Polian 2013: 784)

Q'ANJOB'AL (MAYAN)

(34) *maxk-in jay   b'ay jun-xa   cham* winaq [*max-Ø q'a-toq*
     CP-S1SG come at   INDF.SG-already CLF   man   CP-S3   rot-DIR
     y-aqan]
     POSS3-foot
     'I came to another man whose feet were rotten.' {Txt} (Mateo Toledo this volume)

Tlaxcala Nahuatl (Uto Aztecan)

(35) *Ø-katka*   *se*   tlaka-tsintli [*Ø-i-toka*   *"Juan Loco"*]
S3-exist.IPFV INDF man-HON   S3-POSS3SG-name.IPFV J   crazy
'There was a man named Crazy John.' {Txt} (Flores Nájera this volume)

Zenzontepec Chatino (Zapotecan)

(36) *nk-ā+tāká*   *tzaka* nyatę̄   [*Ɂne*   *jnyá*]
PFV-BE+exist one   person HAB.do[3] work
'There was a person that worked.' {Txt} (Campbell this volume)

When asyndetic RCs are found in a language, they often coexist with other types of RCs that use a gap strategy but exhibit a linker. Compare example (33) with (18) in Tseltal, or example (35) with (37) in Tlaxcala Nahuatl, and (36) with (38) in Zenzontepec Chatino, where both languages use a subordinator.

Tlaxcala Nahuatl (Uto Aztecan)

(37) *o-ti-k-ita-keh*   *se*   oko-sen   [***den***
PST-S1PL-PO3SG-see.PFV-PL INDF pine-knob SUB
Ø-nen-wei]
S3-much-be.big.IPFV
'We saw a pine cone that was very big.' {Txt} (Flores Nájera this volume)

Zenzontepec Chatino (Zapotecan)

(38) *nkw-ísū=ūɁ*   *j-nā*   kwetā.kyaɁā̄Ɂ [***nu*** *nk-yaą*]
PFV-pay=3PL DAT-DEF Mixtec   SUB PFV-come.back[3]
'They paid the Mixtec who came.' {Txt} (Campbell this volume)

In this connection, the asyndetic RC construction in Cora in (16) above, repeated here as (39), is particularly interesting, because the RC is not introduced by a dedicated lexical subordinator, so in this sense it is asyndetic, but it exhibits a set of subject pronominals that are only used in a subordinated clause. Compare the third person singular pronominal clitics *pu* and *tɨ* in (39). The first is only used in matrix clauses, whereas the second is used only in subordinated clauses (Vázquez Soto 2002: 296).[8]

---

8   The set of pronominals to which *tɨ* belongs indicate subordination only indirectly, that is, only by virtue of their distribution in subordinated clauses. In this sense, the subordinating clitics indicate subordination just as subjunctive mood often does too. The sets of pronominal enclitics (with subordinating clitics given second) are 1SG *nu* vs. *neh*; 2SG *pe* vs. *peh*; 3SG *pu* vs. *tɨ*; 1PL *tu* vs. *teh*; 2PL *su* vs. *seh*; and 3PL *mu* vs. *meh* (Vázquez Soto 2002:284). The phonological

CORA (UTO-AZTECAN)

(39) kú:kuʔu ***pu*** *wa-mí́ʔi̵* [***ti̵*** *mʷa-čéih*]
viper s3SG CP-die.SG s3SG[SUB] O2SG-bite.PST
'The viper that bit you died.' (Vázquez Soto 2002: 323)
(Lit. 'The viper died, that bit you.')

When both syndesis and asyndesis are available in a given language as two encoding options for a RC, the choice of one construction over the other appears to be free for most cases, but there are situations where the choice is restricted.[9] For example, for Zenzontepec Chatino, Campbell (this volume) argues that the distribution is conditioned by information structure, in such a way that when the head noun is specific and topical, the asyndetic encoding is preferred. At times one can see that there are collocation restrictions. In Tilapa Otomi (Otomian; Oto-Pamean), for the relativization of instruments RCs intro-

---

composition of the subordinating set suggests that the element /*eh*/ is a historical residue of an old subordinator that received agreement for subject. But the fact that there is suppletion for person in the third person singular and that the clitics do not need to appear at the left edge of the subordinated clause (a typical position for subordinators) (Vázquez Soto 2002: 299) strongly suggests that synchronically they constitute a lexicalized set of *bona fide* pronominals.

9 One of such languages is Santa María Piñoles Mixtec (Mixtecan). In this language, asyndetic RCs are used irrespectively of the animacy of the domain nominal: in (i.a), the head is human; in (i.b) it is inanimate. In contrast, syndetic RCs introduced by a subordinator are only restricted to inanimate heads. This is shown in the contrast in (ii). Example (iii) further shows that the subordinator is used to introduce complement clauses. The animacy restriction of syndetic RCs is lifted when the RC is used as a headless RC in a cleft, like in (iv).

i. a. *ni³-xi²ni²=i³* i³na² [*ni²-xi²ʼi³*]
        CP-see=S1SG dog CP-die
        'I saw the dog that died.' (Ramírez Pérez 2014: 63)
    b. *ni²-tna¹nu²* ma¹chi²ti³ [*ni²-xeⁿde² ndiʼi̵²³=n   yu²tnu²³*]
        CP-break machete CP-cut   with=S2SG tree
        'The machete with which you cut the tree broke.' (Ramírez Pérez 2014: 67)
ii. a. *ni³-xi²ni²=i³* ma¹chi²ti³ [***saa¹²*** *ni²-tna¹nu²*]
        CP-see=S1SG machete SUB CP-break
        'I saw the machete that broke.' (Ramírez Pérez 2014: 62)
    b. **ni³-xi²ni²=i³* i³na² [***saa¹²*** *ni²-xi²ʼi³*]
         CP-see=S1SG dog SUB CP-die
        Intended reading: idem (i.a) (Ramírez Pérez 2014: 63)
iii.   *xi²ni³=o²*   [***saa¹²*** *ndau¹²=o²ⁱ*]
        [ICP]see=S1PL.INCL SUB   be.poor=S1PL.INCL
        'We know that we are poor.' {Txt} (Ramírez Pérez 2014: 63)
iv.   *ña¹diʼi̵²³ kuu²³*   [***saa¹²*** *ni³-ka¹ba¹²*]
        woman [ICP]COP₂ SUB CP-fall
        'The woman is the one who fell.' (Ramírez Pérez 2014: 179)

duced by a relativizer are preferred over asyndetic RCs, while the latter are the only available means to relativize the subject of property concepts (see Palancar this volume). In other languages like Chichimec (Pamean; Oto-Pamean), a V-final language, postverbal RCs (40) are asyndetic by default. This happens when the RC is extraposed (40a), or when it is integrated within the phrase of a domain nominal that also occurs postverbally (40b). In contrast, RCs preceding the matrix verb, which are always integrated, are syndetic by default. This happens when the phrase of the domain nominal is a constituent in the matrix clause (41a), or when it is a topicalized independent constituent (41b). The right edge of the verbal phrase is indicated by //.

CHICHIMEC (OTO-PAMEAN)

(40) a. *purumhëᴴ ikagᴴ kiᴴkuᴴ ntʔa* riᴴguᴴ *eᴴ-pihi//*   [*maᴴtü*
    but   1SG_PRO here   one stick PRS.S1-bring dead
    e-ʔaᴴha-r]
    PRS.S3-speak-PL[O3]
    'But I'm carrying a stick that makes the dead speak.' {Txt} (Lastra 2018: 126)

   b. *eᴴntʔa ki   ru-nhuᴴ//*   *eᴴntʔa* uᴴriᴴ [*tahyrᴴ eᴴ-pihi*
    one   and SEQ.S3-see.S3PL one   person rifle   PRS.S3-bring
    eᴴ-ṃœhœ iᴴ-khar]
    PRS.S3-be IMM.PST.S3-have
    'And then they found one man who's carrying a rifle and is getting ready.' {Txt} (Lastra 2018: 190)

CHICHIMEC (OTO-PAMEAN)

(41) a. *ikagᴴ kiʔiᴴ* kaᴴndanʔᴴ [*ndi kaᴴ-tehe*]   *keʔenᴴ gaᴴ-ndyʔ-r*
    1SG_PRO these worker   REL PRS.S1-come also   FUT.S3-go-PL[S3]
    uᴴrhanʔ   gaᴴ-rhanʔ//   ʔi
    POSS3PL.work FUT.S3-work.S3PL PRTCL
    'As for me, these workers I'm bringing will also go and do their work!' {Txt} (Lastra 2018: 123)

   b. *baᴴnaʔiᴴ* čičahaʔ [*ndi u-ndaᴴha-b*],   *baᴴnaʔiᴴ čičahaʔ*
    all   bird   REL PST.S3-ask-DAT3 all   bird
    uᴴ-mhä//:   "ni paᴴme"; manʔiᴴ   su-nhuᴴ-me
    PST.S3-say.S3PL nor no   something NEG.S3-see.S3PL-NEG
    'All birds he asked, all birds said: "not at all"; they know nothing.' {Txt} (Lastra 2018: 192)

1.4.2 *The Relative Pronoun Strategy*

RCs may also be introduced by a relative pronoun, and although this strategy is far less common in Mesoamerican languages,[10] we still find it in all languages of the area when the domain nominal has the semantic role of a location in the RC. This is shown in Zenzontepec Chatino (Chatino; Zapotecan) in (42) and in Chol (Cholan; Mayan) in (43).

ZENZONTEPEC CHATINO (ZAPOTECAN)

(42) *kw-etzāʔ*   *jiʔį̄*   *nyatę̄* kitzę [***xī***   *tākā*]
      IMP-inform DAT person village LOC.REL.PRO exist.2SG
      'Inform the people in the village where you live.' {Txt} (Campbell this volume)

CHOL (MAYAN)

(43) *tyi   j=kiñ-i-Ø*   lum [***ba'***   *tyi   ch'ok-i'-y-ety*]
      PFV A1=know-TV-PO3 land WHERE PFV be.tender-INCH-LINKER-S2
      'I knew the town where you were born.' (Martínez Cruz 2007: 177)

Given the fact that the locative relative pronoun strategy is so widespread in the area, we take it to be a typical trait of the RC structure of a Mesoamerican language, but it is not unique to the area, because it is also found in Chibchan languages like Pesh (see Chamoreau this volume). Beyond the locative, languages of the area differ greatly as to the scope of this strategy and the size of the set of relative pronouns available in headed RCs. For example, in Tilapa Otomi (Otomian; Oto-Pamean), the relative pronoun strategy is only used for the relativization of a human subject (or a human possessor), as shown in the contrast in (44). Exactly the same situation is found in Zenzontepec Chatino (Chatino; Zapotecan). Example (45) shows the relativization of a possessor. In other languages, like Tseltal and Tsotsil (Mayan), the important thing is that the referent of the domain nominal is human, regardless of whether it plays the role of subject or object in the RC (Polian & Aissen 2021). But there are also languages like Texistepec Zoque (Gulf Zoquean; Mixe-Zoquean), as shown in Díez Alejandre (2019), where relative pronouns are found for any role in the hierarchy, except subject. This suggests that (disregarding relativization of locative and genitive) the relative pronoun strategy may develop in two opposite ways: starting at the

10   See Comrie (2003) and Comrie and Kuteva (2005) who argue that, not only is the relative pronoun strategy common just in the languages of Europe, but perhaps it is only characteristically developed in the languages of Europe.

top of the relativization hierarchy down (stopping at human subject or human object); or starting bottom up, but stopping at object so that the construction does not end up being a basic relativization strategy.

TILAPA OTOMI (OTO-PAMEAN)

(44) a. *ra   'mbʷu̱ yú́   ʰtsü yi   kha̱'ni [toₛᵤᵦⱼ bi*
       IPFV[S3] exist   DEM.PL.POSS3 wife DEF.PL man   WHO   PFV[S3]
       'ñëm-bi   yú́   sku̱ ba̱htsi]
       SS/bear.child.AS-DAT3 DEM.PL.POSS3 DIM child
       'The men have wives who gave them children.' (Lit. 'The men's wives exist who …') {Txt} (Palancar this volume)

   b. **ni   nana   [toₒ₆ⱼ tú́   ñü]*
      DEM.SG woman WHO PFV.S1 see
      Intended reading: 'The woman that I saw.' (Palancar this volume)

ZENZONTEPEC CHATINO (ZAPOTECAN)

(45) nyatē̱ [*nu **chu**_GEN   nk-yāá?   liti=kā?á]   nyā?ā*
     person SUB HUM.REL.PRO PFV-be.built home=also[3] see.2SG
     ta   nkwātí?=ū?   tula   ?ne=ū?
     already PFV.know=3PL WHAT POT.do=3PL
     'The people whose homes were also built, you see, they already knew what they were going to do.' {Txt} (Campbell this volume)

Relative pronouns are often recruited from the paradigm of WH-words, as is the case for the relative pronouns of Mayan languages like Chol in (43) (also in Q'anjob'al, Mateo Toledo this volume) and in Tilapa Otomi in (44). But in many other cases, they are not WH-words, like in Zenzontenpec Chatino in (42) or (45). In this connection, a likely alternative origin for relative pronouns is nominal classifiers. This is particularly evident in some Mixtecan languages, such as Nieves or Melchor Ocampo Mixtec, as shown in (46) and (47). In these examples, we can see that the domain nominal depicts an animal and carries a noun classifier for animals; the same element is used as a relative pronoun (for subject).

NIEVES MIXTEC (MIXTECAN)

(46) a. *kīrī   tyīna sāsī=rī   jí?va*
       CLF.ANIM dog   ICP.eat=AN chocolate
       'The dog eats chocolate.' (Caponigro et al. 2013: 64)

b. *Jwán kúni=ra*   tyīna [***kīrī***   *sāsī*   *jíʔva*]
J.   ICP.want=3SG.M dog   ANIM.REL.PRO ICP.eat chocolate
'Juan wants the dog that eats chocolate.' (Caponigro et al. 2013: 64)

MELCHOR OCAMPO MIXTEC (MIXTECAN)

(47) a. ***tī***   *ñuʔñu tùvi=ri*   *yùʔu*
CLF.ANIM bee   CP.sting=AN 1SG$_{PRO}$
'The bee stung me.' (Caponigro et al. 2013: appendix 4)

b. *sàte=i*   burro [***tī***   *yaxi*   *chòkòlatè*]
CP.buy=1SG donkey ANIM.REL.PRO ICP.eat chocolate
'I bought the donkey that eats chocolate.' (Caponigro et al. 2013: appendix 4)

Note that the situation in (46) and (47) is different from the one depicted above in examples like (30), which involved a relativizer that agrees in deixis. Here the choice of the relative pronoun relies on the class of the noun, independent of whether or not the domain nominal is itself marked with that nominal classifier (i.e., in (46b) and (47b), the domain nominal is unmarked when it is in focus). Once the classifier establishes itself as a relative pronoun, it is free to have an independent life as a lexical item and it may lose its function as a classifier. In this sense, the relative pronouns in some languages may still display certain uses as classifiers that remind us of their diachronic origins. Such is the case in Zenzontepec Chatino, as illustrated in (48), where the relative pronoun for humans *chu* shown in (45) above, still survives in nominal syntax as a classifier for humans when used with adjectives to produce nominalizations. Note that the RC in (48) is a headless RC in apposition to the phrase 'the poor'.[11]

ZENZONTEPEC CHATINO (ZAPOTECAN)

(48) *kwi-tyāá jī̧*   ***chu***   *tiʔi,* [*jī̧*   ***chu***   *nālá*   *jī̧*]
IMP-give DAT CLF.HUM poor DAT HUM.REL.PRO not.exist[S3] GEN
'Give (it) to the poor one, to the one who has nothing.' (Campbell this volume)

---

11   In Matlatzinca, the general singular classifier *n*, which at some point in its diachrony may have worked as a relative pronoun, has now been reanalyzed as a relativizer, because it is no longer sensitive to the number feature value of the domain nominal (see Palancar & Carranza 2021).

1.4.3   *Internally-Headed Relative Clauses*

The maximal expression of the domain nominal in a RC is by way of the nominal itself, resulting in internally-headed RCs. Zoquean languages that preserve the old OV word-order display this type of RC, as illustrated by Ocotepec Zoque (49) and San Miguel Chimalapa Zoque (50). In both (49) and (50), the domain nominal functions as the intransitive subject of the matrix clause, but it is flagged by ergative or comitative case, respectively, according to its role in the RC.

> OCOTEPEC ZOQUE (CHIAPAS ZOQUE)
>
> (49) *te' ki's̶ubi̶tsi tuwi'is ka'u*
> te'   [Ø-ki's-u=pi̶'='tsi   **tuwi'=*'is***]   Ø-ka'-u
> DET PO1-bite-CP=REL=1ABS_PRO dog=ERG[3] s3-die-CP
> 'The dog that bit me died.' (de la Cruz Morales 2016: 114)

> SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUE)
>
> (50) *mari pinji̶nang witti' mi'i̶yyi̶*
> [*mari* **pin=jinang** *Ø=wit-wi̶=pi̶'*]   *Ø=mi̶'iy-wi̶*
> M.   man=COM   s3.I=walk-CP.I=REL s3.I=get.married-CP.I
> 'The man with whom María was involved got married.' (Jiménez 2014: 318)

Whereas having internally-headed RCs is a structural possibility linked to the language being V-final, not all V-final languages have internally-headed RCs. Chichimec, a language spoken at the fringes of Mesoamerica, is particularly revealing in this respect. Chichimec is the only Oto-Pamean language that is V-final, however, it has no internally-headed RCs, but has preserved instead the typical configuration of a V-initial language with the relativizer to the left of the RC. This is illustrated in (51). Note that the clausal predicate occurs at the right-edge both in the RC and in the matrix clause.

> CHICHIMEC (OTO-PAMEAN)
>
> (51) úri   [**ndi múra   é-tó-r**]   *ubebé é-sé* ...
> person REL donkey PRS.S3-take.care-PL[S3] then   PRS.S3-say
> 'He then said to the person who takes care of the donkeys ...' {Txt} (Lastra 2018: 394)

A language may exhibit RCs that on the surface appear to be internally-headed, when in reality a better alternative analysis can be posited for them. This is particularly the case for Nahuan languages, as illustrated by Tlaxcala Nahuatl in (52).

Tlaxcala Nahuatl (Uto-Aztecan)

(52) *o-ni-k-notsa-to*   [*Ø-i-toka*   ***se***   **padre**
PST-S1SG-PO3SG-call-AND.PST S3-POSS3SG-name[IPFV] INDF father
 Guadalupe]
G.
'I went to call a father named Guadalupe.' (Flores Nájera this volume)

Flores Nájera (this volume; 2021) argues convincingly that the RC in (52) is not an instance of an internally headed RC. Instead, the occurrence of the phrase encoding the head inside the RC is explained as an effect of the lack of syntactic configurationality in Nahuatl (see Flores Nájera 2019 for an extensive discussion). Flores Nájera argues that RC structure is particularly the target of syntactic scrambling, giving rise not only to surface realizations like (52), but also to others like (53), where the DP in which the domain nominal is embedded may appear inside a RC that already exhibits a relative pronoun standing for the domain nominal.

Tlaxcala Nahuatl (Uto-Aztecan)

(53) *o-Ø-wetsi-to*   [***kani***   *yala*   ***in***   **kal-lii**
PST-S3-fall-AND.PST WHERE yesterday DEF house-ABS
o-ti-m-awil-ti-h-keh]
PST-S1PL-RR-toy-VBZR-PFV-PL
'The house where we played yesterday collapsed.' (Flores Nájera this volume)

Flores Nájera (this volume) argues that non-configurationality is the only analysis that can encompass examples like (52) and (53) in a theoretically sound manner. She further claims that such an analysis should be extended to other Nahuan languages, where similar phenomena have been reported in the literature, such as for Morelos Nahuatl as illustrated in (54). This example has two RCs, one embedded within the other. Our interest is in the first RC, where the domain nominal *kwawitl* 'tree' appears within the RC after the subordinator *tlin*, and is split from its quantifier *nochi* 'every'. The second RC is a prenominal RC encoding a property concept.

Morelos Nahuatl (Uto-Aztecan)

(54) *nochi* [*tlin* **kwaw-itl** *Ø-ki-wika*   [*tlin kwali*]   i-fruto]
every SUB tree-ABS S3-PO3SG-bear SUB be.good POSS3SG-fruit
'Every tree that bears fruit that is good.' {Txt} (Tuggy 1979: 127)

Similar phenomena to the one observed in Nahuatl have been reported in Totonac. In Upper Necaxa Totonac (Totonacan; Totonac-Tepehuan), Beck (2016) discusses instances of RCs that have the domain nominal inside the RC, as shown in (55a). The relative construction in (55a) contrasts with the more canonical one in (55b), which involves an externally-headed postnominal RC.

UPPER NECAXA TOTONAC (TOTONAC-TEPEHUAN)

(55) a. [*ti:*   *ta-li:-ta-tsęʔ-a*   **ʔawą̌čą́-n**
        WHO S3PL-INSTR-DECAUS-hide-IPFV boy-PL
        i̧š-tsi̧:-ka̧n]
        POSS3-mother-PL.PO
        'Those boys that hide behind their mothers(' skirts)' {Txt} (Beck 2016: 40)

     b. **ʔawą̌čą́-n** [*ti:*   *ta-li:-ta-tsęʔ-a*
        boy-PL   WHO S3PL-INSTR-DECAUS-hide-IPFV
        i̧š-tsi̧:-ka̧n]
        POSS3-mother-PL.PO
        'Those boys that hide behind their mothers(' skirts)' (Beck 2016: 40)

Note that the structure of an example like (55a) is the same as the Nahuatl example in (53). In the absence of an analysis based on non-configurational syntax, Beck (2016) is forced to propose that the element *ti:* introducing the RC in (55a), which we gloss as 'WHO', is not a relative pronoun, but a relativizer that happens to agree with the head noun in animacy. We believe that such a solution should be avoided to prevent the risk that the descriptive category of relative pronoun becomes theoretically vacuous. We propose, instead, that a hypothesis of (non-)configurational syntax should be first tested in analyzing the word-order syntax of Totonac at large, in order to see if it is possible to keep the syntax of RCs in Totonac coherent with the received typology on RCs.

Beyond the southern borders of the Mesoamerican area, V-final languages also display proper internally-headed RCs. This is seen for example in Pesh (Chibchan), where the construction is only restricted to the relativization of core arguments. For non-core arguments, a gap strategy is used. Compare (56a) with (4) above, repeated here as (56b).

PESH (CHIBCHAN)

(56) a. *tàsmà kàpàn kàpàn kórtà tayèʔ kàtʃȇmirà wíʃkarí*
        tas=ma [*kapan-kapan*   **korta**   *ta-yeʔ*
        1_PRO=TOP morning-morning woman POSS1-small

Ø-ka-tʃã-Ø-pi]=**ra**   *Ø-wiʃ-k-a-ri*
O3SG-APPL:R-see-S3SG-FUT=ABS O3SG-give.O3-K-S1SG-PST
'I entrusted him to the woman who will take care of my son every morning.' {Txt} (Chamoreau this volume)

b. *kúkàrskà yèʔhá tàkìíyó úhàrí*
   kukarska [*yeʔ-ha   ta-ka-Ø-i*]=**yo**   *Ø-uh-a-ri*
   hoe   small-NMLZ O1-hit-S3SG-PST=INSTR O3SG-hide-S1SG-PST
   'I hid the hoe with which the small boy hit me.' (Chamoreau this volume)

1.5   The Relativization Hierarchy

1.5.1   *Relativizing Core Arguments*

In most Mesoamerican languages, the basic relativization strategy revolves around the S/A pivot, treating the subject of intransitive and transitive verbs alike for relativization purposes. But in many Mayan languages, such as Yucatec, Tsotsil, and those of the Q'anjob'alan, Mamean and K'ichean branches (Dayley 1981, 1990; Stiebels 2006) there is a special treatment of the A relation in relativization. The grammatical construction used to relativize an A is known in the literature as 'agent focus'. The name is used because the construction is also used when the A relation is in focus or is the target of interrogatives. The fact that a similar construction is used to treat the A relation in RCs, focus and interrogation can be taken as indicative of the fact that all three constructions are treated by speakers as different instances of the syntactic extraction of an A. Examples of the agent focus construction in Q'anjob'al in the three syntactic contexts are given in (57). Note that no special voice changing mechanism is needed for the relativization of S or O, as shown in (58); the same is true for focus and interrogation (see Mateo Toledo (this volume) for more details, or Zavala Maldonado (2017a) for constructional idiosyncrasies in the family).

Q'ANJOB'AL (MAYAN)

(57) a. *komo ay-Ø*   ⟨s⟩-ch'en *heb' naq* [*ch-Ø-kol-**on**-i*]
        since EXIST-S3 POSS3-gun PL   CLF ICP-S3-help-AF-FS
        'Because they have guns that help them.' {Txt} (Mateo Toledo this volume)

   b. *heb' naq winaq ti   q-in   kol-**on** b'el*
      PL CLF man DEM POT-S1SG help-AF moment
      'These men are the ones who will help me for now.' {Txt} (Mateo Toledo
      this volume)

   c. ***maktxel** ch'-Ø-ih-**on**-kan   aj jun   nuq'ej ti?*
      WHO   ICP-S3-take-AF-DIR DIR INDF.SG voice DEM
      'Who is saving this voice?' {Txt} (Mateo Toledo this volume)

Q'ANJOB'AL (MAYAN)

(58) *ay-Ø   juntzan heb' naq* winaq [*ch'-Ø-ek'   kayti*]
    EXIST-S3 INDF.PL PL CLF man ICP-S3-pass here
    'There are some men who pass here.' {Txt} (Mateo Toledo this volume)

In the general situation, languages draw distinctions between the relativization of core arguments and the relativization of other roles. In Zoochina Zapotec (Zapotec; Zapotecan), for example, recipients, comitatives and instrumentals, which are commonly introduced in a clause as oblique arguments, are relativized by being promoted to O status through verbal applicatives. This is shown in the contrast between (59) and (60). The phenomenon is so consistent across the languages of the area that a study of relativization is not only useful but required to fully understand the syntax of applicatives.

Zoochina Zapotec (Zapotecan)

(59) a. *shghànàbò'nh lháó bénéká'*
     *sh-yêgh-nàb=ò'=nh   **lhàò** béné'=ká'*
     IRR-go-ask.for=NOM2SG=3INAN.O to   person=PL.DIST
     'You're going to ask those people for it.' (López Nicolás this volume)

   b. *yîdó lhénh nâdà'*
     *y-ídé=ò'   **lhénh** nhàdà'*
     IRR-come=NOM2SG with 1SG_{PRO}
     'You'll come with me.' {Txt} (López Nicolás this volume)

Zoochina Zapotec (Zapotecan)

(60) a. *... bénénh' nhónh' bshàbdò' gó'nè'*
     béné'=nhà' [*nhó+nhà' b-shàb=**d**=ò'   gó'n=nhà'*]
     person=DEF WHO   CP-offer=GEN.APPL=NOM2SG bull=DEF
     '... the person to whom you offered the bulls.' {Txt} (López Nicolás this
     volume)

b. ... *bwíxé nhóˀólhénhˀ zézálhénhàˀ*
b-bíxé nhóˀólhé=*nhàˀ* [*z-ey+zàˀ-lhénh=áˀ*]
CP-fall woman=DEF PFV-come.to.origin-COM.APPL=NOM1SG
'... The woman with whom I came fell down.' (López Nicolás this volume)

1.5.2 *Adpositional Stranding vs. Pied-Piping*

When languages do not make use of the applicative strategy to relativize non-core roles, they commonly use adpositional stranding, as illustrated in the contrast between (61a) and (61b) in Jamiltepec Mixtec.

JAMILTEPEC MIXTEC (MIXTECAN)
(61) a. *kwahan ra **chihín** yañi   ra*
CP.go   he with   brother.of.male he
'He's going with his brother.' (Johnson 1988: 25)

b. lialui   [*cha viichi   ra **chihín** __*]
woman SUB CP.come he with
'The woman that he's coming with.' (Johnson 1988: 70)

In a language that uses the gap strategy, it may be the case that adpositional stranding is not found. As a consequence of this, roles that are otherwise encoded obliquely in matrix clauses are not encoded at all in RCs, like in Zenzontepec Chatino, as seen in the contrast between (62a) and (62b).

ZENZONTEPEC CHATINO (ZAPOTECAN)
(62) a. *tāká=ya   wiˀ   lóˀō juti=ā̩ˀ*
exist=1PL.EXCL there with father=1SG
'We live there with my father.' {Txt} (Campbell this volume)

b. *lēˀ.wíˀ.niī nkw-eta=yu   jiˀī̩ tyáˀā*
and.then PFV-wait.for=3SG.M o companion[s3]
[*nte-taˀa̩=yu   __*]
PRG-go.around=3SG.M
'And then, he waited for his companions with whom he was going around.' {Txt} (Campbell this volume)

Tlaxcala Nahuatl, with its non-configurational syntax (Flores Nájera 2019; this volume), allows for three possibilities: adpositional stranding (63a); pied-piping (63b); and the special pied-piping construction in (63c) that was char-

acterized by Smith-Stark (1988) as 'pied-piping with inversion'. In (63c), the expected order of the configuration [ADPOSITION+REL.PRO] is inverted as [REL.PRO+ADPOSITION]. In this language, like in many others, relational nouns serve syntactically as heads of adpositional phrases.

TLAXCALA NAHUATL (UTO-AZTECAN)

(63) a. *o-ni-k-tlamotla-k*   *in*   kwawi-tl [*tlen*
PST-S1SG-PO3SG-throw-PFV DEF stick-ABS WHICH
o-ni-mits-tsotson   ***i-ka***   ___]
PST-S1SG-PO2SG-hit.PFV POSS3SG-INSTR
'I threw the stick with which I hit you.' (Flores Nájera this volume)

b. *y=o-Ø-wal-asi-ko*   *in*   koyo-tl
already=PST-S3-DIR-arrive-VEN.PST DEF coyote-ABS
[***i-nawa-k***   ***akin*** ti-mo-mik-ti-s-keh]
POSS3SG-side-LOC WHO S1PL-RR-die-CAUS-IRR-PL
'The coyote with whom we will fight got here.' (Flores Nájera this volume)

c. *y=o-Ø-wal-asi-ko*   *in*   koyo-tl   [***akin***
already=PST-S3-DIR-arrive-VEN.PST DEF coyote-ABS WHO
i-nawa-k   *ti-mo-mik-ti-s-keh*]
POSS3SG-side-LOC S1PL-RR-die-CAUS-IRR-PL
'The coyote with whom we will fight got here.' (Flores Nájera this volume)

Pied-piping is, in general, a rare phenomenon in headed RCs in languages of Mesoamerica, but it is found. As pied-piping is typically associated with relative pronouns, its rarity can be readily accounted for as being due to the rarity of the former as a relativization strategy. It is more common in headless RCs (see Section 6 below). But when found, languages do not have the three possibilities like Tlaxcala Nahuatl. San Pedro Mixtepec Zapotec, for example, has RCs with adpositional stranding or pied-piping with inversion, as illustrated in (64). In some languages, pied-piping with inversion is only found in the relativization of a possessor, like in Tilapa Otomi (65).

SAN PEDRO MIXTEPEC ZAPOTEC (ZAPOTECAN)

(64) a. *y-ǒ*   [***chò*** *b-lǔ*   *Dèlfín dí'dz* ***ló***]
ST-exist WHO CP-show D.   word RN.FACE
'There's someone whom Delfino warned.' (Antonio Ramos 2021: 246)

    b. *y-ǒ*　　[***chò ló***　　*b-lǔ*　　*Dèlfín dí'dz*]
      ST-exist WHO RN.FACE CP-show D.　　word
      'There's someone whom Delfino warned.' (Antonio Ramos 2021: 246)

    TILAPA OTOMI (OTO-PAMEAN)

(65) *ni*　　kha̱'ni [***to rǘ***　　　***phani*** *bi*　　*tyü*]
    DEM.SG man　WHO CLF.SG.POSS3 horse PFV[S3] SS/die
    'The man whose horse died.' (Palancar this volume)

In contrast, as for pied-piping, Zoochina Zapotec only exhibits the non-inverted version, as shown in (66), with the relativization of a possessor and of a locative.

    ZOOCHINA ZAPOTEC (ZAPOTECAN)

(66) a. *blhé'ydà' bénénh' xhí'ìnènh' nhónh bdápè' bí'nhà'*
      b-lhé'y+d=á'　　　béné'=*nhà'* [***xhí'ình=nhà'*** *nhó+**nhà'*** *b-dápè'*
      CP-see=NOM1SG person=DEF PSSD.son=DEF WHO　　　CP-hit
      bí'=nhà']
      CLF_PRO=DEF
      'I saw the man whose son beat that one.' (López Nicolás this volume)

    b. *byèy lháshghénh' kʷít gánh' dxâzá'*
      b-yèy　　*lháshghé=nhà'* [***kʷít***　　*gá+**nhà'*** *dx-àz=á'*]
      CP-burn hill=DEF　　　RN.SIDE WHERE ICP-sow=NOM1SG
      'The hill, on whose side I sow, was burned.' (López Nicolás this volume)

In contrast, as suggested by Smith-Stark (1988), pied-piping with inversion is characteristic of the syntax of interrogatives and it is found in almost all the languages of the area, independently of the syntax of relativization. It is found, for example, in Zoochina Zapotec (contrast (67) with (66b)), in Jamiltepec Mixtec (compare (68) with the adposition stranding construction in (61) above), and in Q'anjob'al (example (69) interrogates a possessor). In some languages, pied-piping with inversion is only found in such circumstances, as shown in (70) from Tilapa Otomi.

    ZOOCHINA ZAPOTEC (ZAPOTECAN)

(67) *gǎ kʷítènh' dxàzò'*
    gǎ　　***kʷít=nhà'***　　*dx-àz=ò'?*
    WHERE RN.SIDE=FOC ICP-sow=NOM2SG
    'At what side do you sow?' {Txt} (López Nicolás this volume)

JAMILTEPEC MIXTEC (MIXTECAN)

(68) **yóó chihín** *káhán   ñii?*
WHO   with   CP.speak she
'With whom is she speaking?' (Johnson 1988: 41)

Q'ANJOB'AL (MAYAN)

(69) **mach'a x-nich'an**   *bejk'aj?*
WHO   POSS3-son.of.man be.born
'Whose son was born?' (Mateo Toledo this volume)

TILAPA OTOMI (OTO-PAMEAN)

(70) **to   rú̲   *ngü   gú̲   ʰta̲?***
WHO   CLF.SG.POSS3 house PFV.S2   buy
'Whose house did you buy?' (Palancar this volume)
(Lit. 'Who his house did you buy?')

These facts suggest that pied-piping with inversion is intrinsically a feature of the syntax of interrogation in Mesoamerican languages, which, given its wide spread in this linguistically diverse area and its typological oddity, could be claimed to be a genuine areal structural of Mesoamerica (Smith-Stark 1988). The syntax of RCs of specific languages may then mimic this construction, as is the case, for example, of San Pedro Mixtepec Zapotec in (64b) or Tilapa Otomi in (65).

At times, RCs may exhibit surface phenomena that could at first sight be taken as instances of pied-piping with inversion, when in reality they are not. This is the case with RCs with adjunct relativization like in Pajapan Nahuat (Nahuatl; Uto-Aztecan), as shown in (71). A comitative in this language is encoded obliquely in an adpositional phrase headed by the relational noun *iwa:n*, which functions as a preposition (71a). The RC in (71b) shows that when the domain nominal functions as a comitative participant in the RC, the preposition *iwa:n* occurs after *yeh*, a sequence of words which could give the impression of being pied-piping with inversion. However, the linking element *yeh* here is a subordinator and not a relative pronoun, so it occurs in its natural position in the clause and is not a complement of a pied-piped adpositional phrase. Evidence that *yeh* is a subordinator and not a relative pronoun is given in (72a) and (72b), where it is shown that *yeh* is not sensitive to features of the domain nominal. Example (72c) further shows that it introduces complement clauses. Instances like (71b) are RCs with a gap that exhibit a stranded adposition. The peculiarity of the construction reveals that the adposition, instead of occurring *in situ*, has moved to a higher position in the clause, right after the subordina-

tor. This could be taken as a residue of the old non-configurationality of RC structure in Nahuatl languages.

PAJAPAN NAHUAT (UTO-AZTECAN)

(71) a. *ti-wa:lah*   [*i-wa:n*   *ho:n   ta:ga-t*]
S2-come.PFV POSS3-COM DEM man-ABS
'You came with that man.' (Peralta Ramírez 2017)

   b. *a-ni-g-i:xmati*   ta:ga-t   [*yeh i-wa:n*   *ti-wa:lah*]
NEG-S1-PO3-know man-ABS SUB POSS3-COM S2-come.PFV
'I don't know the man with whom you came.' (Peralta Ramírez 2017)

PAJAPAN NAHUAT (UTO-AZTECAN)

(72) a. *ni-g-ita-k*   *se*   **tago**   [*yeh Ø-mo:nsah*]
S1-PO3-see-PFV INDF maiden SUB S3-be.beautiful
'I saw a maiden who was beautiful.' (Peralta Ramírez 2017)

   b. *xi-neh-maga*   **taxkal** [*yeh Ø-toto:nik*]
IMP-PO1-give tortilla SUB S3-be.hot
'Give me the tortilla that is hot.' (Peralta Ramírez 2017)

   c. *aya: Ø-gi-mati*   [*yeh yeh=san   ompa o-Ø-pano:-k*]
NEG S3-PO3-know SUB 3PRO=just there PST-S3-pass-PFV
'He doesn't remember that he just passed by there.' (Peralta Ramírez 2017)

1.5.3   *Relativized Functions and Relativization Strategy*

Languages may show meaningful correlations between relativization strategies and relativized functions. We have seen in Section 4.2, for example, that the relative pronoun strategy is found in all languages to relativize a locative, and that in some languages it is further found for subject (and possessor), etc. Sochiapam Chinantec (Chinantecan) is an interesting case of such correlations. In this language, the gap strategy can be used for the relativization of core functions. Here the determiner of the DP in which the domain nominal is embedded may either precede the RC (73a), or occur after it (73b).

SOCHIAPAM CHINANTEC (CHINANTECAN)

(73) a. *θãi�late̜ᴹ*   *hná ᴴᴸ* ca ᴸkuá ᴴ *ʔí̜ᴸ*   [*ʔi̜ᴸ hmí̜ᴴ θẽʔᴹ* stand.ST.I.AN
     like.ST.T.AN.S1SG I   horse   that.AN SUB TERM stand.ST.I.AN

     ŋí̜ᴴ   θio ᴴ]
     place yonder
     'I like that horse that was standing over there.' (Foris 2000: 310)

   b. *θãí̜ᴹ*   *hná ᴴᴸ* ca ᴸkuá ᴴ [*ʔi̜ᴸ hmí̜ᴴ θẽʔᴹ*   *ŋí̜ᴴ*
     like.ST.T.AN.S1SG I   horse   SUB TERM stand.ST.I.AN place

     θio ᴴ] *ʔí̜ᴸ*
     yonder that.AN
     'I like that horse that was standing over there.' (Foris 2000: 310)

The determiner in (73) agrees in animacy with the head noun. There is a second RC construction where the determiner occurs within the RC, shown in (74).

SOCHIAPAM CHINANTEC (CHINANTECAN)

(74) a. *θãí̜ᴹ*   *hná ᴴᴸ* ca ᴸkuá ᴴ [*ʔi̜ᴸ hmí̜ᴴ θẽʔᴹ*   *ʔí̜ᴸ*
     like.ST.T.AN.S1SG I   horse   SUB TERM stand.ST.I.AN that.AN

     ŋí̜ᴴ   θio ᴴ]
     place yonder
     'I like that horse that was standing over there.' (Foris 2000: 311)

   b. *ka ᴸ-láu ᴴ*   *hná ᴴᴸ* sií ᴹ [*ʔi̜ᴸ hmí̜ᴴ*
     PST-buy.used.T.INAN.S1SG 1SG_PRO book SUB TERM

     ʔi̜lᴹ   *hãᵘ́ᴹ*   *cá ᴹ*   *ʔí̜ᴸ*]
     read.T.INAN.PRS.S3 that.INAN person that.AN
     'I bought that book which that person was reading.' (Foris 2000: 312)

While determiners cannot be used pronominally elsewhere in the syntax, the fact that they occur inside the RC in constructions like these suggests the existence of some type of pronoun-retention relativization strategy. A somehow similar situation is found in San Miguel Chimalapa Zoque (Jiménez this volume) where we find RCs with internal determiners (see example (81b) further below). Alternatively, the construction in (74) could be interpreted as exhibiting a discontinuous DP, but there are strong arguments against such a non-configurational analysis. For one thing, the determiner—like other pronouns—must occur right after the predicate in a fixed position: it follows the subject pronoun if there is one (75a), and when the subject is encoded by an NP, the determiner always precedes it (75b).

SOCHIAPAM CHINANTEC (CHINANTECAN)

(75) a. ʔíʰmiiʔᴹᴴ [ʔi̵ᴸ kaᴸ-kuéʔᴸ   **cúᴹ hã̂uᴹ**   mi̵ᴹŋi̵ʟ]
     bread   SUB PST-give.D.INAN.S3 3ᴘʀᴏ that.INAN pig
     'That bread that s/he gave the pig.' (Foris 2000: 314)

   b. ʔíʰmiiʔᴹᴴ [ʔi̵ᴸ kaᴸ-kuéʔᴸ   **hã̂uᴹ**   ieʔᴸ mi̵ᴹŋi̵ʟ]
     bread   SUB PST-give.D.INAN.S3 that.INAN **elder** pig
     'That bread that the old man gave the pig.' (Foris 2000: 314)

As shown by the examples in (74) and (75), the pronoun-retention construction can be used to relativize a core argument, but it is not the preferred strategy for that specific function. The usage of the construction becomes more common as we move further down the relativization hierarchy to relativize other positions. For example, it is the preferred construction to relativize an instrument (76a), but it becomes the only strategy available to relativize a possessor (76b), where it would be ungrammatical not to use it.[12]

SOCHIAPAM CHINANTEC (CHINANTECAN)

(76) a. ʔmáᴹ [ʔi̵ᴸ kaᴸ-pã̵ᴸ   cúᴹ **hã̂uᴹ**   cái̵ᴹ]
     wood   SUB PST-hit.T.AN.S3 3ᴘʀᴏ that.INAN dog
     'That stick that s/he hit the dog with.' (Foris 2000: 315)

   b. ŋiúᴹmíʔᴴ [ʔi̵ᴸ kaᴸ-ʔãi̵ᴸ   ***(ʔi̵ᴸ)*** Huãᴹ mi̵ᴴtái̵ᴴᴸ]
     boy   SUB PST-steal.T.INAN.S3 that.AN J.   machete
     'That boy whose machete John stole.' (Foris 2000: 315)

1.6   Relative Clauses Not Headed by Nominals

1.6.1   *Different Types of Heads*

A headed RC is a modifier of the domain nominal that serves as its head. In the canonical case, a domain nominal is a full noun that introduces an event participant in the matrix clause that serves as an argument or an adjunct. In contrast, headless RCs are RCs which serve as arguments or adjuncts in the matrix clause. As proposed in the vast literature on RCs (Keenan and Comrie 1977; Lehmann

---

12   This is further support for the typological claim by Lehmann (1986) that the relativization of the genitive phrase always displays idiosyncrasies. To this we can add the context for the interrogation of a possessor, which, as noted, requires pied-piping with inversion in all Mesoamerican languages.

1984, 1986; Comrie 1989; Kroeger 2005; Andrews 2007; *inter alia*), an important parameter to design a typology of RCs is categorizing RC constructions according to whether they are headed or headless, and if headed, by what type of head. In (77) we present the different possibilities.

(77) Headed RCs:
  – RCs headed by an overt nominal (i.e., canonical headed RCs)
  – RCs headed by an elided nominal
  – RCs headed by a determiner
  – RCs headed by a light head (*a.k.a.* "light-headed" RCs, Citko 2004)
  Headless RCs

There are Mesoamerican languages whose RC constructions cover the full spectrum of the typology in (77). One such language is San Miguel Chimalapa Zoque (Jiménez this volume). An illustration of a RC headed by an elided nominal is given in (78). This type normally has the same distributional properties as RCs headed by an overt nominal.

San Miguel Chimalapa Zoque (Mixe-Zoquean)
(78) *'ɨy nipɨkwakxukkɨ jemji, 'ɨy 'angnitpa'*
  'ɨy=ni-pɨk-wak-xuk-wɨ   jemji__ [PAUSE] ['ɨy='ang'it-pa=pɨ']
  3A.I=body-grasp-split-3PL-CP.I all   3A.I=have-ICP.I=REL
  'They stole all (the gold) that he had.' {Txt} (Jiménez this volume)

A RC headed by a determiner is one where a determiner is the head of the RC. Generally, one could argue that RCs with a determiner are instances of a RC where the head nominal has been elided because it is topical, like in (79a) in Spanish, the argument being that one could restore the noun, as in (79b), with the only risk of the sentence becoming too informative.

(79) a. *realmente es una **oportunidad** muy importante **la**__ [que vamos a tener]*
      'It's really an important opportunity, the one we're going to have.'
      (Lit. 'Really is an important opportunity the (one) we're going to have.')
      {Txt}

    b. *realmente es una **oportunidad** muy importante **la oportunidad** [que vamos a tener]*
      'It's really an important opportunity, the opportunity we're going to have.'

However, in Spanish there are also instances of rcs with a determiner that do not readily stand for a specific topical noun mentioned in the previous discourse (whose referent may be readily recoverable either from the discourse or the context). Such examples appear to be instances of rcs headed by a determiner, like the proverb in (80).

(80) *el* [*que ríe el último*] *ríe mejor*
      'The one who laughs last, laughs best.'
      (Lit. 'The (one) that laughs last, laughs best.')

We find a similar construction in San Miguel Chimalapa Zoque in (81a). However, contrary to what happens in Spanish, in this language there is strong evidence that the determiner serves as the head of the rc, because it can occur internal to the rc, like in (81b), which is structurally similar to examples with a full nominal head like (50) above, repeated here as (81c).

San Miguel Chimalapa Zoque (Mixe-Zoquean)

(81) a. *kay mong bi 'ixtenoba'*
          kay   Ø=mong-wɨ   bi   [Ø='ix-ten-'oy-pa=pɨ']
          now   s3.i=sleep-icp.i det   s3.i=see-stand-ap-icp.i=rel
          'Now the one that is the sentinel fell asleep.' {Txt} (Jiménez this volume)

      b. *dey bi yɨji witpa' piyukɨxoyyɨ*
          [*tey* **bi**   *yɨ=ji*   *Ø=wit-pa=pɨ'*]   *Ø=piyu-kix-'oy-wɨ*
          now   det   prox=loc   s3.i=walk-icp.i=rel   s3.i=chicken-eat-ap-cp.i
          'The one that is walking about here ate chicken.' {Txt} (Jiménez 2014: 353)

      c. *mari pɨnjinang wittɨ' mi'ɨyyɨ*
          [*Mari* **pɨn**=*jinang* *Ø=wit-wɨ=pɨ'*]   *Ø=mi'ɨy-wɨ*
          M.   man=com   s3.i=walk-cp.i=rel   s3.i=get.married-cp.i
          'The man with whom María was involved got married.' (Jiménez this volume)

There is a very thin line dividing rcs with a determiner in (81a) and (81b) from light-headed rcs. The difference between the two types lies in the fact that a light-headed rc involves a pronominal element as head. The pronominal element in question is often a demonstrative that can also serve as a determiner in nominal syntax (other elements such as quantifiers and numerals are also

possible, Caponigro 2021). In a language where both constructions are found, such as San Miguel Chimalapa Zoque, they have an almost identical distribution (except for the relativization of reason, see Jiménez this volume).

1.6.2   *Free Relatives*

Besides the types presented in the previous section, in a broader typological perspective headless RCs typically involve relative pronouns. These relative pronouns are often recruited from WH-word paradigms, reflecting the great extent to which the syntax of relativization is tied to the syntax of focus by way of the syntax of interrogatives. When a headless RC is introduced by a WH-word relative pronoun, it is often referred to, in the typological literature, as a "free relative" (see Caponigro 2021).

Across Mesoamerican languages, except for the locative, the relative pronoun relativization strategy is typically only found in free relatives, at least in natural discourse. This is so to such an extent that in a language family like Mayan, relative pronouns are typically ONLY found in free relatives (except again for the locative; also the Tseltalan branch allows for a relative pronoun for humans in headed RCs); see Mateo Toledo (this volume) for a clear illustration of the phenomenon in Q'anjob'al. Free RCs are often constructed in such a way that there is also a subordinator introducing the RC. This is illustrated in Tseltal in (82).[13]

TSELTAL (MAYAN)

(82) *ya   y-ik'-otik   tel   [te   mach'a ya*
     ICP A3-call-PO1PL DIR:come+NF SUB WHO   ICP
     x-'at'ej-otik=e]
     ICP.INTR-work-S1PL=DET
     'He brings those of us that work.' {Txt} (Polian 2013: 793)

1.6.3   *Headless Relative Clauses with a Gap*

Apart from free relatives, in the Mesoamerican languages it is very common to have headless RCs with a gap. The following three languages, from different families, illustrate instances of headless RCs introduced by a subordinator.

---

13   The same construction can be found in headed RCs; see Campbell (this volume) for Zenzontepec Chatino or Hernández-Green (2021) for Acazulco Otomi.

TSELTAL (MAYAN)

(83) *melel yak-otik   s-nop-el   away* [**te** *ch'in alal-otik=e*]
true   PRG-PO1PL A3-learn-NF.PASS EXPL SUB DIM child-S1PL=DET
'Those of us who were small were learning it.' {Txt} (Polian 2013: 792)

SIERRA POPOLUCA (MIXE-ZOQUEAN)

(84) *nuk 'igatogoy*
Ø=nuk-wɨ   [***'iga** Ø=tokoy-wɨ*]
S3=arrive-CP SUB   S3=loss-CP
'The time of his death arrived.' {Txt} (López 2021: 506)

ZENZONTEPEC CHATINO (ZAPOTECAN)

(85) *yākwá tāká* [***nu** nka-suʔū tī   j-nāą́ʔ*] *mastrū j-nāáʔ*
there   exist SUB PFV-teach TOP DAT-1SG teacher GEN-1SG
'There lives (the one) who taught me, my teacher.' {Txt} (Campbell this volume)

We also have cases of headless RCs introduced by relativizers, for example in Sierra Popoluca (Gulf Zoquean) in (86), Ocotepec Zoque (Chiapas Zoquean) in (87), and Matlatzinca (Otomian) in (88).

SIERRA POPOLUCA (MIXE-ZOQUEAN)

(86) *'oyom 'ï'a'myaj kuyujyajwi'ip*
'oy-wɨ='am   *'ï='a'm-yaj-wɨ*   [*Ø=kuyuj-yaj-wɨ=**pV'**]
AUX.go-CP=already A3-see-3PL-CP S3=study-3PL-CP=REL
'They already went to see those who studied.' {Txt} (López 2021: 505)

OCOTEPEC ZOQUE (MIXE-ZOQUEAN)

(87) *tsyɨjkyaju tsa'bɨ*
y-tsɨk-yaj-u   [*Ø-tsa'=**pɨ'**]
A3-make-PL3-CP S3-stone=REL
'They made what is made of stone.' {Txt} (de la Cruz Morales 2016: 102)

MATLANZINCA (OTO-PAMEAN)

(88) *ga*   *khwen*   *hóhya* [***n** gu*   *khana pax-kwentu ...*]
PRTCL ICP.S1PL forget REL ICP.S3SG well   keep-talk
'And we forget about the one who has a good command of the language ...' {Txt} (Palancar & Carranza Martínez 2021: 168)

These examples show that the phenomenon is found in unrelated language families across Mesoamerica (e.g., Mayan, Mixe-Zoquean and Oto-Pamean), but it is even found in isolates like Purepecha, as shown in (89), which is a language that despite being spoken in the geographical and cultural area of Mesoamerica, in many other respects does not show the typical traits of a Mesoamerican language. This suggests that the phenomenon is widespread and common.

PUREPECHA (ISOLATE)

(89) *pero* [**inki** *cha mia-Ø-Ø-k'a*], *ampe ka ampe*
pero REL you remember-HAB-NON.PST-SBJV thing and thing
cambiar-i-s-Ø-ki?
change-PRED-PFV-NON.PST-INTER
'But of what you remember, what is it that you changed?' {Txt} (Hernández Domínguez 2015: 363)

In the same fashion, we also find instances of asyndetic headless RCs. This is illustrated in the following examples: (90) is from Q'anjobal (Mayan); (91–92) are from two Oto-Pamean languages, Matlatzinca and Tilapa Otomi, respectively. The interpretation of the role played by such headless RCs in the matrix clause relies on common sense and knowledge of the context. In Q'anjob'al asyndetic headless rcs can only be used as the argument of the existential predicate *ay*. The RCs in (91) and (92a) function as the subject of their matrix clause and in (92b) as the object. In (91a) and (92b), the subject is relativized, while in (91b) the object is relativized, and in (92a) the possessor.

Q'ANJOB'AL (MAYAN)

(90) *ay-Ø* [*ch'-Ø-ek'-el miman b'e*]
EXIST-B3 POT-B3-pass-DIR big road
'There are (those) [spirits] that cross the big road.' {Txt} (Mateo Toledo this volume)

MATLANZINCA (OTO-PAMEAN)

(91) a. [*me n to meriu* __SUBJ]SUBJ *tu táni n to pari 'ix*
have CLF DIM money CP.3SG buy CLF DIM horse or
n to burro
CLF DIM donkey
'The one who has money buys a horse or a donkey.' (Palancar and Carranza Martínez 2021: 169)
(Lit. 'Has money buys a horse or a donkey.') {Txt}

b. *kuh   pëki   [khwén   pu=n   pantí __OBJ]SUBJ*
   CP.3SG be.a.lot ICP.1PL.EXCL there=LK gather
   'There was a lot of what we used to gather up.' (Palancar and Carranza
   Martínez 2021: 169)
   (Lit. 'There was a lot we used to gather up.') {Txt}

TILAPA OTOMI (OTO-PAMEAN)

(92) a. *porke   kha   ti   zo̲='ku=wi*
        because LOC.FOC PFV.IRR[s3] SS/arrive.there.AS=there=DU
        [nkhonts'e̲   yí   kha̲'ni __GEN]SUBJ
        not.exist[so3] DEF.PL.POSS3 person
        'Because it's there where those who have no family end up.' (Palancar
        this volume)
        (Lit. '... (those whose) their family doesn't exist ...') {Txt}

    b. *[xpi etxaperder __SUBJ]OBJ tu̲='uny=a*
       PFV go.off.food[so3]   PFV.IRR.VEN>EXLOC[s3]=give[o3].AS=CL
       'What had gone off (i.e., the gone-off food), he'd go and give to them.'
       (Palancar this volume)
       (Lit. '... (what) has gone off ...') {Txt}

Asyndetic headless RCs like the ones in (90–92) are also found at the northern
fringes in Cora, where the headless RC is introduced by the special set of subject
pronominal clitics which only occur in a subordinated clause. An example of
the construction is given in (93), with a topicalized headless RC that functions
as the object of the matrix predicate.

CORA (UTO-AZTECAN)

(93) *[meh   tahkáy   wáʔa-u-kʷi:]OBJ   muʔu=rí   wa-βáʔana*
     s3PL[SUB] yesterday PO3PL-CP-kill.PO/PL s3PL=already CP-bury
     'The ones who had been killed yesterday, they have already buried them.'
     (Vázquez Soto 2002: 294)
     (Lit. 'They killed them they bury them.')

Furthermore, examples from Sierra Popoluca in (84–85) and from Matlatz-
inca in (88) and (91) illustrate the fact that within one particular language we
can find different types of headless RCs with a gap. As a rule, the use of one
construction over another directly correlates with the frequency of use of the
construction as a headed RC construction.

   Headless RCs with a gap—syndetic (with a general subordinator or a rela-
tivizer) or asyndetic—represent a structural type that has not been identified

TABLE 1.1   Corpus-based distribution of types of RCs in Texistepec Popoluca

RC introduced by:

REL	224	**83%**
SUB	5	2%
Asyndetic	5	2%
REL.PRO	37	13%
Total	271	100%

TABLE 1.2   Corpus-based distribution of RCs in Texistepec Popoluca (per type)

	Type of RC							
RC introduced by:	Headed		Headless		Light-headed		Total	
REL	78	35%	122	54%	24	11%	224	100%
SUB	5	100%	–		–		5	100%
Asyndetic	4	80%	–		1	20%	5	100%
REL.PRO	5	14%	27	72%	5	14%	37	100%
Total	92	**34%**	149	**55%**	30	11%	271	100%

in the typological literature. Mesoamerica is a linguistic area where headless RCs with a gap abound. One could ask how common they are in a given language when they are found, as one might equate typological rarity with discourse or systemic naturalness. However, the figures seem to suggest otherwise.

In a corpus study of the RCs in Wichmann's (1996) texts in Texistepec Popoluca (Gulf Zoquean; Mixe-Zoquean), Díez Alejandre (2019) finds that RCs with a relativizer, like the ones in (1) or (7) (which are cognate with other Zoquean languages) are by far the most common type of RC in this language (83%). The relevant figures are given in Table 1.1.

Table 1.2 shows the distribution of the different types of RCs (headed, headless and light-headed). More than half of the RCs (55%) are headless. The figures suggest that RCs that are used as arguments or adjuncts in matrix clauses (headless RCs and light-headed RCs) are more common in the discourse than headed ones (i.e., headed RCs account for only 34% of the corpus).

TABLE 1.3   Corpus-based distribution of RCs in Texistepec Popoluca (per function)

				Type of RC				
RC introduced by:	**Headed**		**Headless**		**Light-headed**		**Total**	
REL	78	85%	122	**82%**	24	80%	224	83%
SUB	5	5%	–	0%	–	0%	5	2%
Asyndetic	4	5%	–	0%	1	3%	5	2%
REL.PRO	5	5%	27	18%	5	17%	37	13%
Total	92	100%	149	100%	30	100%	271	100%

What is striking is the fact that headless RCs with a relativizer account for 82% of all headless RCs in the sample (with regard to free relatives), as indicated in Table 1.3. Even if the 30 light-headed RCs are taken into *account*, headless RCs with a relativizer would still amount to 68% of all RCs that function as arguments or adjuncts in matrix clauses. This means that a headless RC with a gap is far from being a structural oddity in the syntax of Texistepec Popoluca, but the most canonical headless RC structure in the minds of its speakers. We anticipate similar results in other Mesoamerican languages with comparable RC structures.

The picture we obtain for headless RCs in Mesoamerica drastically changes again when we consider language families at the outer borders of Mesoamerica, both to the north and to the south. In languages from such areas, headless RCs are encoded as nominalizations. This can be seen in (94) from Yaqui (Uto-Aztecan), a language from northern Mexico. Both examples in (94) illustrate relativization of an object, like in (2b) above, where the predicate of the RC must be marked by the nominalizer *-'u*, while the notional subject in the RC is case-marked as genitive. In example (94a), the nominalized RC is embedded in a DP headed by the determiner *u*, whereas in (94b) it is an NP. In (94a), the RC functions as the subject of the matrix clause and in (94b) as the object.

YAQUI (UTO-AZTECAN)

(94) a. ***u***   [***itom***   ***nu'upa-ka-'u*** $_{OBJ}$]$_{SUBJ}$ *kaa   jaleki*
          DET GEN1PL bring-PFV-O.REL   NEG enough
          'What we brought is not enough.' (Álvarez González 2012: 86)

b. [***in*** *yaa-bae-'u*$_{OBJ}$]$_{OBJ}$ *ne* *kopta-k*
GEN1SG do-DES-O.REL   NOM1SG forget-PFV
'I forgot what I was going to do.' (Álvarez González 2012: 86)

Nominalized headless RCs are also found to the south of Mesoamerica, as seen in (95) from Pesh (Chibchan), a language from Honduras, where the RC (although internally finite) is case-marked with the role it plays in the matrix clause.

PESH (CHIBCHAN)

(95) a. *kàpáʃkúmà tàyèʔí*
[*kapaʃ-k-Ø-wa=ma*$_{SUBJ}$]$_{SUBJ}$ *ta-yeʔ=i*
speak-K-S3SG-PRS=NOM   POSS1-small=COP.PRS.S3SG
'The one who is speaking is my daughter.' {Txt} (Chamoreau 2021: 541)

b. *ɲɛ̃herìrà kàrɲāwì̃*
[*Ø-yẽh-er-i=ra*$_{OBJ}$]$_{OBJ}$ *Ø-ka-er-i=na=wĩ*
O3SG-say-S3PL-PST=ACC O3SG-make-S3PL-PST=REP=long_ago
'It's being said that, long ago, they made what they said.' {Txt} (Chamoreau 2021: 542)

1.6.4   *Headless Relative Clauses in Clefts*

We have shown that headless RCs function as arguments or adjuncts in matrix clauses. As part of that general function, headless RCs may also serve as complements of copular predicates in cleft constructions of the types shown in (96a) and (96b). Clefts are specialized focus structures that are biclausal by definition. They consist of a matrix clause (i.e., a specificational copular construction with a copular predicate, its subject phrase and its complement phrase) and a type of subordinate clause that encodes the background information in the cleft, and which is taken to be a headless RC at least from the typological perspective (see Drubig and Schaffer 2001).[14]

(96) a. *It's Mary* [*who saw the cat*]   It-cleft
    b. [*Who saw the cat*] *was Mary*   Pseudo-cleft

---

14   Such a view stems from Schachter (1973) and is continued in the pragmatic-syntactic approach in Lambrecht (2001).

The syntax of cleft constructions in the languages of Mesoamerica remains a largely understudied area. What we know so far seems to point in the direction of the canonical cleft in a Mesoamerican language having headless RCs with a gap. Two clear examples of clefts are given in the question-answer couplet in (97) from Ocotepec Zoque which instantiate the type of headless RC in (86) with a relativizer. Another example is (98) from Tseltal with a headless RC with a subordinator like the one in (83).

> OCOTEPEC ZOQUE (MIXE-ZOQUEAN)
(97) a. *tiyandeke nɨ mnhgä'subɨ'*
> *tiyɨ='an=te=ke*   [*nɨ   m-kä's-u=pɨ'*]
> WHAT=already=COP=then   PRG A2-eat-CP=REL
> 'What is it then that you're eating?' (Ramírez Muñoz forthcoming)
> (Lit. 'What is then that you're eating?') {Txt}

> b. *ju'wi'te nɨ nhgä'subɨ'*
> *ju'wi='t=te*   [*nɨ   n-kä's-u=pɨ'*]
> charcoal=ERG1=COP   PRG A1-eat-CP=REL
> 'It's charcoal what I'm eating.' (Ramírez Muñoz forthcoming)
> (Lit. 'Charcoal is that I'm eating.') {TXT}

> TSELTAL (MAYAN)
(98) *pero ja'   te   kaxlan*   [*te   ya   s-kuy   ta tsa'-tuluk'*
> but   COP[15] DET non_indigenous SUB ICP A3-believe P   poo-turkey
> *ts'in bi*]
> SO   PNT
> 'But it was the non-indigenous man who believed that it was turkey poo.'
> {Txt} (Polian 2017)

Using the focus function of cleft constructions, speakers may manipulate the construction and convert it into a monoclausal focus structure (Zavala Maldonado 2017b). When this happens, the copula in the cleft is reanalyzed as a focus marker, and the structure no longer requires a headless RC. The contrast between the two focus structures is given in (99) from Ocotepec Zoque. Example (99a) is the monoclausal focus construction; example (99b) is a cleft. The two examples come from the same text, where one follows the other in the

---

15   Polian (2017) glosses *ja'* as a focus particle.

discourse, suggesting that speakers use both focus constructions at will to convey the same meaning with an equivalent pragmatic force.

> OCOTEPEC ZOQUE (MIXE-ZOQUEAN)

(99) a. *takujsti'unhnde pyɨjkyaju*
    takus=ti='unh=te   y-pɨk-yaj-u
    walking.stick=just=REP=FOC A3-grab-PL3-CP
    'They say they just grabbed a walking stick.' {Txt} (Ramírez Muñoz forthcoming)

  b. *te'nade pyɨjkyajubɨ'*
    te'=na=te   [y-pɨk-yaj-u=pɨ']
    DEM_PRO=only=COP A3-grab-PL3-CP=REL
    'It was only that what they grabbed.' {Txt} (Ramírez Muñoz forthcoming)

The string in (99a) *pyäjkyaju* 'they grabbed' is clearly NOT a headless RC in Ocotepec Zoque, because the language does not have asyndetic RCs. In this sense, the two focus constructions in (99) are formally very distinct. However, clefts become more difficult to spot in languages with asyndetic headless RCs. This is shown in Tilapa Otomi in (100), where the string *grá ndegwi* '(what) you (PL) want' that encodes the background in this construction looks like the string *pyäjkyaju* 'they grabbed' in (99a), that is, to the naked eye it does not look like a headless RC.[16]

> TILAPA OTOMI (OTO-PAMEAN)

(100) *kẹʸn=ts'ẹ=a='a   [grá   nde=ᵍwi]≈'a?*
    COP.AS=just=CL=3SG_PRO IPFV.S2 want=[S]PL≈3SG_PRO
    'Is it just that what you (PL) want?' {Txt} (Palancar 2018: 119)

However, the construction in (100) is a cleft containing the same type of asyndetic headless RC we find in examples like (92) above. Further proof of the RC status of (100) is given in the examples in (101). Example (101a) shows that in

---

16   The subject of the copula in examples (100–101) is pronominal and it is realized by a pronominal enclitic associated with and hosted on the copular predicate. In canonical instances of the copular construction like these, there is a copy of that pronominal at the right edge of the matrix clause. That clitic is phonologically hosted on the last word of the clause, but it is not morphosyntactically associated with its phonological host, hence the use of the special symbol ≈ (see Palancar this volume).

clefts, just like in other types of matrix clauses, locative headless RCs have to be introduced by a relative pronoun. In turn, example (101b) shows that the predicate of a headless RC exhibiting relativization of an instrument must also carry a special inflection (see Palancar (this volume) for more details).

TILAPA OTOMI (OTO-PAMEAN)

(101) a. *ken=gwa*   [*'abwu̱ tú   m-pe̱='mbe*]≈*gwa*
           COP.AS=here   WHERE PFV.S1 AP-work.AS≈PL.EXCL≈here
           'It's here where we worked.' {Txt} (Palancar 2018: 120)

       b. *para   ke̱h=a=ya*   [*giti*
           PURP COP.AS=CL=DEM.PL_PRO   PFV.ADV.S2
           ʰpendy=a]≈*ya*
           wash.clothes[O3].AS=CL≈DEM.PL_PRO
           'So that it's these things you'll wash it with.' {Txt} (Palancar 2018: 122)

1.7   Conclusion

In this chapter, we have outlined what constitutes the canonical profile of RC structure in Mesoamerican languages. We have shown that the typical Mesoamerican RC is a morphosyntactic finite RC with a gap. When the relativized position is that of a locative, a relative pronoun is used; this pattern extends beyond Mesoamerica. In our proposal, we have so far identified three structural traits that we take to be Mesoamerican: (i) RCs introduced by determiners which agree in deixis with the DP in which the domain nominal is embedded of the headed RC; (ii) the so-called 'pied-piping with inversion', introduced by Smith-Stark (1988) for interrogatives, that has percolated into RC structure; and (iii) headless RCs with a gap. To our knowledge, our study is the first typological overview of RC structure in Mesoamerican languages and was only made possible thanks to a number of recent high-quality studies in individual languages. This is just the beginning of our quest for a deeper understanding of this fascinating area of the syntax of the indigenous languages of Mexico and Central America. Much remains to be done, and so our hope is that others will follow.

Bibliography

Adamou, Evangelia & Denis Costaouec. 2013. El complementante *la* en ixcateco: marcador de cláusula relativa, completiva y adverbial, *Amerindia 31*: 193–210.

Álvarez-González, Albert. 2012. Relative clauses and nominalizations in Yaqui. In Bernard Comrie and Zarina Estrada-Fernández (eds.), *Relative clauses in Languages of the Americas. A typological overview*. [Typological Studies in Language, 102], 67–96. Amsterdam: John Benjamins.

Andrews, Avery D. 2007. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, 206–236. Cambridge: Cambridge University Press.

Antonio Ramos, Pafnuncio. 2021. Headless relative clauses in San Pedro Mixtepec Zapotec. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 221–259. New York: Oxford University Press.

Beck, David. 2016. Rcs in Upper Necaxa Totonac: Local, comparative, and diachronic perspectives, *Linguistic Discovery 14*: 1–45.

Boudreault, Lynda J. de Jong. 2009. A Grammar of Sierra Popoluca (Soteapanec, a Mixe-Zoquean Language). PhD Dissertation. University of Texas at Austin.

Campbell, Lyle, Terrence Kaufman y Thomas C. Smith-Stark. 1986. MesoAmerica as a linguistic area, *Language 92*: 530–570.

Caponigro, Ivano. 2021. Introducing headless relative clauses and the findings from Mesoamerican languages. In Ivano Caponigro, Harold Torrence, & Roberto Zavala Maldonado (eds.), *Headless relative clauses in Mesoamerican languages*, 1–57. New York: Oxford University Press.

Caponigro, Ivano, Harold Torrence and Carlos Cisneros. 2013. Free relative clauses in two Mixtec languages, *International Journal of American Linguistics 79*(1): 61–96.

Caponigro, Ivano; Harold Torrence & Roberto Zavala Maldonado (eds.). 2021. *Headless relative clauses in the Mesoamerican languages*. Oxford: Oxford University Press.

Chamoreau, Claudine. 2019. Grammaticalization of the linking devices with *ka* in Purepecha. In: Albert Alvarez González, Zarina Estrada Fernández & Claudine Chamoreau (eds), *Diverse Scenarios of Syntactic Complexity*, 139–166. Amsterdam/ Philadelphia: John Benjamins.

Chamoreau, Claudine. 2020. Headless relative clauses in Pesh. In Ivano Caponigro, Harold Torrence, & Roberto Zavala Maldonado (eds.), *Headless relative clauses in Mesoamerican languages*, 509–546. New York: Oxford University Press.

Citko, Barbara. 2004. On headed, headless, and light-headed relatives, *Natural Language and Linguistic Theory 22*: 95–126.

Comrie, Bernard. 1989. *Language universal and linguistic typology: Syntax and morphology*, 2nd edition. Chicago: University of Chicago Press.

Comrie, Bernard. 2003. What has linguistics learned from typology? *Lingue e Linguaggio* 2: 299–319.

Comrie, Bernard and Tania Kuteva. 2005. Relativization Strategies, in Martin Haspelmath, Matthew S. Dryer, David Gil, and Bernard Comrie (eds.), *The World Atlas of Language Structures*—WALS, 494–501. Oxford: Oxford University Press.

Cruz, de la, Morales, Román. 2016. Construcciones con predicados seriales en zoque de Ocotepec, Chiapas: Estructura, semántica y gramaticalización. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Dayley, Jon P. 1981. Voice and Ergativity in Mayan Languages, *Journal of Mayan Linguistics* 2: 3–82.

Dayley, Jon P. 1990. Voz y Ergatividad en Idiomas Mayas. In Nora England and Stephen Elliot (eds.). *Lecturas sobre la Lingüística Maya*, 335–398. Guatemala: CIRMA.

Díez Alejandre, Álvaro. 2019. Les relatives en popoluca de Texistepec. MA Thesis. Université Paris Sorbonne Nouvelle.

Drubig, Hans-Bernhard and W. Schaffer. 2001. Focus constructions. In Martin Haspelmath, Ekkehard Koenig, and Wulf Osterreicher (eds.), *Language Typology and Language Universals*, 1079–1104. Berlin: Mouton de Gruyter.

Dryer, Matthew S. 2007. Word order. In Timothy Shopen (ed.), *Languaje typology and syntactic description* Vol. 1, pp. 61–131. Cambridge: Cambridge University Press.

Flores Nájera, Lucero. 2019. La gramática de la cláusula simple en el náhuatl de Tlaxcala. PhD Dissertation. CIESAS, México.

Flores Nájera, Lucero. 2021. Headless relative clauses in Tlaxcala Nahuatl. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.). *Headless relative clauses in Mesoamerican languages*, 79–110. New York: Oxford University Press.

Foris, David Paul. 2000. *A grammar of Sochiapam Chinantec*, [Studies in Chinantec Languages 6]. Summer Linguistics Institute and University of Texas at Arlington.

Fuß, Eric. 2005. *The rise of agreement: A formal approach to the syntax and grammaticalization of verbal inflection*. Amsterdam: John Benjamins.

Greenberg, Joseph H. 1963. Some universals of grammar, with particular reference to the order of meaningful elements. In Joseph Greenberg (ed.), *Universals of Language*. Cambridge, Mass: MIT Press.

Guarcax González, José Celestino. 2016. Las cláusulas relativas en el kaqchikel de Sololá. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Hernández Domínguez, Rolando. 2015. Na-kani-ne jucha anapu jimpo: aspecto, tiempo, modalidad y modo en purépecha. PhD Dissertation. CIESAS, México.

Hernández-Green, Nestor. 2021. Headless relative clauses in Acazulco Otomi. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 111–144. New York: Oxford University Press.

Jiménez Jiménez, Silviano. 2014. Esbozo gramatical y oraciones de relativo en el zoque de San Miguel Chimalapa. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Johnson, Audrey F. 1988. A syntactic sketch of Jamiltepec Mixtec. In C. Henry Bradley and Barbara E. Hollenbach (eds.), *Studies in the syntax of Mixtecan languages 1*, 11–150. Summer Linguistics Institute and the University of Texas at Arlington.

Keenan, Edward and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar, *Linguistic Inquiry* 8: 63–100.

Kroeger, Paul R. 2005. *Analyzing grammar. An introduction.* Cambridge: Cambridge University Press.

Lambrecht, Knud. 2001. A framework for the analysis of cleft constructions, *Linguistics* 39(3): 463–516.

Lastra, Yolanda. 2018. *Textos chichimecos: Bosquejo gramatical, léxico y notas históricas. Volume 1.* Mexico City: Instituto de Investigaciones Antropológicas & Universidad Nacional Autónoma de México.

Lehmann, Christian. 1984. Progress in general comparative linguistics, *Studies in Language* 8: 259–286.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–680.

López, Wendy. 2021. Headless relative clauses in Sierra Popoluca. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 475–508. New York: Oxford University Press.

Martínez Cruz, Victoriano. 2007. Los adjetivos y conceptos de propiedad en chol. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Palancar, Enrique L. 2018. Clefts in otomi: Extended uses of the copular construction, *International Journal of American Linguistics* 84: 93–145.

Palancar, Enrique L. & Leonardo Carranza Martínez. 2021. Headless relative clauses in Matlatzinca. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 145–176. New York: Oxford University Press.

Peralta Ramírez, Valentin. 2017. Las cláusulas relativas sin núcleo en el nawat de Pajapan, Veracruz. Paper read at the 1st Workshop on Headless Relative Clauses in Mesoamerican languages. CIESAS, San Cristóbal de las Casas, Mexico, 27/11–01/12.

Polian, Gilles. 2013. *Gramática del tseltal de Oxchuc.* México City: CIESAS.

Polian, Gilles. 2017. Ecuativas y focalización en tseltal. Paper read at the Workshop on focus in Mesoamerican languages. CIESAS, San Cristóbal de las Casas, Mexico, 17–28/04.

Polian, Gilles & Judith Aissen. 2021. Headless relative clauses in Tseltalan. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 403–443. New York: Oxford University Press.

Ramírez Muñoz, Ernesto. 2016. Oraciones de complemento en el zoque de Ocotepec, Chiapas. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Ramírez Muñoz, Ernesto. Forthcoming. El rayo ciego: un relato en zoque de Ocotepec,

Tlalocan. Instituto de Investigaciones Filológicas, Universidad Nacional Autónoma de México.

Ramírez Pérez, Elodia. 2014. La predicación no verbal y las construcciones copulares en el tnu'u[23] dau[23] de Santa María Peñoles, Etla, Oaxaca. MA Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Santiago Martínez, Godofredo G. 2015. Temas de fonología y morfosintaxis del mixe de Tamazulápam, Oaxaca. PhD Dissertation. CIESAS, Mexico.

Schachter, Paul. 1973. Focus and relativization, *Language* 49(1): 20–46.

Smith-Stark, Thomas. 1988. Pied-piping con inversión en preguntas parciales en lenguas de Mesoamérica. MS

Stiebels, Barbara. 2006. Agent Focus in Mayan Languages, *Natural Language and Linguistic Theory* 24: 501–570.

Tuggy, David H. 1979. Tetelcingo nahuatl. In Ronald Langacker (ed.), *Studies in Uto-Aztecan grammar*, 1–140. Arlington, University of Texas.

Vázquez Álvarez, Juan Jesús. 2011. A grammar of Chol, a Mayan language. PhD Dissertation. University of Texas, Austin, TX.

Vázquez Álvarez, Juan Jesús & Jessica Coon. 2021. Headless relative clauses in Chol. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 362–402. New York: Oxford University Press.

Vázquez Soto, Verónica. 2002. Cláusulas relativas en cora meseño, in Paulette Levy (ed.), *Del cora al maya yucateco: Estudios lingüísticos sobre algunas lenguas indígenas mexicanas*. Mexico City: Instituto de Investigaciones Filológicas, Universidad Nacional Autónoma de México.

Velleman, Leah Bridges. 2014. Focus and movement in a variety of K'ichee'. PhD Dissertation. The University of Texas at Austin.

Wichmann, Søren. 1996. *Cuentos y Colorados en Popoluca de Texistepec*. Copenhagen: C.A. Reitzels.

Zavala Maldonado, Roberto. 2017a. Alignment patterns. In Judith Aissen, Nora England, and Roberto Zavala Maldonado (eds.), *The Mayan Languages*, 226–258. London: Routledge, pp. 226–258.

Zavala Maldonado, Roberto. 2017b. Dos cadenas de gramaticalización de los demostrativos en oluteco. Paper given at CILLA VIII. Auxtin, Texas. October.

CHAPTER 2

Relative Clauses in Mixe-Zoquean Languages in Typological Perspective

Roberto Zavala Maldonado

2.1 Introduction

In this chapter I will survey the range of relative constructions found in Mixe-Zoquean languages. The investigation will focus on restrictive relative clauses with an overt head noun, also known as headed relative clauses, i.e. clauses that restrict the reference of a nominal expression (the head noun) to those referents for which a particular proposition is true (Comrie and Kuteva 2005: 494). I aim to examine data from languages of the two branches of the family (Mixean and Zoquean), in order to have a good basis for understanding the different relative strategies attested within each particular language of this language family. The data have been made accessible very recently by a team of researchers, many of them speakers of these languages, who have started to study different syntactic patterns of these languages, among these relative constructions. This study will establish the range of encoding possibilities for the head and the modifying clause that are part of a relative construction. Taking into consideration the position the head occupies with respect to the relative clause, Mixe-Zoquean languages show prenominal, postnominal, and circumnominal embedded relative clauses, as well as postposed and preposed adjoined relative clauses (Lehmann 1986, 2003). Another classification of the mechanisms used for relativization can be established when considering the different morphosyntactic means used by a language to express the different syntactic–semantic roles of the head noun within the relative clause (Keenan and Comrie 1977, Keenan 1985, Andrews 2007, Comrie 1989, 1998). I will show that Mixe-Zoquean languages use three different strategies to encode the relative construction formed by the head and the relative clause. This is the first comprehensive study of relative clauses within this language family which identifies the manifestation of each particular strategy within the different languages of the two branches of the family.

The Mixe-Zoquean language family consists of 13 living members spoken in and around the Isthmus of Tehuantepec, Mexico. There are two branches of the family, the Mixean branch and the Zoquean branch. The Mixean branch

includes four languages spoken in the state of Oaxaca, in addition to Olutec and Sayultec spoken in the state of Veracruz, and the extinct Tapachultec originally spoken in the Southwest of Chiapas. The Zoquean branch includes two languages spoken in the state of Veracruz (Highland Popoluca, also known as Soteapanec, and Texistepec Popoluca), and one spoken in the state of Tabasco (Ayapanec). In addition to these three languages belonging to the Gulf group, the Zoquean branch includes two languages spoken in Oaxaca (San Miguel Chimalapa Zoque and Santa María Chimalapa Zoque), both of which belong to the Oaxaca group, and two additional ones spoken in Chiapas (Chiapas Zoque and Jitotoltec), both belonging to the Chiapas group (Kaufman and Justeson 2004, Wichmann 1995, Zavala 2011).

Mixe-Zoquean languages present three of the four major relativization strategies found in the languages of the world (Comrie and Kuteva 2005, Comrie 1988): 1) gapping, 2) relative pronoun, and 3) non-reduction with internal head. The fourth major strategy not attested in Mixe-Zoquean languages is the pronoun retention strategy, in which the position relativized is explicitly indicated by means of a resumptive pronoun. Thus, only three of the four major strategies attested in the world's languages will be discussed and illustrated with data from Mixe-Zoquean languages.

In the gapping strategy, which is widespread in all Mixe-Zoquean languages, there is no phonological expression within the relative clause (RC) of the modified head which occurs outside the RC. In this strategy, the subordinated clause includes a special subordinator referred to as a relativizer since it only occurs in relative clauses and in no other type of subordinate clause present in the languages. The subordinate clause within this strategy is finite since it takes all the morphosyntactic trappings associated with finite clauses, i.e. aspect, person, polarity markers, voice markers, etc. In some languages of the two branches of the family, the external head may occur either before or after the RC, as in the following examples from Highland Popoluca. In (1a) the RC occurs in postnominal position, whereas in (1b) it appears in prenominal position.

HIGHLAND POPOLUCA (GULF ZOQUEAN)

(1) a. *si'ip naminyɨ tuum puktuuku yagatspi'k*
      si'ip   na-miny-ɨ   [tuum puktuuku [Ø=yakats=pi'k]]₍ₙₚ₎
      now COM.APPL-come-IMP one   cloth   s3.I=long=REL
      'Now, bring a cloth [that is long].' {txt} (Boudreault, 2018: 625)

      b. *dya 'an=tinha'ypa titsne'wɨ'ip kiipi*
      dya   'an=tinh-'a'y-pa   [[Ø=tits-ne'-w='ip]   kiipi]₍ₙₚ₎
      NEG 2:1=chop-R.APPL-ICP.I s3.I=dry-PRF-CP.I=REL firewood
      'You don't cut me wood [that has dried].' {txt} (Boudreault, 2018: 625)

The prenominal RCs are less marked than the postnominal ones, as will be shown later. The order in which the less marked RCs occur reflects the SOV basic constituent order of the ancestor proto-language. This constituent order is still present in some of the Mixean languages and in the two Zoquean languages spoken in the Chimalapa area.

In some Mixean languages, the RC following the gapping strategy does not form an immediate constituent with its head. In these languages, the RCs are adjoined clauses, as in (2) from Tamazulápam Mixe. In this example, the head, *ja'a jä'äy* 'the man' preceeds the verb, whereas the RC introduced by the relativizer *mëte'p* follows the verb as an extraposed modifier.

TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)

(2) *ja'a jä'äy 'o'kp mëte'p jam tunp*
     ja'a   jä'äy   *Ø-'ook-p*   [*mëte'p jam   Ø-tun-p*]
     DIST man   S3.I-die-ICP.I   REL   there S3.I-work-ICP.I
     'The man who works there is dying.' {txt} (Martínez' corpus)

Languages of the Zoquean branch also show adjoined RCs which instead of being postposed, as in Tamazulápam Mixe, are preposed, as in the following example from Ocotepec Zoque. In example (3) the head, *ku'tku'y* 'food' follows the verb, while the RC marked by the relativizer *=pɨ* precedes the verb as a preposed modifier.

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(3) *mijtsi listobɨ maka ndsyi'ye ku'tku'y*
     mijtsi   [*Ø-listo=pɨ*]   *manh-pa*   *ny-tsi'-ye*   ku'tku'y
     PRO2.ABS S3-prepared=REL AUX:go-ICP.I PO2-give-3PL.D food
     'They are going to give you food which is prepared.' {txt} (de La Cruz' corpus)

The second relativizing strategy that is common to all languages of the family is one in which a relative pronoun that anaphorically recovers some of the features of the relativized head (and which is recruited from interrogative pronouns) occurs at the left extreme of the RC. In some languages, the RC introduced by the relative pronoun follows the head forming an immediate constituent, as in (4), whereas in others the RC occurs extraposed to the modified head, as in (5).

HIGHLAND POPOLUCA (GULF ZOQUEAN)

(4) *yɨ'ɨm 'ɨty je'm tsoy tyiimɨ 'iny+cho'yɨ'y yɨ'p 'inh+kaawaj*
     yɨ'ɨm   Ø='ɨty-w   je'm tsoy   [**tyi-mɨ**   *'in=tsoy-'ɨ'y-w*
     here   s3.I=be-CP.I   that medicine   what-LOC   A2.I=medicine-VRS-CP.I
     yɨ'p   'in=kaawaj]
     this   POSS2=horse
     'Here there is a medicine [with which you cure your horse].' {txt} (Boud-
     reault, 2009: 870)

TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)

(5) *yäätsa' jä'äy jyëkwätsey pën te'n tunäntëp*
     yää=ts=ja'a   jä'äy   *Ø-jëk-wätsow-y*   [**pën** *te'n*
     PROX=FOC=DIST   man   s3.D-PASS-invite-ICP.D   who   thereby
     Ø-tun-wä'än-të-p]
     s3.I-work-IRR-PL-ICP.I
     'It is here where the men who are going to work in this way are going to
     be invited.' {txt} (Martínez' corpus)

The third relativization strategy attested in Mixe-Zoquean languages is one
in which the head occurs inside the relative clause. The existence of this rel-
ativization strategy has been reported only for the Zoquean languages spo-
ken in Chiapas (Jitotoltec and Chiapas Zoque) and Oaxaca (San Miguel Chi-
malapa Zoque, but more research is needed on Santa María Chimalapa Zoque,
a language that might also have internally-headed relative clauses), and two of
the Mixean languages spoken in Oaxaca (Tamazulápam Mixe and San Isidro
Huayapan Mixe). In the Zoquean languages which exhibit internally-headed
relative clauses, three defining features are present: a) the head noun is
expressed within the relative clause, b) the head maintains the grammatical
relation of the relativized noun within the relative clause, and c) there is no
overt expression of the head in the main clause. These features are illustrated
in (6) with examples from Ocotepec Zoque. In (6a), the head is marked with
ergative case which corresponds to the transitive agent relation of the noun
within the relative clause and not to the intransitive subject relation of the
same nominal with respect to the predicate of the main clause. In (6b), the
noun *tuwi* maintains the syntactic role of the noun within the relative clause;
it appears unmarked by case as is expected when a noun has an absolutive func-
tion. In contrast, the corresponding example with an external relativized noun
would carry the expected ergative case indicating its function within the main
clause.

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(6) a. *te' jo'nchi'is kyu'dubɨ te' tɨp kejku*
         [*te'* jo'nchi=*'is* *y-ku't-u=pɨ*   *te'*   *tɨm*] *Ø-kek-u*
         DEF   bird=ERG   A3-eat-CP.I=REL   DEF   fruit   S3-fall-CP.I
         'The bird which ate the fruit fell down.' (Faarlund, 2012: 162)

     b. *te' tuwi pobyabɨ'is nɨ nyuktyo'u tumɨ mixu*
         [*te'* tuwi *Ø-poy-pa=pɨ*]=*'is*   *nɨ*   *y-nuktyo-wɨ*   *tumɨ*   *mixu*
         DEF   dog   S3-run-ICP.I=REL=ERG   PRG   A3-chase-DEP1   INDF   cat
         'The dog which is running is chasing a cat.' (Faarlund, 2012: 161)

All three types of relative clause within the language family are finite since they show the same markers that express person, number, aspect and voice that occur in main clauses.

This paper is organized as follows. In § 2.2 the main morphosyntactic properties of the Mixe-Zoquean languages that will guide the understanding of the relative clause formation are discussed. Section 2.3 deals with the main features of the gapping strategy in both branches of the family including the position of the head with respect to the relative clause, the position of the relativizer, the finiteness of the clause and the scope of the roles being relativized using this strategy in different languages. The main properties of the relative pronoun strategy are discussed in § 2.4, while § 2.5 deals with the main properties of the internally-headed relative clauses within the languages in which this strategy has been found. The conclusions are presented in § 2.6.

2.2   Main Properties of Mixe-Zoquean Languages

In this section I will provide both basic information of the language family and fundamental information on the grammatical features that are necessary to follow the discussion of the different structures and strategies present in the formation of relative clauses within the family.

2.2.1   *The Languages*

The Mixe-Zoquean language family consists of fourteen known languages, seven belonging to the Zoquean branch and seven to the Mixean branch, as shown in Figure 2.1. There are thirteen languages still spoken and one known to be extinct. The family includes languages still learned by children (Mixean languages spoken in Oaxaca, Jitotoltec, some Zoque dialects spoken in Chiapas), languages spoken only by adults (several Zoquean languages and Mixean
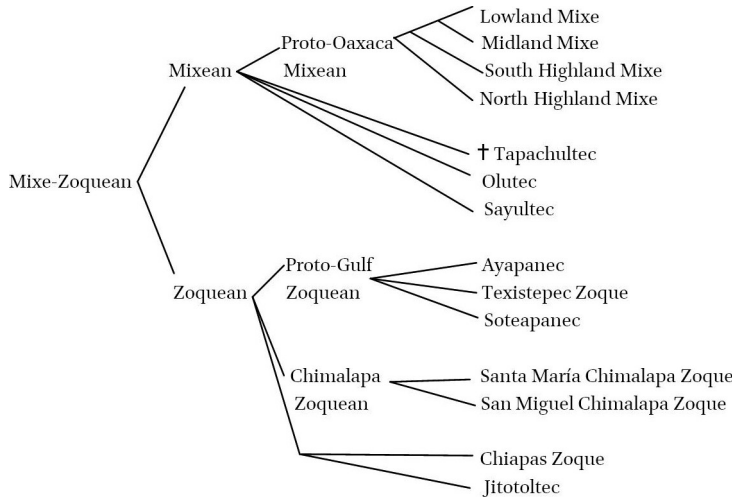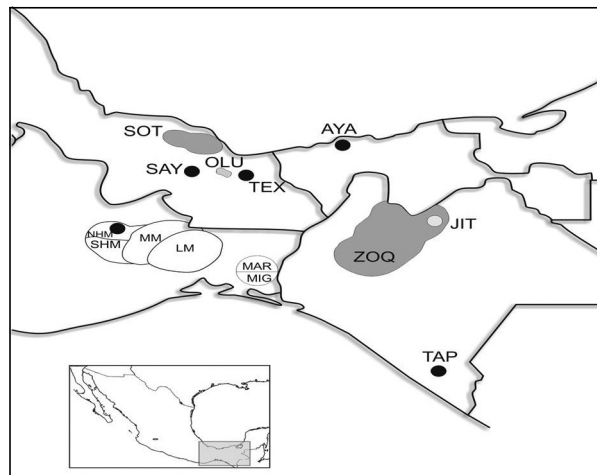
FIGURE 2.1 Mixe-Zoquean language family
WICHMANN 1995:10, ZAVALA 2011

MAP 2.1
Mixe-Zoquean languages:
SOT: Soteapanec, SAY:
Sayultec, OLU: Olutec,
TEX: Texistepec Zoque,
AYA: Ayapanec, NHM:
North Highland Mixe,
SHM: South Highland
Mixe, MM: Midland Mixe,
LM Lowland Mixe, MAR:
Santa María Chimalapa
Zoque, MIG: San Miguel
Chimalapa Zoque, ZOQ
Chiapas Zoque, JIT: Jito-
toltec and TAP: Tapachul-
tec

languages spoken in Veracruz), languages with a handful of speakers and semis-
peakers (Ayapanec and Olutec) and one language that is no longer spoken
(Tapachultec).

All the languages are spoken in the south of Mexico in the states of Veracruz,
Oaxaca, Tabasco and Chiapas, as shown in Map 2.1.

2.2.2 *Distinguishing Grammatical Features*

2.2.2.1 Polysynthesis and Head Marking

All Mixe-Zoquean languages have polysynthetic features in the sense that predicative words are "word-sentences", that is, complex words which present a high number of morphemes or potential slots per word, as in the examples below. The meaning of these complex words corresponds to the meaning of whole sentences in non-polysynthetic languages. As common in polysynthetic languages, Mixe-Zoquean languages show more than one of the following grammatical features: head marking (Nichols 1986), noun incorporation, lexical affixes, denominal affixes, applicatives, complex predicates forming a word which include adverbial information, root serialization of different types, and synthetic complex syntax (i.e. subordination within the word) (Mithun 1984, Fortescue 1994, Drossard 1998). The following examples from Olutec (Mixean branch) illustrate some of these features:

OLUTEC: *Head marking, Noun incorporation, Nuclear serial verbs*

(7) *mejorak minwintoj'e:pɨkɨxij*
    mejor=ak **min**=**wintoj-'e:p-pɨk-kɨx**-*i-j*
    better=AN PO2.D=face-see-grab-3PL-ICP.D-INV.ICP.D
    'They better look at your face.' {txt}

Applicative and Lexical prefix

(8) *je'je' tantojni:ju:mpe*
    je'=je'   *tan*=**toj-ni:**-*ju:m-pe*
    that=COP A1.I=INSTR.APPL-body-rub-ICP.I.TR
    'That is what I use to rub it (my foot).' {txt}

Complex predicate with adverbial integration on the verb

(9) *je' 'u:raki tamotowkɨxpowikoj je'k ja:yajtɨk polisya*
    *je' 'u:ra=k ta=motow-kɨx-**pow**-i=koj*   *je'=k   ja:=ya'aj-tɨk*
    that hour=AN A3.D=listen-3PL-**again**-CP.D=only that=AN other=this-PL
    polisya
    policeman
    'At that time, the other policemen listened to it **again**.' {txt}

Synthetic complex syntax

(10) *nɨmpaxɨkɨ ta'e:pi'o:kpek tanta:tawo'k*
     Ø=nɨm-pa=xɨ=k   *tan-'e:p-i-'o:k-pe=k*
     S3.I=say-ICP.I.INTR=REP=AN A1.I=**see-NMLZ-die**-ICP.I.TR=AN

tan=ta:ta-wok
POSS3=grandson-DIM
'She says: "I am dying to see my grandsons."' {txt}

2.2.2.2   Constituent Order

Mixe-Zoquean languages show the general characteristics associated with OV languages (Dryer, 1992, 2007): a) governed nouns are followed by relational nouns and/or postpositions, b) in possessive phrases and compounds, possessors appear before the possessed nouns, c) main verbs occur before synthetic auxiliaries, d) host infinitives occur before light verbs, e) incorporated nouns occur before verbs, and f) subordinators occur postposed to subordinated clauses. These properties are consistent with the constituent order of the reconstructed Proto-Language (Kaufman and Justeson 2004). Synchronically, with the exception of the majority of Oaxaca Mixean languages which are consistently OV languages (Santiago 2015), as illustrated in (11) from Totontepec Mixe (Guzmán 2012), the other languages within the family (all Zoquean languages (Faarlund 2012, Boudrault 2018, Jiménez 2019), and the Mixean languages Olutec (Zavala 2000) and Sayultec) show flexible word order, and some preferentially use the VO pattern, as illustrated in (12) from Ocotepec Zoque.

TOTONTEPEC MIXE (NORTH HIGHLAND MIXE)

(11)   A   O   V
      kuts   *yë'ë*   *nëk*   *tikejx*
      ku=ts   *yë'ë*   *nëk*   *ti=kax-jI*
      when=ASSERTV PRO3.SG paper A3.D=send-ICP.D
      'When he sent the paper.' {txt} (Guzmán, 2012: 18)

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(12) *te' ngalyo'is nyidijpiyu te' wedu*
      A   V   O
      te' *n-galyo='is* *y-ni-tijp-'iy-u*   *te'*   *wedu*
      DEF NC-cock=ERG A3-body-jump-VRS-CP DEF fox
      'The cock attacked the fox' (Faarlund, 2012: 120)

2.2.2.3   Coding Core Arguments and Alignment

All the languages follow a hierarchical alignment system for marking person, i.e. in transitive clauses, only the highest-ranking participant in a prominence hierarchy (SAP>3) is overtly marked on the verb by a pronominal marker independently of its syntactic role (Zavala 2000, 2007). In Zoquean languages, the hierarchical system operates when a SAP is involved. For example, in (13a) from

Ocotepec Zoque, only the A is overtly marked since it is higher in person than the Primary Object, whereas in (13b), only the Primary Object is overtly marked since it is higher in person than the A. Notice in (13b) that the verb does not show any valence reducing device, nor an inverse marker for signaling that the highest participant in person functions as object of the clause.

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(13) a. *mujspa mjuyɨ m'asa sunyityambɨ*
         *mus-pa **m**-juy-ɨ   m-'asa   Ø-sunyiy-tam=pɨ*
         can-ICP **A2**-buy-DEP2 POSS2-dress S3-nice-PL=REL
         'You can buy nice clothes.' (Faarlund, 2012: 40)

      b. *te' koa'is maka mbyɨ'nɨyi*
         *te'   koa='is   manh-pa **ny**-pɨn'ɨy-i*
         DEF drum=ERG FUT-ICP **PO2**-support-ICP.D
         'The drum will support you.' (Faarlund, 2012: 119)

Unlike Zoquean languages that rank SAP>3 but do not rank 3rd person participants, in Mixean languages, the hierarchical system ranks all participants on a person hierarchy. The hierarchy operating in Mixean languages is outlined in (14).

(14) SAP > 3PROXIMATE > 3OBVIATIVE

In languages of the Mixean branch, when the highest-ranking participant acts as an A, the clause is coded as direct. In contrast, when the highest-ranking participant is the Primary Object (PO), the clause is overtly coded as inverse. In inverse clauses, the verb is marked only by the PO and an inverse suffix. In (15), from Totontepec Mixe, the highest-ranking argument acting as A or PO is a SAP, whereas in the pair in (16) the highest-ranking argument is a third person "proximate" that triggers the direct pattern when it functions as an A, (16a), or the inverse pattern when it functions as a PO, (16b).

TOTONTEPEC MIXE (NORTH HIGHLAND MIXE)
2:3 Direct   3:2 Inverse

(15) *x'ixɨt pen mtö'nɨxjup xi mpöjxɨn*
     *x='ix-ɨt   pen   **m**=tön-ɨx-**ju**-p   xi   m=pöjxɨn*
     A2.D=see-IRR.D COND **PO2.I**=work-R.APPL-**INV**-ICP.D that POSS2=ax
     'You should check if your ax works for you.' {txt} (Guzmán, 2012: 176)

3(PROX):3(OBV) Direct

(16) a. *limösnä tipëmtä*
   limösnä **ti**=*pëm-tä*
   alms   **A3.D**=put-PL.ICP.D
   'They (the grandparents) (PROX) give alms (OBV).' {txt} (Guzmán, 2012: 150)

3(OBV):3(PROX) Inverse

b. *jätsïke'e jä jäyu nyë'mïxjï*
   jäts=*ïk*=*'e'e*   *jä*   *jäyu*   **y**=*nëm-ïx-ju-i*
   and=REP=FOC DEF person **PO3.D**=say-R.APPL-INV-ICP.D
   'and then, the person (OBV) tells him (PROX) (something (OBV)).' {txt} (Guzmán, 2012: 150)

In both branches of the family, the verbs select verbal person markers and aspect affixes from different paradigms that overtly mark the clause as independent or dependent. The exact conditions that trigger dependency vary from one language to the other. In most of the languages, dependent clauses follow adverbs, higher predicates, secondary predicates and auxiliaries. The pair of examples in (17) and (18) from Olutec illustrates the different marking for s and incompletive aspect in independent and dependent verbs. In (18) the dependent status of the verb is triggered by the auxiliary.

(17) OLUTEC (MIXEAN): Independent Clause
   takaypako 'ï:s
   ta=*kay-pa*=*koj*   *'ï:ts*
   S1.I=eat-ICP.I=just PRO1
   'I just eat.' {txt}

(18) OLUTEC (MIXEAN): AUXILIARY + Dependent Clause
   kïxumpo'k tankaye
   kïx-u=*mpok*   **tan**=*kay-e*
   finish-CP.I=also **S1.D**=eat-ICP.D
   'I also finished eating.' {txt}

Syntactic relations are signaled by a combination of pronominal affixes, word order (in Oaxacan Mixean languages), case (Zoquean languages from Chiapas and Santa María Chimalapa), and adpositions (adjuncts). Some languages are consistently ergative with all person markers and dependency status of the clause. Olutec is one of these languages, as illustrated in the following exam-

ples in which the argument expressing the first person A is coded differently to the arguments expressing the same person functioning as S and O.

OLUTEC (MIXEAN)

(19) a. Ergative: "A"
    pu:ro jaytsu' tsu'chi tankaype
    *pu:ro jaytsu' tsu'tsi **tan**=kay-pe*
    only   deer   meat A1.I=eat-ICP.I.TR
    'I eat only deer meat.' {txt}

b. Absolutive: "S"
    takaypako 'i:s
    ***ta**=kay-pa=koj   'i:ts*
    S1.I=eat-ICP.I.INTR=just PRO1
    'I just eat.' {txt}

c. Absolutive: "O"
    ja:yajti'k taka:'e:panipaja'
    *ja:-ya'-tik   **ta**=ka:='e:p-an-i-pa=ja'*
    other-PROX-PL PO1.I=NEG=see-IRR.I-INV.I-ICP.I.INTR=AN
    'These other ones are not going to see me.' {txt}

Other languages exhibit different alignments for core arguments depending on person and verb dependency. For instance, the Oaxaca Mixean languages show three different alignment patterns in independent clauses and two in dependent clauses.

Chiapas Zoque, Jitotoltec and Santa María Chimalapa Zoque mark case on pronouns and ergative case on nominal phrases. Tecpatán Zoque (one of the variants of Chiapas Zoque) follows an ergative pattern in both the pronominal person markers on the verb and in the case clitics expressed on independent pronouns and NPs, resulting in this being a double marking language.

TECPATAN ZOQUE (CHIAPAS ZOQUE)

(20) *mba'tumis ngwan*
    ***n**-pa't-u=**mis**   n-kwan*
    A2-find-CP=PRO2ERG NC-J.
    'You found John.'

TABLE 2.1   Alignment patterns for independent and
dependent clauses in Totontepec Mixe
(North Highland Mixe) (Guzmán 2012)

Person	S	A	PO	Alignment
Independent clauses				
1st	Ø=	n=	x=	Tripartite
2nd	m=	m=	m=	Neutral
3rd	Ø=	y=	Ø=	Ergative
Dependent clauses				
1st	n=	n=	x=	Accusative
2nd	m=	x=	m=	Ergative
3rd	y=	ti=	y=	Ergative

TECPATAN ZOQUE (CHIAPAS ZOQUE)

(21) a. *mbyujtumih*
    *ny-put-u=**mih***
    S2-exit-CP=PRO2ABS
    'You went out.'

   b. *ngwan'is mbya'tumih*
    *n-kwan=**'is** ny-pa't-u=**mih***
    NC-J.=ERG PO2-find-CP=PRO2ABS
    'John found you.'

All the languages exhibit secundative alignment for objects, i.e. they are Primary Object languages (Dryer, 1986) since Patients of monotransitives and Goals/Beneficiaries/Recipients of ditransitives follow the same set of morphosyntactic rules, including the marking for person on the verbs, as shown in the following examples from Olutec.

OLUTEC (MIXEAN)

(22) Absolutive: Theme/Patient "PO"
    ja:yajtik taka:'e:panipa'
    *ja:-ya'-tik   **ta**=ka:='e:p-an-i-pa=ja'*
    other-this-PL PO1.I=NEG=see-IRR.I-INV.I-ICP.I=AN
    'These other ones are not going to see me.' {txt}

(23) Absolutive: Recipient "PO"
tamoyɨwak tuk
ta=*mo:y'-ɨ-w=ak* *tuk*
PO1.I=give-INV.I-CP.I=AN one
'One (person) gave it to me.' {txt}

In all Mixe-Zoquean languages, nominal expressions with adjunct function are always marked by adpositions or relational nouns. Although the majority of the languages only have postpositions, some Mixean languages also have prepositions. In Olutec, the locative marker is a postposition, whereas the comitative is a preposition, as shown in (24).

OLUTEC (MIXEAN)
(24) *jama:k yo'jwa ni'ja'me:k tyaktiji ko'ke 'itikmɨ mɨ:tak 'i'unak yo'jwa'aj*
jamaj=k yo'jwa ni'ja'mej=k ta=yak-tij-i *ko'ke*
that=AN man all=AN A3.D=CAUS-stay-ICP.D fish
*'i=tɨk-**mɨ*** *mɨ:t=ak 'i='unak Ø=yojwa='aj*
POSS1=house-LOC with=AN POSS1=offspring S3.1=male=REL
'That man left all the fish in his house with his son.' {txt}

Having summarized the main morphosyntactic features of these languages, I now turn to discussing the three basic relativization strategies within the language family.

2.3 The Gapping Strategy

Out of the four major relativization strategies with a full head which are recognized cross-linguistically, Mixe-Zoquean language have three: a) gapping, b) relative pronoun, and c) non-reduction with internal head. The first two strategies are found in all the languages of the family, whereas the third one has been reported only for a restricted group of Zoquean languages and one Mixean language. The main characteristics of the gapping strategy are the focus of this section.

A relative clause with an external head that follows the gapping strategy is a structure in which the head occurs as part of the main clause outside the RC without an overt phonological expression of the relativized domain nominal within the RC. In Mixe-Zoquean languages, these RCs are either embedded clauses that form a constituent with the domain nominal, or adjoined clauses that do not form a constituent with the domain nominal.

2.3.1   *The Embedded Type*

In languages of both branches, embedded relative clauses using the gapping strategy can be postnominal or prenominal, as shown in examples (1a) and (1b) above from Highland Popoluca. The postnominal versus prenominal alternation of RCs is illustrated with examples from languages of both branches of the family. The examples in (a) are postnominal RCs, while the examples in (b) are prenominal RCs.

OLUTEC (MIXEAN)

(25) a. *chikxpakak 'imajaw 'ipaːtu'a' pu'mayemaj ja'*
        Ø=chikxpak=ak 'i=majaw   ['i=paːt-u='a'   pu'mayjemjaj
        s3=pretty=AN   POSS3=woman A3.I=find-CP.I=REL J.
        ja']
        PRO3
        'The woman that he found in Jaltipan was pretty.' {txt}

     b. *tuk tantunwa' tantik*
        tuk [tan=tun-w=a']   tan=tik
        one A1.I=make-CP.I=REL POSS1=house
        'My house that I built.' {txt}

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(26) a. *y'ijsyajpa te' tida'mde makabɨ kidi*
        y-'is-yaj-pa   te' ti=ta'm=te   [manh-pa=pɨ
        A3-see-3PL-ICP.I DEF thing=PL=FOC AUX:go-ICP.I=REL
        Ø-kɨt-i]
        s3-pass-DEP1
        'They see the things that are going to happen.' {txt}

     b. *mityajpa te' konu'ksyajpabɨ pɨnda'm*
        Ø-min-yaj-pa   te' [Ø-konu'ks-yaj-pa=pɨ] pɨn=ta'm
        s3-come-3PL-ICP DEF s3-pray-3PL-ICP=REL   man=PL
        'The men who pray are coming.' {txt}

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(27) a. *pɨn gaja xokijo jejpa' 'ɨm 'ixpɨkpa*
        pɨn [ka=ja   xoki=jo Ø=jej-pa=pɨ']   'ɨm='ix-pɨk-pa
        man DIST=LOC C.=LOC s3.I=live-ICP.I=REL A2.I=see-grab-ICP.I
        'You know the man who lives in Las Conchas.' {txt} (Jiménez, 2014: 2)

b. *'i bi wakax 'iy kɨxjayyɨ'k kajan 'iy yakyakkawɨ 'iy win*
   'i   [bi   wakax 'iy=kɨx-jay-wɨ=pɨ'k]   kajan
   and DEF cow   A3.I=eat-R.APPL-CP.I=REL jaguar
   'iy=yak-yak-ka'-wɨ   'iy=win
   A3.I=CAUS-CAUS-die-CP.I POSS1=REFL
   'And the jaguar that ate his cow let itself be killed.' {txt} (Jiménez, 2014:
   2)

   JITOTOLTEC (ZOQUEAN)

(28) a. *jetzye myarunhba jutzye tum ya'une ni jɨybɨ*
    jetzye   y=matunh-pa   jutzye tumɨ yawa-'une [*nɨ*
    that.way A3.I=listen-ICP.I how   INDF tender-boy PRG
    Ø-jɨy=pɨ]
    S3-cry.DEP=REL
    'in that way he heard something like a baby who was crying.' {txt}

   b. *nɨ myetz xa'xab yomo*
    nɨ   y-metz-wɨ   [Ø-xa'xa=pɨ]   yomo
    PRG A3.D-look_for-DEP S3-pretty=REL woman
    'He was looking for a pretty woman.' {txt}

   TEXISTEPEC POPOLUCA (GULF ZOQUEAN)

(29) a. *byatɨnh kyet pelota ma'pɨ' wiipke'm*
    y-batɨnh y-ket   pelota [ma'=pɨ' y-weep-ke'm]
    A3-listen S3.D-fell ball   PFV=REL A3-throw-ascend
    'He heard the ball that he had thrown up falling.' {txt} (Díez Alejandre,
    2019: 29)

   b. *entonse ma' nim tɨwki'da'api' kaanhda'a*
    entonse ma' Ø-nim [Ø-tɨw-ki'da'a=pɨ'] kaanh-da'a
    then   PFV S3-say S3-big-ADJ=REL   tiger-AUG
    'Then the tiger that was big said.' {txt} (Díez Alejandre, 2019: 29)

Mixe-Zoquean languages which present the alternation between postnominal
and prenominal RCs are languages with flexible constituent order, although
all these languages display most of the features associated with OV languages.
One of the distinguishing features of OV languages shared by Mixe-Zoquean
is precisely the fact that RCs with overt NPs which make use of the gapping
strategy are prenominal in their unmarked form. San Miguel Chimalapa Zoque
is a language that clearly shows that the postnominal RCs are marked struc-

tures with respect to the prenominal ones. In this language, the formal shape of the relativizer differs depending on the position of the head with respect to the RC. The relativizer of postnominal RCs is =(pɨ)' whereas the relativizer of prenominal RCs is =(p)ɨ'k. An additional difference between the two types of constructions in San Miguel Chimalapa Zoque is the degree of phonological cohesion between the head and the RC. Postnominal RCs require a significant prosodic pause between the head and the RC, whereas prenominal RCs do not show any significant pause between the RC and its head. For instance, in (30) the pause between the domain nominal *mɨ'a* 'deer' and the postnominal RC *'in niwaktammɨ'* 'that we stole' has a duration of 0.327 milliseconds. In contrast, the pause between a prenominal RC and its head, such as the one in example (27b), has a duration of approximately 0.070 milliseconds (Jiménez 2019: 432–437).

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(30) *bi mɨ'a 'in niwaktammɨ' 'in pinɨk tikjonang*
  bi mɨ'a [*PAUSE*] ['*in=niwak-tam-wɨ=pɨ'*] *'in=pɨk-nik-wɨ*
  DET deer   A1.I=steal-PL:SAP-CP.I=REL A1.I=grab-go-CP.I
  tɨk=jo=nang
  home=LOC=PRL
  'We took to the house the deer we stole (from the tiger).' (Jiménez, 2019: 433)

Gapping is a basic strategy in both branches of the family since this strategy is available for the relativization of Subjects in all the languages of both branches. The gapping strategy is available when core arguments and some adjuncts are relativized. Within the family, prenominal RCs have a narrower distribution than postnominal ones across the accessibility hierarchy that was originally proposed by Keenan and Comrie (1977). For instance, in San Miguel Chimalapa Zoque the prenominal type is available for the relativization of all core arguments and genitives, whereas the postnominal type is available for a more extended set of grammatical relations that includes all core arguments, genitives, and an extended set of adjunct relations (comitative, instrument, locative and reason). A similar distribution is also attested in Highland Popoluca, a language in which the prenominal type is only available for the relativization of all core arguments, whereas the postnominal type is available for all core arguments, genitives, manner and object of comparison. The relations that are normally expressed as adjuncts in simple clauses are relativized using the gapping strategy in two different ways: a) by maintaining the adjunct status of the relativized head, or b) by promoting the extrathematic relativized head as

an applied argument. When the relativized NP maintains its status of adjunct within the RC, several languages of both Zoquean and Mixean branches use the gapping strategy leaving the adposition stranded in its original position, as in the following examples from San Miguel Chimalapa Zoque. In (31a) the relativized noun functions as a comitative within the RC. Note that the comitative postposition remains stranded given that there is no dependent nominal within the RC to which it can be attatched since the strategy used for relativization is gapping. In (31b) the stranded postposition functions as instrumental, in (31c) as locative, and in (31d) as reason.

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(31) a. *pɨn dix tɨkɨyyɨ'jɨnang 'ɨn 'ɨxxɨ*
    pɨn [*tɨx* Ø=*tɨk'ɨy-wɨ=pɨ'* =***jɨnang***] *'ɨn='ɨx-wɨ*
    man PRO1 S1.I=enter-CP.I=REL =COM A1.I=see-CP.I
    'I saw the man with whom I came in.' (Jiménez, 2014: 279)

    b. *'ɨn juyyɨ bi tɨngkuy 'ɨn yoya yakawɨ'pɨ't*
      'ɨn=juy-wɨ *bi* tɨngkuy [*yoya 'ɨn=yak-ka'-wɨ=pɨ'* =***pɨ't***]
      A1.I=buy-CP.I DEF machete pig A1.I=CAUS-die-CP.I=REL =INSTR
      'I bought the machete I cut the pig with.' (Jiménez, 2014: 280)

    c. *tɨk 'ɨm powɨ'angji dɨ ye'tstammɨ*
      tɨk [*'ɨm=po'-wɨ=pɨ'* =***'ang=ji***] *tɨ=ye'ts-tam-wɨ*
      house A2.I=be.born-CP.I=REL =edge=LOC S1.I=arrive-PL:SAP-CP.I
      'We arrived to the house where you were born.' (Jiménez, 2014: 39)

    d. *'ɨn 'ɨxxɨ bi yoma' dɨ tɨjjɨ'go*
      'ɨn='ɨx-wɨ *bi* yoma' [*tɨ=tɨj-wɨ=pɨ'* =***ko***]
      A1.I=see-CP.I DEF woman S1.I=go_and_return-CP.I=REL =RSN
      'I saw the woman that caused me to leave.' (Jiménez, 2014: 280)

Additional examples of stranded postpositions come from Jitotoltec. In (32a) the relativized noun functions as a comitative within the RC, in (32b) as an instrument, and in (32c) as a genitive.

JITOTOLTEC (ZOQUEAN)

(32) a. *ka'w jega yomo midibi'dum'm ndɨw*
    Ø-*ka'-wɨ* *jeka* yomo [Ø-*min-wɨ=pɨ'* =***tu'm*** *n-tɨw*]
    S3-die-CP DEF woman S3-come-CP=REL =COM POSS3-sister
    'The woman with whom my sister came died.'

b. *togoy jega madziri ndi'kxibi'bi'ktsi manhgoguy*
   Ø-tokoy   jeka matsiti [*n-ti'kx-wɨ=pɨ'   =pi'k=tsi*
   s3-be.lost.cp def machete a3-cut-cp=rel =instr=1sg
   manhko-kuy]
   mango-tree
   'The machete with which I cut the mango tree got lost.'

c. *ngedtsi pit ka'wɨbix chada*
   n-ken=tsi   pɨn [*Ø-ka'-wɨ=pɨ   =x   y-tata*]
   a1-see.cp=pro1 man s3-die-cp=rel =gen poss3-father
   'I saw the man whose father died.'

The following examples from Ocotepec Zoque and Olutec illustrate cases in which the relativized head functions as locative in the rc leaving the adposition in (33) and the relational noun in (34) both stranded.

Ocotepec Zoque (Chiapas Zoque)

(33) *te' kuerpo 'ɨjtubɨ 'omotsi nimekede wɨbɨ*
     te' kuerpo [*Ø-'ɨt-u=pɨ   ='omo='tsi*] *nimeke=te Ø-wɨ=pɨ*
     def body   s1.i-be-cp.i=rel =loc=abs1 very=cop s3.i-good=rel
     'The body which I am in is very good.' (Faarlund, 2012: 159)

Olutec (Mixean)

(34) *tanpa:tuk tu'k* morra'l *'ijotpi 'i'itij me:nyu*
     tan=pa:t-u=k   tuk morral   [*'i=jot-pi*
     a1.i=find-cp.i=an one haversack poss3=inside-loc
     'i='it-i-j   me:nyu]
     s3.i=exist-icp.d-inv.icp.d money
     'I found the haversack inside of which I have the money.'

On the other hand, several languages of both branches of the family bring into core argument status extrathematic relations via the use of applicatives when the arguments expressing these relations are relativized. All languages code the third argument of transitive verbs conveying recipients, genitives of themes, goals, beneficiaries and malefactives as applied arguments with a suffix which is cognate with the reconstructed form *–Haːy'* (Zavala 2013). Thus, when the external head functions as the third argument in the rc, the applicative is required as shown in the following examples from languages of the two branches of the family.

Olutec (Mixean)

(35) *tukak yo'jwa taxnɨmayi:tɨsa'*
tuk=ak yo'jwa [*tax=nɨm-**ay**-i-:t-ɨts='a'*]
one=AN man A1.D=say-R.APPL-CP.D-PL:SAP-EXCL=REL
'One man that we told it to.' {txt}

Totontepec Mixe (Northern Mixe)

(36) *jä yö'ön juu' ëëtse'e jä vo'mïm mpëmji*
jä yö'ön [*juu' ëëts=ve'e* *jä* vo'omïn n=pëm-**jäy**-ji*]
DEF shovel REL PRO1.EXCL=FOC DEF hook A1.D=put-R.APPL-CP.D
'The shovel (to) which we put the hook on.' (Guzmán, 2012: 143)

Highland Popoluca (Gulf Zoquean)

(37) *'ity pɨɨxiny ki takupoya'ypapɨ'k*
Ø='it-wɨ pɨɨsin [*ki* ta=kupoy-**'a'y**-pa=pɨ'k*]
s3=be-CP man SUB PO1.INCL=escape-R.APPL-ICP=REL
'There are men that escape from us.' {txt} (López Márquez' corpus)

Jitotoltec (Zoquean)

(38) *nixtsi jega yomo nu'badzyɨwbɨx kyaxi*
n-'ix=tsi *jeka* yomo [*Ø-nu'm-**ay**-tɨ-wɨ=pɨ='ix*
A1-see.CP=1 DEF woman s3-steal-R.APPL-PASS-CP=REL=GEN
y-kaxi]
POSS3-chicken
'I met the woman whose chicken was stolen.'

In addition to the recipient applicative, other languages of both branches of the family require the use of an applicative construction when the extrathematic argument being relativized expresses the semantic role of an instrument, (39a)–(41a), a comitative, (39b)–(41b), or reason (40c)–(41c).

Olutec (Mixean)

(39) a. *taka'itipa:t ni ti: tantojpetame'e:t*
ta=ka:='it-ɨ-pa-:t ni+ti:
S1.I=NEG=exist-INV-ICP.I.INTR-PL:SAP nothing
[*tan=**toj**-pet-am-'e'-e:t*]
A1.I=INSTR.APPL-ascend-IRR.I-REL-PL:SAP
'We do not have anything to go up with.' {txt}

b. *ka:naspa:tiyu je' mesko warrilaj ti'ni tami:nikxwa'*

   Ø=ka:=natspa:t'i:y'-u   *je'*   *metzko* *warril* *ti:n'+i*

   S3.I=NEG=be_enough-CP.I DEF two   barrel shit

   [*tan=**mi:**-nikx-w=a'*]

   A1.I=COM.APPL-go-CP.I=REL

   'The two barrels of shit I carried weren't enough.' {txt}

TOTONTEPEC MIXE (NORTHERN MIXE)

(40) a. *tëjnu jä 'escalera juu' 'ëts ntukpajt*

     Ø=tëj-ni-u   *jä*   *'escalera* [*juu' 'ëts*

     S1.I=break-already-CP.I DEF ladder   REL   PRO1.SG

     *n=**tuk**-pat*]

     A1.I=INSTR.APPL-ascend.CP.I

     'The ladder we went up with broke.' (Guzmán, 2012: 143)

b. *jä të'ëxtëjk juu' jä yää'tyëk ki timëttsïni*

     jä   *të'ëx-tëk*   [*juu' jä*   *yää'y-tëk*

     DEF woman-house REL   DEF man-house

     *kë=ti=**mët**-tsëënnäy-ji*]

     CONTR=A3.D=COM.APPL-sit-CP.D

     'The lady with whom the man would have lived.' (Guzmán, 2012: 143)

c. *jä kää juu' Juän nyëtuump*

     jä   *kää* [*juu' Juän y=**ne**-tön-p*]

     DEF bull REL J.   A3.D=RSN.APPL-work-ICP.I

     'It is because of the bull that John works.' (Guzmán, 2012: 260)

HIGHLAND POPOLUCA (GULF ZOQUEAN)

(41) a. *je'm tik iga 'an'ityka'ta'mpa tzaam piimi wiityi*

     je'm *tik*   [*iga 'an='it-**ka**'-ta'm-pa*]   *tzaam* *piimi*

     DEF house SUB A1.I=be-INSTR.APPL-PL:SAP-ICP.I much strong

     wiiti

     spacious

     'The house that we live in is very spacious'. {txt} (López Márquez' corpus)

b. *je'm tujkuy 'inyasi'pa'ap chi'tya matik*

     je'm *tujkuy*   [*'i=**na**-si'-pa=pa'*]   *Ø=tsi'-ta-wi*

     DEF shotgun A3.I=COM.APPL-walk-ICP.I=REL S3=give-PASS-CP

    matik
    yesterday
    'The shotgun that he carries was given to him yesterday.' {txt} (López
    Márquez' corpus)

c. *nikum je'm pɨɨxiny ki'ankuminytyip*
    Ø=nik-u='am   je'm pɨɨsin [*ki 'an=**ku**-min-ti'p-wɨ*]
    S3=go-CP-already DEF man   SUB A1.I=RSN.APPL-come-FRUST-CP
    'The man who was the reason I wanted to come already left.' (López
    Márquez' corpus)

In some Mixean languages spoken in Oaxaca at least one of the extrathematic arguments, the instrument, may alternatively be coded either as an applied argument, (42a), or as a dependent of a stranded preverb (a grammaticalized morpheme reanalyzed from a stranded postposition) when being relativized, (42b).[1]

    YACOCHI MIXE (MIXEAN)

(42) a. *jä'ä tsujx jü'ü tyutsujkp*
    jä'ä tsujx [*jü'ü y-**tu**-tsujk-p*]
    DEF knife REL A3.I-INSTR.APPL-cut.with.knife-ICP.I
    'The knife that he used to cut it.' (Martínez and Arellanes, 2019: 384)

b. *jä'ä tsujx jü'ü më'ët ttsük*
    jä'ä tsujx [*jü'ü **më'ët**   t-tsük-(y)*]
    DEF knife REL PV:INSTR A3.D-cut.with.knife-ICP.I
    'The knife that he used to cut it.' (Martínez and Arellanes, 2019: 384)

2.3.2 *The Adjoined Type*

Some Oaxaca Mixe varieties that use the gapping strategy to form RCs have prenominal embedded RCs with just a limited group of property concepts, whereas the rest of the RCs are expressed as adjoined RCs that do not form an immediate constituent with their heads. For example, in Tamazulápam Mixe, a strict SOV language, embedded RCs expressing property concepts precede the domain nominals in core argument function that occur before the matrix verb,

---

1 The category of preverb only occurs in some Oaxaca Mixe varieties (cf. Zavala Maldonado 2015, Santiago Martínez 2017, Santiago Martínez and Zavala Maldonado 2019, Martínez and Arellanes 2019).

as shown in (43). In this example, the enclitic =*p(ëk)* is cognate with the relativizer enclitic present in languages of both branches of the family.

TAMAZULAPAM MIXE (SOUTH HIGHLAND MIXE)

(43) *pëna' mëjpjä'äy 'ëxëë tsyi'kypy*

     pën=ja'a   [*Ø-mëj=p*]   jä'äy   *'ëxëë*   *y-tseek-py*

     who=DEF s3.I-big=REL person yesterday A3.I-hit-ICP.I.TR

     'Who hit the man that is big.' (Santiago's corpus)

In contrast, in the adjoined RC structure, the domain nominal expressing a core argument function occurs before the matrix verb occupying the canonical position of S, A, SO and PO, whereas the RC introduced by the relativizer *mëte'p* follows the verb as an extraposed modifier. In (44a) the domain nominal functions a Subject, in (44b) as PO, and in (44c) as comitative within the RC.

TAMAZULAPAM MIXE (SOUTH HIGHLAND MIXE)

(44) a. *ja'a jä'äy 'o'kp mëte'p jam tunp*

       ja'a jä'äy *Ø-'ook-p*   [*mëte'p jam*   *Ø-tun-p*]

       DEF man s3.I-die-ICP.I.INTR REL   there s3.I-work-ICP.I.INTR

       'The man who works there is dying.' {txt} (Santiago's corpus)

    b. *ka't pujx tpääty mëte'm tjëkkëtä'äp.*

       ka't   pujx *t-päät-y*   [*mëte'p t-jëk-kätäw-py*]

       NEG metal A3.D-find-ICP.D REL   A3.I-CAUS-fall-ICP.I.TR

       'He can't find the metal he threw down.' {txt} (Santiago's corpus)

    c. *'ojts kiixy n'ijxy mëte'p ojts mëët mnijkxy.*

       'ojts kiixy *n-'ejx-y*   [*mëte'p 'ojts mëët*   *m-nëjkx-y*]

       PST girl A1.D-see-CP.D REL   PST PV.COM s2.D-go-ICP.D

       'I saw the girl you went with.' (Santiago's corpus)

Ayutla Mixe also employs the same pattern illustrated in (44) for Tamazulápam Mixe: the domain nominal precedes the matrix verb whereas the RC introduced by the relativizer *te'ep* follows it. In (45a) the relativized argument is the Subject, whereas in (45b) is the Secondary Object within the RC. In these two varieties of Mixe, the postposed RC is a basic and the most common strategy to relativize core arguments without any particular restriction with respect to the type of predicate within the RC.

Ayutla Mixe (South Highland Mixe)

(45) a. *pës 'ojtsa mixy jyënmä'impyääty te'p te'n Juankäjtp.*

    pës   *'ojts* ja'a   mixy *y-jënmäy+ëmpyäät-y* [*te'ep te'n*

    then PST PROX boy s3.D-wonder-ICP.D   REL DEM

    Ø-Juan-ät-p]

    S3.I-J.-VBZR-ICP.I.INTR

    'Then the young man who is called Juan had a thought.' (Romero, 2009: 570)

    b. *tyä ëjts tu'uk cuento nmätyä'äkä'än este te'ep ojts nan tat xtu'kmëtey*

    tyää ëjts   tu'uk cuento *n-matyä'äk-ä'än este* [*te'ep ojts nan*

    DEIX PRO1SG one   story A1.D-tell-IRR.D HES REL   PST mother

    tat   *x-tuk-mëtoo-y*]

    father PO1.D-CAUS-hear-CP.D

    'I will tell you a story that my parents told me.' (Romero, 2009: 571)

Other Mixean languages also have postposed adjoined RCs but they are uncommon in the corpus when compared with the most common prenominal or postnominal RCs using the gapping strategy. For instance, in Olutec the most frequent type is the postnominal strategy, as in (25a), followed by the prenominal one, as in (25b), whereas the least frequent is the postposed one illustrated by the pair of example in (46).

Olutec (Mixean)

(46) a. *te'ej kixu je' jaykako'ke 'iyakto:kanɨ tɨ'tzaj*

    te'ej kix-u   *je'*   jaykak-ko'ke *'ɨ=yak-to:k-a'n*

    now finish-CP.I DIST man-fish   s3.D=PASS-sell-IRR.D

    [*Ø=tɨ'tz='aj*]

    S3.I=dry=REL

    'Now, they finished selling the dried sea bass.' {txt}

    b. *jaykako'ke nɨkxpa tapɨki tɨ'tzaj*

    jaykak-ko'ke *nɨkx-pa*   *ta=pɨk-i*   [*Ø=tɨ'tz='aj*]

    man-fish   go-ICP.I.INTR A3.D=grab-ICP.D S3.I=dry=REL

    'He used to go to buy dried sea bass.' {txt}

Languages of the Zoquean branch also show adjoined RCs, but unlike the ones attested in Mixean languages, the two languages spoken in Chiapas have RCs of the preposed type. In Ocotepec Zoque, a language with flexible constituent order which favors the VO order, adjoined RCs occur in preposed position

before the matrix verb, whereas the domain nominal follows it, as in the examples in (47).

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(47) a. *mijtsi listobɨ maka ndsyi'ye ku'tku'y*

   mijtsi   [Ø-listo=pɨ]   manh-pa   ny-tsi'-ye   ku'tku'y
   PRO2.ABS S3-prepared=REL AUX:go-ICP PO2-give-3PL.DEP1 food
   'They are going to give you food which is prepared.' {txt} (de La Cruz' corpus)

   b. *'awajkubɨ 't mba'du te' tɨjk*

   [Ø-'awak-u=pɨ]='t   n-pa't-u   te'   tɨk
   S3-open-CP=REL=ERG1 A1-find-CP DEF house
   'I found the house that was open.' {txt} (de La Cruz' corpus)

   c. *pojke yɨti tsye'bɨ't nɨmidu nmatsyin*

   poke   yɨti   [Ø-tsye'=pɨ]='t   n-nɨ+in-u   n-matsyin
   because now   S3-small=REL=ERG1 A1-bring-CP POSS1-machete
   '[…] because today I brought my machete which is small.' {txt} (de La Cruz' corpus)

2.3.4   *Interim Summary*

Gapping is a basic strategy shared by all Mixe-Zoquean languages. This strategy is expressed by syndetic structures in all languages of the family which share a relativizer that can be reconstructed as an enclitic in Proto-Mixe-Zoque as *=pɨ'k*. In addition to the cognate enclitic, some languages have borrowed subordinators from Spanish, *ke* or *ki* < SP *que*, as in (41c), or from Nahuatl as in Highland Popoluca which borrowed the subordinator *iga* from Isthmus Nahuat, as in (41a). Mixean languages spoken in Oaxaca developed other relativizers that grammaticalized from the WH word 'what': *mëte'p* in Tamazulápam Mixe (2), *juu'* in Totontepec Mixe (36), *jü'ü* in Yacochi Mixe (42), and *te'ep* in Ayutla Mixe (45). Languages of the two branches of the family that make use of the gapping strategy have both prenominal and postnominal RCs. Prenominal RCs are structures used to relativize a less extended set of grammatical relations than postnominal ones. In addition to embedded RCs, several languages of the two branches of the family use the gapping strategy in adjoined RCs that represent the least frequent type of structure in all the languages of the family except within a subgroup of Mixean languages spoken in Oaxaca in which the postposed RC is the most common type of RC that makes use of the gapping strategy.

2.3.5   *The Zoquean Gapping Strategy Borrowed by Cholan Languages*

Two languages of the Cholan branch of the Mayan family, Chol and Chontal, borrowed the syntactic structure with gapping found in the neighboring languages of the Zoquean branch as a basic relativization strategy. Similar to Zoquean languages, Chol and Chontal have prenominal RCs that include a second position enclitic functioning as relativizer which was also borrowed from Zoquean. The relativizer enclitic has been reconstructed for Proto-Mixe-Zoque as *=pɨ'k* but is unknown in any other Mayan language. Chol and Chontal together with Chorti and Cholti (†) are Mayan languages of the Cholan subgroup, which is part of the Greater Tseltalan Group (Kaufman and Norman 1984). Among all Mayan languages, these are the only two languages that borrowed the relativization syntactic pattern from Zoquean languages together with other morphosyntactic features due to extensive language contact between Zoquean languages and these two Cholan languages in the precolonial period. The form of the relativizer in Chol is the enclitic *=bɨ* and in Chontal *=ba* as shown in the examples in (48) and (49) in which the RC precedes the head.

Chol (Cholan)

(48) *chɨ'=ɨch   bajche ixɨ   [p'el-el-Ø=ix=**bɨ**]   tye'*
      that_way=AFFIR like   DEM   saw-ST-S3=already=REL   wood
      'The way in which those pieces of wood which are sawed.' (Martínez Cruz, 2007: 203)

Colonial Chontal (Cholan)

(49) *no ba cab*
      [*no-Ø=**ba***]   kab
      big-S3=REL land
      '(he saw a forest with cedar trees and) huge pieces of land.' (Smailus, 1975: 108)

Synchronically, Chol has both prenominal (48) and postnominal (50) RCs that include the borrowed relativizer, however, prenominal RCs are used to relativize only core arguments (S, A, SO, and PO), whereas postnominal RCs relativize core arguments as well as genitives, comitatives and instruments. In (50a) the gap corresponds to S within the RC, whereas in (50b) the relativized head functions as genitive within the RC, a function that cannot be relativized with a prenominal RC as the one in (48).

CHOL (CHOLAN)

(50) a. *tyi tyil-i-Ø*   xi'baj [*ñoj mañaj-Ø=bɨ*]
CP arrive-IV-S3 devil very bad-S3=REL
'The (type of) devil that is very bad came.' (Martínez Cruz, 2007: 205)

b. *tyi j=kiñ-i-Ø*   wiñik [*ta'=bɨ   a=xujch'i-be-Ø*   *y=ijñam*]
CP S1=meet-TV-S3 man   CP=REL A2=steal-R.APPL-PO3 POSS3=wife
'I met the man whose wife you robbed.' (Martínez Cruz, 2007: 206)

In contrast, Chontal prenominal RCs, as the one in (49), have been registered only in Colonial documents. All RCs in Modern Chontal are postnominal and the use of the relativizer borrowed from Zoquean languages is attested only with a limited set of property concepts expressing color, as illustrated in the following pair of examples.

MODERN CHONTAL (CHOLAN)

(51) a. *ni*   buk [*ni chɨk-Ø=ba*]
DEF dress REL red-S3=REL
'The dress that is red' (Keller and Luciano, 1997: 478)

b. *u-kinint-an-Ø*   *um-p'e*   otot   [*si-sik-Ø=ba*]
A3-have-DTV-PO3 one-NCLF house RED-white-S3=REL
'He has a house that is white.' (Courtesy of José del Carmen Osorio)

The rest of the property concepts are part of an asyndetic type of RC that makes use of the gapping strategy, as illustrated in the pair of examples in (52).

MODERN CHONTAL (CHOLAN)

(52) a. *ki-tsep-i-Ø*   *te'* [*noj-Ø*]
A1-cut-TV-PO3 tree big-S3
'I cut a tree that is big.'

b. *ki-chin-i-Ø*   *yinik* [*chim-en-Ø*]
A1-see-TV-PO3 man die-PTCP-S3
'I saw a man who is dead.' (Courtesy of José del Carmen Osorio)

To sum up, these two Cholan languages borrowed not only the relativizer but also its position in the clause as a second position clitic, and the syntactic pattern of the RC with respect to the head noun (prenominal position) from Zoquean languages spoken in the geographic area occupied by speakers of

Cholan languages centuries before the arrival of the Spaniards. The type of RC found in Chol and Chontal is unfamiliar to the rest of the Mayan languages that only have postnominal RCs as expected in verb initial languages. In addition to the RC formation pattern, these two Cholan languages borrowed other syntactic structures from Zoquean, in the same way that Zoquean languages spoken in a geographically adjacent area borrowed many morphosyntactic patterns from Cholan indicating sustained contact and bilingualism between these languages in precolonial times.

2.4 The Relative Pronoun Strategy

The second relativizing strategy that is common to all languages of the family is one in which a relative pronoun that anaphorically recovers animacy or case features of the external head occurs at the left extreme of the RC. The relative pronouns are identical to interrogative pronouns and in some languages they are realized as a combination of an interrogative pronoun and a relational noun or a case marker that pied-pipes with the relative pronoun. In all languages the RC follows the domain nominal either as a postnominal modifier forming an immediate constituent with its head, as in (53), or an extraposed modifier in the form of an adjoined RC, as in (54). In (53) the relative pronoun *tyi=mɨ* includes a WH-word for inanimates encliticized by an instrument case marker, whereas in (54) the relative pronoun *pën* is recruited from a WH-word for animates.

> HIGHLAND POPOLUCA (GULF ZOQUEAN)
>
> (53) *yɨ'ɨm 'ɨty je'm tzoy tyiimɨ 'iny+cho'yɨ'y yɨ'p 'inh+kaawaj*
>
> *yɨ'ɨm   Ø='ɨty-w*   je'm tzoy   [***tyi=mɨ***   *'in=tzoy-'ɨ'y-w*
> here   S3.I=be-CP.I   that medicine what=INSTR A2.I=medicine-VRS-CP.I
> *yɨ'p   'in=kaawaj*]
> this POSS2=horse
> 'Here there is a medicine [with which you cure your horse].' {txt} (Boudreault, 2009: 870)

> TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)
>
> (54) *yäätsa' jä'äy jyëkwätsey pën te'n tunäntëp*
>
> *yää=ts=ja'a*   jä'äy *Ø-jëk-wätsow-y*   [***pën*** *te'n*
> PROX=FOC=DIST man   S3.D-PASS-invite-ICP.D who   thereby
> *Ø-tun-wä'än-të-p*]
> S3.I-work-IRR-PL-ICP.I

'It is here where the men who are going to work in this way are going to be invited.' {txt} (Martínez' corpus)

In some languages of the Mixean branch, the relative pronoun strategy alternates with the gapping strategy as a basic strategy to relativize subjects, and the remaining core and non-core arguments. In example (54) from Tamazulápam Mixe, and in (55) from Olutec, the domain nominal functions as subject of the RC introduced by the relative pronoun.

OLUTEC (MIXEAN)

(55) *mɨːt tijunaj pa'ko jayka'k pɨn 'iwanuja'*
    mɨːt   Ø=tij-u=na   pa'ko jaykak [*pɨn 'i=waːn'-u=ja'*]
    and s3.I=stay-CP.I=still many people who A3.I=want-CP.I=PRO3
    'And many people who wanted him still stayed.' {txt}

In Texistepec Popoluca the relative pronoun strategy is not a basic relativization strategy since it is inaccessible for the relativization of subjects. However, this strategy is used when the domain nominal functions as a primary object (55a), instrument, comitative, locative (55b) and time (55c) within the RC.

TEXISTEPEC POPOLUCA (GULF ZOQUEAN)

(56) a. *limeeta' juxpɨ' upu' 'yuk*
      y-limeeta'   [*jux=pɨ'   'u=pu'   y-'uk*]
      POSS3=bottle what=REL IPFV=REL A3-drink
      'The bottle that he drank.' {txt} (Díez Alejandre, 2019: 35)

    b. *tum lukar juch dɨk nyakjak tsu'*
      tum lukar [*juch   dɨk n-yak-jak   tsu'*]
      one place where go   A1-CAUS-pass night
      'A place where I can pass the night.' {txt} (Díez Alejandre, 2019: 35)

    c. *asta los syete diiaj jes kbejp, dyim, meñix ta npokeñseet*
      asta   los   Syete diiaj [*jes   k-bej-p*]   y-dɨm n-beñ-ix
      until DEF.PL seven days when S1-come-FUT A3-say S1.D-come-FUT
      ta   n-pokeñ-seet
      1PL.INCL A1-roll-return
      'In seven days when I will come, it is said, we will come and stir it up.'
      {txt} (Díez Alejandre, 2019: 35)

In Highland Popoluca and Totontepec Mixe the relative pronoun strategy
is available only for the relativization of adjuncts. The adjunct functions that
are available for relativization using the relative pronoun strategy in Highland
Popoluca are instrument (53), locative (57a), time (57b), manner (57c), and
reason (57d), whereas in Totontepec Mixe the same strategy is available to rel-
ativize only locative (58a) and time (58b).

HIGHLAND POPOLUCA (GULF ZOQUEAN)

(57) a. *koonychugum je'm taablajyukmɨ ju tu'ynye'tabum 'idyɨk*
    Ø=kon-tsukum-wɨ je'm taablaj=yuk=mɨ [*juty*
    s3.I=sit-arise-CP.I DEF board=top=LOC where
    Ø=tu'yne'-taj-pa='am   *'ityɨk*]
    s3.I=stretch.out-PASS-ICP.I=already PST
    'She arose from the board where she had already been stretched out.'
    {txt} (López Márquez' corpus)

   b. *dyam 'ij je'm 'uuraj juchis 'oytyɨ'p 'iny'am*
    dya='am   *Ø='it-wɨ*   *je'm* 'uuraj [*jutsis 'oy=tɨ'p-wɨ*
    NEG=already s3.I=be=CP.I DEF hour when AUX:go=FRUST-CP.I
    'in='am-wɨ]
    2A.D=see-ICP.D
    'He was not there by the time you went to see him.' {txt} (López Már-
    quez' corpus)

   c. *'agi'ankusunɨ'y je'm moodoj ju'uts 'iwatykɨ'ps 'i'aapa*
    'agi='an=kusun'ɨ'y-wɨ je'm moodoj [*ju'tz 'i=wat-kɨ'ps-wɨ*
    INT=A1.I=want-CP.I DEF way how A3.I=do-measure-CP.I
    'i='aapa]
    POSS3=mother
    'I really liked the way she imitated his mother.' {txt} (López Márquez'
    corpus)

   d. *dya 'anhmada'y je'm motiboj tyɨ'iga 'oy*
    dya Ø='anhmat-'a'y-wɨ   *je'm* motiboj [*tyɨ='iga*   *Ø='oy-wɨ*]
    NEG A3.I=tell-R.APPL-CP.I DEF reason what=SUB s3.I=go-CP.I
    'He didn't tell me the reason why he came.' {txt} (López Márquez' cor-
    pus)

TOTONTEPEC MIXE (NORTHERN MIXE)

(58) a. *tsää'njii'tsp jömä yë Jäköb tsyïnä*

     tsää'n-jii'ts-p   [*jömä yë'ë   Jäköb y=tsëën-näy-i*]

     snake-skin-LOC where DEM J.   S3.D=sit-ASUN-ICP.D

     'At the Snake river where Jacobo lives.' {txt} (Guzmán 2012: 115)

     b. *jä xëë ku 'ëts mits n'ixi*

     jä   xëë [*ku   'ëts   mits   n='ix-jäy-ji*]

     DEF day when PRO1.SG PRO2.SG A1.D=see-R.APPL-CP.D

     'The day when I met you.' (Guzmán 2012: 115)

In the four Zoquean languages spoken in Chiapas and Oaxaca, the relative pronoun strategy is available only for the relativization of locatives. Two structures are found when a relative pronoun introduces the RC. In the first one the RC is embedded forming an immediate constituent with the domain nominal, whereas in the second one the RC occurs adjoined to the domain nominal. The examples in (59) from San Miguel Chimapala Zoque illustrate both structures. Example (59a) is an embedded RC, whereas (59b) is an adjoined RC in which the head preceding the matrix verb does not form an immediate constituent with the relative clause following the matrix verb.

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(59) a. *pe dɨx la berda yan 'ixpɨkkɨ tun ju pɨ'tpa bi sebe*

     pe   tɨx   la   berda ya   'in='ix-pɨk-wɨ   tun [*ju*

     but PRO1 the truth NEG A1.I=see-grab-CP.I.NEG road where

     Ø=pɨ't-wɨ   bi   sebe]

     S3.I=pass-CP.I DET S.

     'But, to tell you the truth, I didn't know the road where Severino passed by.' {txt} (Jiménez, 2014: 305)

     b. *pamajo tijjɨy tsake donju dɨx dɨ mongpa*

     pama=jo *tij-wɨ*   'iy=tsak-e   [*don+ju tɨx*

     bed=LOC go_and_return-CP.I A3.I=abandon-CP.D where   PRO1

     tɨ=mong-pa]

     S1.I=sleep-ICP.I

     'He went to leave it at the bed where I sleep.' (Jiménez, 2014: 294)

In San Miguel Chimalapa Zoque the relative pronoun anaphorically recovers the whole locative phrase, as in the pair of examples in (59), or only the head of the locative phrase which is modified by the RC, as in the examples in (60).

In the examples in (60), the relative pronoun encodes animacy features of the relativized domain nominal, either human, (60a), or non-human, (60b) and (60c). In the anaphoric function, the relative pronoun can pied-pipe with the relational noun and locative case at the beginning of the RC, (60a) and (60b), or leave the relational noun and case stranded, as in (60c).

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(60) a. *'in'ixpɨkpa bi sacerdote 'iwɨgixi mi pa'tti*
  'in='ix-pɨk-pa   *bi*   sacerdote [***'iwɨ=kɨx=ji***   *mi=pa't-wɨ*]
  A1.I=see-grab-ICP.I DET priest   HUM=top=LOC PO2.I=find-CP.I
  'I know the priest on top of whom I found you.' (Jiménez, 2018: 125)

     b. *yo'wɨ bi tsa' jugixi kimangngi*
  Ø=yo'-wɨ   *bi*   tsa' [***ju=kɨx=ji***   *Ø=kimang-wɨ*]
  S3.I=fall-CP.I DET stone NHUM=top=LOC S3.I=ascend-CP.I
  'The stone that went up on top of it fell down.' (Jiménez, 2018: 124)

     c. *gade komangekɨtɨkji donju 'angkimobangji*
  ka'=te   komange=kɨtɨk=jɨ [***don=ju***
  DIST=FOC climb=under=LOC where=NHUM
  Ø='angkim-'oy-pa   *='ang=ji*]
  S3.I=be.in.charge-AP-ICP.I =mouth=LOC
  'Under that slope of the hill is where he is in charge.' (Jiménez, 2018: 126)

2.4.1 *Interim Summary*

The relative pronoun is a basic strategy only in some languages of the Mixean branch. This strategy is also attested with objects and adjuncts in Texistepec Zoque and with adjuncts of different types in Highland Popoluca and Totontepec Mixe. On the other hand, in all Zoquean languages spoken in Oaxaca and Chiapas the relative pronoun strategy is only available for the relativization of locatives. All the languages have recruited the relative pronouns from interrogatives pronouns which are part of the inventory of those languages, but have also recruited from Spanish, as in the case of the locative pronoun occurring in San Miguel Chimalapa Zoque in (60c). RCs introduced by relative pronouns are embedded postnominal RCs in both branches of the family, although adjoined postposed RCs introduced by relative pronouns are also attested as a less frequent type of structure in Zoquean languages and as a very frequent type within a subgroup of Mixean languages spoken in Oaxaca.

2.5   The Internal Head Strategy

The third relativization strategy attested in Mixe-Zoquean languages is a non-reduction strategy in which the domain nominal occurs inside the subordinated relative clause. In the internally-headed strategy, there is no overt expression of the head in the main clause. Unlike the other two RC strategies occurring in the family (gapping and relative pronoun), in internally-headed relative clauses (IHRC), the domain nominal retains the morphosyntactic features signaling its grammatical function within the RC. Within the language family, the existence of this strategy was first reported for Ocotepec Zoque (Faarlund 2012), but recent research has shown that the distribution of this type of RC is widespread in both branches of the family (see especially Jiménez 2017). Within the Zoquean branch, the structure is found in all dialects of Chiapas Zoque, Jitotoltec, and San Miguel Chimalapa Zoque, and it is very likely that Santa María Chimalapa Zoque also exhibits this structure. Within the Mixean branch, South Highland Mixe and Midland Mixe are the only languages in which the structure has been reported, although more research is needed in the other Mixean languages of Oaxaca to investigate if they also have internally-headed RCs. None of the Gulf Zoquean languages or the Mixean languages spoken in Veracruz (Olutec and Sayultec) exhibit this structure. The following examples of internally-headed RCs come from languages of the two branches of the family.

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(61) *minnɨ 'in yoje dey 'in jaymanak 'ɨy serbesay 'ukkɨ'*
      min-wɨ   'in=yoj-e   tey   ['in=jaya-manak   'ɨy=serbesa
      come-ICP.I A1.D=pay-CP.D today POSS1=male-child POSS3=beer
      'ɨy='uk-wɨ=pɨ']
      A3.I=drink-CP.I=REL
      'I came today to pay the beer that my son drank.' {txt} (Jiménez, 2014: 334)

JITOTOLTEC (ZOQUEAN)

(62) *ngendɨwib yomox 'etspa wɨɨk*
      [*n-ken-tɨ-wɨ=pɨ*   yomo=x]   *Ø-'ets-pa   wɨɨk*
      PO2.I-see-INV-CP.I=REL woman=ERG S3.I-dance-ICP.I good
      'The woman who saw you dances very well.'

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

(63) *te' jo'nchi'is kyu'dubɨ te' tɨp kejku*
    [*te'* jo'nchi=*'is* *y-ku't-u=pɨ*   *te'*   *tɨm*] *Ø-kek-u*
    DEF bird=ERG A3.I-eat-CP.I=REL DEF fruit S3.I-fall-CP.I
    'The bird which ate the fruit fell down.' (Faarlund, 2012: 163)

TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)

(64) *y'ëmu'ukyjä'äy'aty mëte'p ënä'äjk wijpy*
    y-'ëmu'ukyjä'äy-'at-y   [*mëte'p* *'ënä'äjk* *Ø-wijy-p*]
    S3.D-drunkard-VBZR-ICP.D REL   guy   S3.I-be.smart-ICP.I
    'The young guy who is smart is an alcoholic.' {txt} (Martínez' corpus)

SAN ISIDRO HUAYAPAN MIXE (MIDLAND MIXE)

(65) *y'ëxypy mëtëpë jaay xyajktsooky*
    y-'exy-py   [*mëtëpë* jaay *x-yajk-tsook-y*]
    A3.I-see-ICP.I.TR REL   man PO1.D-CAUS-cure-ICP.D
    'She saw the man who cured me.' (Courtesy of Yedania Rosendo)

In examples (61) to (65) there is no expression of the head in the main clause, but instead, the head is part of the relative clause as shown by two facts: first, the domain nominal follows the relativizer or other constituents of the RC, and second, the domain nominal registers its grammatical function within the relative clause and not its function in the main clause. Notice that internally-headed RCs include a relativizer which explicitly conveys that the clause is embedded. In (61) the domain nominal functions as primary object of the embedded clause and follows the NP *'in=jaya-manak* 'my son' functioning as agent of the RC. In both, (62) and (63), the head is marked with ergative case indicating the transitive agent function of the noun within the relative clause and not the intransitive subject function of the same referent in the main clause. In (64) and (65) the head is preceded by a relativizer that is the first element of the RC which indicates that the domain nominal is internal to the RC. There is an additional piece of evidence that shows that the syntactic position of the domain nominal is internal to the RC: all Mixe-Zoquean languages overtly mark peripheral arguments with adpositions, preverbs or relational nouns (Zavala 2015, Santiago and Zavala 2019). It is thus evident from this type of flagging that the domain nominal occupies a position internal to the RC when the head is overtly marked with the semantic case that corresponds to its syntactic function within the RC and not with its role within the main clause, as illustrated by the following examples in which the domain nominals are flagged as peripheral arguments which correspond to their role within the RC. In (66a)

the domain nominal *'in=witawin* 'my friend' is not expressed in its function as
PO of the main clause, but it is overtly marked as comitative which corresponds
to its function within the RC. Likewise, in (66b), the domain nominal *'in=tɨts*
'my tooth' is marked as an instrument which corresponds to its function within
the RC and not as a subject which is the role it has in the main clause.

SAN MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(66) a. *'in witawinjinang dɨ 'angmayyɨ' 'in pa'tti xokijo*
['in=witawin=**jinang** *tɨ='angmay-wɨ=pɨ'*]   *'in=pa't-wɨ*   *xoki=jo*
POSS1=friend=COM   S1.I=study-CP.I=REL   A1.I=find-CP.I   C.=LOC
'I met my friend with whom I studied in Las Conchas.' (Jiménez, 2017:
257)

b. *bi jupi bin tɨtspi't 'in tukkɨ 'no'tsɨmmɨ*
[*bi   jupi   bi*   'in=tɨts=pi't   *'in=tuk-wɨ=pɨ'*]
DET thread DET POSS1=tooth=INSTR   A1.I=cut-CP.I=REL
Ø=no'ts-'ɨm-wɨ
S3.I=break-PASS-CP.I
'The tooth which I cut the thread with broke.' (Jiménez, 2017: 257)

An additional example of an internally-headed relative clause in which the
overt case on the relativized noun is assigned by its syntactic role within the rel-
ative clause and not by its syntactic role in the main clause is illustrated with
data from Tamazulápam Mixe. In (67) the preverb *mëët* 'with' overtly marks
the noun *to'oxytyëjk* 'woman' as a comitative, which is the role of the domain
nominal within the relative clause. Note in the same example that the domain
nominal *to'oxytyëjk* follows the relativizer *mëte'p* that occupies the first position
of the postposed relative clause in this language.

TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)

(67) *ka't tpääjty mëte'p to'oxytyëjk ojts mëët nyijkxy*
ka't   t-päät-y   [*mëte'p* to'oxytyëjk *'ojts **mëët** y-nëjkx-y*]
NEG A3.D-find-CP.D REL   woman   PST COM S3.D-go-ICP.D
'He did not find the woman with whom he left.' {txt} (Martínez corpus)

Another context that clearly shows that the domain nominal is internal to the
RC is when the relativized head functions as genitive in the RC and as a core
argument in the main clause. Under these conditions the head is marked with
genitive case in Chiapas Zoque, a language with overt genitive case.

Oᴄᴏᴛᴇᴘᴇᴄ Zᴏϙᴜᴇ (Cʜɪᴀᴘᴀs Zᴏϙᴜᴇᴀɴ)

(68) *midu* [*nijspɨjkjapyabɨt yomo'is yune*]

    Ø-min-u   [*n-'is-pɨk-jay-pa=pɨ'=ɨt*   yomo=*'is*

    s3.ɪ-come-ᴄᴘ.ɪ   ᴀ1-see-grab-ʀ.ᴀᴘᴘʟ-ɪᴄᴘ.ɪ=ʀᴇʟ=ᴘʀᴏ1.ᴇʀɢ   woman=ɢᴇɴ

    y='une]

    ᴘᴏss3=son

    'The woman whose son I know came.' (Jiménez, 2017: 269)

Unlike other languages in which internally-headed ʀᴄs are expressed as nominalizations (Basilico 1996: 500), ʀᴄs of this type in Mixe-Zoquean are finite since the verbs in the embedded clause receive all the morphological trappings associated with finite clauses: aspect, mood, voice, negation, etc. Also, contrary to what has been claimed for other languages (Williamson 1987 and Culy 1990), the nominal head of internal ʀᴄs in Mixe-Zoquean languages does not exhibit definiteness restrictions since the head can be marked as indefinite or definite. The nouns functioning as internal head in examples (61), (62) and (66b) are overtly marked as definite, whereas the head in example (69) is overtly marked as indefinite.

San Mɪɢᴜᴇʟ Cʜɪᴍᴀʟᴀᴘᴀ Zᴏϙᴜᴇ (Oᴀxᴀᴄᴀ Zᴏϙᴜᴇᴀɴ)

(69) *tum yoma papɨnjinang witpa' nunca ya ka jejpa*

    [*tum* yoma   *papɨn=jinang Ø=wit-pa=pɨ'*]   *nunca ya*

    ɪɴᴅꜰ woman   devil=ᴄᴏᴍ   s3.ɪ=walk-ɪᴄᴘ.ɪ=ʀᴇʟ   never ɴᴇɢ

    Ø=ka-a   *Ø=jej-pa*

    s3.ɪ=die-ɪᴄᴘ.ɴᴇɢ   s3.ɪ=live-ɪᴄᴘ.ɪ

    'A woman who walks with the devil never dies.' (Jiménez, 2017: 262)

Internally-headed relative clauses are a primary strategy in all the language that make use of this strategy. The relativized internal head in examples (62)–(65) functions as subject, in (61) as agent, and in (66)–(67) as an oblique. The internal head strategy is not used in any of the languages when the domain nominal functions as locative. Thus, although the strategy is basic in the languages where this type of ʀᴄ is found, it always alternates with other basic strategies to relativize core and non-core arguments, either with gapping or a relative pronoun, or with both. These facts are summarized in Table 2.2, which compares the accessibility of the grammatical relations to the three available strategies in three Mixe-Zoquean languages.

    Much analytic work is still needed within each particular language to determine the factors that trigger the use of one strategy over another when a particular grammatical relation is being relativized.

TABLE 2.2 Accessibility of the grammatical relations to different relativization strategies

	S&A	PO&SO	GEN	COM&INSTR	LOC
SAN MIGUEL CHIMALAPA					
Gapping	+	+	+	+	−
Relative PRO	−	−	−	−	+
Internal head	+	+	+	+	−
JITOTOLTEC					
Gapping	+	+	+	+	−
Relative PRO	−	−	−	−	+
Internal head	+	+	+	+	−
TAMÁZULAPAM MIXE					
Gapping	+	+	+	+	−
Relative PRO	+	+	+	+	+
Internal head	+	+	+	+	−

2.5.1 *Interim Summary*

The internally-headed relative clause is a basic strategy in all the languages of both branches that exhibit this strategy. In addition to the S, the strategy is accessible to SO and PO, genitives, instruments and comitatives. There are no reports of the existence of this strategy in Gulf Zoquean languages (Highland Popoluca, Texistepec Popoluca and Ayapanec), Olutec, and Sayula Popoluca. All languages that exhibit IHRCs share a syndetic structure that includes an overt relativizer and a finite verb. The relativizer occurring in the IHRC is the same as that occurring in the gapping strategy. The internal head receives the case, adposition, preverb, or relational noun that conveys its function within the RC and not its function within the main clause. In the two Oaxaca Mixean languages in which the strategy has been reported, IHRCs occur as extraposed clauses following the main verbs, a pattern that is shared with the other two strategies found in South Highland and Midland Oaxaca Mixe languages.

2.6   Conclusions

Recent research into the syntax of Mixe-Zoquean languages has exposed the three relativization strategies found in the languages of the family when an overt nominal is modified by a relative clause. In the syntactic inventory of constructions found in the languages, all of them include the gapping strategy and the relative pronoun strategy. Some of the languages of both branches of the family also make use of the internally-headed strategy.

The gapping and the internally-headed strategies are basic in all the languages that present them, whereas the accessibility of the relative pronoun strategy varies between the different members of the family. Several languages of both branches of the family bring extrathematic relations into core argument status via the use of applicatives or preverbs when the arguments expressing these relations are relativized. In Zoquean languages, locative is the only role which can be relativized using the relative pronoun strategy, whereas some of the Mixean languages treat this strategy as basic.

RCs have two positions in the gapping strategy: prenominal and postnominal. The relative pronoun strategy only allows postnominal RCs, whereas IHRCs are circumnominal. The existence of prenominal RCs and IHRCs are associated with OV languages. All Mixe-Zoquean languages have many other structural features associated with OV languages including the fact that synchronically some of the Mixean languages of Oaxaca and Santa María Chimalapa Zoque have SOV as the basic constituent order. The prenominal type of RC was borrowed by two Mayan languages of the Cholan group (Chol and Chontal). These two languages also borrowed from Zoquean languages the second position enclitic functioning as relativizer, which is cognate with the form that has been reconstructed for Proto-Mixe-Zoque as *=pɨ'k but which is unknown in any other Mayan language. The rest of the Mayan languages only have postnominal RCs as expected in verb initial languages.

Gapping and IHRCs in both branches of the family involve syndetic RCs introduced by a common relativizer which has been reconstructed for the ancestor Proto-Mixe-Zoque. Some Mixean languages spoken in Oaxaca developed a second relativizer, which is used in extraposed RCs. Highland Popoluca borrowed a relativizer from Gulf Nahuat, and another one from Spanish. Texistepec Zoque has also borrowed the Spanish relativizer which alternates with the original Zoquean relativizer. All the RCs within the family take all the morphosyntactic trappings associated with finite clauses.

Both the gapping strategy and the relative pronoun strategy are attested when the head and the RC are immediate constituents, but both strategies are also attested in the adjoined type of RCs which function as extraposed

modifiers of the head. Zoquean languages allows for preposed and postposed adjoined RCs, whereas Mixean languages only exhibit postposed RCs. In the case of South Highland Mixe, the adjoined type of RC is the most common RC structure used by this language.

IHRCs found in languages of both branches of the family exhibit three defining features: a) the head noun is expressed within the relative clause, b) the head maintains the grammatical relation of the relativized noun within the relative clause, and c) there is no overt expression of the head in the main clause. IHRCs in Mixe-Zoquean are finite clauses and not nominalizations, as is common in other languages that show this strategy. Also, contrary to what has been claimed for other languages that exhibit this relativization strategy, the nominal head of internal RCs in Mixe-Zoquean languages does not exhibit definiteness restrictions since the head can be marked as indefinite or definite.

The type of information gathered in the last few years has allowed us to understand the main features of RCs with overt heads in Mixe-Zoquean; however, much work is still needed within each particular language to determine the factors that trigger the use of one strategy over another when a particular grammatical relation is being relativized. Also, much analytic work is needed to understand the headless and light-headed types of structures in all the languages of the family but studies such as Jiménez (present volume) have opened interesting research paths that can be pursued in future comparative research within the family.

Acknowledgements

Bibliography

Andrews, Avery D. 2007. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, *Vol. 2: Complex constructions*, 206–236. Cambridge: Cambridge University Press.

Basilico, David. 1996. Head position and internally-headed relative clauses. *Language* 72: 498–532.

Boudreault, Lynda De Jong. 2009. A grammar of Sierra Popoluca (Soteapanec, a Mixe-Zoquean language). PhD Dissertation, Austin: University of Texas.

Boudreault, Lynda De Jong. 2018. *A grammar of Sierra Popoluca.* Berlin: Mouton de Gruyter.

Comrie, Bernard. 1989 [1981] *Language universal and linguistic typology: syntax and morphology*, Chicago: University of Chicago Press, 2nd edition.

Comrie, Bernard. 1998. Rethinking the typology of relative clauses, *Language Design* 1: 59–86.

Comrie, Bernard and Tania Kuteva. 2005. Relativization strategies. In Martin Haspelmath, Matthew Dryer, David Gil and Bernard Comrie (eds.), *Word atlas of language structures*, 494–497. Oxford: Oxford University Press.

Culy, Christopher. 1990. Grammatical relations and verb forms in internally-headed relative clauses. In Patrick Farrell, Katharina Dziwirek and Errapel Mejias Bikandi (eds.), *Grammatical relation: A cross-theoretical perspective*, 83–93. Stanford: CSLI Publications.

Díez Alejandre, Álvaro. 2019. Les relatives en popoluca de Texistepec, MA thesis, Université Paris Sorbonne Nouvelle.

Drossard, Werner. 1998. Polysynthesis and polysynthetic languages in comparative perspective. In B. Palek (ed.), *Linguistic and Phonetics*, 251–264. Prague: Charles University Press.

Dryer, Matthew. 1986. Primary objects, secondary objects, and antidative, *Language* 62: 808–845.

Dryer, Matthew. 1992. The Greenbergian word order correlations, *Language* 68: 81–138.

Dryer, Matthew. 2007. Word order. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. 1, 61–131. Cambridge: Cambridge University Press.

Faarlund, Jan Terje. 2012. *A grammar of Chiapas Zoque*. Oxford: Oxford University Press.

Fortescue, Michael. 1994. Polysynthetic morphology. In R.E. Asher and J.M.Y. Simpson (eds.), *The encyclopedia of language and linguistics*, 2600–2602. Oxford: Elsevier.

Guzmán Guzmán, Verónica. 2012. Las construcciones aplicativas en mixe de Totontepec. MA Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Kaufman, Terrence and John Justeson. 2004. Epi-Olmec. In Roger D. Woodard (ed.), *The Cambridge encyclopedia of the world's ancient languages*, 1071–1112. Cambridge: Cambridge University Press.

Kaufman, Terrence and William M. Norman. 1984. An outline of Proto-Cholan phonology, morphology and vocabulary. In John S. Justeson and Lyle Campbell (eds.), *Phoneticism in Mayan Hieroglyphic Writing*, 77–166. Albany, New York: Institute for Mesoamerican Studies.

Jiménez Jiménez, Silviano. 2014. Esbozo gramatical y oraciones de relativo en el zoque de San Miguel Chimalapa. MA Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Jiménez Jiménez, Silviano. 2018a. La estrategia de relativización con pronombre relativo en el zoque de San Miguel Chimalapa, Oaxaca, *Amerindia* 40: 105–134.

Jiménez Jiménez, Silviano. 2018b. Las oraciones de relativo de núcleo interno en el zoque de San Miguel Chimalapa (ZMIG). In Gilles Polian, Lourdes de León Pasquel, Roberto Zavala, Eladio Mateo, Claudine Chamoreau, and Regina Martínez (eds.), *Nuevas miradas a las lenguas mesoamericanas*, 237–275. México: CIESAS.

Jiménez Jiménez, Silviano. 2019. Estudios de la gramática de la oración simple y compleja en el zoque de San Miguel Chimalapa. PhD Dissertation. CIESAS, México.

Keenan, Edward L. 1985. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description, vol. 2: Complex Constructions*, 141–170. Cambridge: Cambridge University Press.

Keenan, Edward and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar, *Linguistic Inquiry* 8: 63–100.

Keller, Kathryn C., and Luciano G. Plácido. 1997. *Diccionario chontal de Tabasco*. Tucson, AZ: Instituto Lingüístico de Verano.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–680.

Lehmann, Christian. 2003. Relative clauses. In William J. Frawley (ed.), *International encyclopedia of linguistics*, Vol. 3, 460–463. Oxford: Oxford University Press.

Martínez Cruz, Victoriano. 2007. Los adjetivos y conceptos de propiedad en chol. MA Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Martínez G., Nereida C. and Arellanes, A. Francisco. 2019. Adposiciones y aplicativos instrumentales en el mixe de Yacochi. In Lilián Guerrero (ed.), *Adposiciones y elementos de su tipo en lenguas de América*, 345–388. México: UNAM.

Mithun, Maríanne. 1984. The evolution of noun incorporation. *Language* 60: 847–895.

Nichols, Johanna. 1986. Head-marking and dependent-marking grammar, *Language* 62: 56–119.

Romero Méndez, Rodrigo. 2009. Ayutla Mixe grammar. PhD Dissertation. University of New York at Buffalo.

Santiago, Martínez Godofredo G. 2015. Temas de fonología y morfología del mixe de Tamazulápam, Oaxaca. PhD Dissertation. CIESAS, México.

Santiago, Martínez Godofredo G. and Zavala Maldonado, Roberto. 2019. Las rutas de gramaticalización de la adposición comitativa/instrumental en el mixe de Tamazulápam. In Lilián Guerrero (ed.), *Adposiciones y elementos de su tipo en lenguas de América*, 389–437. México: UNAM.

Smailus, Ortwin. 1975. *El maya-chontal de Acalan. Análisis lingüístico de un documento de los años 1610–12*. Cuaderno 9, Centro de Estudios Mayas. México: Universidad Nacional Autónoma de México

Wichmann, Søren. 1995. *The relationship among the Mixe-Zoquean languages of Mexico*. Salt Lake City: University of Utah Press.

Williamson, Janis Shirley. 1987. An indefiniteness restriction for relative clauses in Lakhota. In Eric Reuland and Alice ter Meuolen (eds.), *The representation of (in)definiteness*, 168–190. Cambridge: MIT Press.

Zavala Maldonado, Roberto. 2000. Inversion and other topics in the grammar of Olutec. PhD Dissertation. Eugene: University of Oregon.

Zavala Maldonado, Roberto. 2007. Inversion and obviation in Mesoamerica, *Linguistische Berichte Sonderheft* 14, 267–306.

Zavala Maldonado, Roberto. 2011. El jitotolteco, una lengua zoqueana desconocida. Paper presented at *Conference on Indigenous Languages of Latin America V*

Zavala Maldonado, Roberto. 2013. La construcción de posesión externa con aplicativo en zoque dentro del contexto mesoamericano. In Enrique Palancar and Roberto Zavala (eds.), *Clases léxicas, posesión y cláusulas complejas en lenguas de Mesoamérica*, 133–170. México, D.F.: CIESAS.

Zavala Maldonado, Roberto. 2015. Instrumentos y comitativos en las lenguas de la familia mixezoque. *Amerindia* 37: 189–228.

Zavala Maldonado, Roberto. 2017. Jitotoltec: The Merchant (told by Pedro González Rojas), *TILA I*, Multimedia, The University of Chicago.

CHAPTER 3

A Typology of Domain Nominals in the Relative Constructions of San Miguel Chimalapa Zoque

Silviano Jiménez Jiménez

3.1 Introduction

In this chapter, I propose a typology of the domain nominals that are part of the relative constructions of San Miguel Chimalapa Zoque (henceforth SM-ZOQ), one of the two languages of the Zoque branch spoken in the Chimalapas highlands of Oaxaca, Mexico. In the typological literature (Keenan and Comrie 1977; Lehmann 1984; Comrie 1989; Kroeger 2005; Andrews 2007; inter alia), two major categories of relative constructions have been recognized depending on the expression of the domain nominal: RCs with a full head, as in (1a), and without a head, also called 'free relatives' (Caponigro 2003:9), as in (1b).

(1) a. I tasted the *things* [that Adam cooked]
     b. I tasted [what Adam cooked]

Citko (2004: 97–102) proposed the existence of a third type of domain nominal for Polish, which she called a light head. For Polish, the author proposed that light heads are pronominal elements that occur in the position usually occupied by the domain nominal, but that have properties other than domain nominals expressed by full nominals, as in (2).

> POLISH
(2) *Jan   zobaczył tego,* [*kogo Maria zobaczyła*]
     John saw   this who Mary saw
     'John saw the one Mary saw.' (Citko 2003: 98)

Recently, Epps (2012:191–211) has discussed the three main types of domain nominals that occur in relative constructions (full, light and headless) and has argued that such a classification is insufficient to account for other types of domain nominals present in Hup (a language spoken in the northwest of the Amazon). It should be noted that the typology of domain nominals proposed by Epps (2012) is based on the reduction of the form of expression of

the domain nominal by way of a continuum. In her study, Epps (2012) does not specify the syntactic consequences of the supposed reduction of the domain nominal.

In this study, I suggest that in SM-ZOQ there are five types of domain nominals that coexist with one of the three strategies by which a RC is realized in the language. The five types of domain nominals are given in (3).

(3) a. full head
     b. elided head
     c. light head
     d. determiner head
     e. non overt domain nominal

The language has three relativization strategies, given in (4):

(4) a. gap strategy
     b. relative pronoun strategy
     c. retention strategy with an internal head

The examples in (5) illustrate each one of these strategies with a full nominal head. Example (5a) illustrates the gap strategy. Here the RC is postnominal and it is introduced by the relativizer *=pɨ'*. The language also has a prenominal RC using the gap strategy as will be discussed latter. Example (5b) shows the relative pronoun strategy which is only used for the relativization of locative adjuncts. Here the head 'road' is treated as a locative in the RC. Example (5c) is a case of a RC with an internal head. To show that the head is internal, note the position of the domain nominal *pɨn* 'man' in the RC, but also that it is case-marked with the comitative case, because it functions as a comitative participant within the RC.

(5) a. *pɨn gaj(a) xokij(o) jejpa' 'ɨm 'ɨxpɨkpa*
        pɨn [*PAUSE*] [*ka=ja*   *xoki=jo*   *Ø=jej-pa=pɨ'*]
        man   DIST=LOC snail=LOC 3S.I=live-ICP.I=REL
        'ɨm='ɨx-pɨk-pa
        2A.I=see-grasp-ICP.I
        'You know the man who lives there in Las Conchas.' (Jiménez 2014: 2)

     b. *dɨx la berda yan 'ɨxpɨkkɨ tun ju pi'tpa bi sebe*
        tɨx   la.berda   ya   'ɨn='ɨx-pɨk-wɨ   **tun** [*ju*
        I   the.truth NEG   1A.I=see-grasp-CP.I:NEG   road where

TABLE 3.1   Distribution of domain nominals and relativization strategy

Types of heads	Relativization strategy			
	Gap		REL. PRO	Internal
	Prenom.	Postnom.		
Full head	yes	yes	yes	yes
Elided head	no	yes	no	yes
Light head	no	yes	yes	yes
Determiner head	no	yes	yes	yes
No domain nominal:				
Free relatives		n/a	yes	n/a
Other type		yes	n/a	n/a

> *Ø=pɨ't-wɨ   bi   sebe*]
> 3S.I=pass-ICP.I DET S.
> 'As for me, the truth is, I didn't know the road where Severino died.'
> (Jiménez 2014: 305)

c. *mari pɨnjinang wittɨ' mɨ'ɨyyɨ*
   [*Mari* **pɨn**=*jinang Ø=wit-wɨ=pɨ'*]   *Ø=mɨ'ɨy-wɨ*
   M.   man=COM 3S.I=walk-CP.I=REL 3S.I=marry-CP.I
   'The man with whom Mary was involved married.' (Jiménez 2014: 318)

Table 3.1 summarizes the distribution of the five types of domain nominals with respect to the three relativization strategies.

The article is organized in the following way. I introduce each type of domain nominal in the subsequent sections. All sections have almost the same structure to keep them uniform and informative. I first present the formal characteristics of the relative constructions where they are found and I conclude each section by giving the scope of the relativization of each construction. The chapter concludes with a brief summary of the proposal in Section 3.7.

3.2   Relative Clauses with a Full Head

3.2.1   *Relative Clauses with a Full Head with the Gap Strategy*

RCs with a gap strategy are constructions where the domain nominal is not realized in the RC (Andrews 2007; Keenan and Comrie 1977; Kroeger 2005; *inter alia*). SM-ZOQ presents both prenominal and postnominal RCs, and in both positions the RC is marked as a subordinate clause by a relativizer, which is an enclitic, but different in each type. Prenominal RCs occur between a determiner and the head of the domain NP, like in (6a), or without a determiner, like in (6b). Note that the formal shape of the relativizer is =*pɨ'k*.

(6)   a.   *bi 'angkimoba'k pɨn ga' wajaka*
          bi   [Ø='ang-kim-'oy-pa=***pɨ'k***]   pɨn   Ø=ka   wajaka'
          DET 3S.I=mouth-go.up-AP-ICP.I=REL man   3S.I=COP Oaxaca
          'The man in charge is from Oaxaca.' (Jiménez 2014: 244)

      b.   *tsijpa'k pɨn 'ɨy nukokmangxukki*
          [Ø=tsij-pa=***pɨ'k***]   pɨn   'ɨy=nuk-'ok.mang-xuk-wɨ
          3S.I=stone-ICP.I=REL man   3A.I=grasp-start-3PL-CP.I
          'They began to attack the man who stones.' {Txt}

Prenominal RCs do not present a significant intonational pause between the head and the RC. The prosodic evidence in Figure 3.1 shows that a prenominal RC is only separated from the domain nominal by 0.075 milliseconds; therefore, the RC forms part of the same intonational unit as the domain nominal.

Postnominal RCs in SM-ZOQ occur after the domain nominal and present a different morphological and prosodic behavior than prenominal ones. Unlike prenominal that take the relativizer =*pɨ'k*, postnominal RCs are marked by the relativizer =*pɨ'*, as in (7).[1]

(7)   *bi mɨ'a 'ɨn niwaktammɨ' 'ɨn pɨnik tikjonang*
      bi   mɨ'a [PAUSE] ['ɨn=niwak-tam-wɨ=pɨ']   'ɨn=pɨk-nik-wɨ
      DET deer   1A.I=steal-PL:SAP-CP.I=REL 1A.I=grab-go-CP.I
      tɨk=jo=nang
      house=LOC=PRL
      'We brought into the house the deer we stole from him (the tiger).' {Txt}

---

1   The relativizer for postnominal RCs has two allomorphic realizations. It is realized as =*pɨ'* when the predicate of the RC ends in a consonant, but as =*'* when the predicate ends in a vowel.
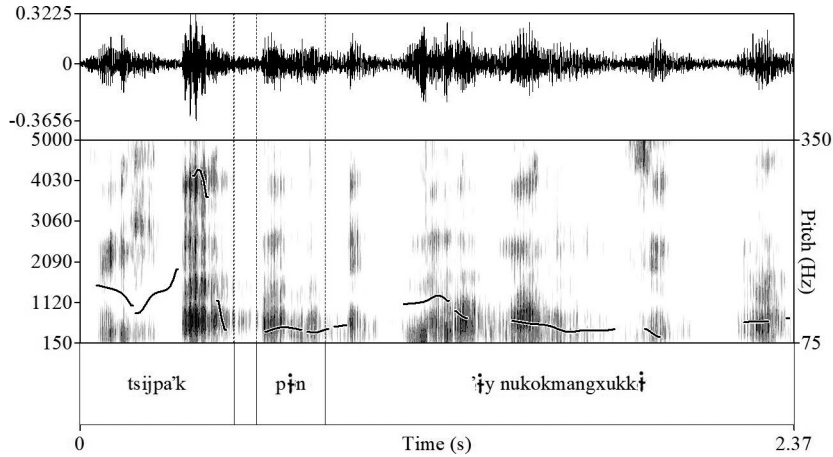
FIGURE 3.1 Spectogram of a prenominal RC
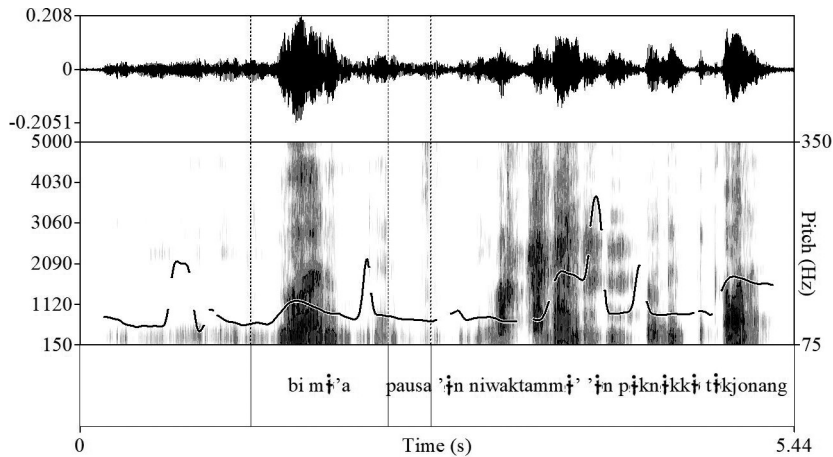
FIGURE 3.2 Spectogram of a postnominal RC

As indicated in (7), postnominal RCs in SM-ZOQ present an intonational pause between the domain nominal and the RC, as shown in Figure 3.2. In this example, the pause has a duration of 0.292 milliseconds.

The presence of a pause between the head and the RC could be interpreted as a sign that the type of structure in (7) is a non-restrictive RC, because non-restrictive RCs are commonly characterized by a significant pause between the head and the RC (Andrews 2007; inter alia). In SM-ZOQs, however, non-restrictive RCs have a longer pause than restrictive ones. For this purpose, consider the non-restrictive RC in (8).
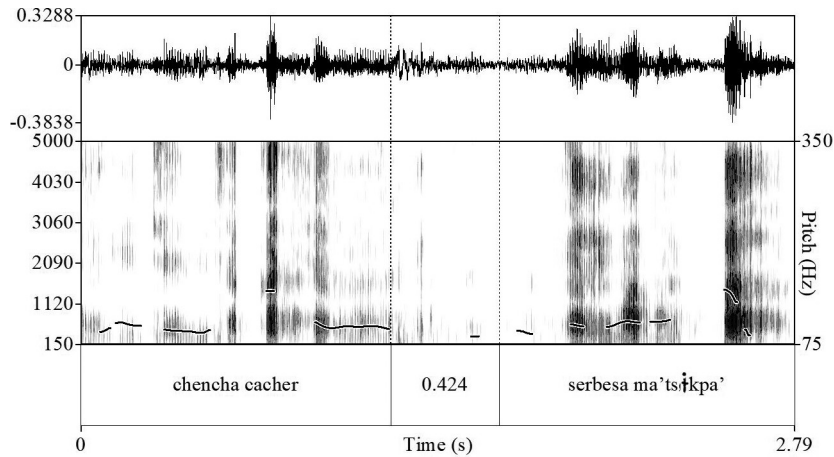
FIGURE 3.3 Spectogram of a non-restrictive (postnominal) RC

(8) *chencha kacher, serbesa matsikpa' ...*
    Chencha Kacher [*PAUSE*] [*Ø=serbesa-matsik-pa=pɨ'*]
    Ch.   C.   3S.I=beer-sell-ICP.I=REL
    'Chencha Cacher, who sells beer ...' {Txt}

The spectrogram in Figure 3.3 shows the type of significant pause involved in the utterance of example (8), which is 0.424 milliseconds, that is, more than 0.100 milliseconds greater than the average pause (0.292 milliseconds between the domain nominal and the RC) of postnominal non-restrictive RCs.

In SM-ZOQ, non-restrictive RCs do not occur in a prenominal position, as illustrated by the ungrammaticality of example (9).

(9) * *serbesa matsikpa'k, chencha kacher ...*
    [*Ø=serbesa-matsik-pa=pɨ'k*] [*PAUSE*] Chencha Kacher
    3S.I=beer-sell-ICP.I=REL   Ch.   C.
    Intended reading: 'Chencha Cacher, who sells beer ...'

3.2.2   *Relative Clauses with a Full Head with the Relative Pronoun Strategy*
Besides the gap strategy, RCs with a full nominal head also occur with a relative pronoun. This strategy is only used when the head functions as a locative adjunct in the RC. If the referent of the head is not human, the relative pronoun *ju* 'where' is used, which is formally identical to the paradigm of interrogative pronouns and occurs at the left end of the RC, occupying the same position as constituents in focus (see Jiménez 2014). An example is given in (10).

(10) *mix pɨnikta'ma tum lugarjo ju teji xek paja'k*
      mix pɨk-nɨk-tam-'a   tumɨ lugar=*jo* [*ju* Ø=*teji*   *xek*
      2:1   grab-go-PL:SAP-IMP one   place=LOC where 3S.I=exist river
      paja'k]
      small
      'Take me to a place where there is a small river.' (Jiménez 2014: 303)

When the locative adjunct inside the RC has a human referent, the pronoun *'iwɨ* 'who' is used, like in (11).

(11) *'in'ixpɨkpa bi saserdote 'iwɨgɨxi mi pa'tti*
      'in='*ix-pɨk-pa   bi* saserdote [*'iwɨ*=*kɨx=ji   mi*=*pa't-wɨ*]
      1A.I=see-grasp-ICP.I DET priest   who=RN:top=LOC 2PO=leave-CP.I
      'I know the priest on top of whom I found you.' (Jiménez 2018: 125)

In most RCs where the locative adjunct is a location, the pronoun is either case-marked by a locative adposition or it is the complement of a case-marked relational noun. In such RCs, we find two possibilities: there is either pied-piping, like in (12), or the locative adposition or case-marked relational noun are left in situ, as shown in (13a) and (13b), respectively.

(12) *tum pong dɨ tijtammɨ tsamkuyjo ju'angjin 'ixtammɨ bi kajan*
      tumɨ pong tɨ=tij-tam-wɨ   tsam-kuy=*jo*
      one   time 1S.I=go.return-PL:SAP-CP.I season-NMLZ.INSTR=LOC
      [*ju*=*'ang*=*ji*   *'in=*'*ix-tam-wɨ   bi   kajan*]
      where=RN:mouth=LOC 1A.I=see-PL:SAP-CP.I DET jaguar
      'Once we went to the mountain where we saw the jaguar.' (Jiménez 2018a: 124)

(13) a. *ye'tstam(mɨ) xokijo ju xempaji perfectu jimenes 'i 'aldegundu*
         Ø=*ye'ts-tam-wɨ*   Xoki=*jo* [*ju* Ø=*xem-pa*   =*ji*
         3S.I=touch-PL:SAP-CP.I L.C=LOC where 3S.I=touch-ICP.I =LOC
         Perfectu Jimenes 'i   'Aldegundu]
         P.   J.   and A.
         'We got to Las Conchas where Perfecto Jiménez and Aldegundo played.'
         {Txt}

      b. *'im pɨ'tpa pwentejo ju kamilu 'angji 'im pa'tti*
         *'im=*pɨ'*t-pa*   pwente=*jo* [*ju* *Kamilu* =*'ang*=*ji*
         2S.I=pass-ICP.I bridge=LOC where C.   =RN:mouth=LOC

'*im=pa't-wɨ*]
2A.I=find-CP.I
'You pass the bridge near where you found Camilo.' (Jiménez 2014: 286)

3.2.3   *Internally-Headed Relative Clauses with a Full Nominal*
Full heads are also found in the third relativization strategy, that of internal head. In RCs with internal heads, the domain nominal occurs within the RC, as illustrated in (14). In this example, the domain nominal has the instrumental case marker that is the semantic role played by the domain nominal inside the RC. This case marking shows that the head is internal, because if it were external it would not be case-marked because it functions as the absolute subject of the matrix verb, an unmarked syntactic role.

(14)   *wan tingkuypi't kiptukki' ke'tti*
[*fan* **tingkuy=pi't**   Ø=kipi-tuk-wɨ=pi'*]   Ø=ke't-wɨ
John machete=INSTR 3S.I=wood-cut-CP.I=REL 3S.I=bend-CP.I
'The machete with which John cut the wood was bent.' (Jiménez 2014: 348)

RCs with an internal head exhibit the same relativizer as those with a postnominal external head. However, other prosodic and morphosyntactic characteristics distinguish the two constructions (see Jiménez 2014 for more details). Here I am interested in showing the distinctions at the prosodic level. As I have already mentioned, postnominal RCs present a significant pause between the domain nominal and the RC. In contrast, RCs with internal heads do not present any pause between the domain nominal and the other constituents of the RC, as shown in the spectrogram in Figure 3.4. Note that there is a minimum separation of 0.041 milliseconds between the domain nominal *bi chik 'unedikay* 'the little children' and the predicate of the RC *pongoyyɨ* 'they burned'.

(15)   *'am bweno bi chik undik(ay) pongngoyyɨ'*
['*am bweno* **bi**   **chik** '**une-tɨkay** Ø=pong-'oy-wɨ=pɨ'*]
ah   well   DET DIM child-PL   3S.I=burn-AP-CP.I=REL
'Ah well, the little children who were cremated (in the tree).' {Txt}

3.2.4   *Scope of Relativization with Full Nominal Heads*
I have presented the characteristics of relative constructions with a full head. I have shown that these allow for three relativization strategies: (i) the gapping strategy (prenominal and postnominal); (ii) the relative pronoun strategy; and
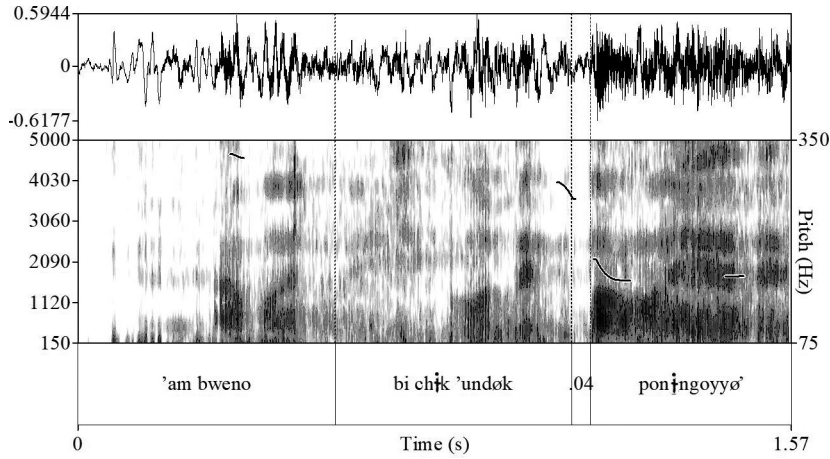
FIGURE 3.4 Spectrogram of an example of a RC with an internal head

TABLE 3.2 Scope of access to relativization in RCs with a full nominal head

	Arguments			GEN	Oblique			Adjunts			OBJC
	S/A	PO	SO		COM	INSTR	LOC	RSN	Time	MANN	
Gap											
Prenom.	yes	yes	yes	yes	*	*	*	*	*	*	*
Postnom.	yes	yes	yes	yes	yes	yes	yes	*	*	*	*
PRO REL	*	*	*	*	*	*	yes	*	*	*	*
Internal	yes	yes	yes	yes	yes	yes	*	*	*	*	*

(iii) the non-reduction strategy with an internal head. The gapping and internal head relativization strategies are basic strategies because they relativize the subject. Each of the strategies exhibit a different scope for relativization purposes, which is summarized in Table 3.2. Note that the gapping strategy with a postnominal RC has the wider scope, while prenominal RCs just cover core arguments and the possessor. The relative pronoun strategy is restricted to only a locative adjunct.

3.3   Relative Clauses with an Elided Nominal

Several studies including Lehmann (1984) and Andrews (2007), *inter alia*, have suggested that RCs with reduced or elided nominal heads are constructions where a nominal head does not manifest itself in the place occupied by the domain nominal, because the reference to the domain nominal is pre-established and can be recovered in the discourse in an anaphoric way without the need for lexical material (pronoun or noun). More recently, Gutiérrez (2012: 253–268, 2015: 111–134) has used the term "null nominal" to describe RCs that lack an overt noun in the head position of the domain NP. This author also uses the concept of "partially or totally null" (Gutiérrez 2012: 260) to identify RCs that do not manifest any element in the position of the domain nominal, which other authors call headless relative clauses or free relatives.

In this chapter, I take RCs with elided nominals to be those that have a quantifier that is interpreted as a modifier of an NP head whose referent can be recovered anaphorically or cataphorically, as in (16). In (16a), the quantifier *jemji* 'all' stands for the elided nominal head "gold", which occurs in preceding paragraphs; in (16b), the numeral *metsang* 'two' modifies the elided nominal "machete", whose reference could be retrieved from the context.

(16) a. *'ɨy nipɨkwakxukkɨ jemji, 'ɨy 'angnitpa'*
          'ɨy=ni-pɨk-wak-xuk-wɨ   ***jemji*__** [PAUSE]
          3A.I=BODY-grasp-split-3PL-CP.I all
          [*'ɨy='ang'it-pa=pɨ'*]
          3A.I=have-ICP.I=REL
          'They stole all (the gold) that he had.' {Txt}

      b. *'in juyyɨ memtsan yakawɨ'pi't 'in yoya*
          'in=juy-wɨ   ***metsang*__** [PAUSE] [*'in=yak-ka'-wɨ=pɨ'*   *=pi't*
          1A.I=buy-CP.I two   1A.I=CAUS-die-CP.I=REL =INSTR
          'in=yoya]
          1POSS=pig
          'I bought the two (machetes) I killed my pig with.'

It should be noted that elided nominals share characteristics with full heads. Both types of domain nominals participate in the postnominal RCs with a gap strategy of (16). As with full nominals, elided nominals are followed by an intonational pause between the elided nominal and the RC, as shown in Figure 3.5.

Elided nominals are also found with the internal head strategy, as the examples in (17) show.
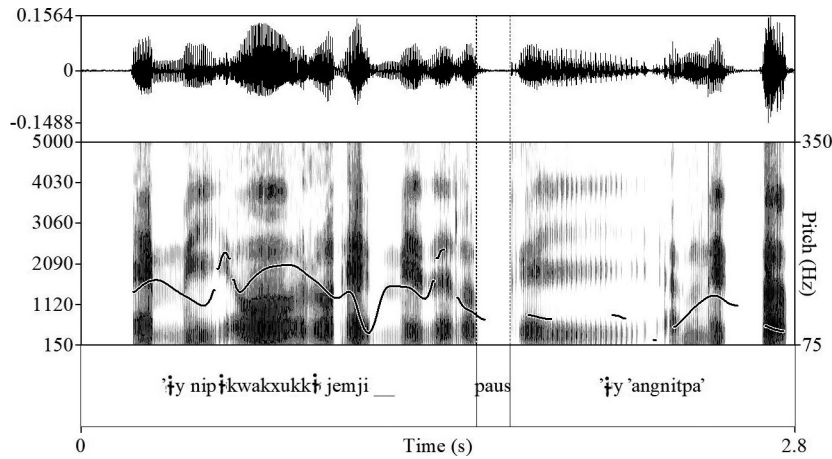
FIGURE 3.5   Spectogram of a RC with an elided nominal

(17) a. *dey bi jemji 'ɨy tsɨkxukɨ' tokoyam*
          [*tey   bi   jemji __   'ɨy=tsɨk-xuk-wɨ=pɨ'*]   *Ø=tokoy-wɨ='am*
          now DET all   3A.I=make-3PL-CP.I=REL 3S.I=lose-CP.I=already
          'All (the rites) that were practiced now were lost.' {Txt}

      b. *'ɨy 'otongngɨxukpa gaj metsang kummɨ'*
          'ɨy='otong-'ɨy-xuk-pa   [*ka'=ja   metsang __   Ø=kum-wɨ=pɨ'*]
          3A.I=speak-DPS-3PL-ICP.I DIST=LOC two   3S.I=bury-CP.I=REL
          'They speak to the two (people) who are buried there (in the church).'

      c. *Wan tɨngkuypi't kɨptukkɨ' kɨttɨ*
          [*Wan metsang __ =pɨ't   Ø=kɨpi-tuk-wɨ=pɨ'*]   *Ø=kɨt-wɨ*
          J.   two   =INSTR 3S.wood-cut-CP.I=REL 3S.I=bend-CP.I
          'They bent the two (machetes) with which John cut the wood.'

But there are also significant differences with respect to RCs with full nominals. On the one hand, unlike what happens with full nominals, the language does not allow for prenominal RCs with elided nominals as shown by the ungrammaticality of (18). Similarly, the construction cannot be used to relativize a locative adjunct, as seen by the ungrammaticaly of (19).

TABLE 3.3   Scope of access to relativization in RCs with an elided nominal head

	Arguments			GEN	Oblique			Adjuncts			OBJC
	S/A	PO	SO		COM	INSTR	LOC	RSN	Time	MANN	
Gap postnom.	yes	yes	yes	yes	yes	yes	*	*	*	*	*
Internal	yes	yes	yes	yes	yes	yes	*	*	*	*	*

(18) * *'ɨy nipɨkwakxukkɨ 'ɨy 'angnitpa'k jemji*
    'ɨy=ni-pɨk-wak-xuk-wɨ   ['ɨy='ang'it-pa=pɨ'k] ***jemji*__**
    3A.I=BODY-grasp-split-3PL-CP.I 3A.I=have-ICP.I=REL all
    Intended reading: 'They stole all (the gold) he had.'

(19) * *'ɨy nipɨkwakxukkɨ jemji ju mongngɨ*
    'ɨy=ni-pɨk-wak-xuk-wɨ   ***jemji*__** [*ju*   *Ø=mong-wɨ*]
    3A.I=BODY-grasp-split-3PL-CP.I all   where 3S.I=sleep-CP.I
    Intended reading: 'They stole all (the gold) from where he slept.'

On the other hand, unlike what happens with postnominal RCs with a gap, equivalent RCs with elided nominals cannot be used to relativize adjuncts. This is shown by the ungrammaticality of (20), where the locative adjunct is relativized.

(20) * *tumɨ powɨ'angji bin 'awin dɨ ye'tstammɨ*
    ***tumɨ*__** [PAUSE] [*Ø=po'-wɨ=pɨ'*   *='ang=ji*   *bi*
    one   3S.I=be.born-CP.I=REL =RN:mouth=LOC DET
    'ɨn='awin]   *tɨ=ye'ts-tam-wɨ*
    2POSS=brother 1S.I=arrive-PL:SAP-CP.I
    Intended reading: 'We arrived at one (house) where your brother was born.'

The summary of the scope of the relativization of RCs with elided nominals is given in Table 3.3

TABLE 3.4   Elements that function as light heads in SM-ZOQ

Deictics			Indefinite pronouns			
SG	PL		Positive		Negative	
yɨ	yɨtikay	PROXIMAL	ney'iwɨ	'someone'	yakiwɨ	'no one'
te/tɨ	te/tɨtikay	NEUTRAL	neyti	'something'	yaki'/yakti	'nothing'
ka'	ka'tɨkay	DISTAL	neyjuti'	'anyone'	yakjuti'	'nothing'
			neyjutseng	'in some quantity'		
			neyju'	'somewhere'	yakju	'nowhere'
			neyjuting	'anywhere'		
			neyjutɨ(na)ng	'in some place'	yakju(na)ng	'from nowhere'
			neyjujo(na)ng	'in some place'	yakjute(na)ng	'to nowhere'
					yakjuting	'to nowhere'

3.4   Relative Clauses with Light Heads

RCs with light heads exhibit a pronominal element as a domain nominal (Citko 2004). A RC with a light head in SM-ZOQ is illustrated in (21), where I take the pronominal element *yɨ* to be a light head.

(21) *tijyɨy nɨmja'e yɨ minpa'*
      tij-wɨ   *'ɨy=nim-jay-e*   **yɨ**   [*PAUSE*] [*Ø=min-pa=pɨ'*]
      go-CP.I   3A.I=say-APPL:R-CP.D   PROX_PRO   3S.I=come-ICP.I=REL
      'He went to warn this one who's coming.' {Txt}

The elements that can function as light heads in SM-ZOQ come from a closed class of deictics and indefinite pronouns, given in Table 3.4.

    Like RCs with internal full heads, the language also allows for RCs with internal light heads, as illustrated in (22). In contrast, prenominal RCs with a light head are ungrammatical, as illustrated by the contrast in (23).

(22) *dey yɨ tejixukkɨ' yay nɨyɨxukkam*
      [*tey*   **yɨ**   *Ø=teji-xuk-wɨ=pɨ'*]   *ya*
      now   PROX_PRO   3S.I=exist-3PL-CP.I=REL   NEG
      'ɨy=nɨy-'ɨy-xuk-wɨ='am
      3A.I=name-VRS-3PL-CP.I=already
      'These ones who were (there) now no longer mention it.' {Txt}

TABLE 3.5   Scope of access to relativization in RCs with a light head

	Arguments			GEN	Oblique		Adjuncts				OBJC
	S/A	PO	SO		COM	INSTR	LOC	RSN	Time	MANN	
Gap postnom.	yes	yes	yes	yes	yes	yes	yes	yes	*	*	*
PRO REL	*	*	*	*	*	*	yes	*	*	*	*
Internal	yes	yes	yes	yes	yes	yes	*	*	*	*	*

(23) a. *jɨypay pa'txuki yɨ, tɨkɨyyɨ'*
       jɨy-pa   'ɨy=pa't-xuk-wɨ   yɨ   [PAUSE]
       cry-ICP.I 3A.D=find-3PL-ICP.D PROX_{PRO}
       [Ø=tɨk.'ɨy-wɨ=pɨ']
       3S.I=enter-CP.I=REL
       'They found this one crying as he came in.'

     b. * *jɨypay pa'txukki tɨkɨyɨ'k yɨ*
        jɨy-pa   'ɨy=pa't-xuk-wɨ   [Ø=tɨk.'ɨy-wɨ=pɨ'k]   yɨ
        cry-ICP.I 3A.D=find-3PL-ICP.D 3S.I=enter-CP.I=REL PROX_{PRO}
        Intended reading: *idem* (23a).

As for the scope of relativization, light head postnominal RCs show the same scope as full head postnominal RCs, except for the relativization of a reason adjunct, which is permissible with a light head, like in (24), but not with a full head.

(24) *'in 'ixɨ ga dɨ tɨjjɨ'go*
      'in='ix-wɨ   ka'   [PAUSE] [tɨ=tɨj-wɨ=pɨ'   =ko]
      1A.I=see-CP.I DIST_{PRO}   1S.I=go.back-CP.I=REL =RSN
      'I saw that one for which I went (to the field).'

The summary of the scope of the relativization of RCs with light-heads is given in Table 3.5.

3.5   Relative Clauses with a Determiner

SM-ZOQ has relative constructions where it could be said that a definite or indefinite determiner occupies the position usually occupied by a domain nominal. In these structures the referent of the domain nominal may be recovered in an anaphoric way, or recovered because reference is made to some shared knowledge. This is shown in the textual extract in (25), where the NP *bi pin* 'the man' is first introduced in (25a) and it is then recovered in an anaphoric way in the following clause in (25b).

(25) a. *'antonse 'ɨy nukxukkɨ bi pin*
          'antonse 'ɨy=nuk-xuk-wɨ   **bi   pin**
          then   3A.I=grab-3PL-CP.I   DET   man
          'Then, they apprehended the man.' {Txt}

      b. *bi tsɨkoyyɨ' 'ɨy nimjaxukkɨ*
          bi   [*PAUSE*] [*Ø=tsɨk-'oy-wɨ=pɨ'*]   *'ɨy=nim-jay-xuk-wɨ*
          DET   3S.I=do-AP-CP.I=REL   3A.I=say-APPL:R-3PL-CP.I
          'They asked the delinquent.'
          (Lit. 'the one who acted (wrongly).') {Txt}

In principle, one could analyze examples like (25b) as instances of an elided nominal. However, speakers of SM-ZOQ also make use of this structure without evidence that the nominal head has been elided, as it is necessarily for the case with quantifiers and numerals as discussed in Section 3.3. Such instances provide evidence that the RCs in such constructions are not headed by an elided nominal. An example with an indefinite determiner appears in (26); this extract comes from a text where the reference was neither retrievable by anaphora or cataphora.

(26) *koye'tsxukkɨ tum 'ɨy nukxukkɨ'*
      Ø=koye'ts-xuk-wɨ   **tum** [*PAUSE*] [*'ɨy=nuk-xuk-wɨ=pɨ'*]
      3S.I=surprise-3PL-CP.I   one   3A.I=grab-3PL-CP.I=REL
      'They surprised one delinquent.'
      (Lit. 'one who is apprehended.') {Txt}

Structures like those in (26) could be analyzed as constructions where the RC represents a type of syntactic nominalization in the sense in Shibatani (2009), where it is argued that RCs preceded by determiners and demonstratives are constructions that are syntactically treated as NPs even though the clause

shows no formal feature of nominalization. However, in SM-ZOQ we also find relative constructions where the determiner occurs within the RC, like in (27). Such instances make it very improbable that we have syntactic nominalizations.

(27) *dey bi yɨji witpa' piyukɨxoyyɨ*
    [*tey* **bi** *yɨ=ji* *Ø=wit-pa=pɨ'*] *Ø=piyu-kɨx-'oy-wɨ*
    now DET PROX=LOC 3S.I=walk-ICP.I=REL 3S.I=chicken-eat-AP-CP.I
    'The one who is now around here ate chicken.' (Jiménez 2014: 353)

Two natural instances of a relative construction with an internal determiner as head are given in (28). The only evidence that distinguishes these examples from postnominal RCs is the absence of a pause.

(28) a. *ye'tsɨ bi 'angkimoba' bi wixi*
       Ø=ye'ts-wɨ [**bi** *Ø='ang-kim-'oy-pa=pɨ'* *bi* *wixi*]
       3S.I=arrive-CP.I DET 3S.I=mouth-go.up-AP-ICP.I=REL DET vulture
       'The master of vultures has arrived.'
       (Lit. 'The one who commands the vulture.') {Txt}

    b. *kay mong bi 'ixtenoba'*
       kay *Ø=mong-wɨ* [**bi** *Ø='ix-ten-'oy-pa=pɨ'*]
       now 3S.I=sleep-ICP.I DET 3S.I=see-stop-AP-ICP.I=REL
       'The sentry is now asleep.'
       (Lit. 'The one who is on watch.') {Txt}

Similarly, definite semantics can also be conveyed in SM-ZOQ by just the RC, like in (29) which represents a case of a headless RC that functions as the subject of the matrix verb, suggesting that the role of the determiner in (26–28) is not to add the definite feature that the RC is lacking.

(29) *xukkɨ 'ɨy kɨxxɨ*
    Ø=xuk-wɨ [*'ɨy=kɨx-wɨ=pɨ'*]
    3S.I=end-CP.I 3A.I=eat-CP.I=REL
    'What he ate is finished.' (Jiménez 2014: 362)

As an alternative analysis, I suggest that the structures in (25–28) can be used as functional nominalizations that are not referential, but denote ways to refer to people, commonly depicting trades or crafts, as indicated by the translations like 'master', 'sentry' and 'delinquent', etc. However, they are not restricted to such a use.

It could equally be argued that the relative constructions bearing a determiner are instances of constructions with elided nominals or that they could be taken as light heads. Such an analysis is suggested for other languages in Lehmann (1984) and Gutiérrez (2012, 2013, 2015), *inter alia*. It is true that as it happens with RCs with elided nominals or light heads, we cannot have prenominal RCs with determiners, as shown in (30).

(30) * *'angtsongngoyyɨ pa'toyyɨ'k bi*
        Ø='ang-tsong-'oy-wɨ   [*Ø=pa't-'oy-wɨ=pɨ'k*]   **bi**
        3S.I=mouth-face-AP-CP.I 3S.I=find-AP-CP.I=REL DET
        Intended reading: 'He who found (the saint) responded.'

However, unlike relative constructions with elided nominals, this type of relative construction can be used to relativize a locative adjunct, both by the gap strategy or the locative relative pronoun strategy, as shown in (31).

(31) a. *bi powɨ'angji bin 'awin dɨ ye'tstammɨ*
        bi   [*PAUSE*] [*Ø=po'-wɨ=pɨ'*   =*'ang=ji*   *bi*
        DET   3S.I=be.born-CP.I=REL =RN:mouth=LOC DET
        'in='awin]   *tɨ=ye'ts-tam-wɨ*
        2POSS=brother 1S.I=arrive-PL:SAP-CP.I
        'We got to where your brother was born.'

      b. *bi juting pitsim(mɨ) tum chikxa*
        bi   [*ju=tɨng*   *Ø=pitsim-wɨ*   *tumɨ* *chik.xa*]
        DET where=ABL 3S.I=exit-CP.I one   DIM.boy
        'Where a little boy came from.'

This is an important difference with constructions with elided nominals that places them closer to light heads. The summary of the scope of the relativization of RCs with determiner heads is given in Table 3.6, where it is shown that for the relativization strategies that are allowed for this type of head, they display the same scope as the relativization constructions with full nominals.

In Table 3.6, I indicate that a relative construction with a determiner head cannot be used for the relativization of a reason adjunct, as illustrated by the ungrammaticality of (32). This type of construction behaves differently from RCs with a light head, as shown in example (24) above, repeated here as (33).

TABLE 3.6   Scope of access to relativization in RCs with a determiner head

	Arguments			GEN	Oblique			Adjuncts			OBJC
	S/A	PO	SO		COM	INSTR	LOC	RSN	Time	MANN	
Gap postnom.	yes	yes	yes	yes	yes	yes	yes	*	*	*	*
PRO REL	*	*	*	*	*	*	yes	*	*	*	*
Internal	yes	yes	yes	yes	yes	yes	*	*	*	*	*

(32) * *’ɨn ’ixxɨ bi dɨ tijjɨ’go*
    ’ɨn=’ix-wɨ   **bi**   [*PAUSE*] [*tɨ=tij-wɨ=pɨ’*   *=ko*]
    1A.I=see-CP.I DET   1S.I=go.back-CP.I=REL =RSN
    Intended reading: 'I saw the one I went for.'

(33) *’ɨn ’ixɨ ga dɨ tijjɨ’go*
    ’ɨn=’ix-wɨ   **ka’**   [*PAUSE*] [*tɨ=tij-wɨ=pɨ’*   *=ko*]
    1A.I=see-CP.I DIST$_{PRO}$ 1S.I=go.back-CP.I=REL =RSN
    'I saw that for which I went (to the field).'

There are other formal differences between determiners and the elements that can work as light heads, especially with the demonstrative set in Table 3.4. For example, determiners cannot be used pronominally nor can they be inflected for number. Both restrictions are illustrated by the ungrammaticality of both (34) and (35).

(34) * *’ɨy ’ixtenpa bi/tum*
    ’ɨy=’ix-ten-pa   **bi** / **tum**
    3A.I=see-stop-ICP.I DET   INDF
    Intended reading: 'Take care of that one/one.'

(35) * *’ɨy ’ixtenpa bidɨkay*
    ’ɨy=’ix-ten-pa   **bi=tɨkay**
    3A.I=see-stop-ICP.I DET=PL
    Intended reading: 'He takes care of them.'

3.6   Headless Relative Clauses: Relative Clauses without a Domain Nominal

In this study, I follow the perspective of authors such as de Vries (2002) and van Riemsdijk (2006), who consider RCs without a domain nominal as headless relative clauses, independently of the relativization strategies that may be used. Specifically for SM-ZOQ, I distinguish two types of headless RCs, one introduced by a relative pronoun from the paradigm of wh-words, and another which makes use of a gap strategy and is marked by the relativizer =*pi'* that we observe in postnominal relative clauses with a gap. I elaborate on each type in the following sections.

3.6.1   *Free Relatives*

Free relatives in SM-ZOQ are headless RCs introduced by wh-words that function as relative pronouns within the RC (Caponigro 2003, 2013). An example with the relative pronoun for humans *'iwɨ* 'who' is given in (36).

(36) *'ɨy nɨmjaxukpa 'iwɨ 'ɨy pa'tti bi komaxan*
      'ɨy=nɨm-jay-xuk-pa   [*'iwɨ 'ɨy=pa't-wɨ*   *bi*   *ko-maxan*]
      3A.I=say-APPL:R-3PL-ICP.I who 3A.I=find-CP.I DET head-sacred
      'They're asking that (to the person) who found the saint.' {Txt}

The syntax of SM-ZOQ does not allow for the relative pronoun strategy in (36) with RCs headed by full nominals (except when the head nominal works as a locative adjunct, as seen in Section 3.2.2).

(37) * *'ɨy nɨmjaxukpa pɨn 'iwɨ 'ɨy pa'tti bi komaxan*
      'ɨy=nɨm-jay-xuk-pa   **pɨn** [*'iwɨ 'ɨy=pa't-wɨ*   *bi*   *ko-maxan*]
      3A.I=say-APPL:R-3PL-ICP.I man who 3A.I=find-CP.I DET head-sacred
      Intended reading: *idem* (36)

Similarly, in SM-ZOQ there are no correspondence effects in headless relatives introduced by relative pronouns. This is seen in (38), where the relative pronoun is case-marked with a comitative because that is the role its referent plays within the RC, regardless of the fact that the whole relative is the object of the matrix predicate. In this way, SM-ZOQ behaves the same as Romanian and many other languages (Riemsdijk 2006).

TABLE 3.7   Relative pronouns in free relatives

’iwɨ	'who'
ti'	'what'
ju.ti'	'which'
ju	'where'
ju.tiya'	'when'
junang	'how'
tiko'	'why'

(38) *’ɨy yakaxukkɨ ’iwɨjinang pitsɨmmɨ fan*
      ’ɨy=yak-ka’-xuk-wɨ   [*’iwɨ=**jinang** Ø=pitsɨm-wɨ   Fan*]
      3A.I=CAUS-die-3PL-CP.I who=COM   3S.I=find-CP.I J.
      'They killed the one that John went out with.'

Free relatives in SM-ZOQ can express definite NP semantics, like in (36) and (38), or indefinite semantics, like in (39).

(39) *nɨnti ’iwɨ’ nɨkpan tsɨyme’tsodammɨ jinang*
      Ø=nɨn=ti   [*’iwɨ nɨk-pa ’ɨn=tsɨyme’ts-’oy-tam-wɨ   =jinang*]
      3S.I=NEG=thing who go-ICP.I 1A.D=search-AP-PL:SAP-CP.I =COM
      'There's no one I go hunting with.'

The paradigm of relative pronouns involved in this relative construction is given in Table 3.7.

Table 3.8 outlines the grammatical relations that have access to relativization by means of free relatives. As it can be seen, all roles except object of comparison are covered by this type of RC.

Apart from definite and indefinite free relatives, in SM-ZOQ we also find a different type of free relative identified in the literature as 'free choice' (see Caponigro 2003). Such clauses are often marked by some extra material and they have free choice interpretations equivalent to RCs bearing the -*ever* element in English. In SM-ZOQ, the relative pronouns occurring in this type of free relative bear the particle *’abe*, from the Spanish expression *a ver* meaning 'let's see'. An example is given in (40).

TABLE 3.8   Scope of access to relativization of free RCs

	Arguments			GEN	Oblique			Adjuncts			OBJC
	S/A	PO	SO		COM	INSTR	LOC	RSN	Time	MANN	
PRO REL	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	*

TABLE 3.9   Relative pronouns in free
             choice free relatives

'abe	*'iwɨ*	'whoever'
'abe	*ti'*	'whatever'
'abe	*ju.ti'*	'whichever'
'abe	*ju*	'wherever'
'abe	*ju.tiya'*	'whenever'
'abe	*junang*	'in whatever manner'
'abe	*tiko'*	'for whatever reason'

(40) *nɨkpan yoxɨ 'abe 'iwɨ minpa*
      nɨk-pa   'ɨn=yox-wɨ   ['abe 'iwɨ   Ø=min-pa]
      go-ICP.I 1S.D=work-ICP.D EVER who 3S.I=come-ICP.I
      'I'm going to work with whoever comes by.'

The paradigm of relative pronouns involved in this relative construction is
given in Table 3.9. Free choice free relatives have the same scope of relativiza-
tion as definite and indefinite free relatives.

3.6.2   *Headless Relative Clauses with a Gap*
The second type of headless RCs in SM-ZOQ is one that uses the gap strategy.
The referent to which the RC makes reference can be human, like in (41a), or
inanimate, like in (41b).

(41) a. *minnɨ 'ɨy tujxukkɨ*
          Ø=min-wɨ   ['ɨy=tuj-xuk-wɨ=pɨ']
          3S.I=come-CP.I 3A.I=shoot-3PL-CP.I=REL
          'He went back to the one who shot it.' (Jiménez 2014: 357)

TABLE 3.10 Scope of access to relativization of headless RCs with a gap

	Arguments			GEN	Oblique		Adjuncts				OBJC
	S/A	PO	SO		COM	INSTR	LOC	RSN	Time	MANN	
Gap	yes	yes	yes	yes	yes	yes	*	*	*	*	*

b. *'ɨy nipɨkwakxukkɨ 'ɨy 'angnitpa'*
   'ɨy=ni-pɨk-wak-xuk-wɨ   [*'ɨy='ang'it-pa=pɨ'*]
   3A.I=BODY-grasp-split-3PL-CP.I 3A.I=have-ICP.I=REL
   'They stole what he has.' {Txt}

Examples in (41) have definite referents in the discourse, but the structure as such can also be used with existential predicates to designate a referent with an indefinite reading, like in (42).

(42) *nɨnti 'ɨy tujpa'*
      Ø=nɨn=ti   [*'ɨy=tuj-pa=pɨ'*]
      3S.I=NEG=thing 3A.I=shoot-ICP.I=REL
      'There's no one who can shoot him.'

As indicated in Table 3.10, this type of headless RC has a reduced scope of relativization when compared with free relatives.

3.7   **Conclusions**

In this chapter, I have proposed that in SM-ZOQ there are three relativization strategies: (i) with a gap; (ii) with a relative pronoun; and (iii) with an internal head. I have studied how the different strategies are used and what scope they have in the relativization hierarchy with respect to the different types of heads we find in the relative constructions of this language. I have proposed that for SM-ZOQ we find five such types, and I have given formal evidence for the existence of each one. The first four types are headed structures: (i) RCs with a full nominal head, which are the canonical type of RC; (ii) RCs where the nominal head is elided; (iii) RCs with a light head; and (iv) RCs whose head is a determiner. This latter type is typologically unusual, but I have argued it should be kept as a type of head which is distinct from elided nominals and light heads.

Finally, I have presented RCs without a head. Such headless RCs can be further divided by relativization strategy and scope into two subtypes: (i) free relatives that use relative pronouns from wh-words and (ii) headless relatives with a gap. In future research, the relevance of the types of domain nominal proposed for SM-ZOQ needs to be evaluated in the context of more languages of the same family to establish which of these types are generalized.

Acknowledgments

Bibliography

Andrews, Avery D. 2007. Relative clauses. In Timothy Shopen (ed.), *Language Typology and Syntactic Description*, 206–236. Cambridge: Cambridge University Press.

Caponigro, Ivano. 2003. Free not to ask. PhD Dissertation. Los Angeles: University of California.

Citko, Barbara. 2004. On headed, headless, and light-headed relatives, *Natural Language and Linguistic Theory* 22: 95–126.

Comrie, Bernard. 1989. *Language universal and linguistic typology: Syntax and morphology*, 2da edition. Chicago: University of Chicago Press.

de Vries, Mark. 2002. The syntax of relativization. PhD Dissertation. Amsterdam: University of Amsterdam.

Epps, Patience. 2012. Between headed and headless relative clauses. In Bernard Comrie and Zarina Estrada-Fernández (eds.), *Relative Clauses in Languages of the American: A Typological Overview*, 191–211. Amsterdam: John Benjamins.

Gutiérrez Bravo, Rodrigo. 2012. Relative clauses in Yucatec Maya. Light headed vs. null

domain, in Bernard Comrie and Zarina Estrada-Fernández (eds.), *Relative Clauses in Languages of the American: A Typological Overview*, 253–268. Amsterdam: John Benjamins.

Gutiérrez Bravo, Rodrigo. 2013. Free relative clauses in Yucatec Maya, *Language Typology and Universals* 66: 22–39.

Gutiérrez Bravo, Rodrigo. 2015. *Las cláusulas relativas en maya yucateco*. México: El Colegio de México.

Jiménez Jiménez, Silviano. 2014. Esbozo gramatical y oraciones de relativo en el zoque de San Miguel Chimalapa. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Jiménez Jiménez, Silviano. 2018. La estrategia de relativización con pronombre relativo en el zoque de San Miguel Chimalapa, Oaxaca, *Amerindia* 40: 105–134.

Keenan, Edward and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8: 63–100.

Kroeger, Paul R. 2005. *Analyzing grammar: An introduction*. Cambridge: Cambridge University Press.

Lehmann, Christian. 1984. Progress in general comparative linguistics, *Studies in Language* 8: 259–286.

Shibatani, Masayoshi. 2009. Elements of complex structures, where recursion isn't. The case of relativization. In Talmy Givón and Masayoshi Shibatani (eds.), *Syntactic Complexity: Diachrony, Acquisition, Neuro-cognition, Evolution*, 163–198. Amsterdam: John Benjamins.

Van Riemsdijk, Henk. 2006. Free Relatives. In M. Everaert and H. van Riemsdijk (eds.), *The Blackwell Companion to Syntax* Vol. 2, 338–382. Oxford: Blackwell.

Relative Clauses and the Typology of Relative Heads in Q'anjob'al

Eladio Mateo Toledo

4.1 Introduction

Relative clauses (RCs) have received a great deal of attention in the typological and theoretical literature. While there is agreement on their general cross-linguistic features (Keenan and Comrie 1977, Lehmann 1986, Andrews 2007, Comrie and Kuteva 2013a/b, among others), issues like types of heads, headless RCs, and free relatives are still debated as more languages are studied.

The chapter has two related goals: it provides an overview of RCs in Q'anjob'al and it proposes a typology of heads that results in a typology of relative constructions within the language. According to the form and expression of the head, Q'anjob'al has four types of RCs: nominal-headed RCs, free relatives, determiner-headed RCs, and headless RCs with a gap. They differ in lexical and syntactic properties, as well as in terms of the relativization strategies that are allowed with each particular head. The analytical proposal defended in this chapter differs partially from previous work on RCs in Mayan languages and in general.

In Q'anjob'al, a nominal head is external to the RC.[1] In (1a), *na* 'house' is the head and the RC follows it. Similarly, in (1b), the head *winaq* 'man' precedes the RC. In examples, the head of a RC appears in Roman characters.

(1) a. ***max-Ø way heb' naq b'ay jun*** **na** [*b'ay kajan hin*]
    CP-S3 sleep PL CLF at INDF.SG house where living S1SG
    'They slept in a house where I was living.' {Txt}

  b. ***ay-Ø juntzan heb' naq*** **winaq** [*ch'-Ø-ek' kayti*]
    EXIST-S3 INDF.PL PL CLF man ICP-S3-pass here
    'There are some men who pass here.' {Txt}

---

1 I use the term 'relative construction' to refer to the phrase formed by the head and RC.

Noun-headed RCs allow gapping and relative pronoun strategies (Keenan 1985: 149–152, Andrews 2007: 217–225, Lehmann 1986). The relativization of locatives requires the relative pronoun *b'ay* 'where' in the RC, as in (1a), and the relativization of other arguments requires a gap, as in (1b), where the intransitive subject in the RC has no phonological expression.

Noun-headed RCs show a variation in the form of the head. They may have a pronoun in place of a noun like *heb'* in (2). However, relative constructions with a noun or pronominal head have the same properties and restrictions.

(2) *ay-Ø*   heb'   [*max-Ø il-on   150 o 160 ...*]
     EXIST-S3 PL:they CP-S3   see-AF 150 or 160
     'There are those [our ancestors] who lived 150 or 160 years.' {Txt, modified}

Free RCs differ from noun-headed RCs in structure, meaning, and function (Lehmann 1986, Andrews 2007, Caponigro, Torrence and Cisneros 2013, and others). All free RCs have a wh-word; they are embedded clauses; and they constitute the relative construction. Two free RCs are shown in (3). They are introduced by the relative pronouns *mak* and *maktxel*, respectively; the free RC in (3a) is the subject of the existential predicate *ay* and the free RC in (3b) is the object of the matrix verb *iteq* 'to bring.' Q'anjob'al has all three kinds of free RCs attested cross-linguistically, maximal free RCs, existential free RCs, and free choice free RCs, but they have the same syntax and differ only at the semantic level.

(3) a. *ay-Ø*   [*mak max-Ø jay-i*]
        EXIST-S3 who CP-S3 come-IV
        'There {is someone/are some} who came here.'

     b. *x-Ø-y-i-teq*   ix [*maktxel x-ach   kol-on-i*]
        CP-O3-A3-take-DIR CLF who   CP-S2SG help-AF-FS
        'She brought {a known person} who helped you.'

The third type of relative constructions are those headed by a determiner, and I call these determiner-headed RCs. They are headed by an indefinite determiner like *juntzan* in (4a–b) or a demonstrative like *tu* 'that' in (4c).

(4) a. *ay-Ø*   juntzan [*tzetal ch-Ø-b'eq-lay y-in   yetzan*]
        EXIST-S3 INDF.PL what   ICP-S3-let-PAS POSS3-at cheap
        'Some things are sold cheap.' {Txt, modified}

b. *x-Ø-jay*   juntzan [*ch-Ø-j-al*   *altimodoh-al*]
   CP-S3-come INDF.PL ICP-O3-A1PL-say automobile-ABS
   'Those we call automobiles came here.' {Txt}

c. *kax   chi-Ø   jay*   [*maktxel chi-Ø   kam*] tu
   then   ICP-S3 come who   ICP-S3 die   DIST
   'Then those that die come here.'

Determiner-headed RCs have an anaphoric and referential reading (they refer to entities available from context) and have a similar structure. There are two subtypes of determiner-headed RCs: those headed by indefinite determiners like *juntzan* and those headed by demonstratives like *tu*. They differ in two aspects. First, the determiner is placed according to its location in an NP and this results in two orders: *juntzan* precedes the noun or RC, as in (4a–b), and *tu* follows a noun or RC, as in (4c), but this is not a feature of RCs. Second, they differ in relativization strategies: those headed by *juntzan* use a relative pronoun or a gap strategy in the RC, as in (4a–b) respectively, while those headed by *tu* obligatorily require a relative pronoun in the RC like *maktxel* 'who' in (4c). Note that in relative constructions headed by *juntzan*, the locative is accessible with a gap only when it is introduced by a relational noun, but the relative pronoun can be used for all locative phrases.

The last type of relative construction in Q'anjob'al are headless RCs with a gap. An example is shown in (5). Headless relative constructions of the type in (5) lack a head; they function as the subject of the existential predicate *ay;* and the RC lacks a relative pronoun or a subordinator (i.e., it is an asyndetic subordinate clause).

(5) *ay-Ø*   [*hoq-Ø el-teq   nani*]
     EXIST-S3 POT-S3 exit-DIR now
     'There are those [skirts] that will come out now.' {Txt}

The overall proposal is as follows. There are two subtypes of heads: nominal (or pronominal) and determiner. In the nominal head, the RC, like adjectives, modifies the noun, but in the determiner head, the determiner, like in a noun phrase, selects the RC as argument (and that is why the determiner-headed RC has a referential reading). There are two types of relative constructions: headed ones and free relatives. Headed RCs consist of a head plus the RC. Free relatives constitute the relative construction without a head, and they pattern like phrases (NPs, locative phrases, etc.). The combination of the previous features results in three relative constructions: an [N+RC] structure (the RC modifies

and restricts the reference of N); a [DET+RC] structure, which are of two sub-
types (the determiner selects the RC as complement with a referential func-
tion); and free RCs (the free RC constitutes the relative construction with a
referential reading). The three constructions differ in structure, in the selec-
tion of the relativization strategy, in the scope of each relativization strategy,
in function, and in meaning; e.g. relative constructions headed by a noun use a
relative pronoun in relativizing locatives and a gap for other arguments; those
headed by a determiner allow both gap and relative pronoun strategies with
an indefinite head but only a relative pronoun with a demonstrative head; and
free RCs use a relative pronoun strategy. Lastly, I show that Q'anjob'al also has
another type of headless relative construction that differs from the previous
ones.

The scope of each relativization strategy (gap and relative pronoun) differs
mostly in the relativization of non-direct arguments. Interestingly, locatives
display two patterns: locatives can be relativized using a relative pronoun, but
only those introduced by relational nouns use a gap.

The data analyzed here come from the dialect of Q'anjob'al spoken in Santa
Eulalia, Huehuetenango, Guatemala (see Raymundo et al. 2000). The data are
extracted from a corpus of about 57 hours of natural texts (part of this is avail-
able at ELAR, SOAS) supplemented with elicitation (from two or three speak-
ers).

The relative construction in (1) is the canonical RC headed by a noun, as
described in the literature (Keenan and Comrie 1977, Lehmann 1986, Andrews
2007). The relative construction with a pronominal head in (2) is a headed RC.
This has received two different analyses: 'light head' in Polish (Citko 2004)—
a pronoun akin to determiners which functions as the head—and free relative
because a nominal head is missing (Lehmann 2003: 462; Andrews 2007: 214).
Those in (3) are free RCs as defined by Caponigro (2003), and Caponigro, Tor-
rence and Cisneros (2013). Lehmann (1986: 664) assumes that free RCs have
a null nominal head modified by the RC, Andrews (2007) also assumes a null
head analysis, but in Q'anjob'al there is no evidence for a null head in free RCs.
The relative constructions in (4) contain a determiner head and form a differ-
ent type of relative construction. The literature is unclear on how these should
be analyzed: they could be headless RCs under Lehmann's (1986) and Andrews'
(2007) views as there is no noun, or they could be light heads under Citko's
(2004) view as the determiner is the head. Finally, the relative construction in
(5) is headless; that is, it is not a case of a missing noun, as in Lehmann's view
(2003: 462).

The remainder of the chapter is organized as follows. The next section con-
tains background information on Q'anjob'al that is relevant to the analysis of

RCs. Section 4.3 presents the notion of head that I follow and describes headed RCs. Section 4.4 describes determiner-headed RCs. Free RCs are described in Section 4.5. Section 4.6 describes headless RCs with a gap. Section 4.7 concludes the chapter and highlights its implications.

4.2   Basic Features of Q'anjob'al

Q'anjob'al is a western Mayan language closely related to Akateko and Popti' (Kaufman 1974). The Guatemalan National Statistics Institute (Spanish: Instituto Nacional de Estadística) (INEG 2018) reports 166,261 Q'anjob'al speakers in 2018, but Richards (2003: 74) estimated 99,200 speakers in 2001. Furthermore, a diaspora of around 10,000 speakers live in Mexico and the US. Due to unstable intergenerational transmission, the language is somewhat endangered.

Q'anjob'al is a head-marking language without case on lexical arguments. It is a VO language with unmarked VS and VAO orders for intransitive and transitive clauses, respectively. The language is morphologically ergative in finite clauses and nominative in non-finite clauses (Mateo Toledo 2013, 2017a). For this reason, I refer to syntactic arguments as S=intransitive subject, A=transitive subject, and O=object (Dixon 1994). In the next section, I describe the features of simple clauses, interrogative clauses, and those of the noun phrase relevant to RCs.

4.2.1   *Inflection and Finite Clauses*
Q'anjob'al marks three inflectional categories: aspect-mood, person-number, and valence. Clitic-like affixes mark three aspect-mood oppositions: completive, incompletive and irrealis (potential), as in (6). Person-number is indexed by two sets of affixes that follow an ergative pattern. The 2SG person is marked with *ha-* in A function (6a), whereas is marked with *-ach* in S and O functions (6b–c).

(6)   a. *xk-in   ha-kol-o'*
         CP-O1SG A2SG-help-TV
         'You helped me.' {Txt}

      b. *k'am ch-ach   b'il-i ...*
         NEG ICP-S2SG move-IV
         'You do not move ...' {Txt}

    c. *q-ach*   *j-ante-j*   ⟨*yekal*⟩
       POT-O2SG A1PL-cure-TV tomorrow
       'We will cure you tomorrow.' {Txt}

Inherent valence of verbal predicates is marked by thematic suffixes, as in (6): root transitive verbs take *-V'*, intransitive verbs take *-i*, and derived transitive verbs take *-j*. Apart from *-j*, the thematic suffixes surface only in final prosodic boundaries (except when they are retained by complex codas) as shown by the contrast between *kol* in (6a) and (7), see Mateo Toledo (2017a) for details.

(7) *xk-in*   *ha-kol*   *y-ul*   ⟨*s-*⟩*q'ab'*   *kamich*
     CP-O1SG A2SG-help POSS3-inside POSS3-hand death
     'You saved me from the hands of death.' {Txt}

Inflection distinguishes verbs like the previous ones from non-verbal predicates (NVPS). NVPS like *miman* 'big' in (8) lack a copula and they inflect for person-number referring to the S, but never for aspect-mood. Adjectives, nouns, positional states, and the existential *ay* function as NVPS.

(8) *miman hach xa*
     big   s2SG already
     'You are already big.' {Txt}

Finite clauses have a fully inflected verb or NVP that may be negated, as in (6b); negation precedes the aspect-mood marker. Finite transitive clauses with lexical arguments follow an unmarked VAO order, as in (9): *heb'* is the A argument and *no no' tu* is the O argument.[2]

(9) *tok'al ch-Ø-y-il-ok*   *heb'*   *no* ⟨*no'*   *tu*⟩
     only ICP-O3-A3-see-DIR PL:they CLF animal DIST
     'They only see those animals.' {Txt}

Changes to the VAO order are conditioned by preverbal focus or interrogation (Aissen 1992, Mateo Toledo 2017a), but focus may be marked in other ways not

---

2 Q'anjob'al also has non-finite clauses that differ from finite ones in inflection, structure, and distribution, see Mateo Toledo (2013, 2017a) for all details. Non-finite clauses play no role in the analysis of RC constructions.

discussed here.[3] Preverbal focus like *heb' naq winaq ti* 'these men' in (10) is introduced by the particle *a*.

(10) *a   heb' naq winaq ti   q-in   kol-on   b'el*
      FOC PL   CLF man   PROX POT-S1SG help-AF moment
      'These men are the ones who will help me for now.' {Txt, modified}

Preverbal focus distinguishes speech act participants from third person. Third person follows an ergative pattern: while an agent focus (AF) construction marked by *-on/-n* on the verb is obligatory in focusing the A argument in (10), no AF construction is used in focusing the S and O arguments in (11). The focus and the clause form one prosodic phrase.

(11) a. *a   no   koj tu   maj   Ø-jay   y-in   heb'*
         FOC CLF lion DIST NEG.COM S3-come POSS3-at PL:they
         'It is the lion that did not come at them.' {Txt, modified}

      b. *a   no   kandela ch-Ø-y-i   heb'*
         FOC CLF candle   ICP-O3-A3-take PL:they
         'It is the candles that they take.' {Txt}

In the AF construction, the clause has two direct arguments, but the verb is formally intransitive. The verb indexes the object and the preverbal A argument lacks indexation, as in (10) (see Francisco Pascual 2007, Mateo Toledo 2013, and Coon et al. 2014, for their analyses).

No AF construction is required for focusing speech act participants in any grammatical function, as shown by the 2PL A argument in (12).

(12) *ayex   max-Ø he-san   kam hin-mam ...*
      you.PL CP-O3 A2PL-hit die POSS1SG-father
      'You are the ones who killed my father by hitting him ...' {Txt}

---

3 Other works treat secondary predicates and topic as preverbal clausal elements. However, a secondary predicate is a construction (see Mateo Toledo 2012) and topic is a discourse element external to the clause (Mateo Toledo 2017a). They play no role in the analysis of RC constructions.

4.2.2   *Interrogative Clauses*

In this section, I describe the structure and lexical features of interrogative clauses. Polar interrogative clauses have a rising intonation without any morphological marker, as in (13). The dubitative particle *mi* occurs optionally within the predicate nucleus.

(13) *hoq-ach   (mi) meltzoj yekal?*
       POT-S2SG DUB return   tomorrow
       'Will you return tomorrow?'

Content interrogative clauses require a wh-word in preverbal position such as *maktxel* in (14a). Multiple questions and wh-expressions *in situ* are unattested in texts and elicitation (14b)–(14c).

(14) a. *maktxel ch'-Ø-ih-on-kan   aj   jun   nuq'ej ti?*
          who   ICP-S3-take-AF-DIR DIR INDF.SG voice PROX
          'Who is saving this voice?' {Txt}

      b. **maktxel ch'-Ø-ih-on-kan   tzetal?*
          who   ICP-S3-take-AF-DIR what
          Intended reading: 'Who is saving what?'

      c. **maktxel tzetal ch'-Ø-ih-on-kan-oq?*
          who   what   ICP-S3-take-AF-DIR-INF
          Intended reading: 'Who is saving what?'

Like preverbal focus, interrogative clauses follow an ergative pattern with third person. Questions about A arguments require an AF construction, like in (15a), but questions about S and O arguments, like in (15b–c), do not use an AF construction. In the AF construction in (15a), the clause has two direct arguments; the verb is intransitive as it only indexes the object and the A argument *mak* 'who' lacks indexation.

(15) a. *mak ch-on   etz'e-n-i?*
          who ICP-S1PL imitate-AF-IV
          'Who is imitating us?' {Txt, modified}

      b. *tzetal x-Ø-'ek'-toq   w-ib'an?*
          what CP-S3-pass-DIR POSS1SG-above
          'What happened to me?' {Txt, modified}

TABLE 4.1   Wh-expressions in wh-interrogative clauses in Q'anjob'al

Wh-expression		Meaning (category)
mak(*txel*)	who	Entity (DP)
tzet(*al*)	what	Entity (DP)
b'ay(*tal*)	where	LOCATIVE (AdvP, AdpP, DP)
b'aq'in	when	TIME (Adv, Adp)
tzet(*b'il*)	how	MANNER (Adv, AdpP)
jantaq (+*N*)	how much	Quantity (Q +N)
jay+*NCLF* (+*N*)	how many	Quantity (Q +N)

Legend: AdvP=adverbial phrase, AdpP=adpositional phrase, Q+N=quantifier plus noun; NCLF=numeral classifier.

> c. *maktxel max-Ø h-aq'-kan   ko-taynomal-oq?*
>   who   CP-O3 A2SG-give-DIR POSS1PL-guard-IRR
>   'Who did you leave as our guard?' {Txt}

All wh-expressions used in wh-interrogative clauses are listed in Table 4.1. The last column lists their main semantic features and syntactic category. They also function as relative pronouns.

Five observations on wh-expressions follow:

First, some wh-expressions have a short and long form: *mak/maktxel* 'who', *tzet/tzetal* 'what', *b'ay/b'aytal* 'where', and *tzet/tzetb'il* 'how.' Adpositions (prepositions and relational nouns) always select a short form like *tzet* before the relational noun *-uj* 'by' in (16); *tzetal* is ungrammatical in this context.[4] The short and long forms alternate in other contexts without any apparent difference in meaning.

(16) *tzet y-uj   xan   ch-Ø-lajw-i   ay j-ixim?*
     what POSS3-by CONS ICP-S3-finish-IV DIR POSS1PL-corn
     'Why does our corn disappear?' {Txt}

> A: *y-uj   ko-mul*
>   POSS3-by POSS1PL-sin
>   'because of our sins'

---

4   The relational noun *-uj* marks the semantic case for 'reason, cause.' This often co-occurs with *xan*; it means 'reason, why, and consequence.' I gloss it as 'CONS.'

Second, adpositional phrases may involve pied-piping when the wh-expression is the complement of an adposition (Aissen 1996, Smith Stark 1988). In Q'anjob'al, a wh-expression can pied-pipe the adpositional phrase with an inverted order like in (16) where *tzet* 'what' precedes the relational noun *-uj*, but the order in non-interrogative clauses is [Adp+NP] like 'at them' in (11a) above. Pied piping with inversion occurs only with adjuncts for reason/cause and comitative/instrument.

Third, questions on quantity use *jay*. Count nouns require a numeral classifier suffixed to *jay*: *-wan* for human, *-k'on* for animal, and *-eb'* for inanimate (see Zavala Maldonado 1990, 2000). The classifier *-wan* is illustrated in (17). The noun is elided if the referent is available from context.

(17) [**jay-wan**   (*anima*)] *q-Ø-jay-oq?*
       how_many-HUM people   POT-S3-come-IRR
       'How many (people) will come?'

Fourth, the wh-expression for manner *tzet(b'il)* 'how' requires the light verb construction: *tzet(b'il) x-y-un* [how CP-A3-happen] 'how did it happen' like in (18a). The wh-expression *tzet(b'il)* 'how' occurs on the left and the light verb *un* 'happen' mediates between the wh-expression and the main verb after it. The light verb has full inflection and the main verb has a non-finite form—it lacks aspect and it inflects for person (Mateo Toledo 2013). The light verb may be elided without any apparent change in meaning as shown in (18b) (see Mateo Toledo 2012 for an analysis).

(18) a. *tzet   ch-Ø-y-un   hin-b'ey-i?*
          what ICP-O3-A3-happen S1SG-walk-IV
          'How do I walk [behave]?' {Txt}

     b. *tzet   hin-b'ey-i?*
          what S1SG-walk-IV
          'How do I walk [behave]?'

The semantics equivalent to English 'which (X)' is encoded through a locative-existential construction: *b'ay(tal) ay X* 'where is X.' The locative-existential construction is shown in (19): the wh-expression *b'aytal* 'where' precedes the existential predicate *ay* whose subject is modified by a RC.

(19) *b'aytal ay-Ø   te   na   [q-Ø-e-man-a']?*
where EXIST-S3 CLF house POT-O3-A2PL-buy-TV
'Which house will you buy?'
(Lit. 'Where is the house that you will buy?')

I finally show that matrix and embedded interrogative clauses have the same structure. Embedded polar interrogative clauses like the bracketed string in (20) are introduced by the marker *ta*, which is also used in conditional clauses, as in (21), but not in polar questions, as in (13).

(20) *man j-ojtaq-oq-Ø   [ta   tol   lanan ⟨s-⟩tit-a]*
NEG A1PL-know-IRR-O3 COND INT PRG   S3.D-come-IV
'We didn't know that it [war] was coming.' {Txt, modified}

(21) *ch-Ø-noj-i   [ta   kakaw chi-Ø   uk'-lay-i]*
ICP-S3-fill-IV COND cocoa ICP-S3 drink-PAS-IV
'It [the gourd] is filled up if cacao is drunk.' {Txt}

Embedded and matrix wh-interrogative clauses exhibit the same structure and restrictions. They contain an interrogative expression that introduces the complement such as the bracketed clauses in (22). While an AF verbal form is used for A arguments (22b), no AF verbal form is used for other grammatical relations, such as the O in (22a). All interrogative expressions in Table 4.1 occur in this context; the examples below illustrate *tzet, maktxel*, the locative-existential construction for identity, and the light verb construction for manner, respectively.

(22) a. *ayin ti,   man w-ojtaq-oq-Ø   [tzet ch-Ø-a-wa'ne-j]*
I   PROX NEG A1SG-know-IRR-O3 what ICP-O3-A2SG-make-TV
'As for me, I don't know what you make/do.' {Txt}

   b. *man h-ojtaq-oq-Ø   [maktxel ch-ach   tayn-en-i]*
NEG A2SG-know-IRR-O3 who   ICP-S2SG take_care-AF-FS
'You do not know who takes care of you.'

   c. *w-ojtaq-Ø   [b'aytal ay-Ø   jun   te   na*
A1SG-know-O3 where   EXIST-S3 INDF.SG CLF house
x-Ø-a-tx'ox-o']
CP-O3-A2SG-show-TV
'I know which house you showed.' {Txt}

   d. *ch-Ø-a-q'anle-j*   *el*   *ayin* [*tzet x-Ø-y-un*   *hin-ch'ib'-i*]
     ICP-O3-A2SG-ask-TV DIR I   what CP-O3-A3-happen S1SG-grow-IV
     'You ask me how I grew up.' {Txt}

4.2.3 *The Structure of the Noun Phrase and Pronouns*

This section introduces three aspects of the noun phrase that are relevant to the analysis of relative constructions: determiners, the head, and pronoun-related elements.

In any NP, the noun can be preceded by an indefinite article, the plural *heb'* (only for humans), a classifier, and a quantifier including measure words (see Zavala Maldonado 2000, Mateo Toledo 2017a), in this order. A RC, a demonstrative, and the mirative *la* may also follow the noun in this order. The string in boldface in (23) shows an NP with these elements without a RC.

(23) *ay-Ø*   **juntzan heb' ix** ⟨*ka-wan*⟩ *w-anab'*   ⟨*tu* *la*⟩
     EXIST-S3 INDF.PL PL   CLF two-HUM POSS1SG-sister DIST MIR
     'I had those two sisters, you see.' {Txt}

The NP elements in (23) can be grouped into modifiers and determiners (demonstratives and articles). They have a hierarchical structure whose extended projection is a determiner phrase (Abney 1987, Rijkhoff 2002: 213, Brugè 2002, and others). Figure 4.1 shows a partial structure; a full structure has the plural, quantifier, and classifier projections between the determiner (DP) and N'. Note that the demonstrative (DemP) can be higher than the determiner (DP).

The elements that are relevant to RCs are the nucleus N, determiners, and pronouns. A single noun usually heads the NP as in (23), but a compound formed by an adjective and noun like *yal unin* in (24) also functions as head (see Mateo Toledo (2017a, b) on this compound).

(24) **juntzan ko-yal**   **unin ti**   *la, b'aq-Ø*   *xal heb'*
     INDF.PL POSS1PL-small child PROX MIR skinny-S3 INT PL:they
     'These children of us are really skinny, you see.' {Txt}

The distinction between modifiers and determiners is central in the analysis of relative constructions. Adjectives are modifiers of the nouns (or compounds), but determiners select a noun phrase as complement (see Abney 1987, Rijkhoff 2002: 213, Brugè 2002, and others for more details).

Determiners (i.e. articles and demonstratives) have a discourse function; they encode discourse information like definiteness and deixis (Rijkhoff 2002:
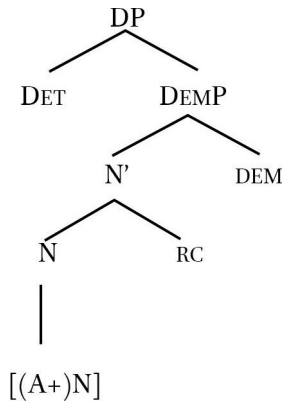
FIGURE 4.1   The basic struc-
            ture of the
            noun phrase
            in Q'anjob'al

186, Kroeger 2005: 89). Like other languages, Q'anjob'al distinguishes definite and indefinite meanings, but only indefinite is marked. The indefinite articles *jun* (SG) and (*jun*)*tzan* (PL) mark indefinite; they indicate that a referent is unshared information or unfamiliar to the hearer, contrasting it with definite readings (that lack a formal marker) where a referent is part of the common ground in discourse (Lyons 1999: 2–12).[5] Demonstratives are deictic elements whose meaning depends on the spatio-temporal configuration between the referent and a reference point (Gillón 2009: 7, Dryer 2007: 162–163). Q'anjob'al has two demonstratives: the distal *tu* 'that' and the proximal *ti* 'this.'

The indefinite articles *jun* and (*jun*)*tzan* have a discourse and modifier function. Like quantifiers, they encode singular and plural information, respectively, and they also encode the unfamiliar status of the referent, as exemplified by *juntzan* in (25), which marks plurality and indefiniteness.

---

5   Craig (1990) says that noun classifiers in Popti' mark definiteness. In Q'anjob'al, they occur in non-definite and non-referential contexts like in the example below. The classifier *no* indicates that the nouns belong to the animal class, but the nouns lack definite and referential readings. This discussion is irrelevant for RCs.

ay-Ø	*ko-noh-al;*		*ay-Ø*	*no*	*tx'i',*	*ay-Ø*	*no*	*wakax,*	*ay-Ø*		*no*
EXIST-S3	POSS1PL-animal-ABS		EXIST-S3	CLF	dog	EXIST-S3	CLF	cow	EXIST-S3		CLF

kaxhlan ...
chicken
'We have animals; there are dogs, there are cows, there are chickens ...'

(25) *ay-Ø*   juntzan heb' naq komersyante ...
    EXIST-S3 INDF.PL PL   CLF seller
    'There were some sellers [unfamiliar referents].' {Txt}

The last issue relates to the elements that function as pronouns or anaphors. The contrast between demonstratives and classifiers illustrates this point. Nominal classifiers function as pronouns (Zavala Maldonado 2000, Craig 1990, Mateo 2017a) like the classifier *naq* in (26); *naq* refers to *naq presidente tu* 'that president' introduced in previous clauses. However, the demonstrative *tu* 'that' cannot function as a pronoun, as shown in (27).

(26) *x-on*   *y-ah-on*   *ok naq y-in*   *tareha*
    CP-O1PL A3-give-DCM DIR CLF POSS3-at task
    '[the president] He forced us to work on tasks.' {Txt}

(27) **x-on*   *y-ah-on*   *ok tu y-in*   *tareha*
    CP-O1PL A3-give-DCM DIR DIST POSS3-at task
    Intended: '[the president] That one forced us to work on tasks.'

Table 4.2 shows which DP elements have or lack a pronominal function. There are two indefinite articles, two demonstratives, 13 classifiers, and several quantifiers; a member of each group is shown in Table 4.2. While the list of individual elements with or without a pronominal function is exhaustive, the list of combined elements with a pronominal function is partial.

Table 4.2 shows three generalizations. First, indefinite articles and demonstratives never function as pronouns, (27).[6] Second, the plural *heb'*, all classifiers like *naq* in (26), and quantifiers like *uqk'on* 'seven [animal]' in (28b) function as pronouns. Third, the elements that function as pronouns individually can combine with demonstratives or with each other to form complex pronouns like *naq tu* in (28a) or *no uqk'on tu* in (28b). In the next sections, we will see that the difference between determiners and all pronouns is reflected in the structure of relative constructions.

(28) a. *tix*   *max-Ø y-un*   *pitzk'oj*   **naq tu**
      that.is CP-O3 A3-happen become_alive CLF DIST
      'That is how he [Pedro] became prosperous.' {Txt}

---

6 *Jun* 'one' combines with a demonstrative to form the pronoun *juntu* 'that one' or *junti* 'this one.' The meaning is 'unfamiliar specific' whose details I leave for future analysis.

TABLE 4.2   NP elements that function as pronouns in
             simple clauses

Category		Pronouns
INDF (SG/PL)	*jun, juntzan*	no
DEM	*ti, tu*	no
PL (+DEM)	*heb'* (*tu*)	yes
CLF (+DEM)	*an* (*tu*)	yes
QUANT (+DEM)	*oxeb'* (*tu*)	yes
PL + CLF (+DEM)	*heb' naq* (*tu*)	yes
CLF+QUANT (+DEM)	*an oxeb' tu*	yes

b. *tzet   ch'-Ø-el-apn-oq   **no uq-k'on   tu?** i   tzet*
   what ICP-S3-exit-arrive-INF CLF seven-AN DIST and what
   *ch'-Ø-el   pax apn-oq   **uq-k'on   xa?***
   ICP-S3-exit then arrive-INF seven-AN already
   'What do those seven ones mean and what do the other seven mean?'
   {Txt}

4.3   Relative Constructions with a Nominal Head

This section describes all the features of relative constructions with a nominal
head which can be thought of as canonical relative constructions. A digression
on the definition of head is necessary before describing this type of relative
construction.

The definition of a relative construction proposed by Lehmann (1986: 664)
and Andrews (2007: 206) has two components: a nominal head and a RC that
modifies the noun or restricts the noun's reference. Lehmann (1986: 664) also
states that the nominal head may be empty. The authors establish two types
of relative constructions according to the nominal head: headed RCs contain a
nominal head and headless RCs lack a nominal head.

The concept of 'empty head' has two main implications. First, under this
concept, free relatives modify an empty noun and the constructions are headed
relative constructions (Lehmann 1986, Andrews 2007, and others). Second,
'empty head' viewed as the sole absence of a noun implies that determiners (or
other modifiers) may combine directly with a RC to form relative constructions.
Such relative constructions with a determiner are poorly analyzed in the liter-

ature and have received different analyses: headless RCs with an empty noun where the noun is elided due to anaphoric restrictions (Lehmann 1986, Andrews 2007, Gutiérrez Bravo 2012, 2015), light-headed relative constructions where the determiner is the head without an empty noun (Citko 2004, Guarcax González 2016), and syntactic nominalization where the determiner nominalizes the RC (Shibatani 2009).

These debates relate to the definition of head. I assume a structural definition of head where the head is a lexical element (not a phrase) that can select a complement and take modifiers.[7] Regarding relative constructions, a RC may be the complement of the head or its modifier and the head is either a noun or determiner. Both functions are illustrated in (29); each RC in square brackets is part of a complex NP: one headed by the noun *winaq* and another by the determiner *tzan*. While the RC in (29a) modifies the noun *winaq* by restricting its reference, see Figure 4.1 above, the RC in (29b) is a complement selected by the determiner *tzan* and this results in a referential reading.

(29) a. *ay-Ø   juntzan heb' naq* winaq [*ch'-Ø-ek'   kayti*]
        EXIST-S3 INDF.PL PL   CLF man   ICP-S3-pass here
        'There are some men who pass here.' {Txt}

    b. *ay-Ø   tzan   [max-Ø kam-i]*
        EXIST-S3 INDF.PL CP-S3   die-IV
        'There are some who died.'

The relative construction headed by the determiner in (29a) is described in Section 4.4. Next, I describe the relative construction with the nominal head in (29a). I focus on its structure, relativization strategy and accessibility restrictions.

A canonical relative construction consists of a nominal head and a subordinated clause that is the RC (Lehmann 1986: 664, Andrews 2007: 206). Furthermore, the RC is a syntactic modifier (Lehmann 1986: 664) and it delimits the reference of the noun (Andrews 2007).

Like in all Mayan languages, canonical RCs are postnominal and have an external head, like in (30).[8] The head in (30a) is *ak'un* and in (30b) it is the

---

7 Andrews (2007: 206–212) uses 'head N' and 'head NP' interchangeably, but only Ns (and not NPs) function as head.

8 Chol and Chontal are the only Mayan languages that also have prenominal RCs; this is the result of contact with Mixe-Zoquean languages, see Martínez (2007: 34) and Osorio May (2016) for details.

compound *yal na* [small + house], which takes a possessor prefix and serves as input to derivations (see Section 4.2.3 and Mateo Toledo 2017b).[9]

(30) a. *x-Ø-jay   no' y-in   an* ak'un [*x-Ø-y-aw   heb*] …
           CP-S3-come CLF POSS3-at CLF plant CP-O3-A3-plant PL:they
           'The animal came to the plant that they [ancestors] planted.' {Txt}

       b. *max-Ø tz'a-toq   te* he-yal   na   [*b'ay   kajan-Ø*
           CP-S3 burn-DIR CLF POSS2SG-small house where living-S3
           heb']
           PL:they
           'Your small house where they live burned down.'

All RCs in Q'anjob'al are finite. Those with a verbal predicate inflect for aspect-mood and person and number like in (30a) and those with a NVP only inflect for person and number like in (30b).

The RC is a subordinated clause as substantiated by the following two facts: the RC is a constituent of the NP containing the head; and the head and RC belong to the same prosodic phrase.

To show that the RC is a constituent of a complex NP, first consider the simple NP *juntzan nab'alej tu la* 'those thoughts' in (31). Here the noun *nab'alej* 'thought' is followed by the distal demonstrative *tu* and the mirative *la* that encodes surprise or unexpected information (Mateo Toledo 2017a).

(31) *y-ojtaq-Ø   xal ix   tu   juntzan nab'alej tu   la*
       A3-know-O3 CLF woman DIST INDF.PL thought DIST MIR
       'The lady knows those thoughts, you see.'

---

9 The RC modifies a preceding noun, but genitive constructions show a variant that depends on animacy. If the possessed N is animate like *tx'i'* 'dog' in (i), the RC modifies the possessor, *cham winaq* in (i). An appositive clause is used for the relativization of a possessed animate noun as in example (37). In contrast, if the possessed N is inanimate like *ch'en* 'gun' in (ii), the RC can modify the possessor or the possessed N; in the natural example in (ii), the RC modifies the possessed N, but out of context it could modify the possessor. This topic needs further analysis.
   i. *x-Ø-jay   no s-tx'i'   cham* winaq [*x-Ø-kam-i*]
       CP-S3-come CLF POSS3-dog CLF   man   CP-S3-die-IV
       'The dog of the man who died came.' / * 'The man's dog [that died] came.'
   ii. *komo ay-Ø   ⟨s⟩-ch'en   heb' naq* [*ch-Ø-kol-on-i*]
       since EXIST-S3 POSS3-gun PL   CLF ICP-S3-help-AF-FS
       'Because they have guns that help them.' /Lit. 'Because their guns that help them exist.'
       {Txt}

If the noun *nab'alej* 'thought' in (31) is modified by a RC, the RC precedes the demonstrative *tu* like in (32a) or the mirative *la* if there is no demonstrative, as in (32b). Thus, the RC is a constituent of the NP that contains the head, see Figure 4.1 above.

(32) a. *ch-Ø-ko-na-kan-teq*   *juntzan* nab'alej [*max-Ø y-a'-kan*
ICP-O3-A1PL-think-DIR-DIR INDF.PL thought CP-O3   A3-give-DIR
heb']   *tu*   *la*]
PL:they DIST MIR
'We remember those thoughts that they left, you see.' {Txt}

b. *ch-Ø-ko-na-kan-teq*   *juntzan* nab'alej [*max-Ø y-a'-kan*
ICP-O3-A1PL-think-DIR-DIR INDF.PL thought CP-O3   A3-give-DIR
heb']   *la*]
PL:they MIR
'We remember some thoughts that they left, you see.' {Txt, modified}

The test above does not apply when the RC ends with an NP as shown in (33a). The head is *kaxhlan* and the RC (in square brackets) ends with the NP *naq unin ti* 'this child.' Under the test above, the demonstrative *ti* should modify the head *kaxhlan*, but *ti* instead modifies *unin* because it means 'this child' and not 'this chicken.' The example in (33b) shows that two contiguous demonstratives in a relative construction, one combined with the head *kaxhlan* and the other with the noun *unin*, is ungrammatical. Thus, the test applies to RCs without an NP in final position.

(33) a. *x-Ø-kam   no*   kaxhlan [*max-Ø y-il   naq unin **ti***]
CP-S3-die CLF chicken CP-O3   A3-see CLF child PROX
'The chicken that this child saw died.' / * 'This chicken that the child saw died.'

b. **x-Ø-kam   no*   kaxhlan [*max-Ø y-il   naq unin **ti***]   ***tu***
CP-S3-die CLF chicken CP-O3   A3-see CLF child PROX DIST
Intended: 'That chicken that this child saw died.'

However, prosody shows that the RC in (33a) is a subordinated clause, which is the other evidence for subordination. I set out first the basic features of prosody.

In Q'anjob'al, prosodic prominence at the word level occurs on the first syllable and its phonetic correlates are higher intensity and duration of the promi-

nent vowel. In contrast, prosodic prominence at the phrasal level occurs on the last syllable of the prosodic phrase and is associated with higher pitch and usually with higher duration or intensity of the last vowel (see Mateo Toledo and Mateo Pedro 2018). For clarity, I refer to word level prominence as *word stress* and to phrasal level prominence as *phrasal stress*. These two rules compete for stress on words in final phrase boundaries; they could have word stress on the first syllable and/or phrasal stress on the last syllable, but only the last syllable is prosodically prominent. Thus, phrasal stress overrides word stress in this context (Mateo Toledo 2017a).

The prosodic phrase in (34) shows word stress and phrasal stress; slashes mark the prosodic phrase, spaces separate phonological words, dots mark syllable boundaries, and stressed syllables are in small caps. The prominent syllable in *wajb'ajeq* and *jab'oq* is the first one, but the prominent syllable in *kotumin* is the last one. Therefore, *kotumin* occurs at the final phrase boundary as it has phrasal stress, but *wajb'ajeq* and *jab'oq* are inside the prosodic phrase as they have word stress. Furthermore, phrasal stress suppresses word stress on *kotumin*.

(34) /WAJ.b'a.jeq JA.b'oq ko.tu.MIN/
      wajb'aj-Ø heq   jab'-oq   ko-tumin ...
      gather-S3 INCL some-IRR POSS1PL-money
      'You all save some money for us ....' {Txt, modified}

I show next that the nominal head and RC belong to the same prosodic phrase as no prosodic boundary exists between the head and the RC. Consider the relative construction in (35); the relevant words are the head *winaq* 'man' and *maxach* that is the first word of the RC. They have word stress. In contrast, *yetoq* in final position has phrasal stress. Therefore, the RC does not form an independent prosodic phrase as there is no phrasal boundary between the head and the RC. This is also true for the relative construction in (33a): the head *kaxhlan* has word stress. Placing a prosodic boundary between the RC and the head (i.e. stress on the last syllable of *winaq*) renders the relative construction in (35) ungrammatical. In sum, the RC is integrated into the prosodic phrase that contains the head.

(35) /xjay cham WI.naq MA.xach b'et ye.TOQ/
      x-Ø-jay   cham winaq [*max-ach b'et   y-etoq*]
      CP-S3-come CLF   man   CP-S2SG went POSS3-with
      'The old man with whom you went came here.'

I show next the meaning and function of the RC. In the relative construction in (36), the article *jun* indicates that the referent of the nominal head *no'* 'animal' is singular and indefinite and the RC delimits its possible referents. In terms of meaning, the RC contains presupposed information (Comrie 1989: 139); the preceding clauses mention that some young men killed an animal. Thus, the information 'they killed it' in the RC in (36) is presupposed.

(36) *miman-Ø jun   no* no'   [*x-Ø-⟨s-⟩ma' kam heb'*]
      big-S3   INDF.SG CLF animal CP-O3-A3-hit die   PL:they
      'An animal that they killed was big.' {Txt}

Appositive clauses contrast with RCs in form, meaning and function. Two appositive clauses are shown in square brackets in (37). Like in relative constructions, the main clause and the appositive clauses have a common argument: in (37a), *cham Antun* in the main clause and the classifier *cham* in the appositive clause have the same referent; similarly, in (37b), *no tx'i'* 'the dog' in the main clause and the classifier *no* in the appositive clause have the same referent.

(37) a. *man h-ojtaq-oq-Ø   ta'   ⟨s-⟩b'i   y-istil   cham*
         NEG A2SG-know-IRR-O3 PRTCL POSS3-name POSS3-wife CLF
         Antun, [*cham ay-Ø   b'ay Molna*] ...
         A.   CLF   EXIST-S3 at   M.
         'You don't know the name of Antonio's wife, he who lives in Molna ...'
         {Txt}

      b. *x-Ø-kam   no   s-tx'i'   naq Mek,* [*no x-ach   chih-on-i*]
         CP-S3-die CLF POSS3-dog CLF M   CLF CP-S2SG bite-AF-FS
         'Mek's dog died, the one that bit you.'

The appositive clauses differ formally from RCs in the use of classifiers. The appositive clause is introduced by a copy of the classifier of the coreferential noun in the main clause, which are *cham* and *no* in (37). In contrast, RCs like the one in (36) cannot take a copy of the classifier of the nominal head because classifiers do not function as relative pronouns.[10] Furthermore, unlike RCs that

---

10   The main clause and appositive clause also belong to different prosodic phrases. In (37a) the word *Antun* before the appositive clause bears stress on its last syllable; thus, the appositive clause belongs to another prosodic phrase.

contain presupposed information and restrict the reference of a noun, appositive clauses provide additional and non-presupposed information on a noun in the main clause. In (37), the appositive clauses give additional information about *cham Antun* and *no tx'i'* to assist in identifying the referents.

I next show the relativization strategy used in relative constructions headed by nouns. The relative construction allows both the gap and relative pronoun strategies. In the case of a RC with a gap, the RC is asyndetic (i.e., it is not introduced by a subordinator). The relative construction in (36) uses a gap strategy: the object 'an animal' is relativized without syntactic realization in the RC. Inserting the relative pronoun *tzet* 'what' for the object at the beginning of this RC is ungrammatical (see relative pronouns in Section 4.4). The relative pronoun strategy is shown in (38). A locative phrase is relativized in the RC and this is realized by the relative pronoun *b'ay* at the beginning of the RC.

(38) *max-Ø way   heb' naq b'ay jun   na   [b'ay   kajan hin]*
    CP-S3 sleep PL CLF at INDF.SG house where living S1SG
    'They slept in a house where I was living.' {Txt}

B'ay is also a preposition; it heads the prepositional phrase *b'ay Molna* 'in Molna' in (37a). Thus, it is important to show that *b'ay* in (38) is a relative pronoun and not a preposition with a gap strategy. The evidence that *b'ay* is a relative pronoun comes from the relativization of locative phrases. Consider the clause in (39) with different locative phrases: a prepositional phrase *b'ay txomb'al*, a relational noun phrase *yul txomb'al*, a locative NP *konob'*, and a locative proform *yajti'*.

(39) *max-ach ek'   {b'ay txomb'al /y-ul   txomb'al /txomb'al*
    CP-S2SG pass at   market POSS3-inside market   market
    /yajti}
    up_there
    'You went {to the market/into the market/to the market/up there}.'

The relativization of the locative phrases in (39) uses *b'ay* as shown in (40). That is, *b'ay* stands for locative phrases with different syntactic categories (prepositional phrases, relational noun phrases, noun phrases, etc.). Thus, *b'ay* is a relative pronoun with locative semantic case.

(40) *miman-Ø jun   txomb'al [b'ay   max-ach ek'-i]*
    big-S3   INDF.SG market   where CP-S2SG pass-IV
    'A market where you passed is big.'

A > S/O > GEN > OBL (IO, COM, INSTR) > ADJUNCTS (LOC) > OCOMP

FIGURE 4.2 The accessibility hierarchy for Q'anjob'al

Locative phrases introduced by relational nouns like *yul txomb'al* in (39) can also be relativized with a gap strategy as shown in (41). The relation noun *-ul* occurs in situ after the verb in the RC.

(41) *miman-Ø jun*   txomb'al [*max-ach ek' y-ul*]
     big-s3   INDF.SG market CP-S2SG pass POSS3-inside
     'A market where you passed inside is big.'

The interrogation of locative phrases supports the relative pronoun analysis of *b'ay*. We saw in Section 4.2.2 that the proform *b'ay*(*tal*) is used in wh-questions in locative phrases of any category. The partial question in (42) can be answered with any of the locative phrases in (39). Thus, *b'ay* is a locative proform that functions as an interrogative expression and relative pronoun.

(42) *b'ay*(*tal*) *x-ach   ek'-i?*
     where   CP-S2SG pass-IV
     'Where did you pass?'

The last feature of relative constructions with a nominal head relates to accessibility. Figure 4.2 restates the accessibility hierarchy proposed by Keenan and Comrie (1977: 66). It is adapted to Q'anjob'al in two ways: object of comparison (OCOMP) is at the lower end as it is never accessible, and a genitive argument (GEN) is higher than obliques and adjuncts because it is a direct argument of a noun.

In this chapter, I group indirect objects, instrument, and comitative under obliques. I only consider locative adjuncts and I ignore time and manner adjuncts because they are infrequent in texts and require structural machinery whose details are irrelevant for the proposal of the chapter.

All grammatical relations are accessible to relativization in relative constructions with a nominal head. The examples in (43) show the relativization of core arguments: agent, subject, object, and genitive, respectively. They are only relativizable with a gap strategy (a relative pronoun is disallowed).

(43) a. *komo ay-Ø*   ⟨s⟩-ch'en   *heb' naq* [*ch-Ø-kol-on-i*]   A
        since EXIST-S3 POSS3-gun PL   CLF ICP-S3-help-AF-FS
        'Because they have guns that help them.' {Txt}

   b. *ta ay-Ø*   *jun-oq*   *ix*   ix   [*ch-Ø-kam-i*]   S
      if EXIST-S3   INDF.SG-IRR CLF woman ICP-S3-die-IV
      'If there is a woman that dies [we are responsible].' {Txt}

   c. *x-Ø-jay*   *no y-in*   *an* ak'un [*x-Ø-y-aw*   *heb*]   O
      CP-S3-come CLF POSS3-at CLF plant CP-O3-A3-plant PL:they
      'The animal came to the plant that they [ancestors] planted.' {Txt}

   d. *maxk-in jay*   *b'ay jun-xa*   *cham* winaq   GEN
      CP-S1SG come at   INDF.SG-already CLF   man
      [*max-Ø q'a-toq*   *y-aqan*]
      CP-S3   rotten-DIR POSS3-foot
      'I came to another man whose feet were rotten.' {Txt}

As in all Mayan languages with an agent focus construction (see Stiebels 2006 for the full list), the relativization of an A argument requires an AF verbal form, (43a). However, no AF verbal form is used in the relativization of S and O arguments, (43b) and (43c). This shows that focus, wh-questions, and RCs use the same structure in the treatment of A arguments.

The relativization of oblique arguments and adjuncts is illustrated in (44): IO=indirect object, INSTR=instrument, and COM=comitative. They are introduced by the preposition *b'ay* or relational nouns. The adpositions occur in situ after the verb of the RC. Like core arguments, their relativization is only possible with a gap strategy (relative pronouns are disallowed here).

(44) a. *?x-Ø-kam naq* winaq [*max-Ø j-al*   *jun-tu*   *b'ay*]   IO
         CP-S3-die CLF man   CP-O3   A1PL-say one-DIST at
        'The man to whom we told that (something) died (was killed).'

   b. *x-Ø-meltzoj naq* unin [*max-Ø toj ix*   ix   *y-etoq*]   COM
      CP-S3-return CLF child CP-S3   go CLF woman POSS3-with
      'The child with whom the woman went returned.'

   c. *x-Ø-tz'a-toq*   *tx'an* pa [*max-ach w-iq*   *y-etoq*]   INSTR
      CP-S3-burn-DIR CLF   bag CP-O2SG A1SG-carry POSS3-with
      'The bag that I carried you with got burned.'

TABLE 4.3   The scope of relativization strategies in relative constructions with N head

Rel. strategy	A	S/O	GEN	IO	INSTR	COM	LOC
Gap	yes	yes	yes	yes	yes	yes	yes-RN, *PRE
Relative PRO	*	*	*	*	*	*	yes

The relativization of locatives is illustrated in (45). As shown above, locative phrases, independent of their syntactic category, are relativized by the relative pronoun *b'ay* as in (45a), but those introduced by relational nouns can also be relativized with a gap strategy as in (45b).

(45) a. *oy-b'il-Ø   masanil witz* ak'al [*b'ay-taq   ch-Ø-tit   ilya'*]
           cover-PP-S3   all   hill   valley where-DISTR ICP-S3-come illness
           'All mountains where illnesses come from are mentioned [covered].'
           {Txt}

      b. *x-Ø-tz'a-toq   te* na   [*x-Ø-kam naq winaq y-intaq*]
           CP-S3-burn-DIR CLF house CP-S3-die CLF man   POSS3-behind
           'The house, behind which the man died, burned down.'

Table 4.3 Summarizes the scope of each relativization strategy discussed above.

Up to this point, I showed the following features of relative constructions headed by nominals. The RC is finite; it is postnominal; it restricts the possible referents of the head; it is a constituent of the DP containing the head; and like focus and wh-questions, the RC uses an agent focus structure in relativizing A arguments (like all Mayan languages that have an agent focus construction). The relative construction allows both gapping and relative pronoun strategies. The RC with a gap is asyndetic. The relative pronoun strategy is used only for locatives. The gapping strategy is used for all grammatical relations except that only locatives with a relation noun allow this strategy. Thus, locatives introduced by relational nouns are relativized by either gap or relative pronoun, but other locatives are relativized by a relative pronoun. Thus, gapping is a basic strategy in relative constructions headed by a noun since it occurs with the subject (Keenan and Comrie 1977), but the relative pronoun strategy is not basic since it only occurs with locatives.

The last feature of this relative construction is a variant in the form of the head, whereby a pronoun instead of a noun may be the head, like *heb' naq* 'they (male)' in (46). All the pronouns listed in Table 4.2 above can function as heads in this relative construction.

(46) a. *ay-Ø*   heb' naq [*max-Ø il-on*   *150 o 160 ...*]
         EXIST-S3 PL   CLF CP-S3   see-AF 150 or 160
         'There are some who lived 150 or 160 years.' {Txt}

    b. *xan   tol   ch-Ø-sik'-lay*   heb' naq [*max-Ø ok*
       CONS INT ICP-S3-choose-PAS PL   CLF CP-S3   enter
       interesadohil]
       interested
       'That is why those [male] that became representatives are chosen.'
       {Txt}

Citko (2004) analyzes pronouns heading relative constructions as light heads
in Polish because these relative constructions differ formally from those with a
nominal head. However, in Q'anjob'al, relative constructions headed by nouns
and pronouns have the same formal features and they only differ in meaning.
Therefore, they constitute the same type of relative construction with different
heads.[11]

    As in relative constructions with a nominal head, the RC is a constituent
of the NP that contains the head. Consider the pronoun *kaneb' tu* 'those four'
modified by a RC in (47a). The relative construction may be used in a context,
for example, where we went to buy apples, but only four were in good condi-
tion and those are the ones that we brought. In this case, the RC precedes the
demonstrative *tu*. A similar example is shown in in (47b). Therefore, the RC and
the head form a complex NP.

(47) a. *x-Ø-j-i-teq*   kan-eb'   [*watx'-Ø=to*] tu]
         CP-O3-A1PL-carry-DIR four-INAN good-s3=still DIST
         'We brought those four that are still good.'

    b. *hoq-Ø ko-say*   jun   [*ch-on   etz'e-n*]   tu] ...
       POT-O3 A1PL-look_for INDF.SG ICP-S1PL imitate-AF DIST
       'We will look for that one who is imitating us.' {Txt, modified}

Like in relative constructions with a nominal head, the RC is integrated into
the prosodic phrase where the pronoun belongs. In the relative construction

---

11   The light head analysis differs from the noun elision analysis proposed for Yucatec (Gutiér-
      rez Bravo 2012), see Section 4.4.

in (48), the pronoun *kaneb'* 'four' bears word stress on its first syllable, which means that the RC does not form an independent prosodic phrase.

(48) */xJI.teq KA.neb' watx'.TO/*
      x-Ø-j-i-teq   kan-eb'   [*watx'-Ø=to*]
      CP-O3-A1PL-bring-DIR four-INAN good-s3=still
      'We brought four that are still good.'

Like in nominal heads, the RC restricts the possible referents of the pronoun, but unlike nominal heads, the pronoun is anaphoric. Consider the relative construction in (46a) again; this comes from a text about how well and long 'our ancestors' lived and *heb'* refers back to 'our ancestors.' The relative construction in (46b) shows the same point; the text recounts that 'when people registered their lands before, each family chose a representative and the land was registered under that representative's name.' Then, *heb' naq* refers to 'the representatives.' The antecedent of the pronoun can be contextual. Consider the relative construction in (49); this relative construction can be used in the context where we know that a hurricane devastated a town and some women lost their houses. The pronoun *heb' xal* refers to 'the women' (without mention) who are accessible due to shared knowledge.

(49) *hoq-Ø   ko-kol*   heb' xal [*x-Ø-ayk'ay   y-atut*]
      POT-O3 A1PL-help PL   CLF CP-s3-fall_down POSS3-house
      'We will help those ladies whose houses fell down.'

There are no formal differences between relative constructions headed by nouns and pronouns. The RC is finite as in (48) and (49). The RC requires an AF verbal form when the A argument is relativized as in (46a), but no AF verbal form is used in the relativization of other arguments such as the s argument in (46b). The relative construction allows a gap strategy, as in (49), and a relative pronoun strategy, as in (50).

(50) *x-Ø-q'aj-toq*   te' [*b'ay   ch-Ø-way   no   kaxhlan*]
      CP-s3-break-DIR CLF where ICP-s3-sleep CLF chicken
      'The one [tree] where the chickens sleep broke down.'

Finally, all grammatical relations are accessible to relativization. As in relative constructions with a nominal head, all arguments, except locative adjuncts, can be relativized with a gap like the A argument in (46a), the s argument in (46b), and possessor in (49). All the nominal heads in (43) and (44) can

be replaced by a pronoun which would illustrate the relativization of all arguments. Locative adjuncts, except those introduced by relational nouns that also allow a gap strategy, are relativized with the relative pronoun *b'ay*, as in (50) above.

In sum, relative constructions with a noun or pronominal head have the same features and they differ only by way of the anaphoric meaning that the pronouns contribute. Therefore, pronouns are a subtype of nominal head. I turn next to what I consider light heads in Q'anjob'al.

4.4   Relative Constructions with a Determiner Head / Light Head

This section describes relative constructions headed by determiners which I analyze as light heads.

In Section 4.2.3, we saw that Q'anjob'al has two types of determiners: indefinite articles (the singular *jun* and the plural *juntzan*); and demonstratives (proximal *ti* and distal *tu*). We also saw that none of these determiners can function as pronouns in simple clauses (see Table 4.2). All determiners can combine with a RC to form relative constructions: the relative construction in (51a) consists of the indefinite article *juntzan* plus the RC and the one in (51b) consists of the RC plus the demonstrative *tu*.

(51) a. *x-Ø-jay*   juntzan [*ch-Ø-j-al*   *altimodoh-al*]
        CP-S3-come INDF.PL ICP-O3-A1PL-say automobile-ABS
        'Those we call automobiles came here.' {Txt}

     b. *kax   chi-Ø   jay*   [*maktxel chi-Ø   kam*] tu]
        then ICP-S3 come   who   ICP-S3 die   DIST
        'Then those that die come here.'

I propose that the relative construction in (51a) has the structure in Figure 4.3a and the relative construction in (51b) has the structure in Figure 4.3b. The determiners are the heads and they select the RCs as complement, following the same order as in an NP (see Section 4.2.3). The order is [INDEF+ ... N+RC+ DEM ...]. In (51), indefinite articles precede the noun and demonstratives follow the RC. Figure 4.3b does not mean that Q'anjob'al has prenominal RCs because there is no nominal element.

There is only partial syntactic evidence for each structure, but their prosodic and morphosyntactic properties support the structures. I propose that they constitute two subtypes of light-headed RCs, represented in square brackets

DP

DET   RC

FIGURE 4.3A
Relative construction with indefinite head

DᴇᴍP

RC   DEM

FIGURE 4.3B
Relative construction with demonstrative head
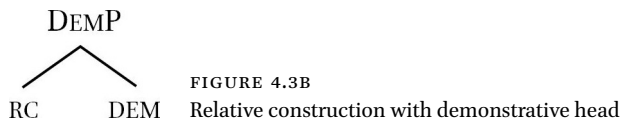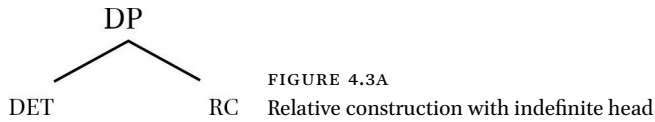
as Determiner-headed RCs, because they only differ in relativization strategy and the scope of the strategies. Each one is discussed separately.

4.4.1   *Indefinite Determiner Heads in Relative Constructions*

This section describes the features of relative constructions headed by the determiners *jun* and *juntzan*. Like relative constructions with nominal heads, the determiner precedes the RC as illustrated in (51a) above. This order reflects the position of the determiner in an NP (see Figure 4.1 in Section 4.2.3).

Prosody shows that the determiner and the RC form an NP. The stress pattern of the relative construction in (51a) is shown in (52). The determiner *juntzan* has word stress (on the first syllable); therefore, the RC does not form an independent prosodic phrase as it is not preceded by a prosodic boundary.

(52) /xjay JUN.tzan chjal al.ti.mo.do.AL/
      x-Ø-jay   juntzan [ch-Ø-j-al   altimodoh-al]
      CP-S3-come INDF.PL ICP-O3-A1PL-say automobile-ABS
      'Those we call automobile came here.' {Txt}

The meaning and function of the relative construction is coherent with this analysis. The RC does not modify a noun or delimit its possible referents. Instead, the relative construction is referential (see Lehmann 2003: 3) as it refers to an entity available from context. The relative construction in (51a) comes from a text that describes how traveling from the town of Santa to Huehuetenango city used to be difficult; the speaker says that when he grew up, there was no paved road and there were no vehicles. He uses this relative construction to refer to a subtype of vehicle that arrived, which is anaphoric as the mention of 'vehicles' activates its possible antecedents (Du Bois 1987, Chafe 1976: 31, and others). Similarly, the relative constructions in (53) have anaphoric readings. The relative construction in (53a) comes from a text about corn planting; the speaker says that corn did not grow well because the soil was of poor

quality and then fertilizer was introduced and this relative construction refers to a kind of fertilizer. The example in (53b) comes from a text about people picking edible fruits in the forest; a picker uses this relative construction to ask which fruits are edible.

(53) a. juntzan   [*ch-Ø-y-iq*   *tza*   *kaxhlan nani*] *tx'oqxa-Ø*
        INDF.PL   ICP-O3-A3-name poop   chicken   now   different-S3
        y-ili
        POSS3-look
        'Those [fertilizers] called chicken poop now look very different.' {Txt}

    b. *b'ay*   *wal ay-Ø*   juntzan [*ch'-Ø-el-il*   *loj-al,*]   *cha?*
        where   INT EXIST-S3   INDF.PL   ICP-S3-exit-DIR   food-ABS   VOC
        'Man, where are some that become food?' {Txt, modified}

These relative constructions can be replaced by indefinite NPs. The relative construction in (53b) is replaced by the NP in square brackets in (54). This NP is indefinite and specific due to the demonstrative *tu*.

(54) *b'ay*   *wal   ay-Ø*   [*juntzan loj   tu*],   *cha?*
      where   INTS EXIST-S3   INDF.PL   food DIST VOC
      'Man, where are those foods?'

I show next the relativization strategies in these relative constructions. They allow a gap as in (55) and a relative pronoun as in (56). Each determiner co-occurs with a RC following the gapping or the relative pronoun strategy: those in (55b) and (56a) show *jun* with each strategy, and those in (55a) and (56b) show *juntzan* with each strategy.

(55) a. *ay-Ø*   juntzan [*ch-Ø-y-iq*   *trigo*]
        EXIST-S3   INDF.PL   ICP-O3-A3-carry   wheat
        'There are some called "wheat".' {Txt}

    b. *x-Ø-kam*   jun   [*ch'-Ø-al-on*   *ayin*]
        CP-S3-die   INDF.SG   ICP-S3-say-AF   to.me
        'That one that tells it to me died.' {Txt}

(56) a. *ay-Ø*   jun-oq   [*tzetal ch-Ø-b'eq-lay*   *y-in*   *yetzan*]
        EXIST-S3   INDF.SG-IRR   what   ICP-S3-let-PAS   POSS3-at   cheap
        'There is a thing that is sold cheap.' {Txt}

b. *kawal yob'-Ø* juntzan [*b'ay   ay-ex   ok-oq*]
   INTS   bad-S3 INDF.PL where EXIST-S2PL DIR-INF
   'Those [acts] that you participate in are bad.' {Txt}

These relative constructions are frequent as arguments of the existential matrix predicate *ay* as in (55a) and (56a), but they also occur with other matrix predicates such as *kam* 'to die' in (55b) and *yob'* 'bad' in (56b). Therefore, they differ from free relatives that usually occur only with existential predicates (see Section 4.5).

Lastly, all grammatical relations can be relativized in relative constructions headed by indefinites. Direct arguments can be relativized: an A in (55b); an S and O in (57a), and a genitive in (57b). I only show the gap strategy, but a pronoun strategy is also possible.

(57) a. *axka y-ili*   juntzan [*b'ay⟨tal⟩ ay-on   ek'*] *y-et*   S, O
         like   S3-look INDF.PL where   EXIST-S1PL DIR POSS3-when
         max-Ø ok-ol   jun   [ch-Ø-j-al   byolensyahil tu']
         CP-S3 enter-DIR INDF.SG ICP-O3-A1PL-say violence   DIST
         'Like those ones where we were when that one that we call 'violence' came here.' {Txt}

      b. *max-Ø k'ay-toq   jun   [max-Ø kam s-mam*]   GEN
         CP-S3 disappear-DIR INDF.SG CP-S3   die POSS3-father
         'That one whose father died got lost.'

Like in other RCs, the relativization of the A argument requires an agent focus verbal form, as in (57a), but no agent focus is used in the relativization of other arguments, as in (57b).

The next examples show the relativization of adjuncts: an indirect object, instrument, and comitative, respectively. The adpositions that introduce the adjuncts occur *in situ* at the end of the RC. I only show the gap strategy, but a relative pronoun strategy is also possible.

(58) a. *x-Ø-toj=ab'*   jun   [*max-Ø al-lay jun-tu   b'ay*]   IO
         CP-S3-go=REP INDF.SG CP-S3   say-PAS one-DIST at
         'They say that the one to whom that was told left.'

      b. *x-Ø-meltzoj* juntzan [*max-Ø toj ix   ix   y-etoq*]   COM
         CP-S3-return INDF.PL CP-S3   go CLF woman POSS3-with
         'Those with whom the woman left returned.'

TABLE 4.4   The scope of relativization strategies in relative constructions headed by
            an indefinite

Rel. strategy	A	S/O	GEN	IO	INSTR	COM	LOC
Gap	yes	yes	yes	yes	yes	yes	yes-RN, *PRE
Relative PRO	yes	yes	yes	yes	yes	yes	yes

c. *x-Ø-k'ay-toq*   juntzan [*max-ach w-iq*
   CP-S3-disappear-DIR INDF.PL CP-O2SG A1SG-carry
   y-etoq]   INSTR
   POSS3-with
   'Some [bags] that I carried you with were lost.'

All locative adjuncts require the relative pronoun *b'ay* as shown in (56b) above.
However, locatives introduced by relational nouns also allow a gap strategy, as
shown in (59). Similar to the pattern attested with the relativization of other
adjuncts, the locative relational noun occurs *in situ*.

(59) *x-Ø-tz'a-toq*   juntzan [*x-on   manj-i y-ul*]
     CP-S3-burn-DIR INDF.SG CP-S1PL buy-IV POSS3-inside
     'Those [markets] where we bought inside burned down.'

Table 4.4 summarizes the scope of the relativization strategies in relative con-
structions headed by an indefinite.

   This section focused on relative constructions headed by indefinite deter-
miners. As in relative constructions headed by nouns, the RCs follow the head;
they are finite; the head and RC are part of the same prosodic phrase; and they
use an AF verbal form in the relativization of A arguments. However, relative
constructions headed by a determiner differ in structure and meaning from
those headed by nouns. In relative constructions headed by determiners, the
RC is the complement of the determiner and the relative construction is ref-
erential, but in relative constructions headed by nouns, the RC modifies the
noun and restricts its reference. They also differ in the relativization strategy
use by each construction. In relative constructions headed by indefinites, loca-
tive phrases require a relative pronoun (those with a relational noun also allow
a gap), while other grammatical relations can be relativized with a gap or rel-
ative pronoun. However, in relative constructions headed by a noun, a relative
pronoun is required only in the relativization of locative phrases (except those

with relational nouns) and a gap strategy is used in the relativization of other grammatical relations.

4.4.2   *Demonstrative Heads in Relative Constructions*

This section presents an analysis of relative constructions headed by the demonstratives *ti* and *tu*. In Section 4.2.3 we saw that the demonstratives *ti* and *tu* do not function as pronouns in simple clauses. However, similar to indefinite determiners, they combine with RCs to form relative constructions as shown in (60).

(60) a. *kax   chi-Ø   jay*   [*maktxel chi-Ø   kam*] tu
          then ICP-S3 come who   ICP-S3 die   DIST
          'Then those that die come here.' {Txt, modified}

     b. *mim-eq-Ø* [*tzetal max-Ø ha-man*]   ti
          big-PL-S3 what   CP-O3 A2SG-buy PROX
          'These ones that you bought are big.'

In these relative constructions, the demonstrative follows the RC. This ordering is expected as the demonstrative follows the noun in an NP and the RC in relative constructions headed by nouns (see Figure 4.1 and Section 4.3). These facts are coherent with the proposal that the demonstrative selects the RC as its complement (see Figure 4.3b), but there is no nominalization as the RC is finite like all RCs. This does not mean, however, that the RC is prenominal because there is no nominal head.

The RC and matrix verb form one prosodic unit, as shown in (61). The matrix verb *qmeltzoj* and the relative pronoun *maktxel* in the RC have word stress as no phrasal boundary precedes the RC.

(61) /QMEL.tzoj MAK.txel MA.xach toj YE.toq TU/
       q-Ø-meltzoj   [*maktxel max-ach toj y-etoq*]   tu
       POT-S3-return who   CP-S2SG go POSS3-with DIST
       'Those ones/that one with whom you went will return.'

Like in all RCs, the relativization of an A argument requires an agent focus, (62), but no agent focus is used in the relativization of S and O arguments like in (60a) and (60b), respectively. These relative constructions have a definite and anaphoric meaning.

(62) *kax   max-Ø jay*   [*mak ch-on   kol-on*]   tu
      then CP-S3 come who ICP-S1PL help-AF DIST
      'Then, that one who helps us came here.'

Regarding relativization strategies, these relative constructions only use a relative pronoun strategy as in (63a). A gap strategy is unattested in texts and it is ungrammatical in elicitation, (63b). This contrasts with relative constructions headed by indefinite determiners that use a relative pronoun or a gap.

(63) a. *kax ch'-Ø-el-teq   *[*mak chi-Ø xib'te-wi   anima*] tu
         then ICP-S3-exit-DIR who ICP-S3 frighten-API people DIST
         'Then those that frighten people come out.' {Txt, modified}

     b. **kax ch'-Ø-el-teq   *[*chi-Ø xib'te-wi   anima*] tu
         then ICP-S3-exit-DIR ICP-S3 frighten-API people DIST
         Intended: 'Then those that frighten people come out.'

I finally show that all grammatical relations are accessible to relativization in relative constructions headed by demonstratives. All direct arguments are accessible: an A argument in (62), an S argument in (60a), an O argument in (60b), and a genitive in (64a). Oblique and adjuncts are accessible with variation in grammaticality. While comitatives, like (61), and locatives, like (64b), are grammatical, instruments, like (64c), and indirect objects, like (64c), are marginally accessible only in elicitation.

(64) a. *chi-Ø   kus* [*matxkel max-Ø kam y-uninal*]   tu
         ICP-S3 sad who   CP-S3 die POSS3-children DIST
         'Those whose children died are sad.'

     b. *x-Ø-tz'a-toq   *[*b'aytal x-on   manj-i*] tu
         CP-S3-burn-DIR where CP-S1PL buy-IV DIST
         'That one where we bought (things) burned down.'

     c. *?x-Ø-q'aj   *[*tzet max-in   ha-maq' y-etoq*]   tu
         CP-S3-break what CP-O1SG A2SG-hit POSS3-with DIST
         'That one with which you hit me broke.'

     d. *?w-ojtaq-Ø   *[*maktxel x-Ø-aq'-lay   ch'en tumin b'ay*] tu
         A1SG-know-S3 who   CP-S3-give-PAS CLF money at   DIST
         Intended: 'I know that one to whom the money was given.'

TABLE 4.5   The scope of relativization strategies in relative construc-
tions headed by demonstratives

Rel. strategy	A	S/O	GEN	IO	INSTR	COM	LOC
Relative PRO	yes	yes	yes	?	?	yes	yes
Gap	*	*	*	*	*	*	*

Table 4.5 summarizes the scope of the relative pronoun in this relative construction. This contrasts with Table 4.4; in relative constructions with an indefinite head, all grammatical relations are accessible with a gap and relative pronoun. Furthermore, unlike in relative constructions with an indefinite head where oblique arguments are accessible, in relative constructions headed by demonstratives only comitatives and locatives are accessible among oblique arguments.

In sum, relative constructions headed by demonstratives and indefinite determiners are alike in structure, meaning and function: the determiner takes the RC as complement; the RC does not restrict a referent; and the relative construction is anaphoric. Such similarities suggest that they are subtypes of determiner-headed relative constructions. They differ with respect to the order between the RC and the head: the RC follows an indefinite determiner and it precedes a demonstrative, but this reflects the position of determiners in NPs and it does not depend on the RC. That is, they only differ in relativization strategy and the scope of each strategy. Relative constructions with an indefinite head allow a gap and a relative pronoun, but those with a demonstrative head only allow a relative pronoun. The scope of the relative pronoun differs in each subtype of relative construction: comitatives and instruments are marginally accessible in relative constructions with a demonstrative head, but no restriction occurs in relative constructions with an indefinite head. A similar analysis is proposed for other languages like Kaqchikel (Guarcax González 2016) and San Miguel Chimalapa Zoque (Jiménez Jiménez 2018).

4.5   Free Relatives

This section describes so-called headless relative constructions (Lehmann 1986, Andrews 2007, among others). An example of such a construction is presented in (65). Following Caponigro (2003) and Caponigro et al. (2013), I refer

to these constructions as free relatives or free RCs. They are introduced by a relative pronoun that is a wh-expression (see Mateo Toledo 2021, for more details).

(65) a. *ax=ab'* ⟨*s*⟩-*jay* [*maktxel ch-Ø-*⟨*s*⟩-*say-on* *cham tu*
   then=REP S3.D-come who ICP-O3-A3-search-AF CLF DIST
   xin] ...
   then
   'Then, it is said that [the one] who was looking for him [Jesus] came to that place ...' {Txt}

   b. *max-in toj y-intaq* [*maktxel max-Ø y-il heb'*]
   CP-S1SG go POSS3-behind who CP-O3 A3-see PL:they
   'I went behind whom they saw.'

Lehmann (1986) and Andrews (2007) argue that free RCs have a null nominal head and the RC restricts its reference (Andrews 2007) or modifies this head (Lehmann 1986). In Q'anjob'al, there is no evidence for a null head. Instead, the free RC is an NP-like category that contains a wh-word, which patterns like subordinate clauses and is referential.

The examples in (65) have the three defining features of free RCs proposed by Caponigro (2003) and Caponigro et al. (2021). They are embedded clauses as in (65a) where the free RC is the subject of the verb *jay* 'come'; they are introduced by a relative pronoun such as *maktxel* in (65a/b); and they function either as arguments as in (65a) where the free RC is the subject of *jay* 'to come' or adjuncts as in (65b) where the free RC is the complement of the relational noun *-intaq* 'behind.'

Q'anjob'al has all three kinds of free RCs attested across languages: maximal free RC, existential free RC, and free choice free RC (Caponigro et al. 2021, Caponigro, Torrence and Cisneros 2013). They share the same morphosyntax and formal features and they only differ semantically as I show next.

Maximal free RCs have a definite reading as shown in (66a). The free RC comes from a text about how the soldiers destroyed a place called Puente Alto; the soldiers got there, they burned houses and killed some people. This free RC refers to *heb' naq soldado* 'the army' and this NP can replace the free RC without changing the meaning as shown in (66b). The free RC introduced by *b'aytal* 'where' in (67) also has a definite reading. The free RC refers to the prepositional phrase *b'ay kamposanto* 'in the cemetery' and it can be replaced by this prepositional phrase.

(66) a. *chi-Ø   jay*   [*mak(txel) ch-on   maq'-on kam-oq*]
ICP-S3 come who   ICP-S1PL hit-AF   die-INF
'The one who kills us comes here.'

b. *chi-Ø   jay   heb' naq soldado*
ICP-S3 come PL   CLF army
'The army comes here.' {modification of (66a)}

(67) *ja'   mal-Ø   toj heb'*   [*b'aytal kajan-Ø   heb'*]
yes already-S3 go PL:they where   living-S3 PL:they
'Yes, they are already gone to where they live.' {Txt}

Existential free RCs have an indefinite reading. The free RCs in (68a) come from
a text about what people did during a period of violence in Guatemala; each
free RC refers to 'some people' whose referents are unknown. The free RC can
be replaced by an indefinite NP, as (68b) illustrates. A similar existential free
RC is shown in (69) in which the speaker states his/her ignorance about 'a time'
that a party would end.

(68) a. *ay-Ø   [mak(txel) x'-el-i],   ay-Ø   [mak(txel) x-Ø-kam-i*]
EXIST-S3 who   CP-S3-exit-IV EXIST-S3 who   CP-S3-die-IV
'There are some who left, there are some who died.'

b. *ay-Ø   juntzan* anima [*x'-Ø-el-i*]
EXIST-S3 INDF.PL people CP-S3-exit-IV
'There are some people that left.'

(69) *tom ay-Ø   [b'aq'in ch-Ø-lajw-i   jun   q'in   tu!*]
DUB EXIST-S3 when   ICP-S3-end-IV INDF.SG festival DIST
'There is no time when that party ends!' {Txt}

Existential free RCs usually occur with the existential *ay* as the matrix predicate
and with dynamic verbs like *say* 'look for', *man* 'buy', and *sik'* 'select.' The exis-
tential *ay* takes indefinite or generic NP arguments and this is coherent with
the indefinite reading of the free RCs.[12]

Lastly, a free choice free RC is shown in (70). This differs from other free RCs
in that the clitic *=k'al*, translated as 'EVER', attaches to the *wh*-expression. The

_____

12   The interaction between FRCs and matrix predicates raises the question as to whether

clitic triggers the typical ignorance and indifference readings that are associated with this type of free RC in languages like English (see Condoravdi 2015, Rawlins 2015, and others). Example (70) has an ignorance reading in that the speaker ignores the specific details of what his mother cooks.

(70) *ay-Ø   axux ⟨s-⟩xol   [tzet=**k'al**   chi-Ø s-txik*
     EXIST-S3 garlic POSS3-among what=EVER   ICP-S3 A3-cook
     hin-txtux]
     POSS1SG-mother
     'There is garlic in whatever my mother cooks.'

I show next the features of all free RCs. Like other RCs, the free RC is a dependent clause. The stress pattern and thematic suffixes show that the free RC and main predicate belong to the same prosodic phrase. Stress is shown in (71): the free RC follows the matrix verb *xmeltzoj* and this verb has word stress (on the first syllable). Therefore, no prosodic boundary separates the matrix verb and free RC and they belong to the same prosodic phrase.

(71) */XMEL.tzoj MAK.txel MA.xach b'et ye.TOQ/*
     x-Ø-meltzoj   [maktxel max-ach b'et   y-etoq]
     CP-S3-return who   CP-S2SG go_return POSS3-with
     'The one [known person] with whom you went returned.'

The absence of a thematic suffix on the matrix predicate in (71) confirms the dependent status of the free RC. As shown in Section 4.2.1, except for the suffix *-j*, the thematic suffix only surfaces in final prosodic boundaries like the suffix *-o'* in (72): there are two instances of the verb *kol* 'to help' and only the second instance takes the suffix *-o'*. Thematic suffixes in free RCs follow this pattern. In (71), the free RC follows the matrix verb *meltzoj* and the verb lacks the intransitive thematic suffix *-i* (it would be ungrammatical with *-i*). Thus, the free RC and matrix verb belong to the same prosodic phrase.

(72) *x-Ø-ko-kol   naq Xhunik y-ujtol   x-in   ha-kol-o'*
     CP-O3-A1PL-help CLF Xhunik POSS3-because CP-S1SG A2SG-help-TV
     'We helped Xhunik because you helped me.'

FRCs are not complement clauses (Grosou 2004, and Šimík 2011). In Q'anjob'al, FRCs are not complements; they occur with matrix predicates that do not select clausal complements like the verb *jay* 'to come here' in (66a) and the existential predicate *ay* in (68).

TABLE 4.6   Accessibility in free RCs in Q'anjob'al

Rel. strategy	A	S/O	GEN	IO	INSTR	COM	LOC
Relative PRO	yes	yes	yes	?	yes	yes	yes

The free RC forms an NP-like category by itself, which is supported by the referential readings of each semantic type discussed above. Like all RCs, the free RC is a finite clause (it has full inflection) and it uses an agent focus verbal form in the relativization of A arguments (66a), but no agent focus is used in the relativization of an O argument (65b) or an S argument (68a).

Finally, all grammatical relations are accessible with a free RC. All direct arguments are accessible: A argument (66a), O argument (65b), S argument (68a), and possessor (73a). All obliques and adjuncts are also accessible to relativization: indirect object (73b), comitative (73c), instrument (73d), and locative adjuncts (65b) and (67).

(73) a. *x-Ø-k'ay-toq*   [*maktxel h-ojtaq-Ø   s-txutx*]   GEN
          CP-S3-disappear-DIR who   A2SG-know-O3 POSS3-mother
          'Someone whose mother you know got lost.'

      b. *?ay-Ø*   [*mak x-Ø-y-al   heb'   jun-tu   b'ay*]   IO
          EXIST-S3 who   CP-O3-A3-tell PL:they one-DIST to
          Intended: 'There is someone to whom they told that.'

      c. *ay-Ø*   [*mak ch-ach   b'et   y-etoq*]   COM
          EXIST-S3 who   ICP-S2SG go_return POSS3-with
          'There is someone that you go [=travel] with.'

      d. *ay-Ø*   [*tzet hoq-ach   maq'-lay y-etoq*]   INSTR
          EXIST-S3 what POT-S2SG hit-PAS   POSS3-with
          'There is something that you will be hit with.'

Table 4.6. shows the accessibility hierarchy in free RCs, which in all cases involves a relative pronoun.

This section described the features of free RCs. Like all RCs, they are finite and subordinate clauses; they use an agent focus verb in the relativization of A arguments, but no AF verbal form occurs in the relativization of other arguments; and all grammatical relations are accessible to relativization. Free

RCs differ from other relative constructions in that they are NP-like elements by themselves; they require a wh-expression; and they are of three semantic subtypes: maximal free RCs that have a definite reading, existential free RCs that have an indefinite reading and occur only with the existential matrix predicate and dynamic verbs, and free choice free RCs that have an ignorance or indifference reading and take the particle *=k'al* attached to the wh-expression.

4.6   Headless Relative Clauses with a Gap

This section describes a type of headless RC with a gap, which like headed RCs with a gap is also asyndetic.[13] Like free RCs, this type of headless RC lacks material in the head position, but unlike free RCs, it lacks a wh-expression, that is, it has a gap and is not introduced by a subordinator. An example is given in (74).

(74) *ay-Ø*   [*hoq-Ø el-teq   nani*]
　　 EXIST-S3 POT-S3 exit-DIR now
　　 'There are (those) [skirts] which will come out now.' {Txt}

All documented headless RCs with a gap are referential and anaphoric—they refer to entities accessible from previous discourse or context. The headless RC in (74) comes from a text about skirts, in which the speaker says that new styles come out every year and they are often expensive. This headless RC refers to those new (and/or expensive) skirts. The NP *juntzan ak' chanej tu* 'those new skirts' can be inserted into the head position like in (75). This results in a headed relative construction with an indefinite specific reading due to the co-occurrence of the demonstrative and indefinite determiner.

(75) *ay-Ø*   *juntzan ak' chanej tu*   [*hoq-Ø el-teq   nani*]
　　 EXIST-S3 INDF.PL new skirt   DIST POT-S3 exit-DIR now
　　 'There are new skirts, those which will come out now.'

The next example also shows the anaphoric use of a headless RC with a gap. This comes from a text about spirits that walk at night, in which the speaker says that he has seen some of those spirits. The headless RC refers to 'those spir-

---

13   This type of headless RC has been called 'super free relative clause' in Caponigro et al. (2021) and Mateo Toledo (2021).

its that walk on the main road.' It has an indefinite specific reading (unshared referents, but specific for the speaker).

(76) *ay-Ø*   [*ch'-Ø-ek'-el   miman b'e*]
     EXIST-S3 ICP-S3-pass-DIR big   road
     'There are (those) [spirits] that cross the big road.' {Txt}

Headless RC with a gap can only function as the subject argument of the existential predicate *ay*. Other matrix predicates are unattested in texts and ungrammatical in elicitation, as seen with the dynamic verb *sik'* 'to select' in (77).

(77) **x-Ø-ko-sik'*   *hon*   [*chi-Ø   h-oche-j*]
      CP-O3-A1PL-select EXCL ICP-O3 A2SG-like-TV
      Intended: 'We selected (those) [bananas] that you like.'

Like all RCs, a headless RC with a gap is finite. It also uses an AF verbal form in the relativization of A arguments like in (78), but no AF verbal form is used in the relativization of other arguments like the S argument in (74).

(78) *ay-Ø*   [*hoq-Ø txon-on tx'otx' xij*]
     EXIST-S3 POT-S3 sell-AF clay   pot
     'There are those that will sell clay pots.'

Finally, all direct arguments can be relativized in headless RCs with a gap: an S argument in (76), an A argument in (78), an O argument in (79a), and genitive in (79b).

(79) a. *ay-Ø*   [*max-Ø ko-man-a'*]   O
        EXIST-S3 CP-O3   A1PL-buy-TV
        'There are those [bananas] that we bought.'

     b. *ay-Ø*   [*x-Ø-kam s-txutx*]   GEN
        EXIST-S3 CP-S3-die POSS3-mother
        'There are those [children] whose mother died.'

However, oblique and adjuncts vary in accessibility: locatives introduced by relational nouns and instruments are accessible as in (80a) and (80b), an indirect object is marginally accessible, (80c), and the comitative and locative are inaccessible, as shown in (80d) and (80e).

TABLE 4.7   Accessibility in headless RC with a gap in Q'anjob'al

Rel. Strategy	A	S/O	GEN	IO	INSTR	COM	LOC
Gap	yes	yes	yes	?	yes	*	yes-RN, *PRE

(80) a. *ay-Ø*   [*max-on b'et   saqch-oq y-intaq*]   LOC
EXIST-S3 CP-S1PL go_return play-INF POSS3-behind
'There are some [pine trees] that we went to play behind.'

b. *ay-Ø*   [*max-Ø ko-pol   no chib'ej y-etoq*]   INSTR
EXIST-S3 CP-O3   A1PL-cut CLF meat POSS3-with
'There is that [knife] which we cut the meat with.'

c. *?ay-Ø*   [*max-Ø hey-aq'   ch'en tumin b'ay*]   IO
EXIST-S3 CP-O3   A2PL-give CLF   money to
Intended: 'There are those [children] to whom you gave the money.'

d. **ay-Ø*   [*max-Ø toj heb' xal ix   y-etoq*]   COM
EXIST-S3 CP-S3   go PL   CLF woman POSS3-with
Intended: 'There are those [people] that the lady went with.'

e. **ay-Ø*   [*max-ex b'et-i*]   LOC
EXIST-S3 CP-S2PL go_return-IV
Intended: 'There are those [churches] where you went.'

Table 4.7. summarizes the accessibility of grammatical relations in headless RCs with a gap. While all direct arguments can be relativized, oblique and adjuncts show variation.

In summary, headless RCs with a gap and free RCs are alike in that they lack material in the head position, but headless RCs with a gap differ from free RCs in that they do not take wh-expressions. Headless RCs with a gap and existential free RCs are alike in that they can function as arguments of the existential predicate *ay*, but headless RCs with a gap differ from existential free RCs in that they do not occur with dynamic matrix verbs. Furthermore, like all RCs, they are finite, and they use an AF verbal form only in the relativization of A arguments. Regarding accessibility restrictions, locatives not introduced by relational nouns, comitatives, and indirect objects are not accessible, but all other arguments are accessible to relativization in a headless RC with a gap.

TABLE 4.8   The typology of heads and relative constructions in Q'anjob'al

Head-type	Relativization strategy	Type of relative construction
Noun (pronoun)	Gap Relative pronoun (locative)	Noun-headed relative construction
Determiner	INDEF: Gap/relative pronoun DEM: relative pronoun	Determiner-headed relative construction
N/A	Relative pronoun	Free relative
	Gap	Headless RC with a gap

4.7   Final Remarks

This chapter described the general features of RCs in Q'anjob'al. It focused on two issues: the typology of heads and types of relative constructions whose analysis is still debated in works on RCs.

Table 4.8 summarizes the proposed classification of RCs and the typology of heads in Q'anjob'al. The organization takes as its starting point the existence or absence of a head.

In Q'anjob'al, all RCs are finite clauses; they are subordinated in different ways and to different degrees; and they use an agent focus verbal form only in the relativization of an A argument. Q'anjob'al uses both a gap and relative pronoun strategies—whether a RC uses one or both depends on the type of relative construction.[14]

In terms of accessibility restrictions, summarized in Table 4.9, RCs show two patterns. While in headed RCs and free RCs all grammatical relations are accessible, in headless RCs with a gap, all direct arguments are accessible, but the

14   Lehmann (2017) proposes that in Tojolab'al Maya there is no gap strategy. Instead, RCs use an indexing strategy as the predicate indexes the argument and the lexical expression of the argument is irrelevant for defining the gap strategy. In Q'anjob'al and all Mayan languages, argument indexation and lexical expression follow different morphosyntactic and pragmatic restrictions (England 1983, Dayley 1990, Larsen 1987, Aissen 2017a, b). Above, we saw that all relativized arguments are indexed on the predicate as the RC is finite, but the RCs may require or disallow a relative pronoun under different syntactic conditions. Then, the gap strategy depends on restrictions on lexical expression and not on indexation (see Comrie and Kuteva 2013b, for a similar view on 'pronoun retention').

TABLE 4.9   The scope of relativization strategies and types of relative constructions in Q'anjob'al

Head	Rel. strategy	A	S/O	GEN	IO	INSTR	COM	LOC
N-head	Gap	yes	yes	yes	yes	yes	yes	yes-RN, *others
	Relative PRO	*	*	*	*	*	*	yes
INDEF-head	Gap	yes	yes	yes	yes	yes	yes	yes-RN, *others
	Relative PRO	yes	yes	yes	yes	yes	yes	yes
DEM-head	Gap	*	*	*	*	*	*	*
	Relative PRO	yes	yes	yes	?	?	yes	yes
Free RC (RPRO)		yes	yes	yes	yes	yes	yes	yes
Headless RC with a gap		yes	yes	yes	?	yes	*	yes-RN, *other

relativization of oblique and adjuncts show restrictions. Note that locatives display restrictions in all RCs—the division is generally between those introduced by relational nouns and those introduced by other means.

The typology of heads in Q'anjob'al differs partially from other proposals in the typological and theoretical literature. Q'anjob'al distinguishes two types of heads: nominal (including pronouns) and determiner. Pronominal heads are a subtype of nominal heads as the relative constructions that they form are identical in structure, morphology, and restrictions. Furthermore, there is no evidence that pronouns are light heads in the sense of Citko (2004). Thus, pronouns are irrelevant in defining the typology of relative constructions. Determiner-headed relative constructions differ in structure, meaning, and relativization strategies from other relative constructions. They are of two subtypes: those headed by indefinite articles and those headed by demonstratives. They only differ with respect to the relativization strategy and the scope of each strategy; those headed by indefinite determiners allow both a gap and a relative pronoun, but those headed by demonstratives only use a relative pronoun strategy. Furthermore, the relative pronoun strategy is less restricted when the head is an indefinite determiner. This finding on determiners differs from other works that argue that 'determiners plus RCs' are headless RCs (see Lehmann 1986, Andrews 2007, among others) or works that propose that they involve noun elision like in Yucatec Maya (Gutiérrez Bravo 2015).

I proposed that Q'anjob'al has two types of relative constructions: headed relative constructions and free relatives. Headed relative constructions are of two subtypes: those headed by a noun that form canonical restrictive relative

constructions and those headed by a determiner that have a referential reading. On the one hand, in relative constructions with a noun/pronominal head, the RC modifies the head and restricts its possible referents; regarding accessibility, the RC requires a relative pronoun for locatives and a gap strategy for other arguments. On the other hand, relative constructions headed by determiners have a referential reading and function; the relative construction forms an NP where the determiner selects the RC as its complement and when these relative constructions are headed by an indefinite determiner they allow both relativization strategies (gap and relative pronoun) with all arguments, but when they are headed by determiners they only allow the relative pronoun strategy and they show restrictions in accessibility of the arguments.

Free relatives contain a relative pronoun, have referential readings and form a relative construction by themselves. I proposed that the free RC is an NP-like constituent. These relative constructions are of three semantic types: maximal free RCs that have a definite reading, existential free RCs that occur mostly with the existential matrix predicate *ay*, and free choice free RCs, all of which need further research. All grammatical relations are accessible in all free RCs.

I also showed that Q'anjob'al has a headless RC with a gap. Like free RCs, these relative constructions lack material in the head position, but unlike free RCs, they lack a relative pronoun. They have an anaphoric reading and all direct arguments are accessible to relativization, but adjuncts and obliques show variation. This relative construction needs further analysis.

Acknowledgements

Bibliography

Abney, Steven Paul. 1987. The English noun phrase in its sentential aspect. PhD Dissertation. Massachusetts: Massachusetts Institute of Technology.

Aissen, Judith. 1992. Topic and focus in Mayan, *Language* 68: 43–80.

Aissen, Judith. 1996. Pied-piping, abstract agreement, and functional projections in Tzotzil, *Natural Language and Linguistic Theory* 14: 447–491.

Aissen, Judith. 2017a. Correlates of ergativity in Mayan. In Jessica Coon, Diane Massam, and Lisa Travis (eds.), *The Oxford handbook of ergativity*, 737–758. Oxford: Oxford University Press.

Aissen, Judith. 2017b. Information structure in Mayan. In Judith Aissen, Nora C. England, and Roberto Zavala Maldonado (eds.), *The Mayan languages*, 293–324. New York: Routledge.

Andrews, Avery 2007. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, 206–236. Cambridge: Cambridge University Press.

Brugè, Laura. 2002. The positions of demonstratives in the extended nominal projection. In Guglielmo Cinque (ed.), *Functional structure in DP and IP: The cartography of syntactic structures*, 15–53. New York: Oxford University Press.

Caponigro, Ivano. 2003. Free not to ask: On the semantics of free relatives and wh-words cross-linguistically. PhD Dissertation. Los Angeles: University of California.

Caponigro, Ivano, Harold Torrence and Carlos Cisneros. 2013. Free relative clauses in two Mixtec languages, *International Journal of American Linguistics* 79, 61–96.

Caponigro, Ivano, Harold Torrence and Roberto Zavala Maldonado (eds). 2021. *Headless Relative Clauses in the Mesoamerican Languages*. New York: Oxford University Press.

Chafe, Wallace L. 1976. Givenness, contrastiveness, definiteness, subjects, topics and point of view. In Charles N. Li (ed.), *Subjects and topic*, 25–55. New York: Academic Press.

Citko, Barbara. 2004. On headed, headless, and light-headed relatives, *Natural Language and Linguistic Theory* 22: 95–126.

Comrie, Bernard. 1989. *Language universal and linguistic typology: Syntax and morphology*. 2nd edition. Chicago: University of Chicago Press.

Comrie, Bernard and Tania Kuteva. 2013a. Relativization strategies. In Matthew S. Dryer and Martin Haspelmath (eds.), *The World Atlas of Language Structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/s8 (2019/10/20).

Comrie, Bernard and Tania Kuteva. 2013b. Relativization on subjects. In Matthew S. Dryer and Martin Haspelmath (eds.), *The World Atlas of Language Structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/122 (2019/10/20).

Condoravdi, Cleo. (2015). Ignorance, indifference, and individuation with wh-ever. In Luis Alonso-Ovalle and Paula Menéndez-Benito (Eds.), *Epistemic Indefinites, Exploring Modality Beyond the Verbal Domain*, 213–243. Oxford: Oxford University Press.

Coon, Jessica, Pedro Mateo Pedro, and Omer Preminger. 2014. The role of case in A-bar extraction asymmetries: Evidence from Mayan, *Linguistic Variation* 14: 179–242.

Craig, Colette Grinevald. 1990. Clasificadores nominales: una innovación Q'anjob'al. In Nora C. England and S.R. Elliot (eds.), *Lecturas sobre la lingüística maya*, 253–268. Antigua Guatemala: Centro de Investigaciones Regionales de Mesoamérica.

Dayley, Jon. 1990. Voz y ergatividad en idiomas mayas. In Nora C. England and S.R. Elliot (eds.), *Lecturas sobre la lingüística maya*, 335–398. Antigua Guatemala: Centro de Investigaciones Regionales de Mesoamérica.

Dixon, R.M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.

Dryer, Matthew S. 2007. Noun phrase structure. In Timothy Shopen (ed.), *Language typology and syntactic description*. Vol. II, 151–205. Cambridge: Cambridge University Press.

Du Bois, John W. 1987. The discourse basis of ergativity, *Language* 63: 805–855.

England, Nora. 1983. Ergativity in Mamean (Mayan) languages, *International Journal of American Linguistics* 49: 1–19.

Francisco Pascual, Adán. 2007. Transitividad y dependencia sintáctica y discursiva en Q'anjob'al. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Gillon, Carrie. 2009. Deictic features: Evidence from Skwxwú7mesh, *International Journal of American Linguistics* 75: 1–27.

Grosu, Alexander. 2004. Modal existential wh-constructions. In Olga Mišeska Tomić (ed.), *The syntax-semantics of Balkan Languages*, 405–438. Amsterdam: John Benjamins.

Guarcax González, José Celestino. 2016. Las cláusulas relativas en el kaqchikel de Sololá. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Gutiérrez Bravo, Rodrigo. 2012. Relative clauses in Yucatec Maya: Light heads vs. null domain. In Bernard Comrie and Zarina Estrada Fernández (eds.), *A typological overview of relative clauses in languages of the Americas*, 253–268. Amsterdam: John Benjamins.

Gutiérrez Bravo, Rodrigo. 2015. *Las cláusulas relativas en maya yucateco*. México: El Colegio de México.

INEG (Instituto Nacional de Estadística de Guatemala). 2018. Cuadro A7: Población de 4 años y más por idioma materno, Censo de Población y Vivienda 2018. https://www.censopoblacion.gt/explorador (2019/10/07).

Jiménez Jiménez, Silviano. 2019. Estudios en la gramática de la oración simple y compleja en el Zoque de San Miguel Chimalapa. PhD Dissertation. CIESAS, México.

Kaufman, Terrence. 1974. *Idiomas de Mesoamérica* (Seminario de Integración Social 33). Guatemala: Editorial José de Pineda Ibarra.

Keenan, Edward. 1985. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. II, 141–170. Cambridge: Cambridge University Press.

Keenan, Edward and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar, *Linguistic Inquiry* 8: 63–100.

Kroeger, Paul R. 2005. *Analyzing grammar*. Cambridge: Cambridge University Press.

Larsen, Thomas. 1987. The syntactic status of ergativity in Quiché, *Lingua* 71: 33–59.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–680.

Lehmann, Christian. 2003. Relative clauses. In William J. Frawley (ed.), *International encyclopedia of linguistics*, Vol. 3, 460–462. Oxford: Oxford University Press.

Lehmann, Christian. 2017. Anaphora and empty-place formation. http://www.christian lehmann.eu/ling/lg_system/grammar/specification/nominal_index.php?open=an aphor (2019/10/20).

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Martínez Cruz, Victoriano. 2007. Los adjetivos y conceptos de propiedad en chol. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Mateo Toledo, Eladio. 2012. Secondary predication in Q'anjob'al (Maya): Structure and semantic types, *International Journal of American Linguistics* 78: 139–174.

Mateo Toledo, Eladio. 2013. Clausulas sin aspecto e infinitivas en Q'anjob'al. In Enrique Palancar and Roberto Zavala Maldonado (eds.), *Clases léxicas, posesión y cláusulas complejas en lenguas de Mesoamérica*, 247–276. México: CIESAS.

Mateo Toledo, Eladio. 2017a. Q'anjob'al. In Judith Aissen, Nora C. England, and Roberto Zavala Maldonado (eds.), *The Mayan languages*, 533–569. New York: Routledge.

Mateo Toledo, Eladio. 2017b. Prenominal adjectives in Q'anjob'al and other Mayan languages (paper presented at the *2017 SSILA Anual Meeting*, Austin, 2017/01/5–8).

Mateo Toledo, Eladio. 2021. Free relative clauses in Q'anjob'al. In Ivano Caponigro, Harold Torrence, and Roberto Zavala Maldonado (eds.). *Headless Relative Clauses in Mesoamerican Languages*, 290–326. New York: Oxford University Press.

Mateo Toledo, Eladio y Pedro Mateo Pedro. 2018. La prominencia prosódica en la adquisición de la morfosintaxis del q'anjob'al (maya), *Signos Lingüísticos* Vol. xiii, Num. 25: 8–45.

Osorio May, José del Carmen. 2016. Temas de la sintaxis del yokot'an de Tecoluta, Nacajuca, Tabasco. PhD Dissertation. CIESAS, México.

Raymundo González, Sonia, Adán Francisco Pascual, B'alam Mateo Toledo, and Pedro Mateo Pedro. 2000. *Sk'exkixhtaqil yallay koq'anej: Variación dialectal en Q'anjob'al*. Guatemala: Cholsamaj.

Rawlins, Kyle. (2015). Indifference and scalar inferences in free relatives. In Luis Alonso-Ovalle and Paula Menéndez-Benito (Eds.), *Epistemic indefinites, exploring modality beyond the verbal domain*, 267–288. Oxford: Oxford University Press.

Richards, Michael. 2003. *Atlas lingüístico de Guatemala*. Guatemala: Universidad Rafael Landívar.

Rijkhoff, Jan. 2002. *The noun phrase*. New York: Oxford University Press.

Shibatani, Masayoshi. 2009. Elements of complex structures, where recursion isn't: The case of relativization. In Talmy Givón and Masayoshi Shibatani (eds.), *Syntactic complexity; Diachrony, acquisition, neuro-cognition, evolution*, 163–198. Amsterdam: John Benjamins.

Šimík, Radek. 2011. *Modal existential wh-constructions*. LOT: The Netherlands.

Smith-Stark, Thomas. 1988. "Pied piping" con inversión en preguntas parciales. México: COLMEX. ms.

Stiebels, Barbara. 2006. Agent focus in Mayan languages, *Natural Language and Linguistic Theory* 24: 501–570.

Zavala Maldonado, Roberto. 1990. *Los sistemas clasificatorios en el kanjobal de San Miguel Acatán 'Acateco'. Función 9–10*, 1–354.

Zavala Maldonado, Roberto. 2000. Multiple classifier systems in Akatek. In Gunther Senft (ed.), *Systems of nominal classification*, 114–146. New York: Cambridge University Press.

CHAPTER 5

Non-configurational Features in the Relative Constructions of Tlaxcala Nahuatl

Lucero Flores Nájera

5.1   Introduction

This chapter describes the word order typology of Tlaxcala Nahuatl (henceforth
Tlax-Nah) involving relative constructions, with a special focus on headed rel-
ative clauses (RCs) that are discontinuous because they involve the domain
nominal (which I treat as a domain DP) inside RCs that also exhibit relative
pronouns. In Tlax-Nah relative constructions, the order between the domain
DP and the RC is variable: the domain DP may occur outside the RC either pre-
ceding it, like in (1) or following it, like in (2).[1]

(1) *yeka   Ø-wits   se*   interprete [*den*
     already s3-come.IPFV INDF interpreter SUB
     Ø-ki-mach-tia   nin]
     s3-PO3SG-know-CAUS.IPFV this
     'An interpreter who teaches this is coming.' {Txt}

(2) [*den Ø-nen-chikawa-k*]   *in*   kiawi-tl *Ø-wits*
     SUB s3-much-strengthen-ADJZ.IPFV DEF rain-ABS s3-come.IPFV
     'Rain comes that is very heavy.' {Txt}

The domain DP may be discontinuous with respect to the RC, like in (3). This
construction raises the question of how to show that the discontinuous RC is
subordinate to the domain DP.

(3) *¿kox   in   onwito   sirbe   [den o-ti-k-walika-keh]?*
     COND DEF mushroom serve.s3 SUB PST-S1PL-PO3SG-bring.PFV-PL
     'Does the little mushroom we brought with us work by any chance?' {Txt}

---

1 Textual examples are marked as {Txt} and they come from ten hours of natural discourse
   collected in the community of San Isidro Buensuceso. Elicited examples have been checked
   with five native speakers from 18 to 45 years of age.

Finally, the domain DP can be located within the RC, like in (4) and (5). Such examples raise the question of whether these clauses represent a type of RC with an internal head, but if so, one would need to explain the co-occurrence of the relative pronoun and the domain DP within the RC of example (5).

(4) *o-ni-k-notsa-to*   [*Ø-i-toka*   *se*   padre
    PST-S1SG-PO3SG-call-AND.PST S3-POSS3SG-name.IPFV INDF priest
    Guadalupe]
    G.
    'I went to call a priest named Guadalupe.' {Txt}

(5) *o-Ø-wetsi-to*   [**kan**   *yala*   *in*   kal-li
    PST-S3-fall-AND.PST WHERE yesterday DEF house-ABS
    o-ti-m-awil-ti-h-keh]
    PST-S1PL-RR-toy-VBZR-PFV-PL
    'The house where we played yesterday fell down.'

The problems raised in examples (3–5) could be accounted for by taking two analytical perspectives. The first would consider that TLAX-NAH is a configurational language. Consequently, the discontinuity of examples like (3) would be due to the movement or dislocation of either the domain DP or the RC. Likewise, such an approach would have to postulate that TLAX-NAH has relative constructions with internal heads. However, under such an approach, example (5) could not be accounted for, because the domain DP is the head and should be the only element within the RC, leaving no place for the relative pronoun. In this connection, example (5) would have to be explained as instantiating a different type of internally-headed RC than the ones reported in the literature.

The second analytical position is that TLAX-NAH presents non-configurational features in the syntax of relative constructions. In non-configurational languages there is a syntactic-semantic disparity, because the deep structure is not mapped within a particular surface structure (Hale 1983). Therefore, the domain DP and the RC do not form a constituent at the syntactic level and may be contiguous or discontinuous anywhere in the complex DP and/ or the matrix sentence. In this chapter, I present evidence in favor of such an analysis. I claim that a non-configurational analysis allows us to explain why there is co-occurrence of a relative pronoun and the domain DP within a RC and why there is discontinuity of the domain DP with respect to the RC.

The chapter has the following structure. Section 5.2 briefly summarizes some grammatical properties of TLAX-NAH. In Section 5.3, I show the non-configurational features of syntactic phrases, specifically, the variable and discontinuous order of the possessed phrase and the adpositional phrase. In Section 5.4, I show the general features of TLAX-NAH relative constructions and also the discontinuous order between the domain DP and the RC. In Section 5.5, I analyze in detail how the distinction between embedded vs. adjoined RCs operates in TLAX-NAH. In Section 5.6, I raise the problem of an analysis that considers TLAX-NAH to have internally-headed RCs. I propose that the data do not exhibit a retention strategy, but rather a non-configurational feature of the language. In Section 5.7, I review some anomalous examples of Colonial Nahuatl and other modern Nahuatl languages, which could be equally accounted for if one appeals to a non-configurational analysis. In Section 5.8, I review the main theoretical and methodological contributions to the study of RCs at the typological level, especially to the study of such constructions in Nahuatl.

5.2   Basic Features of Tlaxcala Nahuatl

Like other Nahuatl languages, TLAX-NAH is a polysynthetic agglutinative language with head markings (Nichols 1986). Because of these features, thematic role requirements are satisfied by affixes in the verb; while DPs, which are co-indexed by pronominal affixes, are extensions of the latter (I explain the syntactic status of DPs below). In example (6), the intransitive verb alone gives the information of who the subject is and the DP *se tlakatsintli* "a gentleman" is optional. In example (7), the transitive verb by itself marks the subject and the object, so the DPs are also optional.

(6) *o-Ø-katka*   (*se   tlaka-tsin-tli*)
     PST-S3-be.IPFV INDF man-HON-ABS
     'There was a gentleman.' {Txt}

(7) (*se   soa-tsin-tli*)   *o-Ø-k-teka-t-ewa-k*   (*in*
     INDF woman-HON-ABS PST-S3-PO3SG-lie-LIG-AUX:leave-PFV DEF
     i-niño)
     POSS3SG-child
     'A woman left her son lying down.' {Txt}

TABLE 5.1   Non-configurational parameters in TLAX-NAH

Non-configurational features	TLAX-NAH
Discontinuous expressions	✓
Free constituent order	✓
No movement of the DP	✓
Absence of expletive DP	✓
Use of zero anaphora	✓
Use of a case system	–

TLAX-NAH has a nominative-accusative alignment, because the subject of the intransitive verb and the subject of the transitive verb are marked in the same way, while the object of the transitive verb receives a different marking. In examples (6) and (7), both S and A remain unmarked (I code this with the symbol Ø-), while the object is marked by means of the prefix *k-*. In the next section, I present the grammatical features that have been found in non-configurational languages and discuss how such parameters operate in TLAX-NAH.

5.3   Non-configurational Syntax

Hale (1983: 11) proposes that the form of a sentence is defined, in part, by how the relationship between the lexical or deep structure and the phrasal structure is codified. In a configurational language, the deep structure is mapped to a particular phrasal structure. However, in a non-configurational language that direct mapping is lacking. In Table 5.1, I present the formal features proposed in the literature for non-configurational languages such as Warlpiri (Hale 1982, 1983) and Panare (Payne 1993). In the second column I indicate whether such features are found in TLAX-NAH.

One of the criteria proposed for determining non-configurationality in a language is the expression of discontinuous elements. Payne (1993) shows that in Panare (a Cariban language of Venezuela), the discontinuity is presented inside the DP because the numeral, the quantifier, the determiner, the adjective and the RC can be discontinuous from the nominal head.[2] The author argues that not all the grammar of Panare is non-configurational, because at the level of the

---

2 Payne (1993: 128) reports that the discontinuous order of elements is more common when the phrase in question follows the verb.

verbal phrase there is no discontinuity. Tlax-Nah presents discontinuity at the phrasal level, but not within the DP. The possessed phrase, the phrase with a relational noun and the relative construction present discontinuity between head and modifier, that is, between the possessor and the possessed, between the relational noun and its complement and between the RC and its domain DP. I will expand on this point in the following sections.

Another parameter for non-configurationality is the free order of constituents. Warlpiri has been described as a free word order language (Hale 1982, 1983). As I have shown in the previous section, subject and object arguments in Tlax-Nah are marked in the verb by way of affixes and co-indexed DPs are facultative. When the DPs are present, it is possible to find all word order combinations. Although SVO and VSO word orders are the most common in Tlax-Nah texts, neither of these is truly basic, underlying or less marked. This can be seen by the way the DP co-indexed with the subject is marked by the focus particle *ye*. In example (8), the personal pronoun *neh* 'I' occurs before the verb and has *ye*, but in example in (9), the DP *Juan Loco* 'Crazy John', a proper name, is also marked by the particle *ye*, but it occurs after the verb. This means that no order is basic, nor is it the result of movement or dislocation of the DPs.

(8) SVO
ye=n   *neh*   *ni-h-pia*   *in*   *dinero*
FOC=DEF 1SG_PRO S1SG-PO3SG-have.IPFV DEF money
'I have the money.' {Txt}

(9) VSO
wan o-Ø-ki-kwa-h   *ye=n*   *Juan Loco* *in*   *chito*
and PST-S3-PO3SG-eat-PFV FOC=DEF J.   crazy DEF meat
'And Crazy John ate the meat.' {Txt}

In Tlax-Nah, such orders are not grammatically determined, but rather follow pragmatic motivation from information structure (Mithun 1987) (see Flores Nájera 2019 for more details). One of the reasons for assuming the existence of a basic order of constituents for each language is its usefulness as a basis from which to predict other structural features (Dryer 1997, Greenberg 1963, Hawkins 1983). Because order responds to pragmatic rather than syntactic considerations in Tlax-Nah, generalizations about typological correlates cannot be applied. And, in fact, head and modifiers display variable and discontinuous orders in many cases, for example in the possessed phrase, relational noun phrase and RCs. A direct consequence of the absence of an underlying basic

order of constituents in TLAX-NAH is the absence of movement of DPs for pragmatic reasons from their alleged initial position. TLAX-NAH exhibits all proposed criteria for non-configurationality with the exception of the last one (i.e. the use of a case system). In the next section, I explore the criterion of discontinuous expressions in detail.

5.3.1   (Non-)configurationality in Tlax-Nah Phrases

5.3.1.1   Order of the DP Elements

In TLAX-NAH, due to the rigid position of determiners, demonstratives and numerals with respect to the nominal, we can conclude that a DP is configurational involving such elements. Although adjectives do not have a fixed position with respect to the nominal because they can precede it or follow it, one can also include them here because the variable order of adjectives is not considered proof of non-configurationality. The definite and the indefinite determiner always occupy the first position of the DP, preceding the nominal, like in (10a) and (11a). Occurring after the nominal results in ungrammaticality, as shown in (10b) and (11b).[3]

(10) a. ***in***   *chi-chito-tsin*   *o-Ø-nen-m-ihto-tia-ya*
         DEF RED-goat-DIM PST-S3-much-RR-dance-VBZR-IPFV
         'The little goat danced too much.' {Txt}

     b. **chi-chito-tsin*   ***in***   *o-Ø-nen-m-ihto-tia-ya*
          RED-young.goat-DIM DEF PST-S3-much-RR-dance-VBZR-IPFV
          Intended reading: *idem* (10a)

(11) a. *n-amech-on-tlapwi-s*   ***se***   *kwento*
         S1SG-PO2PL-HON-tell-IRR INDF tale
         'I'm going to tell you a story.' {Txt}

     b. **n-amech-on-tlapwi-s*   *kwento* ***se***
          S1SG-PO2PL-HON-tell-IRR tale   INDF
          Intended reading: *idem* (11a)

---

3 In Colonial Nahuatl, however, the definite determiner has a variable and discontinuous position with regard to the nominal (see Launey 1992).

Demonstratives (e.g., *nin* 'this'; *non* 'that.PROX'; and *neka* 'that.DISTAL') also occur before the nominal in TLAX-NAH.⁴ The case is illustrated by the demonstrative *non* 'that' in (12a) contrasted with the ungrammaticality of (12b).

(12) a. *de   Espanya **non** traje o-Ø-(k)-kwalik*
          from Spain   that suit PST-S3-PO3SG-bring.PFV
          'They brought that suit from Spain.' {Txt}

     b. **de   Espanya traje **non** o-Ø-(k)-kwalik*
          from Spain   suit that PST-S3-PO3SG-bring.PFV
          Intended reading: *idem* (12a)

Because both definite determiner and demonstratives occupy the same position, the construction is ungrammatical if they co-occur, like in (13).

(13) ***in   inin/ inin in   tlaka-tl   o-Ø-mik*
       DEF this   this DEF man-ABS PST-S3-die.PFV
       Intended reading: 'This man died.'

The second structural position is occupied by cardinal numbers. The numeral is placed after the determiner and before the nominal, this is shown by the numeral *yei* 'three' in (14).

(14) *ni-mo-kawa   i-nawa-k   **in** **yei** kone-tsi-tsin*
       S1SG-RR-leave.IPFV POSS3SG-side-LOC DEF three child-RED:PL-DIM
       'I'll take the three little kids.' {Txt}

In DPs containing an adjective, the numeral is placed before the adjective, as shown in (15).

(15) *o-ni-kim-ita-k   in   **ome weyi** tlaka-meh*
       PST-S1SG-PO3PL-see-PFV DEF two large man-PL
       'I saw the two big men.'

In TLAX-NAH, adjectives in their modifying function generally precede the noun, like in (16a), but there are also cases with postnominal adjectives, like (16b).

---

4 In other Nahuatl varieties, such as Chicontepec Nahuatl, Veracruz, the demonstrative has a variable and discontinuous order with respect to the nominal (see De la Cruz 2010).

(16) a. ... *Ø-kah*   *se*   ***nen-wei***   *oko-tl*
      s3-be.IPFV INDF much-big pine.tree-ABS
      'There's a very large ocote.' {Txt}

    b. *Ø-(k)-kwalika*   *se*   *mesa* ***cho-choko-tsin***
      s3-PO3SG-bring.IPFV INDF table RED-small-DIM
      'Bring a small table.' {Txt}

In short, determiners, demonstratives and numerals have a fixed position with respect to the nominal within the DP. Modifying adjectives present a variable order, but that property is not proof of non-configurationality. I do not take into account the syntactic category of quantifiers, because they can have a floating position even in languages that are configurational. In the next section, I show the elements that have a discontinuous word order in TLAX-NAH.

5.3.1.2   Variable and Discontinuous Order of Phrases in Tlax-Nah
I deal here with the variable and discontinuous order of the possessive phrase and the relational noun phrase.[5] This is to provide a context to understand the syntax of RCs in the relative constructions of this language. Examples in (17) illustrate this for the possessive phrase. In (17a), the possessed phrase *iropa* 'his clothes' appears before the possessor phrase *in bebe* 'the baby'. In contrast, in (17b), we have the inverse order, where the possessor phrase *oksé rey* 'another king' is followed by the possessed *n=i-chpoch* 'his daughter'.

(17) a. *mas*   *se*   *i-ropa*   *in*   *bebe*
      even.though INDF POSS3SG-clothes DEF baby
      'Even if it's a baby's clothes.' {Txt}

    b. *o-Ø-k-neki-a*   *Ø-mo-namik-ti-s*   *i-nawa-k*
      PST-s3-PO3SG-want-IPFV s3-RR-find-CAUS-IRR POSS3SG-side-LOC
      oksé   rey   n=i-chpoch
      other king DEF=POSS3SG-daughter
      'He wanted to marry another king's daughter.' {Txt}

The discontinuity of phrasal modifiers with respect to the nominal head is further evidence of the absence of structure in the DP. In discontinuous syntactic

---

5 Possessive phrases and relational noun phrases also displayed a variable and discontinuous order in Classical Nahuatl (see Steele 1976).

expressions, the nominal head appears in a non-adjacent position with respect to the phrasal modifier with which it forms a single constituent at a semantic level (Hale 1983). Example (18) illustrates the discontinuity between the possessor phrase and the possessed one.[6]

(18) *ye   y=o-Ø-k-motili-h*   *ye   n=i-mama*   *axan*
     FOC already=PST-S3-PO3SG-find-PFV FOC DEF=POSS3SG-mom now
     i-chpoch
     POSS3SG-daughter
     'He'd already met the one who's now the mother of his daughter.' {Txt}

In adpositional phrases, the relational noun and its complement can also appear in a variable order, like in (19), but also discontinuously, like in (20).

(19) a. *san   i-ka*   *non   ma=ni-bibiro*
        only POSS3SG-INSTR that EXH=S1SG-live
        'I live only with that one.' {Txt}

     b. *san   se   i-ka*   *t-on-bibiro-s*
        only one POSS3SG-INSTR S2SG-HON-live-IRR
        'You're going to live only with one (piece of land).' {Txt}

(20) *non   o-Ø-ki-pix*   *7*   *anios   i-nawa-k*
     that PST-S3-PO3SG-have.PFV seven years POSS3SG-side-LOC
     'He had seven years with (by the side of) that one.' {Txt}

In this section, I have shown that like in Panare as claimed by Payne (1993), not all aspects of the syntax of TLAX-NAH are non-configurational. Within the DP, determiners and numerals maintain a fixed position. Adjectives can have a variable order. Non-configurationality can be seen in the constituent order of possessive phrases and relational noun phrases. In the next section, I study the syntax of relative constructions in TLAX-NAH, with a special focus on what the literature has called adjoined RCs and RCs with an internal head.

---

6   Although the focus particle precedes the possessed, it cannot be argued that phrases in focus reflect any type of movement. But even if movement were to be accepted, the example still shows that the possessor and the possessed do not form a syntactic constituent.

5.4   Features of Relative Constructions

In this section, I will briefly describe the general features of relative construc-
tions in Tlax-Nah. I take a headed RC to be a syntactic construction consisting
of a domain noun plus a subordinate clause which modifies the domain noun
in such a way that the domain noun is involved in the situation expressed in
the RC (Andrews 2007: 208; Lehmann 2003: 1). The domain noun is then syn-
tactically embedded with a DP. I refer to that phrase as the 'domain DP'.

In Tlax-Nah, there are two general features that apply to all relative con-
structions: (i) the RC is always finite and (ii) two relativization strategies are
employed. The finiteness of RCs is related to the fact that Tlax-Nah does
not formally distinguish between finite and non-finite sentences in general,
because verbs are always inflected with person/number and TAM.

The second general feature to all relative constructions is relativization
strategies. A relativization strategy is the mechanism used to retrieve the refer-
ence and indicate the semantic-syntactic function of the relativized element
in the RC. Comrie and Kuteva (2005) propose two groups of strategies, one
of reduction and the other of non-reduction. In the reduction strategy, the
relativized element has three possible manifestations: non-realization (gap),
relative pronoun and resumptive pronoun. In the non-reduction strategy, the
relativized element is realized as a complete DP. In Tlax-Nah only the reduc-
tion strategy with a gap and the reduction strategy with a relative pronoun are
used. In the gap strategy, the relativized element is not realized, like in (21). I
have already shown that the order is flexible in the matrix clause and the same
happens in the RC, that is, the domain DP can occur before the subordinate
clause or after it, and for this reason I will not mark the position of the gap
within the RC.

(21) *o-ti-k-ita-ke*   *se*   oko-sen   [*den*
      PST-S1PL-PO3SG-see.PFV-PL   INDF   pine.tree-cone   SUB
      Ø-nen-wei]
      S3-much-big.IPFV
      'We saw a pine cone that was very big.' {Txt}

With the gap strategy, the RC can have an explicit subordinator, like in (21), or
no subordinator at all, like in (22).

(22) *Ø-katka*   *se*   tlaka-tsin-tli   [*Ø-i-toka*   *"Juan Loco"*]
      S3-be.IPFV   INDF   man-HON-ABS   S3-POSS3SG-name.IPFV   J.   crazy
      'There was a man called Crazy John.' {Txt}

With respect to the relative pronoun strategy, the relativized element is made reference to by a relative pronoun, which may indicate its semantic and syntactic function within the RC (Andrews 2007, Keenan 1985, Lehmann 2003). In example (23), the relative pronoun *kan* 'where' indicates that the relativized element is a locative adjunct. Theoretically, it is assumed that the relative pronoun has moved to the beginning of the RC and leaves a trace in the position where it originated (Andrews 2007, Downing 1978). Movement cannot be demonstrated for TLAX-NAH because pronouns, and phrases in general, do not have an underlying position from which they move.

(23) *ni-yah-ti-nemi*   *i-tech*   *inon-keh* kasas [*den* **kan**
     S1SG-go-LIG-AUX:walk POSS3SG-LOC:in those-PL houses SUB WHERE
     Ø-nech-pak-tia   *ni-tlacha-ti*]
     S3-PO1SG-be.happy-CAUS.IPFV S1SG-watch-AND.NON.PST
     'I go around in those houses where I like to have a look.' {Txt}

As for head types, there are three types of relative constructions in TLAX-NAH: nominal plus RC, like in (24); determiner plus RC, like in (25); and a headless relative clause, like in (26).

(24) Nominal plus RC
     wan ye *ni-kin-ita*   ***in*** **no-alma-tsi-tsin**   [*den*
     and FOC S1SG-PO3PL-see.IPFV DEF POSS1SG-child-RED:PL-DIM SUB
     eskwela Ø-ya-s-keh]
     school   S3-go-IRR-PL
     'And I see my little girls who go off to school.' {Txt}

(25) Determiner plus RC
     in   [*akin amo Ø-estudiaroa*] *amo Ø-k-mati*
     DEF WHO NEG S3-study.IPFV NEG S3-PO3SG-know.IPFV
     'He who does not study, does not know.' {Txt}

(26) Headless RC
     nikan Ø-kin-rekonoseroa-h   [*den a-wel*   *Ø-tlapiasoa-h*]
     here   S3-PO3PL-recognize.IPFV-PL SUB NEG-well S3-urinate.IPFV-PL
     'Here they recognize those who can't pee.' {Txt}

The type of relative construction in (25) has a correspondence to what happens within the DP in that the determiner always precedes the RC, just as it always occurs before the nominal in a DP. This construction is thus not useful for the

purposes of this chapter. Similarly, the study of headless RCs falls outside the interest of this study, because it lacks a domain DP and cannot be used to show non-configurationality (but see Flores Nájera, 2019, for more on this type). The only type of relative construction of interest to us here is the type in (24). In the next section, I show the details of the variable and discontinuous relationship between the domain DP and the RC in TLAX-NAH.

5.4.1   *The Variable and Discontinuous Order in Headed Relative Constructions*

In relative constructions, the domain DP can be located outside or inside the RC. When the head of the relative construction appears outside the RC there are two possibilities: the RC comes after the head, like in (27) or before it, like in (28).

(27) *in*   terreno [*den asta   Teknika*]   *Ø-no-axka*
     DEF terrain SUB up_to Technical.school s3-POSS1SG-ownership.IPFV
     'The ground that's up to the Technical school is mine.' {Txt}

(28) *amo ti-(k)-kwa-h*   [*den de kostik*] *in*   tlaol
     NEG s1PL-PO3SG-eat.IPFV-PL SUB ? yellow DEF corn
     'We don't eat the corn that's yellow.' {Txt}

In example (4), repeated here as (29), the domain DP *se padre* 'a father' is located within the RC (in section 5.6, I explain in detail the problem that arises when analyzing this example as an internal head).

(29) *o-ni-k-notsa-to*   [*Ø-i-toka*   *se*   padre
     PST-s1SG-PO3SG-call-AND.PST s3-POSS3SG-name.IPFV INDF father
     Guadalupe]
     G.
     'I went to call a father named Guadalupe.' {Txt}

In the relative construction, the domain DP can also be separated from the RC, like in (30) (in section 5.5, I review this type of relative construction in detail because its analysis poses a theoretical problem about how to differentiate between embedded and adjoined RCs).

(30) *se* i-nobio *o-Ø-k-ixmat* [*den*
INDF POSS3SG-boyfriend PST-S3-PO3SG-know.PFV SUB
Ø-ki-pia *dinero*]
S3-PO3SG-have.IPFV money
'She met a boyfriend who has money.' {Txt}

Within the same RC there are also elements that present a variable order. In TLAX-NAH, it is possible to find the subordinator and the relative pronoun in the RC. Among these elements there is a variable word order. In example (31a), the subordinate occurs in first position followed by the relative pronoun, but it is also possible to invert it, like in (31b).

(31) a. *yeka* *Ø-kah* *in* kasa [***den kan*** *oksé* *kasa*]
already S3-be.IPFV DEF house SUB WHERE another house
'There's the house where the other house is.' {Txt}

   b. *yeka* *Ø-kah* *in* kasa [***kan*** ***den*** *oksé* *kasa*]
already S3-be.IPFV DEF house WHERE SUB another house
idem (31a)

In the generative syntactic model, it is assumed that the position of the complementizer in a CP is fixed. This order corresponds to the fixed position of the determiner within an DP (Haegeman 1994). If there were a correspondence between the order of the subordinator and the determiner within a CP and a DP, it would be expected that the subordinator in TLAX-NAH occupied the first position in the RC. However, this is not what we see in (31b). One way to explain this would be to appeal to non-configurational syntax, but it may also have to do with the nature of the subordinator (from the Spanish preposition *de* 'of' plus the native definite determiner). This topic is certainly interesting and relevant for the study of relative constructions and warrants further research, but is unfortunately outside the scope of this chapter.

   Other elements that present a variable and discontinuous order are the relational noun and the relative pronoun. For the relativization of adjuncts, TLAX-NAH can use relative pronouns accompanied by relational nouns. Between these two elements there is also a relationship of variable order. In example (32a), the order is relative pronoun + relational noun, while in example (32b), the order is the inverted one.

(32) a. *y=o-Ø-wal-asi-ko*   *in*   koyo-tl   [***akin***
          already=PST-S3-DIR-arrive-VEN.PST DEF coyote-ABS WHO
          i-nawa-k   *ti-mo-mik-ti-s-keh*]
          POSS3SG-side-LOC S1PL-RR-die-CAUS-IRR-PL
          'The coyote with whom we're going to fight is here.' {Txt}

      b. *y=o-Ø-wal-asi-ko*   *in*   koyo-tl
          already=PST-S3-DIR-arrive-VEN.PST DEF coyote-ABS
          [***i-nawa-k***   ***akin*** *ti-mo-mik-ti-s-keh*]
          POSS3SG-side-LOC WHO S1PL-RR-die-CAUS-IRR-PL
          idem (32a)

In the literature, the movement of relative pronoun and the relational noun at the beginning of the RC is called pied-piping, more specifically 'pied-piping with inversion' if the order between the elements is the inverse of the one expected (Smith-Stark 1988). Given the lack of configurationality in the syntax of relational noun phrases, it is not possible to claim that (32b) is derived from (32a) in TLAX-NAH.

Besides, in RCs relative pronouns and relational nouns may be discontinuous. An example of this possibility is given in (33).

(33) *o-ni-k-tlamotla-k*   *in*   kwawi-tl [***tlen***
      PST-S1SG-PO3SG-throw-PFV DEF stick-ABS WHAT
      o-ni-mits-tsotson   *i-ka*]
      PST-S1SG-PO2SG-hit.PFV POSS3SG-INSTR
      'I threw the stick I hit you with.'

The phenomenon where the complement of an adposition moves to the beginning of the RC and the adposition stays in its place of origin is called 'adposition stranding' (Haegeman 1994, Hornstein and Weinberg 1981). It is difficult to assume this analysis for (33) in TLAX-NAH, because it implies movement. Bearing in mind the discontinuity between relational nouns and their complements like in example (20), examples like (33) can be readily explained as a property of the non-configurational syntax of relational noun phrases.

There is yet another possibility for the location of the relative pronoun and the relational noun in the RC. This is given in (34a), where both the relative pronoun and the relational noun occur at the end of the RC. The beginning of the RC is marked with the subordinator. In this situation, the inverse order of the elements is ungrammatical, as shown in (34b).

(34) a. *o-ni-k-tlamotla-k*   *in*   kwawi-tl [***den***
PST-S1SG-PO3SG-throw-PFV DEF stick-ABS SUB
o-ni-mits-tsotson   ***tlen***   ***i-ka***]
PST-S1SG-PO2SG-hit.PFV WHAT POSS3SG-INSTR
idem (33a)

b. **o-ni-k-tlamotla-k*   *in*   kwawi-tl [***den***
PST-S1SG-PO3SG-throw-PFV DEF stick-ABS SUB
o-ni-mits-tsotson   ***i-ka***   ***tlen***]
PST-S1SG-PO2SG-hit.PFV POSS3SG-INSTR WHAT
Intended reading: *idem* (33a)

In TLAX-NAH natural discourse as reflected in my texts, the tendency is for all pronouns or pronominal phrases to appear before the verb in the RC, but this order is not rigid, because there are also sentences in which the pronouns follow the verb. In the following sections, I introduce the analysis of the discontinuous RCs and RCs with an apparent internal head.

5.5   Embedded vs. Adjoined Relative Clauses

In this section, I review the problem of the subordinate status of adjoined RCs in TLAX-NAH. In RC theory, a distinction has been proposed between embedded or subordinate RCs (Andrews 1985) and adjoined RCs (Hale 1976). Embedded RCs form a complex DP together with their head, a typical example is (35) from Japanese, where the nominal head *saru* 'monkey' is adjacent to its RC.

JAPANESE
(35) [*Yamada-san ga   kat-te   i-ru*]   saru
Y.-Mr.   SUBJ keep-PRTCL be-PRS monkey
'The monkey that Mr. Yamada keeps.' (Andrews 2007: 208)

The most representative type of relative construction for embedded RCs is the externally-headed type.[7] In such relative constructions, the RC can be postnominal or pre-nominal and it forms a single constituent with its head. In

---

7 Andrews (2007: 208) classifies embedded RCs into three types: externally-headed, internally-headed and free relatives. Lehmann (1986: 3) considers only those with internal and external heads as embedded.

TLAX-NAH, the RC can appear after the domain DP or before it. Examples (1) and (2) showed this, which for convenience are repeated here as (36) and (37).

(36) *yeka*   *Ø-wits*   *se*   interprete [*den*
      already s3-come.IPFV INDF interpreter SUB
      Ø-ki-mach-tia   *nin*]
      s3-PO3SG-know-CAUS.IPFV this
      'An interpreter who teaches this is coming.' {Txt}

(37) [*den Ø-nen-chikawa-k*]   *in*   kiawi-tl *Ø-wits*
      SUB s3-much-strengthen-ADJZ.IPFV DEF rain-ABS s3-come.IPFV
      'Rain comes that is very heavy.' {Txt}

In terms of strategy, both post-nominal and pre-nominal RCs can occur with a gap, like in (36–37), or they may employ the relative pronoun strategy, like in (38).

(38) a. *xi-a*   *x-(k)-kawa-ti*   ompa *kwah-tlan*
         IMP-go IMP-PO3SG-leave-AND.NON.PST there tree-LOC:abundant
         [*kan*   *Ø-kah*   *se*   *nen-wei*   *oko-tl*]
         WHERE s3-be.IPFV INDF much-big pine.tree-ABS
         'Go and leave it there in the woods where there's a very large pine tree.' {Txt}

      b. *o-Ø-tlatla-k*   [*kan*   *o-ni-chan-tia*]   *in*
         PST-s3-burn-PFV WHERE PST-s1SG-house-VBZR.IPFV DEF
         kal-li
         house-ABS
         'The house I lived in burned down.'

Regarding frequency, in three hours of natural text I found 40 relative constructions where the domain DP and the RC occurred adjacent to each other. Of those 40 relative constructions, 39 are post-nominal (representing 97%) and only one is prenominal (representing 3%). These results indicate that while there is no basic position of the head and the RC, postnominal RCs are more frequent in texts. However, in elicitation contexts, postnominal and prenominal RCs are equally acceptable.

   The frequency results of postnominal and pre-nominal RCs are consistent with the frequencies of constituent order found in TLAX-NAH texts. The primary parameter for constituent order is pronominal phrases *vs.* DPs. The trend

indicates that pronominal phrases occur before the verb, while DPs regardless of their definiteness after the verb. In texts, there is a high frequency of DPs, therefore, making VO the most dominant word order. Exceptions to this principle are explained by various pragmatic factors such as information that is important, unexpected or new, which precedes the verb (see Flores Nájera 2019 for more details).

Dryer (2005) relates the location of the RC to the type of language. The author notes that pre-nominal RCs are almost exclusively found in OV languages, while postnominal RCs occur in VO languages. If TLAX-NAH has a dominant VO constituent order, it implies that the most frequent typological correlates in texts will be those in which the modifier follows the head (Dryer 1992, 1997). Therefore, it is expected that postnominal RCs will be more frequent than pre-nominal ones. This does not mean that the order is rigid or less marked, but that the order is flexible due to the type of phrase (pronominal phrases or DPs) and pragmatic factors. So the natural data from TLAX-NAH present embedded RCs of the type found in other languages. The RC is subordinate to the domain DP and they form a single constituent both at the syntactic and semantic level. The problem of subordination arises with adjoined RCs.

In the literature, adjoined RCs are also reported. In this type of construction, the RC does not form a constituent together with the domain DP (Andrews 2007: 214, Lehmann 2003: 2). A typical example is (39) from Warlpiri, where the nominal *wawiri* 'kangaroo' is the head of a discontinuous RC.

(39) WARLPIRI
   natjulu-lu kapina wawiri   *pura-mi,*   [*kutja-npa pantu-nu*
   I-ERG   AUX   kangaroo cook-NON.PST REL-AUX   arrow-PST
   njuntulu-lu]
   you-ERG
   'I'll cook the kangaroo that you've arrowed.' (Hale 1976: 79)

Similar to Warlpiri, in example (3) from TLAX-NAH, repeated here as (40), the RC which modifies the domain DP *in onwito* 'the little mushroom' is discontinuous with it, occurring at the right end of the sentence. In example (41), the discontinuous RC appears at the left end before its head.

(40) *¿kox   in*   onwito   *sirbe*   [*den o-ti-k-walika-keh*]*?*
   COND DEF mushroom serve.S3 SUB PST-S1PL-PO3SG-bring.PFV-PL
   'Does the little mushroom we brought with us work by any chance?'
   {Txt}

(41) [*den Ø-nen-chikawa-k*]   *Ø-wits*   *in*   kiawi-tl
SUB s3-much-strengthen-ADJZ.IPFV s3-come.IPFV DEF rain-ABS
'Rain comes that is very heavy.'

In terms of frequency, in three hours of natural texts, I found 45 relative constructions with the head outside the RC, 40 were contiguous RCs (representing 89%) and 5 were discontinuous (representing 11%). The problem that arises with examples like (40–41) is how to prove that the RC is subordinate to the domain DP. For Warlpiri, Hale (1976: 78) proposes that the adjoined RC is indeed subordinate, but its superficial position with respect to the domain DP is marginal and not embedded. The author assumes that RCs of this type appear in the same circumstantial position as other adjuncts. In addition, Jelinek (1984) proposes that in Warlpiri the verbal arguments are the pronominal clitics associated with the verb and that DPs are simply optional adjuncts without a fixed position that are co-indexed to one of the argument clitics. Because nominals are not arguments, it is to be expected that more than one nominal can be adjoined to a single argument resulting in apparent discontinuous expressions (Jelinek 1984: 49). Other authors also share this analytical perspective such as Mithun (1987) and Van Valin & La Polla (1997).

Taking this background into consideration, from the non-configurational evidence provided by flexible order and discontinuous expressions, I propose that in TLAX-NAH the domain DP and the RC do not form a single constituent at the syntactic level and because of this they can appear discontinuous at the surface level. I take the domain DP and the RC as extensions of the pronominal affixes and, since syntactically they do not form a single constituent, this allows for either a contiguous or a discontinuous realization in the matrix clause. This position has two implications. The first is that in TLAX-NAH there is no reason to make the distinction between embedded and adjoined RCs, but rather contiguous or discontinuous RCs from their domain DP. The second implication is that, although it is not possible to syntactically prove that the discontinuous RC forms a single constituent with the domain DP, both elements do form a unit at the semantic level, because in all examples given the RC restricts the reference of the nominal in the domain DP.

All this could be explained as exhibiting the syntactic-semantic disparity that exists in languages with non-configurational syntax, where the deep structure would not be mapped onto a contiguous surface structure. In this respect, at the typological level all languages which have been claimed to have non-configurational syntax also present discontinuous RCs of their domain DP: Hindi, Warlpiri, Panare, Tagalog, Papago, Cupeño, among others (Andrews 2007, Gildea 1989, Hale 1976, Jelinek 1984: 65).

5.6   Analysis of Relative Constructions with an Internal Head

In relative constructions with an internal head, the domain DP is expressed within the RC, while it has no realization in the matrix clause (Andrews 2007, Basilico 1996, Cole 1987, Culy 1990, among others).[8] The syntactic-semantic role of the domain DP comes from the subordinate verb, and not from the verb in the matrix clause (Comrie and Kuteva 2005). A clear example of an internally-headed RC is given in (42) from Ocotepec Zoque, a Mixe-Zoquean language from Mexico. This language has an ergative-absolutive alignment. When the domain DP occurs inside the RC, it takes the case required for the argument of the verb in the RC and not of the matrix verb. In example (42), the head *jo'nchi* 'bird' takes the ergative clitic, because it is the A of the transitive verb *yku'tu* 'eat', even though it functions as the S of the predicate of the matrix clause.

(42) [*te'* jo'nchi=*'is y-ku't-u=pi*   *te'*   *tim*] *Ø-kek-u*
       DET bird=ERG A3-eat-CP.I=REL DET fruit S3.I-fall-CP
       'The bird that ate the fruit fell down.' (Faarlund 2012: 163)

Similarly, the relative construction from Tlax-Nah in example (4) above, repeated here as (43), appears to be a case of a RC with an internal head.

(43) *o-ni-k-notsa-to*   [*Ø-i-toka*   *se*   padre
       PST-S1SG-PO3SG-call-AND.PST S3-POSS3SG-name.IPFV INDF father
       Guadalupe]
       G.
       'I went to call a father named Guadalupe.' {Txt}

However, because DPs do not receive case in TLAX-NAH, case marking cannot be used in this language to either prove or disprove the internal status of the domain DP within the RC. In this way, the analysis of examples like (43) can be approached from two perspectives. The first one would entail that TLAX-NAH indeed has relative constructions with internal heads. Under a second analysis, one could claim that the fact that the domain DP appears in the RC is just an effect of the non-configurational features of the syntax of RCs in this language.

---

8   In the studies on RCs, two common properties have been proposed for internally-headed RCs: the reference of the head nominal is indefinite and the RC tends to be a nominalized structure (Basilico 1996, Boyle 2016, Culy 1990, Williamson 1987). However, see Jiménez Jiménez (this volume) and Chamoreau (this volume) for San Miguel Chimalapa Zoque and Pesh, respectively, where neither of these two criteria hold.

I consider that the latter analysis is the most viable, mainly because it is theoretically coherent with the syntactic behavior we observe elsewhere in this language. But I will also present two important pieces of evidence in favor of it: one is the place where the domain DP is licensed; the other is the co-occurrence of the relative pronoun and the domain DP inside the RC.

Consider the place where the domain DP occurs inside the RC in example (44). First, it is clear that the domain DP *in ichpokaton* 'the girl' is located within the RC where it appears to be an extension of the verb *onimonamihtih* 'marry' and not of the matrix verb *omik* 'die'.

(44) *o-Ø-mik*   [*den i-nawa-k*   *in*   ichpoka-ton
      PST-S3-die.PFV SUB POSS3SG-side-LOC DEF girl-DERG
      o-ni-mo-namih-ti-h]
      PST-S1SG-RR-find-CAUS-PFV
      'The girl I married died.'

I have already shown that the relational noun and its complement do not form a single constituent at the syntactic level, because of the possibility of the variable and discontinuous order between them (see Section 5.3.1.2.) In example (20), repeated here as (45), I show that the complement *non* 'that one' is separated from the relational noun *inawak* 'with'.

(45) **non** *o-Ø-ki-pix*   *7*   *anios* **i-nawa-k**
      that PST-S3-PO3SG-have.PFV seven years POSS3SG-side-LOC
      'He had seven years with (by the side of) that one.' {Txt}

Consequently, in example (44) the relational noun *inawak* 'with' and the DP *in ichpokaton* 'the girl', despite being contiguous at surface level, cannot really be said to be part of the same constituent. In fact, the relational noun may appear in a sentence without having the explicit DP as its complement, like in example (46).

(46) *komo ye*   *ni-kim-pia*   *25*   *anios*
      as   already S1SG-PO3PL-have.IPFV twenty.five years
      i-nawa-k
      POSS3SG-side-LOC
      'Since I'm already 25 years with (him).' {Txt}

Therefore, in example (44) we cannot strictly determine whether the domain DP *in ichpokaton* 'the girl' originated as a complement to the relational noun

inawak 'with' within the RC or whether it originated as an extension of the matrix verb *omik* 'died'. In the first case, the domain DP would be an internal head, in the second, the head is located within the RC at surface level, but it is still licensed in the matrix sentence. To reinforce the latter analysis, compare example (44) with example (47), where the head occurs outside the RC without causing any morphosyntactic change in either sentence.

(47) *o-Ø-mik*   *in*   ichpoka-ton [*den i-nawa-k*
      PST-S3-die.PFV DEF girl-DERG   SUB POSS3SG-side-LOC
      o-ni-mo-namih-ti-h]
      PST-S1SG-RR-find-CAUS-PFV
      'The girl I married died.'

The second piece of evidence in favor of a non-configurational analysis of examples like (44) is the co-occurrence of a relative pronoun and domain DP within the RC, as illustrated in (48), where we find both the relative pronoun *kan* 'where' and the domain DP *in kali* 'the house' within the RC.

(48) *Ø-wetsi-s* [***kan***   *in*   kal-li   *ti-chan-ti*]
      S3-fall-IRR WHERE DEF house-ABS S2SG-house-VBZR.IPFV
      'The house you live in will fall down.'

A structure like (48) is not the expected one according to our understanding of relativization strategies, where the relative pronoun would stand for the head inside the RC, but by no means co-occur with it. Given the presence of the locative relative pronoun in the RC in (48), the domain DP *in kalli* 'the house' can neither have nor indicate any function within the RC. In fact, the domain DP can be elided in (48), and the structure remains grammatical, like in (49a). However, one cannot change the relativization strategy to one with a gap, as in the ungrammatical example of (49b), because the relative pronoun strategy is obligatory to relativize a head that functions as a location within the RC.

(49) a. *Ø-wetsi-s* [***kan***   *ti-chan-ti*]
         S3-fall-IRR WHERE S2SG-house-VBZR.IPFV
         'It'll fall down where you live.'

      b. **Ø-wetsi-s* [***den in***   kal-li   *ti-chan-ti*]
         S3-fall-IRR SUB DEF house-ABS S2SG-house-VBZR.IPFV
         Intended reading: 'The house you live in will fall down.'

In addition, the locative relative pronoun *kan* 'where' in (48) and the wh-word *kanin* 'where' in (50) stand for an adverbial phrase, like in (51a), a locative DP, like in (51b) or a phrase with a locative relational noun, like in (51c). This means that they replace not only the relational noun, but the whole locative phrase; therefore, within the RC *kan* 'where' and *in kalli* 'the house' in (48) are two independent realizations of the same phrase.

(50) **kanin**   *o-t-on-tlaka-t?*
WHERE PST-S2SG-HON-man-VBZR.PFV
'Where were you born?' {Txt}

(51) a. *o-ni-tlaka-t*   **nikan**
PST-S1SG-man-VBZR.PFV here
'I was born here.' {Txt}

b. *o-ni-tlaka-t*   **i-chan**   **in**   **no-mama**
PST-S1SG-man-VBZR.PFV POSS3SG-house DEF POSS1SG-mom
'I was born in my mom's house.' {Txt}

c. *o-ni-tlaka-t*   **i-tech**   **in**   **kwah-tlan**
PST-S1SG-man-VBZR.PFV POSS3SG-LOC:in DEF tree-LOC:abundant
'I was born in the countryside.' {Txt}

In contrast, an example like (52) is grammatical, because in the matrix verb *wetsis* 'it will fall' the domain DP *in kalli* 'the house' is an extension of the third person subject marked in the verb.

(52) *Ø-wetsi-s* *in* kal-li [*kan* *ti-chan-ti*]
S3-fall-IRR DEF house-ABS WHERE S2SG-house-VBZR.IPFV
'The house you live in will fall down.'

In summary, instances of RCs in TLAX-NAH that look like internally-headed RCs in reality can be explained as discontinuous surface realizations of the domain DP within the matrix clause, which are possible by virtue of the non-configurational syntactic properties of RCs in this language. In the next section, I show that an analysis based on non-configurationality can also explain some puzzling data involving RCs as reported in other Nahuan varieties.

TABLE 5.2   Linguistic classification of the Nahuatl group

		Pochutec	
Nahuatl	Nahuatl	Western periphery	Western coast State of Mexico Durango-Nayarit
		Central	**Nuclear sub-area** **Puebla-Tlaxcala** Xochitepec-Huatlatlahuaca Southeast of Puebla Central Guerrero South Guerrero
		Huastecan	Puebla Highlands Isthmus Pipil
		Eastern periphery	

5.7   The Phenomenon of Configurationality in Other Nahuan Varieties

In this section, I propose that the analysis of RCs in Tlax-Nah based on non-configurational syntax can be extended to the analysis of similar constructions in other Nahuan varieties. To show this, I use relevant examples from Colonial Nahuatl, Morelos Nahuatl and Chicontepec Nahuatl from Veracruz. Such varieties correspond to the areas in bold in the classification of the Nahuatl group from Lastra & Suárez (1986) in Table 5.2.

Discontinuous RCs have been reported in Colonial Nahuatl and Chicontepec Nahuatl, as illustrated in the examples in (53) and (54), respectively. Note that in the Colonial Nahuatl example in (53), in addition to the domain DP *in tlaallan* 'land' being separated from the RC, the quantifier *miek* 'many' is also separated from its head *kalli* 'house'.[9]

---

9   Orthography and glosses in the examples have been adapted to make them coherent with the convention I adopt.

Colonial Nahuatl

(53) *miek in* tlaal-lan *Ø-ikak kal-li* [*in onkaan*
many DEF land-LOC s3-lie.IPFV house-ABS SUB WHERE
Ø-tla-tla-toka-tia-ʔ-keʔ *in yeʔwaantin Tolteka*]
s3-RED-PO.INDF-bury-CAUS-PFV-PL DEF 3PL_PRO Tolteca
'Many houses stood in the land, where the Toltecs left many things buried.'
(Langacker 1975: 57)

Chicontepec Nahuatl

(54) **kawa:yo** *Ø-koch-tok* [*tle:n Ø-chi-chi:l-tik i-kwitlapan*]
horse   s3-sleep-ST SUB s3-RED-red-ADJZ POSS3SG-back
'The horse whose back is red is asleep.' (De la Cruz 2010: 84)

In his analysis of the phenomenon, De la Cruz (2010) claims that Chicontepec Nahuatl has RCs with internal heads. However, the author presents examples of locative adjunct relativization, like the one in (55), where both the relative pronoun *ka:mpa* 'where' and the head noun *kali* 'house' occur in the RC. This is a similar structure to the one I have discussed for Tlax-Nah and I believe that the analysis that best explains the co-occurrence in (55) is one based on non-configurationality.[10]

Chicontepec Nahuatl

(55) [*tle:n* **ka:mpa** *kal-i ni-tla:ka-t-ki*]   *kokwetsin Ø-eli-ya:ya*
SUB   WHERE house-ABS s1SG-man-VBZR-PFV small   s3-be-IPFV
'The house where I was born was small.' (De la Cruz 2010: 95)

In Morelos Nahuatl, Tuggy (1979) records the example in (56), where the nominal *kwawitl* 'tree' is located within the RC, after the subordinate and separated from its modifier *nochi* 'all'.

Morelos Nahuatl

(56) *nochi* [*tlin* kwaw-itl *Ø-ki-wika* [*tlin kwali*] i-fruto]
every SUB tree-ABS s3-POSS3SG-bear SUB be.good POSS3SG-fruit
'Every tree that bears fruit that is good.' (Tuggy 1979: 127)

---

10   Note as well the preverbal position of the RC, which suggests the existence of similar word order issues in this variety of Nahuatl.

Morelos Nahuatl can also present a variable order between relational noun and subordinator or relative pronoun. In example (57a), the relational noun *ika* 'with' precedes the subordinator *tlin*. In (57b), the relational noun *ipa* 'in' occurs after the relative pronoun *aki* 'who'.

MORELOS NAHUATL

(57) a. *i-no*   kwaw-itl [*i-ka*   *tlin* Ø-ki-maka-to-ya*]
          DEM-DIST sick-ABS POSS3SG-INSTR SUB S3-PO3SG-give-DUR-IPFV
          'The stick I was hitting him with.'

      b. *i-no*   tlaka-tl [*aki* *i-pa*   *i-cha*
          DEM-DIST man-ABS WHO POSS3SG-LOC POSS3SG-house
          ti-yeh-yeyi]
          S1PL-RED-be.IPFV
          'The man who in his house we were.' (Tuggy 1979: 125)

With the data from Colonial Nahuatl, Morelos Nahuatl and Chicontepec Nahuatl, three points can be formulated. First, the analysis that best explains the discontinuity between the elements that make up the syntactic phrases in question is that of non-configurationality that I have proposed for TLAX-NAH. Second, it is not possible to say that this phenomenon is proper of Central Nahuatl varieties, because it is also found in Huastecan Nahuatl. And third, the phenomenon cannot be said to be a new development, because it is also found in Colonial Nahuatl. This feature would have to be explored in other Nahuatl languages to corroborate the hypotheses raised here.

5.8   Conclusion

In this chapter, I have shown that the syntax of TLAX-NAH relative constructions has non-configurational features. Non-configurationality implies that there is a certain degree of syntactic-semantic disparity between the lexical structure and phrasal structure because one is not directly mapped onto the other. Because of this, I have proposed that the domain DP and the RC do not form a constituent syntactically, allowing the head to be located anywhere in the relative construction or the matrix clause. My approach has at least two theoretical-analytical implications that have an impact, not only at the level of what has been described for Nahuatl, but also at a more typological level.

The first implication is that in TLAX-NAH the proposed distinction between embedded and adjoined RCs does not apply, because in any case the elements

form a single constituent in syntactic terms, so it is better to treat them as contiguous or discontinuous RCs with respect to the domain DP. The second implication is that the non-configurational syntax of the language explains that although the domain DP is located inside the RC it does not represent a non-reduction relativization strategy, but rather the domain DP can be located anywhere in the RC.

This proposal opens a research question for the syntax of other Nahuan languages to verify if there are discontinuous elements in such varieties and whether the phenomenon can be equally accounted for in terms of a theory of non-configurationality.

Acknowledgements

Bibliography

Andrews, Avery D. 1985. *Studies in the Syntax of Relative and Comparative Clauses*. New York: Garland Press.

Andrews, Avery D. 2007. Relative clauses. In Timothy Shopen (ed.), *Language Typology and Syntactic Description, vol. 2: Complex Constructions*, 206–236. Cambridge: Cambridge University Press.

Basilico, David. 1996. Head position and internally head relative clauses, *Language* 72: 498–532.

Boyle, John P. 2016. The syntax and semantics of internally headed relative clauses in Hidatsa. In Catherine Rudin Bryan J. Gordon (eds.), *Advances in the study of Siouan languages and linguistics*, 255–287. Berlin: Language Science Press.

Comrie, Bernard and Tania Kuteva. 2005. Relativization strategies. In Martin Haspelmath, Matthew Dryer, David Gil and Bernard Comrie (eds.), *Word Atlas of Language Structures*, 494–497. Oxford: Oxford University Press.

Cole, Peter. 1987. The structure of internally headed relative clauses, *Natural Language & Linguistic Theory* 5: 277–302.

Culy, Christopher. 1990. The syntax and semantics of internally headed relative clauses. PhD Dissertation. Stanford: Stanford University.

De la Cruz Cruz, Victoriano. 2010. Las oraciones relativas en el náhuatl de Teposteco, Chicontepec, Veracruz. MA Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Downing, Bruce. 1978. Some universals of relative clause structure. In Greenberg, Joseph H. (ed.), *Universals of Human Language*, vol. 4, *Syntax*, 375–418. Stanford: Stanford University Press.

Dryer, Matthew S. 1992. The Greenberiang word order correlations, *Language* 68: 81–138.

Dryer, Matthew S. 1997. On the six-way word order typology, *Studies in Language* 21: 69–103.

Dryer, Matthew S. 2005. Relationship between the order of object and verb and the order of relative clause and noun. In Martin Haspelmath, Matthew Dryer, David Gil and Bernard Comrie (eds.), *Word Atlas of Language Structures*, 390–393. Oxford: Oxford University Press.

Faarlund, Jan Terje. 2012. *A grammar of Chiapas Zoque*. Oxford: Oxford University Press.

Flores Nájera, Lucero. 2019. La gramática de la cláusula simple en el náhuatl de Tlaxcala. PhD Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Gildea, Spike. 1989. Simple and relative clauses in Panare. MA Thesis. University of Oregon.

Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph Greenberg (ed.), *Universals of Language*, 73–113. London: MIT Press.

Haegeman, Liliane. 1994. *Introduction to Government and Binding Theory*. Massachusetts: Blackwell Publishers.

Hale, Ken L. 1976. The adjoined relative clause in Australia. In R.M.W. Dixon (ed.), *Grammatical Categories in Australian Languages*, 78–105. Canberra: Australian Institute of Aboriginal Studies.

Hale, Ken L. 1982. Preliminary Remarks on Configurationality, *Proceedings of the North Eastern Linguistic Society* 12: 86–96.

Hale, Ken L. 1983. Warlpiri and the Grammar of Non-Configurational Languages, *Natural Language and Linguistic Theory* 1: 5–47.

Hawkins, John. 1983. *Word order universals*. New York: Academic Press.

Hornstein, Norbert and Amy Weinberg. 1981. Case theory and preposition stranding, *Linguistic Inquiry* 12: 55–92.

Jelinek, Eloise. 1984. Empty categories, case, and configurationality, *Natural Language and Linguistic Theory* 2: 39–76.

Jiménez Jiménez, Silviano. 2014. Esbozo gramatical y oraciones de relativo en el zoque de San Miguel Chimalapa. MA Thesis in Indoamerican Linguistics. CIESAS, Mexico.

Keenan, Edward L. 1985. Relative Clauses. In Timothy Shopen (ed.), *Language Typology and Syntactic Description*, vol. 2: *Complex Constructions*, 141–170. Cambridge: Cambridge University Press.

Langacker, Ronald. 1975. Relative Clauses in Classical Nahuatl, *International Journal of American Linguistics* 41: 46–68.

Lastra, Yolanda and Jorge Suárez. 1986. *Las áreas dialectales del náhuatl moderno*. Mexico City: UNAM.

Launey, Michel. 1992. *Introducción a la lengua y a la literatura náhuatl*. Mexico City: UNAM.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–680.

Lehmann, Christian. 2003. Relative clauses. In Frawley, William J. (ed.), *International Encyclopedia of Linguistics*, vol. 3, 460–463. Oxford: Oxford University Press.

Mithun, Marianne. 1987. Is basic word order universal? In Russell Tomlin (ed.), *Coherence and Grounding in Discourse*, 281–328. Amsterdam: John Benjamins.

Nichols, Johanna. 1986. Head-marking and dependent-marking grammar, *Language* 62: 56–119.

Payne, Doris L. 1993. Nonconfigurationality and discontinuous expressions in Panare. *Proceedings of the Nineteenth Annual Meeting of the Berkeley Linguistics Society: Special Session on Syntactic Issues in Native American Languages*, 121–138.

Smith-Stark, Thomas. 1988. Pied-piping con inversión en preguntas parciales en lenguas de Mesoamérica. MS

Steele, Susan M. 1976. A law of order: word order change in Classical Aztec, *International Journal of American Linguistics* 42: 31–45.

Tuggy, David H. 1979. Tetelcingo Nahuatl. In Ronald Langacker (ed.), *Studies in Uto-Aztecan grammar*, vol. 2, *Modern Aztec grammatical sketches*, 1–140. Arlington: University of Texas.

Van Valin, Robert and Randy La Polla. 1977. *Syntax: Structure, meaning, and function*. Cambridge: Cambridge University Press.

Williamson, Janis Shirley. 1987. An indefiniteness restriction for relative clauses in Lakhota. In Eric Reuland and Alice ter Meulen (eds.), *The representation of (in)definiteness*, 168–190. Cambridge, MA: MIT Press.

CHAPTER 6

Information Structure and the Syntax of Zenzontepec Chatino Relative Clauses

Eric W. Campbell

6.1   Introduction

The typological literature on the syntax of relative clauses has focused on several aspects of their structure: (i) cross-linguistic variation in noun phrase accessibility (Keenan & Comrie 1977)—that is, which syntactic functions a relativized nominal may have within a relative clause; (ii) the degree of nominalization of relative clauses and how that correlates with NP accessibility and the structural relationship between the head and the relative clause (Lehmann 1986); (iii) the degree of encoding of the head or its syntactic function within the relative clause—from none (gap strategy), to relative pronoun, to full pronoun, to non-reduced noun (Comrie 1989: 148); and (iv) differences in whether relative clauses are headed, headless (Riemsdijk 2006), or light-headed (Citko 2004), and even if headedness may be a cline not easily separable into two or three discrete categories (Epps 2012). Givón (2001: 175–178) notes that the function of relative clauses is to furnish "anaphoric or cataphoric clues for referent identification," and along these lines another body of literature has focused on the central role of information structure and discourse in the use and syntax of relative clauses (Kuno 1976; Sankoff & Brown 1976; Bresnan & Mchombo 1987; Fox & Thompson 1990), and how different information structural conditions grammaticalize into different types of relative constructions (Lehmann 2008).

   This chapter investigates the syntactic and information structural aspects of relative constructions in Zenzontepec Chatino (ISO 639-3: czn), a Zapotecan language of southern Mexico. It is the first in-depth study of relativization in a Chatino language, which has otherwise only been discussed briefly for the quite distinct Yaitepec Chatino variety (Rasch 2002: 283). One goal of the chapter is to provide a typologically situated description of the many and nuanced types of relative constructions in the language, which fall along clines of headedness and the degree of encoding of the head's function in the relative clause, and a second goal is to explore the role that information structure plays in leading speakers to choose one structure over another in particular discourse contexts.

A basic headed relative construction in the language is shown in (1): the head is external; the relative clause is postnominal and is introduced by the subordinator *nu*; and neither the head nor its role have any overt expression within the relative clause.[1]

(1) *nkw-ísū=ū*ʔ *j-nā*   kwetā.kyaʔāʔ [*nu nk-yaq*]
    PFV-pay=3PL DAT-DEF Mixtec   SUB PFV-come_back[3]
    'They paid the Mixtec who came.' {Txt}

The relative construction in (2) displays a similar structure, but the relative pronoun *xī* indicates that the head's function is a locative in the relative clause.

(2) *kw-etzāʔ*   *jiʔī̧ nyatȩ̄* kitzȩ̄ [*xī*   *tākā*]
    IMP-inform DAT person village LOC.REL.PRO exist.2SG
    'Inform the people in the village *where you live*.' {Txt}

The relative construction in (3) differs from the previous two in that it is asyndetic, having no subordinator or relative pronoun, and the relative clause is simply juxtaposed with the head.

(3) *nk-ā+tāká*   *tzaka* nyatȩ̄ [*ʔne   jnyá*]
    PFV-be+exist one   person HAB.do[3] work
    'There was a person *that worked*.' {Txt}

In both (4) and (5) the locative relative pronoun is again present because the heads are locatives in their respective relative clauses. However, in (4) the relative construction has no nominal head but instead the quantifier *tatīyá* 'all' functions as a light head, while in (5) there is no head at all.

(4) *nch-uʔwe   tī   ítā* tatīyá [*xī   nte-tyūkwá   ítā*]
    PRG-dry_up TPLZ water all   LOC.REL.PRO PRG-come_out water
    'The water is drying up everywhere *that water comes out*.' {Txt}

(5) *tz-aa=ā̧ʔ*   [*xī   tāká patrō̧ jy-ā́ʔ*]
    POT-go=1SG LOC.REL.PRO exist boss GEN-1SG
    'I am going to *where my boss lives*.' {Txt}

---

1   The orthography used here differs from the IPA as follows: *kw* = [kʷ], *tz* = [ts], *r* = [ɾ], *ty* = [tʲ],
    ly = [lʲ], *ny* = [nʲ], *ch* = [tʃ], *x* = [ʃ], *y* = [j], *j* = [h], V̧ = nasal vowel, VV = long vowel, V̄ = mid
    tone, V́ = high tone, '+' = compound boundary.

196 [Palancar] 007-Ch6-Campbell-proof-03 [version 20210820 date 20210820 11:13] page 196

Finally, consider (6), which likewise has no external head, but in this case the relative pronoun *chu* occurs following the subordinator *nu* within the relative clause, indicating that the relativized nominal is human and subject in the relative clause.

(6)   *nka-sāʔą́=sanā=kāʔá=jų̄ʔ*   [*nu **chu**   k-a   chulyāʔ.jnyá*]
       PFV-mark=deeply=also=3PL SUB HUM.REL.PRO POT-be authority
       'They also signal *who will become authorities.*' {Txt}

Information structural factors appear to influence the different forms exemplified in the preceding relative constructions, particularly specificity and topicality. While there are many types and definitions of "specificity" (von Heusinger 2002), for the purposes of this chapter an NP is considered SPECIFIC if it is referential, known by the speaker, and its existence is presupposed. Specificity is independent of definiteness. In English, a specific indefinite NP can often be paraphrased by "*a certain N*", while a non-specific indefinite cannot. The two English examples in (7) contrast specific (a) and non-specific (b) uses of the indefinite NP *a book*.

(7)   English specific vs. non-specific indefinites:
       a. Specific: *I was looking for A BOOK, and I found it*
                          I was looking for A CERTAIN BOOK, and I found it
       b. Non-specific: *I was looking for A BOOK, and I found one*
                          #I was looking for A CERTAIN BOOK, and I found one#

A TOPIC is the thing which a proposition is about (Lambrecht 1994: 118), and thus a proposition may have more than one topic (Dalrymple & Nikolaeva 2011: 48, 54). Consider the exchange in (8). The response is about both John and Rosa, who are both topical and represented by unaccented pronouns, while the new information, or the focus, is the location *in the kitchen*.

(8)   English primary and secondary topics (Dalrymple & Nikolaeva 2011: 56)
       a. *Where did John kiss Rosa?*
       b. *HE kissed HER in the kitchen*

In Zenzontepec Chatino, if a relativized nominal is specific, it is unlikely that any of its features or its syntactic function will be coded in the relative clause. If it is specific and also non-topical in the discourse, the subordinator may be omitted. The resulting asyndesis may iconically reflect the closer association of the relative clause to the head and its importance for establishing reference

and probable persistence in the subsequent discourse (Givón 1983: 25). On the other hand, if the relativized nominal is both non-specific and non-topical, then constructions further toward the headless end of the headedness cline are preferred. As lighter headedness begins to limit reference resolution or interpretability, the human relative pronoun *chu* is more likely to appear in order to assist with establishing reference if the head is human. While these different information structural conditions show some correlation with the nuanced variation in the syntax of Zenzontepec Chatino relative constructions, the patterns are not without exception. Like the information structure they reflect, they are fluid, and slight variations on them do not yield ungrammatical expressions. Nevertheless, the nuanced syntax of Zenzontepec Chatino relatives cannot be accounted for without closely considering their discourse context.

Some basic information about the data used in this study and the basic morphosyntax of Zenzontepec Chatino are presented in Section 6.2. Headed relative constructions are described in Section 6.3, and NP accessibility in Section 6.4. Light-headed relative clauses are discussed in Section 6.5, and headless relative clauses in Section 6.6. Conclusions are provided in Section 6.7.

6.2   The Language and the Data

Zenzontepec Chatino is an indigenous language of southwestern Oaxaca State, Mexico. An estimated 8,000 people speak the language (Campbell 2014), but it is undergoing a loss of vitality due to shift to Spanish. There are several Chatino languages, which together with Zapotec make up the Zapotecan language group (Mechling 2012; Boas 1913; Campbell 2013a), which in turn is one of the major subgroups of the expansive and highly diversified Oto-Manguean language family of central Mesoamerica (Rensch 1976; Suárez 1986; Kaufman 2016). This section includes a brief note about the data presented in this chapter (Section 6.2.1), a sketch of the basic syntax of Zenzontepec Chatino (Section 6.2.2), and a detailed look at grammatical relations (Section 6.2.3), all of which are crucial for understanding relative constructions in the language.

6.2.1   *The Data*
The data presented here are drawn from a corpus of roughly 19 hours of recorded, transcribed, and translated discourse of various genres, spoken by a few dozen community members from 2007–2013.[2] Linguistic examples are presented in three or four lines with interlinearized morphemic glossing.

---

2   Documentation of Zenzontepec Chatino Language and Culture. *The Endangered Languages Archive*. London: SOAS. https://www.elararchive.org/dk0185

6.2.2   *Basic Syntax*

Zenzontepec Chatino syntax prefers head-initial structures: basic constituent order in intransitive clauses is vs, like in (9). Note that adjectives in attributive function follow the nouns they modify.

(9)   [*nku-tiyaą*]$_V$ [*tzaka torō*$_N$ *jlyū*$_{ADJ}$]$_S$
      PFV-arrive_here one   bull   large
      'A large bull arrived (here).' {Txt}

As head of its clause, an adjective in predicative function precedes its nominal argument (10).[3]

(10) *jlyū*   *júų̄*
      large.SG rope
      'The rope was large.' {Txt}

Quantifiers (11) and numerals (12) precede nouns within the noun phrase. If the clause has no other predicate, then the quantifier or numeral functions as the predicate (13).

(11) *n-tūkwá=ū?*   *titǭ*   *majlyā*
      HAB-CAUS.be_put_in=3PL several almud
      'They plant several *almuds*[4] (of corn).' {Txt}

(12) *nt-u-tūkwá=ya*   *túkwa majlyā ntzukwā?*
      HAB-CAUS-be_put_in=1EXCL two   almud   corn
      'We would plant two *almuds* of corn.' {Txt}

(13) *túkwa kwaa kūná?a*
      two   1EXCL female
      'We females are two.' {Txt}

---

3 The language has no morphological tense. The past tense of the translation is inferred from the discourse context.

4 The term "almud" is of Arabic origin, where it was a dry measure of about 8 liters. Here it refers to a dry measure of about four kilograms. Interestingly, the Chatino word *majlyā* is a borrowing from Spanish *maquila*, another measure term of Arabic origin, which referred to a variable quantity of grain that was the price charged for a grinding service.

Some nouns are inalienably possessed, and others are alienably possessed. In the inalienable construction the possessor NP immediately follows its possessum, like in (14).

(14) *nch-aa tī* [*nyáʔa*]_POSSESSUM [*na jneʔe luwe=Vʔ*]_POSSESSOR
PRG-go TPLZ mother   DEF scorpion small.PL=ANA
'The mother of the small scorpions went away.' {Txt}

The possessor NP in (14) illustrates two other facts about Zenzontepec Chatino NP syntax: (i) articles precede nouns; and (ii) demonstratives occur at the end of the NP.

In the alienable possession construction, the possessor again follows the head noun, but it is obligatorily preceded by the genitive marker *jiʔį̄* (15).

(15) *wī tzoʔō nti-ka+kiyāʔ na* [*lúkwī=Vʔ*]_POSSESSUM *jiʔį̄* [*=ya*]_POSSESSOR
and good HAB-be+market DEF mezcal=ANA   GEN =1EXCL
wiʔ
there
'And our (excl.) mezcal sells well there' {Txt}

Example (15) also illustrates that if the possessum in an alienable possession construction occurs with a demonstrative, the genitive marker and possessor follow that demonstrative, so the alienable possessor is external to the head NP.

The basic NP syntax just outlined is summarized in (16). Note that relative clauses occupy a postnominal position immediately following the attributive adjective (see e.g. (53)).

(16) NP syntax: [Art Q/Num **N** Adj **Rel** Dem]_NP

Basic constituent order in transitive clauses is VAO (17). Objects of monotransitive constructions are preceded by another marker with the form *jiʔį̄*, but only if they are topical (18); thus the language has differential object marking (Dalrymple & Nikolaeva 2011; Campbell 2015). The same marker obligatorily flags recipients and other dative NPs (see Section 6.2.3).

(17) *lēʔ* [*nkay-ukwā=kāʔá*]_V [*na nkwítzą=Vʔ*]_A [*jii*]_O
then PFV-grab=also   DEF child=ANA   ash
'Then the child also grabbed some ash.' {Txt}

(18) [*nka-s-atī?*]$_V$ *tī*   [*ni? kū?wí=V?*]$_A$ ***ji?į̄*** [*nā late?*
     PFV.CAUS-TRNZ-untie TPLZ 3RSP drunk=ANA OBJ DEF cloth
     chaja=V?]$_O$
     tortilla=ANA
     'The drunk untied the tortilla cloth.' {Txt}

Information structure is richly expressed in Zenzontepec Chatino morphosyntax, even beyond differential object marking. In (18) the O argument occurs with the definite article and a discourse-anaphoric demonstrative enclitic, and the A argument is preceded by the topicalizer particle *tī* and it hosts the same enclitic. All of this rich apparatus is determined by discourse—and not mere intraclausal syntax—and as we shall see (Section 6.3.4; Section 6.6.5), information structure plays an important role in relative clause syntax as well.

Constituent order is flexible and may be manipulated for pragmatic purposes. Example (19) shows OVA order in a predicate focus construction with the subject as anti-topic.

(19) [*nkuti chojo*]$_O$ [*nch-ujwi?*]$_V$ *tī*   [*kwaa*]$_A$
     seed   squash PRG-sell   TPLZ 1EXCL
     'We were selling squash seeds.' {Txt}

Example (20) shows AVO order in a sentence focus construction (Lambrecht & Polinsky 1998). If the A argument is preverbal and is 1st or 2nd person, a co-referential pronoun must follow the verb, as seen in (20).

(20) [***nāá?***]$_A$ [*nka-su?ū=ą̄?*]$_V$ [*nkwítzą*]$_O$ *nteē*
     1SG$_{PRO}$ PFV-teach=1SG child   here
     'I taught the children here.' {Txt}

The main clause in (21) displays AOV constituent order, and its O argument is a complement clause with OV order and a dative beneficiary following the verb.

(21) [*na nkwítzą ntē   jy-ą́?*]$_A$ [*lúkwī tzo?ō k-ājá   j-ų́?*]$_O$
     DEF child   PROX GEN-1SG mezcal good POT-get[3] DAT-3PL
     [*nt-ii=ū?*]$_V$
     HAB-want=3PL
     'These kids of mine want to get some good mezcal for themselves.' {Txt}

Zenzontepec Chatino displays prolific zero anaphora with 3rd person participants whose reference is recoverable from context. In (22) there are three semantically transitive verbs, but only one overt NP in the entire example.

(22) *nch-áʔnā*   *nte-xūʔú*   **soǫ yaka.** *nte-tyúwe*   Ø
       PRG-clear_field[3] PRG-cut[3] base tree   PRG-chop.up[3] (3PRO)
       '(He) was clearing (the field) and (he) was cutting down trees. (He) was chopping (them) up.' {Txt}

Each verb in (22) has the same highly topical and omitted 3rd person referent in A function: a farmer working in a field. The first verb has an implied object (a planting field). The second verb's NP in O function is overt: it is indefinite and first mentioned here. The third verb has the same O as the second (the trees), but it is omitted because it is recoverable from the context. If it were going to remain topical in the following discourse, then its pronoun would still be omitted, but the topical object marker *jiʔį̄* would likely be present after the verb.

An example of such a stranded *jiʔį̄* is illustrated in the passage in (23), in which the object (old clothes) introduced in (a) is omitted but still flagged in (b), and the locative NP (an old basket) introduced in (b) is the omitted but flagged object in (c).

(23) a. *nkwī-sóʔ*   *na* *nkwítzǫ=Vʔ tatīyá sateʔ*   *kusǭ*
         PFV-gather DEF child=ANA   all   clothes old[3]
         'The child gathered all of (his) old clothes.'

     b. *nka-tūkwá* **jiʔį̄**   *nanēʔ* *tzaka* *kichuwī kusǭ*
         PFV-put[3] OBJ[3] inside INDEF basket   old
         '(He) put (the clothes) inside of an old basket.'

     c. *lēʔ*   *nka-tótzā+tzǫʔ*   **jiʔį̄**
         then PFV-put_in_turn+back[3] OBJ[3]
         'Then, in turn (he) put it (the basket) on his back.' {Txt}

6.2.3 *Grammatical Relations*

Since the NP accessibility hierarchy (Keenan & Comrie 1977) is a key part of relative clause typology and it makes reference to syntactic functions like Subject, Direct Object, Oblique, etc., it is important to lay out the correlates of these in Zenzontepec Chatino before moving on to the discussion of relativization. NP accessibility in Zenzontepec Chatino is taken up later in Section 6.4.

As mentioned above, *jiʔĮ̄* precedes topical O arguments, and O arguments never encliticize to verbs. S and A arguments are never flagged by *jiʔĮ̄*, and they may encliticize directly to the predicate if they are pronominal, as in (11), (12), and (20). Thus the language shows accusative alignment and has a clear grammatical relation of Subject (Campbell 2015).

In ditransitive constructions, the theme-like argument patterns like the patient-like argument of monotransitives: it is flagged by *jiʔĮ̄* if topical. Coding of the recipient-like argument is subtly different: it is always flagged by *jiʔĮ̄*, regardless of its topicality status (Campbell 2015). In (24) a non-topical and unflagged theme is preverbal, and the subject and recipient are recoverable and omitted, but the recipient's required *jiʔĮ̄* marker remains alone (but reduced) after the verb.

(24) *tza pesū=ri   nkā-tāá   jĮ̄*
     one peso=only PFV-give(.3ᵢ) DAT(.3ⱼ)
     'Heᵢ gave himⱼ only one peso.' {Txt}

The theme and the recipient may both be flagged by *jiʔĮ̄* in the same clause, as shown in (25).[5] The example displays the unmarked order of constituents: Verb Agent Theme Recipient.

(25) *jā   ná   kutzą̄ tī   wiʔ nkā-tāá tī   kwaa j-nā*
     CONJ NEG while TPLZ there PFV-give TPLZ 1EXCL OBJ-DEF
     kitī=Vʔ   jĮ́
     paper=ANA DAT.2SG
     'Because not long earlier there, we gave the document to you.' {Txt}

As the theme in a ditransitive construction is coded like the patient of a monotransitive, and slightly differently from the ditransitive recipient, the language has indirective alignment in ditransitives (Malchukov et al. 2010), and Direct Object is a grammatical relation in the language.

Like recipients, beneficiaries (26) and maleficiaries (27) are always flagged by *jiʔĮ̄*, regardless of their information structural status.

---

5 Since *jiʔĮ̄* also flags alienable possessors, such constructions may also be analyzable as monotransitives with possessed themes.

(26) *wī   nuwęʔ nī̄   nte-chaʔne   jiʔį̄=yu*
and 3ANA now PRG-multiply[3] DAT=3SG.M
'And that (the peso) is now multiplying for him.' {Txt}

(27) *nkwi-tyaa   jiʔį̄   tī   nī̄ jā   y-ālāʔ   jį̄*
PFV-finish[3] DAT.2SG TPLZ now CONJ PFV-use.2SG OBJ[3]
'It ran out on you now because you used it up.' {Txt}

Unlike direct objects, which are specified in the basic argument structure of verbs, a recipient, beneficiary or maleficiary may be added to almost any semantically appropriate clause without any corresponding change in the form of the verb, which fits Andrews' (2007:157) definition of ADJUNCTS. These three roles together form an oblique grammatical relation: (Oblique) Dative.

Comitatives (28) and instruments (29) are syncretized, which is not uncommon cross-linguistically (Stolz et al. 2013). They are flagged by the marker *lóʔō* 'with' and together form a second oblique category: Oblique *lóʔō*.

(28) *tāká=ya   wiʔ   lóʔō juti=ą̄ʔ*
exist=1EXCL there with father=1SG
'We live there with my father.' {Txt}

(29) *nt-u-lājá=ya   lóʔō yaāʔ=ya   lóʔō jlyekwā lóʔō*
HAB-CAUS-clean_out=1EXCL with hand=1EXCL with hoe   with
pālyá
shovel
'We would clean it out with our hands, with hoes, and with shovels.' {Txt}

Other adjuncts of direction (30), location (31), or time (32) are introduced by a range of prepositions:

(30) *nch-aa=ū̄ʔ tya   kē.kinī*
PRG-go=3PL towards Tututepec
'They went towards Tututepec.' {Txt}

(31) *nch-ā+tzaka   tyākwę́ tī   luwiʔ n-chaa*
PRG-become+one road   TPLZ then HAB-go.back[3]
nti-chaa   la kitzę
HAB-arrive_back[3] at village
'The roads become one then, and it goes and arrives at the village.' {Txt}

TABLE 6.1   Syntactic functions of verb-related NPs

Category	Roles	Flagging
Subject	S of intransitive, A of (di-)transitive	–
Direct Object	P of transitive, theme of ditransitive	*jiʔį̄* if topical
(Oblique) Dative	recipient of ditransitive, beneficiary, maleficiary	*jiʔį̄*
Oblique *lóʔō*	instrument, comitative	*lóʔō*
other adjuncts	other locational, directional, temporal, etc.	various

(32) *yākwá ʔne=ą   jį̄   **tzūʔ**   kuxeę̄*
       there   POT.do=1INCL OBJ[3] during evening
       'We'll do it there in the evening.' {Txt}

Table 6.1 summarizes Zenzontepec Chatino's NP functions that are associated with verbs, along with their roles and the form of their flagging.

   Some of the nuanced differences in the syntax of relative constructions correlate with these main syntactic functions that are expressed in the grammar of the language.

6.3   Headed Relative Constructions in Zenzontepec Chatino

According to Lehmann (1986), a relative construction is "a construction consisting of a nominal ... (which may be empty) and a subordinate clause interpreted as attributively modifying the nominal." The nominal is referred to as the head, and the modifying clause is referred to as the relative clause. Functionally, relative clauses, "together with other noun modifiers, partake in the grammar of referential coherence, furnishing either anaphoric or cataphoric clues for referent identification" (Givón 2001: 175).

   Basic headed relative clauses in Zenzontepec Chatino are discussed in this section. Many are introduced by the general subordinator *nu* (Section 6.3.1), others by the relative pronoun *xī* (Section 6.3.2), and others are asyndetic (Section 6.3.3). The role that information structure appears to play in the occurrence of the asyndetic type is discussed in Section 6.3.4, and a summary and further discussion is found in Section 6.3.5. For clarity, the following notational conventions are henceforth used in the presentation of relative constructions:
(i)   The relative clause and the domain nominal NP are enclosed in square brackets in the Chatino text line.

(ii)   The head or light head of the relative construction appears in roman in the Chatino line.
(iii) The relative clause in the translation line is shown in italics.

6.3.1   *Basic Relative Constructions with Subordinator* nu

A simple relative construction in Zenzontepec Chatino is shown in (33); the head is the subject of the relative clause verb and the direct object of the matrix clause verb. It is non-specific and non-topical in the discourse context from which the example is extracted.

(33) *tyána   nāáʔ* [nyatę̄ [*nu ʔne   ti.joʔō*]]
     POT.search_for 1SG   person SUB POT.do[3] rite
     'I am going to search for a person *who can do a rite.*' {Txt}

Basic headed relative clauses in Zenzontepec Chatino, as in (33), display the following characteristics:
(i)   they are embedded in the matrix clause NP (i.e. not adjoined);
(ii)   they are externally-headed;
(iii) they are postnominal;
(iv)   they (often) begin with a subordinating particle;
(v)   they often present no overt indication of the syntactic function of the head within the relative clause;
(vi)   they have a "gap" where the relativized head would occur; and
(vii) their constituent order is rigidly VS/VAO—the basic constituent order of the language.[6]

Clearer evidence for the embeddedness of the relative clause within the matrix clause NP is visible in (34). The distal demonstrative enclitic =*V́* attaches to the end of the NP whose head it modifies;[7] in this case the head is *nyatę̄* 'person,' but the clitic attaches to the noun *kwana* 'glass' in the relative clause, which is where the matrix clause NP ends.

---

6 The Imperative Mood is the only other area of the grammar so far identified in which constituent order is fixed in Zenzontepec Chatino (Campbell 2017: 124). Complement clauses, on the other hand, are like independent clauses (Section 6.2.2) in that their constituent order is quite flexible, as can be appreciated in (21), (39), (45), and (84). Flexible constituent order in complement clauses may be exceptional for an Otomanguean language (cf. Zoochina Zapotec, López Nicolás 2016: 532).

7 The clitic adds a vocalic mora with a high tone, whose quality matches that of the final vowel of the host.

(34) *ntzuʔu tzéʔā na **nyatę̄** nu ntētāá kwanaá niī yākwá*
      n-tzuʔu tzéʔā [*na* nyatę̄ [*nu nte-tāá   kwana*]=*V́*] *niī yākwá*
      ST-exist exact DEF person SUB PRG-give[3] glass=DIST now there
      'That person *that is handing out eyeglasses* is right there now!' {Txt}

While non-restrictive relative clauses are not treated in depth in the present study, one example will serve to reinforce the evidence just provided for the embeddedness of restrictive relative clauses. Non-restrictive relative clauses are typically postposed, not merely postnominal; that is, they are adjoined, not embedded. In (35) the same distal demonstrative enclitic seen in (34) attaches directly to the head noun 'person' and not at the end of the (non-restrictive) relative clause, which modifies the head more parenthetically.[8]

(35) *tukwi ntujwiʔ **nyatę̄é** nu kaku niką̄ą̄ʔ*
      tukwi nt-ujwiʔ [nyatę̄=*V́*]   [*nu k-aku   niką=ą̄ʔ*]
      what HAB-sell person=DIST SUB POT-eat[3] penis=1SG
      'What is that person, *who can eat my penis*, selling?' {Txt}

The next three examples hold constant the function of the NP as subject in the relative clause while further varying its function in the matrix clause, in which it is indirect object (36), inalienable possessor (37), and oblique comitative (38). In each case, the head is non-specific but topical in its discourse context.

(36) *jnēʔ nt-usuʔú   jiʔį̄* [nyatę̄ [*nu n-tyaʔą   nteē*]] *nyatę̄*
      dog HAB-show.2SG DAT person SUB HAB-go_around[3] here   person
      tiʔi
      poor
      'You sicced the dogs on the people *that came here*, the poor people.' {Txt}

(37) *n-tonēʔé   ike* [nyatę̄ [*nu ta   nku-jwi*]]
      ST-piled_up head person SUB already PFV-die[3]
      'The heads of people *that had already died* were piled up.' {Txt}

---

8   While the prosody of the English equivalent would include pauses and/or intonational cues delimiting the non-restrictive relative clause, the utterance in Zenzontepec Chatino is all packaged into one intonational unit.

(38) *lō.laa ʔne=ya   kitzę jiʔį̄=ya   lóʔō nyatę̄ jiʔį̄=ya*
    thus   HAB.do=1EXCL village GEN=1EXCL WITH person GEN=1EXCL
    lóʔō [nkwítzą *kwénēʔ* [*nu tíʔ   nk-a+tāká*]]
    WITH child   young SUB PRX PFV-be+exist[3]
    'Thus we do in our village with our people with young children *that were just born.*' {Txt}

The example in (39) is more complex. The head (non-specific and non-topical) is subject of an adjectival predicate in the relative clause and object of the matrix clause. The matrix clause is itself an object complement clause, also introduced by *nu*.

(39) *ḻyakwā nēē   jy-ą́ʔ   nu* [kwīchí [*nu léē.rūʔ jḻyū*]]
    why   order.2SG DAT-1SG SUB jaguar SUB very   large[3]
    tz-akīʔyá=ą̄ʔ
    POT-go_bring=1SG
    'Why did you order me to go and bring a jaguar *that was very large*?' {Txt}

Example (40) has a specific and topical head that is relative clause direct object and main clause subject. It is not flagged by *jiʔį̄*.

(40) *nteē la-siya* [yuu [*nu k-u-lāʔā*]]
    here ST-lie land SUB POT-CAUS-break.2SG
    'Here lies the land *that you are going to plow.*' {Txt}

In examples (41) and (42) the heads function as direct objects in their respective relative clauses as well as their matrix clauses. In (41) the head is non-specific and topical, and in (42) the head is specific and topical. Thus topical NPs that are direct object in either the relative clause (40) or the matrix clause of a relative construction (42) are not flagged by *jiʔį̄*.

(41) *jā.nu ta   k-ājá   tī   nuwę̨ʔ* [*xikaʔ* tiʔi   ntáā [*nu*
    CONJ already POT-get TPLZ 3ANA gourd mole bean SUB
    k-īʔyá=yu]]
    POT-transport=3SG.M
    'Because they are about to get gourds of bean mole *that he is going to take*' {Txt}

(42) *ta*   *nka-ʔne+k-akā*   *tī*   *nāáʔ* [jnyá [*nu nka-nēē*]]
     already PFV-do+POT-be_done TPLZ 1SG   work SUB PFV-order.2SG
     'I have carried out the task *that you ordered.*' {Txt}

6.3.2   *Relative Pronoun* xī

If the head of a relative construction functions as a locative in the relative
clause, then the relative pronoun *xī* occurs, as shown in (43)–(45).

(43) *nteē n-toǫ*   [teʔę [*xī*   *ki-sōʔ*   *jiʔĮ̄*]]
     here ST-be_standing pot   LOC.REL.PRO POT-collect[3] OBJ[3]
     'Here stands the pot *in which he collects it.*' {Txt}

(44) *n-tya+jĮyā*   *seeʔ* *n-tya+jĮyā*   *xinkǫʔ* [*tuʔwa* xikaʔ
     HAB-TERM+smear spit[3] HAB-TERM+smear snot[3] mouth gourd
     [*xī*   *ntī-ʔyó=na*]]
     LOC.REL.PRO HAB-drink=1INCL
     'His spit and snot smear on the rim of the gourd *from which we drink.*'
     {Txt}

(45) *wi* [tyākwę́ [*xī*   *nch-aa=ū̄ʔ*]] *nī* *nkā-naʔa=ū̄ʔ*
     and road   LOC.REL.PRO PRG-go=3PL well PFV-see=3PL
     n-tákwī   *tzaka nyatę̄ nku-jwi   nto yaka*
     ST-be_hanging one   person PFV-die[3] face tree
     'And along the road *on which they were going* they saw that a dead person
     was hanging in a tree.' {Txt}

The subject of the complement clause at the end of (45) is [*tzaka nyatę̄ nku-*
jwi nto yaka]. The verb form *nku-jwi* 'dead' could be a perfective participle
(functionally an adjective), or perhaps it is a minimal relative clause with no
subordinator and whose head is subject.

6.3.3   *Asyndetic Relative Clauses*

While most relative clauses are introduced by a subordinator or relative pro-
noun, either *nu* or *xī*, other relative constructions have neither. In these asynde-
tic constructions what typically follows the head is the relative clause predicate.
In (46) the head is specific and non-topical.

(46) *nteē=ri*   *tāká* [nkwítzǫ [*nt-ujwiʔ*   *jiʔĮ̄*]]
     here=only exist child   HAB-sell[3] OBJ[3]
     'A child *that sells it* lives just here.' {Txt}

In (47) the head is non-topical but it is unclear in the context if the speaker was referring to any specific elders or not.

(47) *jā*   *tāká=kā?á* [nyatē̜ *kusū?* [*ná* *nch-a+to̜o̜=tī?*]]
     CONJ exist=also person elder NEG PRG-go+standing=living_core[3]
     'Because there are also elders *who do not like it.*' {Txt}

Example (48) is like the preceding examples in that the head functions as sub-ject in both the relative clause and the matrix clause, but in the matrix clause the subject is clause-final, separated from the matrix verb by a beneficiary oblique. The head is specific and non-topical.

(48) *tala*   *chaja.kwinyo̜?* *nt-usā?ą́*   *j-ų́?*   [kūná?a
     surely tortilla_bean HAB-make DAT-3PL woman
     [*y-a+y-oō=V?*]]
     PFV-go+PFV-grind[3]=ANA
     'The women *that went to grind* surely will make tortillas with bean for them.' {Txt}

An asyndetic relative construction in which the head functions as relative clause direct object and matrix clause subject (of an adjectival predicate) is shown in (49). The head is specific and non-topical.

(49) *tikwą* *l-aa*   lyūkwá [*nte-ta?ą+ló?ō=yu*   *se.yaką=yu*]]
     badly ST-be broom PRG-go_around+APPL=3SG.M base_ear=3SG.M
     'That broom *that he's going around with on the side of his face* is ugly.' {Txt}

In (50) the head (specific and non-topical) functions as direct object in both the relative and matrix clauses.

(50) [jnii̜ [*y-ūlá+kiya?=ą́?*   *tyā? jyánā*]] *nch-ūlá+kiya?=tzo?ō=ǫ́?*
     music PFV-sing+foot=1SG still year.ago PRG-sing+foot=good=1SG
     'I'm dancing well (practicing) the song *that I danced a year ago.*' {Txt}

In (51) the relativized noun is a temporal adverb in the relative clause and the matrix clause. It is also specific and non-topical in its context.

(51) *n-tyaʔą̨=ą̨*   *lóʔō nyatę̄   tyāʔ tzūʔ kuxeę̨*   [tzáą̨ [*nch-akēʔ*
    HAB-go=1INCL with person from in   evening day   PRG-cook
    ntzukwāʔ]]
    corn
    'We'd walk around with the people during the evening of the day *the corn
    was cooking.*' {Txt}

6.3.4   *Information Structure and the Absence of Subordinators*
Why do some relative clauses occur with a subordinator while others do not?
What the asyndetic examples shown above seem to share is that their heads are
specific and non-topical in their discourse context. Thus, omission of the subor-
dinator appears to correlate to some degree with specificity and non-topicality
of the relativized head.

Consider the example in (53), in which a new (non-topical) but specific and
important participant in the narrative is first introduced; there is no subordi-
nator.

(52) *n-tyoǫ*   *n-tyoǫ*   [nyatę̄ [*nijyaą̨   itzǫ́ʔ=yu*]]
    HAB-be_standing HAB-be_standing person IPFV.come[3] back=3SG.M
    'A person *coming from behind him* was walking and walking.' {Txt}

Contrast this with the relative construction in (53): while its head is non-
topical, it is also non-specific—that is, no particular medicine is being referred
to—and the subordinator *nu* does occur.

(53) *nte-lāstí=na*   [kwítī   *tzoʔō* [**nu** *nk-yuʔu   jiʔį̄ nyatę̄*
    PRG-abandon=1INCL medicine good SUB PFV-exist[3] GEN person
    kusūʔ jiʔį̄=na]]
    elder GEN=1INCL
    'We are abandoning the good medicine *that our ancestors had.*' {Txt}

Example (54) also supports the hypothesis: the head is first mentioned in the
discourse here, and it is not only specific but also definite (of the common
knowledge type). It even occurs with a distal demonstrative, whose position
indicates that this is a non-restrictive relative clause.[9]

---

9 See discussion of (35) *vs* (34) for the position of demonstratives in non-restrictive relative
   clause constructions.

(54) *tāká* [*na*   nyaʔne=*V́*]   [*nti-xiʔya*]
      exist DEF animal=DIST HAB-yell[3]
      'There are those animals, *which cry.*' {Txt}

A similar example is shown in (55), but in this case the head refers to a non-specific class of animals, and the subordinator *nu* does occur.

(55) *tāká* [nyaʔne [*nu nyaʔne kitę̄*]]
      exist animal   SUB animal feather
      'There are animals *that are feathered animals.*' {Txt}

Finally, in (56) the head is specific but topical in the discourse, and the subordinator occurs. The head is the relative clause object and matrix clause subject fronted before the matrix clause verb. Recall that topical relativized direct objects are not flagged by *jiʔį̄*.

(56) [*na* kosā   [*nu nkā-naʔa+tīkáʔā*]   *j-yū*]   *y-aku*
      DEF thing_i SUB PFV-see+cherished[3_j] GEN-3SG.M_j PFV-eat[3_i]
      j-yū
      OBJ-3SG.M_j
      'His thing *that he had cared for* ate him.' {Txt}

Example (57) presents an apparent counterexample: the head in this case is first introduced into the discourse here, and its referent is specific, and yet the subordinator is present. However, the construction *nu nti-kwiʔ jnyá* is a lexicalization that means 'one in charge' or 'boss' (literally, 'one who speaks work'), and thus the subordinator may be included here because it is part of that lexeme (and in that case the relative clause would be a nominal predication).

(57) *nku-tiyaą*   [*tzaka* nyatę̄ [*nu nti-kwiʔ*   *jnyá*]]
      PFV-arrive_here one   person SUB HAB-speak[3] work
      'A person *who was in charge* arrived.' {Txt}

A more challenging counterexample is the locative relative construction with no relative pronoun *xī* that is shown in (58). The head appears to be non-specific and non-topical.

(58) *nt-ujnyā=ya*   [*jaʔwa* [*n-chuʔu*   *lita*]]
      HAB-build=1EXCL granary HAB-be_inside ear_of_corn
      'We would build granaries *in which ears of corn would be put.*' {Txt}

A third apparent counterexample is shown in (59): the relativized head is a specific and non-topical temporal adverb, but the subordinator is not omitted.

(59) *nku-tiyaa*   [*tzaka* kwēyáʔ [*nu nt-ii=ya   k-ulōó=ya*
     PFV-arrive one   time   SUB HAB-feel=1EXCL POT-take_out=1EXCL
     lúkwī]]
     mezcal
     'A time when we wanted to make mezcal arrived.' {Txt}

Specificity and non-topicality are the conditions in which relative clauses tend to be asyndetic. However, the exceptions in (58), (59), and perhaps (47) and (57) indicate that the pattern may not be exceptionless. Perhaps not all cases of subordinator omission meet those conditions, as in (58) and (47), and perhaps some cases that meet those conditions have subordinators, as in (59) and (57). However, despite the exceptions, the large majority of asyndetic relatives have specific and non-topical heads, and no other syntactic, semantic, or information structural factors are better determinants for asyndesis. Although studying textual examples is what enables this pattern to be found, it is not always possible to know whether a speaker has a specific referent in mind. Probing the question in elicitation is problematic, since information structural differences do not lead to strong grammaticality judgements.

6.3.5   *Summary and Discussion of the Basic Relativization Strategy*
The basic relative construction in Zenzontepec Chatino is one in which the relative clause is embedded, externally headed, and postnominal. If the relativized head is a locative, then the relative pronoun *xī* is used; otherwise, the subordinator *nu* is used. However, while the pattern is not without exception, subordinators are likely to be omitted if the relativized head is specific but non-topical.

6.4   Noun Phrase Accessibility to Relativization

In their cross-linguistic examination of which syntactic functions may be relativized, Keenan & Comrie (1977) propose an implicational hierarchy of noun phrase accessibility. If a language only permits one function to be relativized, then it will be the subject function—or absolutive function in an ergative language (Lehmann 1986). If only two functions are relativizable, then they will be direct (or primary) object and subject—or ergative and absolutive. That is, if a

language allows direct objects to be relativized, then subjects will also be rela-
tivizable, and so on down the hierarchy. The Keenan and Comrie accessibility
hierarchy is shown in (60).

(60) SU > DO > IO > OBL > GEN > OCOMP (object of comparison)

Lehmann (1986) revises the hierarchy and points out that functions that mod-
ify nouns (adnominal) may be only loosely orderable with respect to functions
related to verbs (adverbal), and it is perhaps more appropriate to treat adver-
bal and adnominal functions as two sub-hierarchies. As was sketched in Section
6.2.3, the adverbal grammatical relations in Zenzontepec Chatino are Subject,
Direct Object, (Oblique) Dative, and Oblique *lóʔō*, and the adnominal functions
are Inalienable Possessor and Alienable Possessor.

    In this section, examples are shown that demonstrate that NPs in all of those
functions, and more, are accessible to relativization in Zenzontepec Chatino
(Section 6.4.1). A summary of the features of relative constructions for the
different syntactic functions is provided in Section 6.4.2, which suggests that
the primary Zenzontepec Chatino relativization strategy varies between a gap
strategy and a relative pronoun strategy. While a gap strategy is used for rela-
tivizing the (oblique) Dative and Alienable Possessor functions, the dative or
genitive marker *jiʔį̄* is obligatorily stranded in the relative clause.

6.4.1   *All Functions Are Accessible to Relativization*
As several examples presented in Section 6.3 illustrate, nouns in subject func-
tion (61) are frequently relativized in Zenzontepec Chatino.

(61) *nti-xaʔa   tī   chujlyāʔ.jnyá ku-sūʔ   jiʔį̄* [chujlyāʔ.jnyá [*nu*
       HAB-shout TPLZ authority   ADJZ-get_old OBJ authority   SUB
       k-ukwą̄   jnyá]]
       POT-grab[3] work
       'The previous authorities will call out to the authorities *who will take posi-
       tions*.' {Txt}

In (62) the relativized noun is direct object. It is topical, but recall that the
object marker *jiʔį̄* does not occur if a topical object is relativized.

(62) *ná   k-aku=ą̄ʔ*   [kosā [*nu nka-tāā   nteē*]]
       NEG POT-eat=1SG thing SUB PFV-give.2SG here
       'I'm not going to eat the things *that you served here*.' {Txt}

An example of a relativized inalienable possessor, the adnominal parallel of subject, is shown in (63)—see also (72) and (90) below. The head is non-specific and topical. It is the subject of the matrix clause and is fronted in a topicalization construction. Note the pronominal *chu* following the subordinator, which indexes that the head is human (see discussion in Section 6.6.2.2). This 'human' relative pronoun appears to be restricted to cases in which the head is either subject or possessor.

(63) [nyatę̄ [*nu chu   nk-yāáʔ   liti=kāʔá*]]   *nyāʔā*
      person SUB HUM.REL.PRO PFV-be_built home=also[3] see.2SG
      ta   nkwātíʔ=ūʔ   tula ʔne=ūʔ
      already PFV.know=3PL what POT.do=3PL
      'The people *whose homes were also built*, you see, they already knew what they were going to do.' {Txt}

Relativization of the oblique Dative function is infrequent in the text corpus, but there are examples, and their structure presents an interesting difference from most other functions. In (64) the verb is a complex lexeme *-kwiʔ*=SUBJ *jnyá jiʔį̄*=IO 'give orders to someone' (lit. 'speak work to X'). The relativized indirect object is omitted in the relative clause but its dative marker *jiʔį̄* is stranded.

(64) *naʔā.laa*   [nyatę̄ [*nu ki-kwiʔ=na   jnyá jiʔį̄*
      no_more_exist person SUB POT-speak=1INCL work DAT[3]
      k-aka   tī   xiką]]
      POT-become[3] TPLZ police
      'There is no longer anybody *to whom one would give orders to become community police*.' {Txt}

Alienable possessors are the adnominal correlate of the oblique Dative (always preceded by *jiʔį̄*), and the shared patterning holds in relative constructions. Relativized alienable possessors are also infrequent in the corpus and also result in stranding of the genitive marker, as illustrated in (65), which is a headless relative clause introduced by a relative pronoun (see Section 6.6).

(65) *kwi-tyāá jį̄   chu   tiʔi jį̄* [*chu   nālá   jį̄*]
      IMP-give DAT HUM.CLF poor DAT HUM.REL.PRO not_exist[3] GEN
      'Give (it) to the poor one, to the one *who has nothing*.' {Txt}

Oblique *lóʔō* instruments and comitatives may be relativized. In (66) the head is instrument in both the (non-restrictive?) relative clause and the matrix clause; in (67) it is comitative in both. Unlike for relativized dative obliques, the oblique marker *lóʔō* is not copied or stranded in the relative clause.

(66) *lóʔō* [kwartā *j-nīʔ*]   [*nu   nti-kaʔne   kwayū=Vʔ*] *nku-tyejnā*
     with rod   GEN-3RSP SUB HAB-get_beaten horse=ANA PFV-begin
     nt-usukwā=niʔ   jį̄
     HAB-beat=3RSP OBJ[3]
     'With his rod, *with which his horse was beaten*, he began beating her.' {Txt}

(67) *k-aka   chaǫ=ūʔ   ʔne=ūʔ   jnyá lóʔō* [*tyáʔā*
     POT-be_able POT.return=3PL POT.do=3PL work with companion[3]
     [*tāká naa*]]
     exist 1INCL
     'They can return to work with their companions *with whom we live*.' {Txt}

Another relativized Oblique *lóʔō* is shown in (68). It is direct object in the matrix clause and again the oblique marker *lóʔō* does not occur in the relative clause. This is a gap strategy.

(68) *lēʔ.wíʔ.niī nkw-eta=yu   jiʔļ̄* [*tyáʔā*
     and_then PFV-wait_for=3SG.M OBJ companion[3]
     [*nte-taʔǫ=yu*]]
     PRG-go_around=3SG.M
     'And then, he waited for his companions *with whom he was going around*.'
     {Txt}

Nouns that function as temporal adverbs can also be relativized. In (69) and (70) the heads also function as temporal adverbs in their respective matrix clauses (and see (59), in which the head is matrix clause subject).

(69) *nte-tyúwe=ūʔ   ntē-xūʔú=kāʔá=ūʔ* [*kwēyáʔ* [*nu*
     PRG-chop_up=3PL PRG-cut=also=3PL time   SUB
     nti-ʔnya=ūʔ]]
     HAB-clear_field=3PL
     'They were chopping up and cutting (it) during the time *that they clear the fields*.' {Txt}

(70) [tzáą̄ [*nu nku-la=kāʔá   jniʔ   na   kwénā=Vʔ*]]
      day   SUB PFV-be_born=also offspring DEF snake=ANA
      nku-la=kāʔá   na   nkwítzą=Vʔ
      PFV-be_born=also DEF child=ANA
      'The day that a child of the snake was born, the child was also born.' {Txt}

Finally, locative adverbs may be relativized, and as discussed in Section 6.3.2 such relative clauses begin with the special locative relative pronoun *xī*, that is, if they are not asyndetic:

(71) *nālá   [tyākwę́ [xī   n-tyaʔą   nu   n-tyaʔą*
      NEG.exist road   LOC.REL.PRO HAB-go.around SUB HAB-go_around
      jḷyá karrū]]
      fast car
      'There was no road *on which cars would travel.*' {Txt}

In this section it has been shown that heads of possibly all NP functions in Zenzontepec Chatino can be relativized. Note that no examples were found of relativized objects of comparative constructions in the corpus, perhaps because comparative constructions are relatively rare in discourse—and relativization of them would presumably be even rarer.

Comrie (1989: 160) discusses that languages with the most restrictions (or the least achievement) on the accessibility hierarchy tend to be languages with a range of productive voice alternations, in which inaccessible functions are easily promoted to subject. Zenzontepec Chatino provides a supporting example, but in the converse: it is a language that has essentially no productive coded voice alternations (Campbell 2015) and any function may be relativized.

6.4.2 *Gap Strategy, or Pronoun Retention Strategy?*

A summary of the features of relative constructions for the various syntactic functions is provided in Table 6.2.

In terms of treatment of the NP within the relative clause, most Zenzontepec Chatino relative constructions display a gap strategy because they typically do "not provide any overt indication of the syntactic function of the head within the relative clause" (Comrie 1989: 151). However, some relative constructions whose heads are human contain the pronominal element *chu*, which indexes the human feature, and since in the cases so far identified the head is either subject or (in)alienable possessor in the relative clause, the element also provides a clue that the head has one of those roles. Such cases thus most closely resemble the relative pronoun strategy. However, not all cases of relativization

TABLE 6.2   NP accessibility and relativization strategies

Category	Relativizable	Realization of head/function in relative clause	Strategy
Subject	✓	Ø on verb; (*chu* before verb)	gap (or rel. pron. *chu*)
Inalienable Poss.	✓	Ø on possessum; (*chu* before verb)	gap (or rel. pron. *chu*); pronoun retention (72)
Direct Object	✓	Ø; omission of *jiʔį̄*, even if topical	gap
(Oblique) Dative	✓	Ø; *jiʔį̄* obligatory and stranded	gap
Alienable Poss.	✓	Ø; *jiʔį̄* obligatory and stranded; (*chu* before verb)	gap (or rel. pron. *chu*)
Oblique *lóʔō*	✓	Ø; omission of *lóʔō*	gap
Temporal adverb	✓	Ø	gap
Locative	✓	relative pronoun *xī*	relative pronoun
Obj. of compar.	?	?	?

of those roles include the relative pronoun (see e.g. (33), (37), (57), and others). Similarly, the relative pronoun *xī* indexes the role of the head in the relative clause as a locative.

In some relative constructions, however, a full pronoun occurs in situ in the relative clause, as in example (72), in which the head is inalienable possessor in the relative clause and subject in the matrix clause. The possessor is overtly realized in this relative clause by the third person masculine enclitic =*yu*.

(72) *titzę   tzoʔō ḻyaʔā [tī   yu-wiʔ   [nu n-tonēʔę́*
      nasty well   smelly TPLZ 3SG.M-ANA SUB ST-be.piled.up
      s-eʔę̄=yu]]
      POSS-feces=3SG.M
      'That one *whose feces were piled up* smelled very nasty.' {Txt}

The pronoun in (72) distinguishes this male participant from a female one that is also activated in the surrounding discourse, and thus the default gap strategy may be overridden by a pronoun retention strategy for the purpose of disambiguation. However, no examples in the corpus show such a disambiguating pronoun for a relativized direct object, which is a function that similarly always displays a gap strategy in some Zapotec varieties (Foreman & Munro 2007).

6.5   Light-Headed Relative Clauses

Some relative constructions have no lexical head but instead have a quantifier
or article functioning as a light head (Citko 2004), like the quantifier *tātīyá* 'all'
in (73)—see also (4).

(73) [tātīyá [*xī*   *n-tyukwā*   *chini*   *wiʔ*]] *k-esāʔą̄*
      all   LOC.REL.PRO HAB-come_out smoke   ANA   POT-sit_down.2SG
      'Everywhere *that smoke comes out*, sit down there!' {Txt}

Such light heads may function as pronouns in simple clauses. The quantifier
tatīyá is shown in pronominal function in (74) and the numeral 'one' that func-
tions as an indefinite article serves as a pronoun in (75).

(74) *nteē* *ntzuʔu*   **tatīyá**
      here   ST-be_inside everything
      'Here there is everything.' {Txt}

(75) *lēʔ*   *la.tzáą̄.rā*   *nkā-rīʔyé=yu*   *ntákǭʔ jį̄*   **tzaka**
      then all_of_a_sudden   PFV-strike=3SG.M   fist   OBJ   one
      'And all of a sudden he hit someone' {Txt}

Example (76) has the same quantifier *tātīyá* functioning as a light head in a
nominal predicate whose subject is the following headless relative clause (see
Section 6.6 for discussion of headless relatives). The entire biclausal nominal
predicate construction functions as an object complement clause of the main
clause verb 'want'.

(76) [tatīyá [*nu k-aku=ą̄ʔ*]]   [*nu tyúʔu*   *jy-ą́ʔ*]]   *nch-ātíʔ=ą̄ʔ*
      all   SUB POT-eat=1SG   SUB POT.go_out[3]   DAT-1SG   PRG-want=1SG
      'I want *what I harvest* (lit. *what is yielded for me*) to be all that I eat.'
      {Txt}

In (77) the quantifier-like word *xaaʔ* 'other' serves as a light head. Note again
the occurrence of the relative pronoun *chu* inside the relative clause.

(77) *tyána=ya*   [xaaʔ [*nu chu   tz-aa*]]
      POT.search_for=1EXCL other SUB HUM POT-go[3]
      'We are going to search for another who can go.' {Txt}

In (78), the numeral 'one', as indefinite article, functions as a light head. The relativized nominal is specific and non-topical, which favors the omission of the subordinator *nu*.

(78) *tāá=kāʔá=ą̄ʔ*   *tzaka kwentū jiʔį̄*   [tzaka [*chu*
      POT.give=again=1SG one   story   GEN one   HUM.REL.PRO
      n-tzaʔą   *nyaʔne*]]
      ST-be_attached animal
      'I am going to tell another story of *one who had an animal spirit companion.*' {Txt}

Light-headed relative clauses thus display the same patterns as headed relatives, though they are relatively infrequent in the corpus.

6.6   Headless Relative Clauses

Headless relative clauses are those that do not have any head, either external or internal (Lehmann 1986; Riemsdijk 2006). Zenzontepec Chatino has two types of headless relative clauses: those that are introduced by a question-word (Section 6.6.1), which are treated in the literature as 'free relatives' (Caponigro 2003), and those that are introduced by a subordinator or a relative pronoun that is not a question-word (Section 6.6.2). The asyndetic type does not occur in headless relative clauses. The relative pronoun *xī* has extended its use to a more general relative pronoun in headless relative clauses and may occur when functions other than locatives are relativized (Section 6.6.3). Finally, a discussion of the information structural aspects of headless relative clauses is provided in Section 6.6.4.

6.6.1   *Headless Relative Clauses Introduced by a Question-Word: Free*
            Relatives
In place of a head, headless relative clauses have been noted to often contain a question-word (often referred to as a "wh-word"). In fact, in a study of two Mixtec varieties, Caponigro et al. (2013) consider the presence of a question-word to be a defining characteristic of free relative clauses in general. In Zenzontepec Chatino, we find that scattered cases of free relative clauses with the question-word 'where' occur in the text corpus:

(79) *kw-etzāʔ=wą*   *tī*   *nu*   *tāká* [*wala=kāʔá*   *chaāʔ*]
IMP-inform=2PL COND SUB exist WHERE=also POT.be_built[3]
'Inform (us) if there is another (place) *where it can be built*!' {Txt}

(80) *n-chano=yu*   [*wala*   *nte-taʔą=ri=yu*]
HAB-stay=3SG.M WHERE PRG-go_around=only=3SG.M
nt-yatę=yu
HAB-sleep=3SG.M
'He stays just *wherever he is going* and he sleeps.' {Txt}

6.6.2   *Headless Relative Clauses Not Introduced by a Question Word*
Most headless relative clauses in Zenzontepec Chatino contain no question-word, and their structure is much like that of headed relative clauses, but without a syntactic head. The basic construction is introduced in Section 6.6.2.1, and headless relative clauses with the human relative pronoun *chu* are discussed in Section 6.6.2.2.

6.6.2.1   Basic Headless Relative Clauses Introduced by *nu* or *xī*
A couple of basic headless relative clauses are shown in (81) and (82). The non-specific and non-topical heads are subjects in their respective relative clauses and matrix clauses, and the interpretations are existential. In (81) the expected referent is some ferocious animal which a priest hopes will be encountered by a troublesome adopted youth that the priest is trying to get rid of.

(81) *tala*   *k-ājá*   [*nu* *k-aku*   *j-yūwá*]
for.sure POT-be_found SUB POT-eat[3] OBJ-3SG.DIST
'For sure *what will eat him* will be found.' {Txt}

(82) *nti-ka+tāká*   *j-yā*   [*nu* *laa*   *nyāá*   *jnyá*]
HAB-be+exist GEN-1EXCL SUB ST.be planting_land work
'We had *what was land for communal work*.' {Txt}

Just as with headed relative clauses, when the domain nominal is a locative in the relative clause, the headless relative clause is introduced by *xī* (83).

(83) *ná* *nt-uxiką*   *tī*   *nuwę́ʔ* [*xī*
NEG HAB-choose TPLZ 3ANA LOC.REL.PRO
nt-e+yuʔu]
PRG-go_down+be_inside[3]
'That doesn't choose *where it falls*.' {Txt}

In (84) the relative clause consists of a verb and complement clause, and the matrix clause is itself a complement clause subject of the nonverbal predicate *tala* 'be necessary'. Each complement clause begins with *nu*, while the relative clause begins with *xī*.

(84) *tala   nu tiyaa   tī   nuwęʔ* [*xī   nu*
      necessary SUB POT.arrive TPLZ 3ANA LOC.REL.PRO SUB
      tiyaa   nchātíʔ=na]
      POT.arrive[3] want=1INCL
      'It is necessary that it arrive *where we want it to arrive*.' {Txt}

6.6.2.2   Headless Relative Clauses with the Human Pronominal Element
             chu
Headless relative clause constructions in which the domain nominal is human functioning as subject or (in)alienable possessor often have the relative pronoun *chu* in the relative clause, following the subordinator *nu*. A basic example is shown in (85), where the head is non-specific and non-topical.

(85) *nti-ka+kwēyáʔ*   [*nu* **chu**   *nt-u-xiką̄ʔ*   *j-nā*
      HAB-be+measure   SUB HUM.REL.PRO HAB-CAUS-be_tied OBJ-DEF
      ya   niʔi=Vʔ]
      wood house=ANA
      '*Those who tie the wood of the house* are (specially) chosen.' {Txt}

Headless relative constructions often function to propose the existence (86) or perhaps non-existence (87) of a possible set of referents.

(86) [*nu chu   ná   nt-eyatīʔ=kāʔá*]   *nyāʔā   ʔne+tzǫʔ=ūʔ*
      SUB HUM.REL.PRO NEG HAB-believe=also see.2SG HAB.do+back=3PL
      jiʔį̄
      OBJ[3]
      '*Those who also don't believe*, they turn their backs on it.' {Txt}

(87) *ná   tzaka* [*nu chu   ná   nti-nį̄jnyá tī   jį̄   choo*]
      NEG one   SUB HUM.REL.PRO NEG HAB-use   TPLZ OBJ rain
      'There is no one *who does not use the rain*.' {Txt}

And headless relative clauses also serve to present a hypothetical referent (88) or situation (89) in order to make some other point.

(88) *k-aka*   *tī*   *tu*   *nu*   *tāká* [*nu chu*
POT-be_possible[3] COND HYP SUB exist SUB HUM.REL.PRO
n-tyōtíʔ   *j-nū.ntē*]
HAB-know OBJ-PROX
'It would be possible if there were somebody *who knew this*' {Txt}

(89) *ná*   *k-a-luʔu*   *tī*   *kwa*   *tī*   *laaʔ naxíʔi nu tāká* [*nu*
NEG POT-be-alive TPLZ 1EXCL COND thus NEG.be SUB exist SUB
chu   *nte-ʔne jnyá kela*]]
HUM.REL.PRO PRG-do work cornfield
'We're not going to live if it's not the case that there is somebody *working in the cornfields*.' {Txt}

As discussed in Section 6.3.4, the subordinator may be omitted if the relativized nominal is specific and non-topical in the discourse, and this may be the case with headless relative clauses as well, as in (90), which has the human relative pronoun.

(90) *n-tyāá*   [*chu*   *nk-yāáʔ*   *liti=Vʔ*]   *nī.jniʔ*
HAB-ITER.give HUM.REL.PRO PFV-be_built home=ANA thanks
'*He whose house was built* gives thanks.' {Txt}

It is not the case that *chu* is required every time the head of a headless relative construction is human and is in subject or (in)alienable possessor function (91).

(91) *yākwá tāká* [*nu nka-suʔū tī*   *j-nāáʔ*]   *mastrū j-nāáʔ*
there exist SUB PFV-teach TPLZ DAT-1SG teacher GEN-1SG
'There lives (the one) *who taught me*, my teacher.' {Txt}

While (90) lacks a subordinator and (91) lacks the relative pronoun *chu*, no purely asyndetic headless relative clauses occur in the corpus.

6.6.3   *Extended Use of* xī

The relative pronoun *xī*, which only occurs with relativized locatives in headed relative constructions, has an extended use as a general relative pronoun in headless relative clauses: it may occur when the relativized head is not a locative. The head is direct object in (92), (93), and in the more embedded relative in (94); it is subject in the less-deeply embedded headless relative clause in (94).

(92) *ná   k-ūnā   [xī   nch-akwiʔ=ūʔ   jiʔ{]*
     NEG POT-hear.2SG REL.PRO PRG-speak=3PL DAT.2SG
     'You don't listen to *what they say to you.*' {Txt}

(93) *nte-jnyā=niʔ   [xī   k-aku   tī   niʔ   nu   kíʔyū]*
     PRG-make=3RSP REL.PRO POT-eat TPLZ 3RSP SUB male[3]
     'She was preparing *what the man* (lit. he who was male) *was going to eat.*'
     {Txt}

(94) *ntzuʔu [xī   nijyaą   [xī   tyāką́ʔ=na]]*
     exist   REL.PRO POT.come[3] REL.PRO POT.suffer=1INCL
     'There is *what will come that we will suffer.*' {Txt}

6.6.4   *Information Structure and Headless Relative Clauses*

What almost all of the headless relative clauses in the corpus share is that the relativized nominal is non-specific. Since specificity is the condition that best predicts asyndesis in headed relative clauses (Section 6.3.4), the non-specificity of heads in headless relative clauses may account for the lack of asyndetic headless relative clauses in Zenzontepec Chatino. What seems to trigger the use of headless relative clauses is that the speaker is not exactly sure what the referent of the relativized nominal is. The relativized domain is typically non-specific and non-topical. Perhaps because of the lack of discourse clues for reference resolution, relative pronouns *chu* and *xī* occur more frequently in headless relative clauses than in headed ones.

6.7   Conclusions

This chapter presents a detailed description of relative constructions in Zenzontepec Chatino, the first such treatment for any Chatino language. It appears that all syntactic functions may be relativized. The language has externally-headed relative clauses, light-headed relative clauses and headless relative clauses. Headed relative constructions may be syndetic or asyndetic, but headless relative clauses are never asyndetic. Relative constructions primarily display a gap strategy, but relativization of locatives and some human possessors or subjects are similar to a relative pronoun strategy. A pronoun retention strategy may be used for disambiguation of third person referents. The only example found so far in the corpus is a relativized inalienable possessor, but it is possible that this strategy can occur with other syntactic relations. Table 6.3 summarizes the relativization strategies and the syntactic relations that they occur with.

TABLE 6.3   Relativization strategies and syntactic functions

Strategy	s	Inal. poss.	DO	(Obl.) dat.	Alien. poss	Obl. *lóʔō*	Temp. adv.	Loc.
Gap	✓	✓	✓	–	–	✓	✓	–
Gap, stranded *jiʔį̄*	–	–	–	✓	✓	–	–	–
Rel. pronoun *xī*, obligatory	–	–	–	–	–	–	–	✓
Rel. pronoun *chu*, optional	✓	✓	–	–	✓	–	–	–
Pronoun retention	?	✓	?	?	?	?	?	?

Analysis of which types of headedness occur with each strategy and syntactic relation awaits further research.

Information structure appears to play a role in many of the nuanced syntactic differences in relative constructions. First of all, subordinators may be omitted when the head is specific but non-topical in the discourse, yielding asyndetic relatives. Second, when the head is both non-specific and non-topical in the discourse, headless relatives are more likely to occur. If the head is human and is in subject or (in)alienable possessor function, the relative pronoun *chu* is likely—but not required—to occur, but it is more likely to occur if the construction is light-headed or headless, perhaps to assist with establishing reference.

The nuanced syntactic differences displayed across Zenzontepec Chatino relative constructions would remain puzzling if they were examined outside of their discourse context, and thus relativization is another area of the grammar of Zenzontepec Chatino (Campbell 2014, 2015) in which information structure drives the syntax.

Acknowledgments

ful comments from Marianne Mithun, Enrique Palancar, and Roberto Zavala helped greatly improve this work, all remaining shortcomings and errors are fully mine.

Bibliography

Andrews, Avery D. 2007. Relative clauses. In Shopen, Timothy (ed.), *Language typology and syntactic description*, vol. 2, 206–236. Cambridge: Cambridge University Press.

Boas, Franz. 1913. Notes on the Chatino language of Mexico, *American Anthropologist*, New Series 15: 78–86.

Bresnan, Joan & Mchombo, Sam A. 1987. Topic, pronoun, and agreement in Chicheŵa, *Language* 63(4): 741–782.

Campbell, Eric. 2013a. The internal diversification and subgrouping of Chatino, *International Journal of American Linguistics* 79(3): 395–420.

Campbell, Eric. 2014. Aspects of the phonology and morphology of Zenzontepec Chatino, a Zapotecan language of Oaxaca, Mexico. PhD Dissertation. University of Texas at Austin.

Campbell, Eric. 2015. Valency classes in Zenzontepec Chatino. In Malchukov, Andrej & Comrie, Bernard (eds.), *Valency classes in the world's languages*, vol. 2 *Case studies from Austronesia, the Pacific, the Americas, and theoretical outlook*, 1371–1406. Berlin: De Gruyter Mouton.

Campbell, Eric. 2017. Commands in Zenzontepec Chatino (Otomanguean). In Aikhenvald, Alexandra Y. & Dixon, R.M.W. (eds.), *Commands: a cross-linguistic typology*, 106–126. Oxford: Oxford University Press.

Caponigro, Ivano. 2003. Free not to ask. PhD Dissertation. University of California at Los Angeles.

Caponigro, Ivano; Torrence, Harold & Cisneros, Carlos. 2013. Free relative clauses in two Mixtec languages, *International Journal of American Linguistics* 79(1): 61–96.

Citko, Barbara. 2004. On headed, headlesss, and light-headed relatives, *Natural Language & Linguistic Theory* 22(1): 95–126.

Comrie, Bernard. 1989. *Language universals and linguistic typology*, 2nd edn. Chicago: University of Chicago Press.

Dalrymple, Mary and Nikolaeva, Irina. 2011. *Objects and information structure*. Cambridge: Cambridge University Press.

Dryer, Matthew S. 2013. Relationship between the order of object and verb and the order of relative clause and noun. In Dryer, Matthew S. & Haspelmath, Martin (eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/paper/96

Epps, Patience. 2012. Between headed and headless relative clauses. In Comrie, Bernard

& Estrada-Fernández, Zarina (eds.), *Relative clauses in languages of the Americas*, 191–211. Amsterdam: John Benjamins.

Foreman, John & Pamela Munro. 2007. Reconstructing a typologically marked strategy for Zapotec relative clauses. In Susan Buescher, Keri Holley, Evan Ashworth, Clay Beckner, B. & Christopher Shank. *Proceedings of the 6th Annual High Desert Linguistics Society Conference*, 141–153. Albuquerque, NM: High Desert Linguistics Society.

Fox, Barbara A. & Sandra A. Thompson. 1990. A discourse explanation of the grammar of relative clauses in English conversation, *Language* 66(2): 297–316.

Givón, Talmy. 1983. Topic continuity in discourse: and introduction. In: T. Givón (ed.), *Topic continuity in discourse: a quantitative cross-language study*, 1–41. Amsterdam: John Benjamins.

Givón, Talmy. 2001. *Syntax: an introduction*, vol. II. Amsterdam: John Benjamins.

Heusinger, Klaus von. 2002. Specificity and definiteness in sentence and discourse structure, *Journal of Semantics* 19: 245–274.

Kaufman, Terrence. 2016. Tlapaneko-Sutiaba, Oto-Mangean, and Hokan: where Greenberg went wrong. Institute for Mesaoamerican Studies, University at Albany, State University of New York. http://www.albany.edu/ims/PDLMA_publications_new.html.

Keenan, Edward L. & Comrie, Bernard. 1977. Noun phrase accessibility and universal grammar, *Linguistic Inquiry* 8(1): 63–99.

Kuno, Susumu. 1976. Subject, theme, and the speaker's empathy: a reexamination of relativization phenomena. In Li, Charles N. (ed.), *Subject and topic*, 417–444. New York: Academic Press.

Lambrecht, Knud. 1994. *Information structure and sentence form: topic, focus and the mental representations of discourse referents*. Cambridge: Cambridge University Press.

Lambrecht, Knud & Maria Polinsky. 1998. Typological variation in sentence-focus constructions. In Singer, Kora et al. (eds), *Proceedings from the panels of the Chicago Linguistic Society's Thirty-third Annual Meeting*, 189–206. Chicago: Chicago Linguistic Society.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–681.

Lehmann, Christian. 2008. Information structure and grammaticalization. In: López-Couso, María José & Seoane Posse, Elena (eds.), *Theoretical and empirical issues in grammaticalization 3*, 207–229 Amsterdam: John Benjamins.

López Nicolás, Oscar. 2016. Estudios de la fonología y gramática del zapoteco de Zoochina. PhD Dissertation. CIESAS, México.

Malchukov, Andrej; Haspelmath, Martin; & Comrie, Bernard. 2010. Ditransitive constructions: a typological overview. In Malchukov, Andrej; Haspelmath, Martin; & Comrie, Bernard (eds.), *Studies in ditransitive constructions: a comparative handbook*, 1–64. De Gruyter Mouton.

Mechling, William H. 1912. The Indian linguistic stocks of Oaxaca, Mexico, *American Anthropologist*, New Series 14(4): 643–682.

Rasch, Jeffrey Walter. 2002. The basic morpho-syntax of Yaitepec Chatino. PhD Dissertation. Rice University.

Rensch, Calvin Ross. 1976. *Comparative Otomanguean Phonology*. Bloomington: Indiana University.

Riemsdijk, Henk van. 2006. Free relatives. In Everaert, Martin; & Riemsdijk, Henk van (eds.), *The Blackwell companion to syntax*, vol. 11, 338–382. Oxford: Blackwell.

Sankoff, Gillian & Brown, Penelope. 1976. The origins of syntax in discourse: a case study of Tok Pisin relatives, *Language* 52(3): 631–666.

Stolz, Thomas; Stroh, Cornelia & Urdze, Aina. 2013. Comitatives and instrumentals. In Dryer, Matthew S. & Haspelmath, Martin (eds.) *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/paper/52.

Suárez, Jorge A. 1986. Elementos gramaticales otomangues en tlapaneco. In Elson, Benjamin F. (ed.), *Language in global perspective: papers in honor of the 50th anniversary of the Summer Institute of Linguistics 1935–1985*, 267–284. Dallas: Summer Institute of Linguistics.

CHAPTER 7

Relative Clauses with a Full Nominal Head in Zoochina Zapotec

Oscar López Nicolás

7.1 Introduction

This chapter presents a description and analysis of the structural and morphosyntactic properties of relative clauses (RCs) in relative constructions with a full nominal head in Zoochina Zapotec (Oto-Manguean; Zapotecan; Zapotec). Relative constructions are perhaps the most complex syntactic structures with the greatest heterogeneity of structural mechanisms. I adopt the notion of relative construction in Lehmann (1986):

> A relative construction is a construction consisting of a nominal (or a common noun phrase, in the terms of the categorical grammar) (which may be empty) and a subordinate clause interpreted as attributively modifying the nominal. The nominal is called the head and the subordinate clause the R[elative] C[lause]. The attributive relation between head and RC is such that the head is involved in what is stated in the clause.
>
> LEHMANN 1986: 664

In the literature on relative constructions, several formal parameters have been proposed (see Keenan and Comrie 1977; Lehmann 1986; De Vries 2002; Andrews 2007; *inter alia*). Firstly, there is the parameter referring to the structural relation between the RC and the head (also called domain nominal) which allows a distinction between embedded RCs (i.e., contiguous to the head and forming an immediate constituent together with it) and adjoined RCs (i.e., separated from the head). Embedded RCs can be either externally headed, if the head is expressed outside the RC, or internally headed, if the head occurs within the RC. Only with externally headed RCs it is possible to evaluate whether they are prenominal or postnominal.

Another important parameter in the study of RCs is the relativization strategy used to encode the role of the domain nominal within the RC. Cross-linguistically, the following strategies have been recognized: 1) the gap strategy, 2) the relative pronoun strategy, 3) the resumptive pronoun strategy and 4)

the non-reduction strategy with three variants (internal head, correlatives and paratactic clauses) (Comrie and Kuteva 2005). The realization of the domain nominal is important since it allows differentiating between RCs with a full head, a light head or headless RCs.

The accessibility to relativization is another fundamental parameter, as proposed by Keenan and Comrie (1977: 66), according to which the constructions that relativize the syntactic role of subject are considered as basic structures.

From this characterization, RCs with a full head in Zoochina Zapotec have the following features: 1) they are predominantly embedded subordinate clauses with an external head, although they can also be adjoined; 2) they are postnominal; 3) they allow two basic strategies of relativization: the gap strategy and the relative pronoun strategy; 4) the scope of relativization, according to the hierarchy of accessibility, encompasses even the syntactic relation of possessors; and 5) the relativization of obliques and adjuncts is only possible if they are promoted to central arguments via the applicative construction.

This paper is organized as follows. In the following section, I describe the morphosyntactic features of Zoochina Zapotec relevant to the study of RCs. Section 7.3 gives an account of the structural types of RCs in this Zapotec variety. Section 7.4 describes in detail the two relativization strategies available in this language. The accessibility of syntactic roles to relativization is discussed in Section 7.5. Finally, a summary of the most relevant findings of this study is presented in Section 7.6.

7.2   Basic Morphosyntactic Aspects of the Language

Zoochina Zapotec is spoken in the northeast of the state of Oaxaca. According to the classification of Zapotec languages proposed by Smith-Stark (2007), this language belongs to the Northern subgrouping of Core Zapotec. Zapotec and Chatino form the Zapotecan branch of the Oto-Manguean stock.

The verbal morphology of Zoochina Zapotec has an agglutinating profile with some fusional features that allow for the morphological realization of a large number of categories in the verb, which is a characteristic of Northern languages that distinguishes them from other languages in the family that are more isolating.

7.2.1   *Constituent Order*

Like other Zapotec languages, Zoochina Zapotec presents a basic VS and VSO word order.[1] Two examples illustrating the VS(O) configuration of language are given in (1). As the language does not have morphological case, in monotransitive clauses it is word order that defines grammatical relations (i.e., (1b) cannot be interpreted with the VOS configuration).

(1)   a.   *gòt dà' Lhînh ...*
              go-àt   [*dà' Lhînh*]
              CP-die late   M.
              'The late Marcelino died ...' {Txt}

       b.   *bá dxésé'bézé béné xshìlhènh' lé'*
              ba=dx-s+'-bézé   [*béné   xshìlh=nhà'*]   [*lé'*]
              TERM=ICP-S:PL-wait   CLF_PRO Zoochila=DEF 3_PRO
              'Those from Zoochila were already waiting for him.' {Txt}
              * 'He was already waiting for those from Zoochila.'

7.2.2   *Alignment*

Zoochina Zapotec has nominative-accusative alignment. The single argument of an intransitive predicate and the subject argument of a monotransitive predicate are coded by the same set of clitic pronouns, which I call the 'nominative set', as shown in the examples in (2a) and (2b). On the other hand, the object argument is coded by a different pronominal series, like in (2c), which I call the 'objective set'.

(2)   a.   *nhì gôlghá'*
              nhì   go-álghé=á'
              here CP-be.born=NOM1SG
              'I was born here.' {Txt}

       b.   *... blhé'ydànhé' báché*
              b-lhé'y+d=á'=nhé'   *báché*
              CP-see=NOM1SG=OBJT3FORM earlier
              '... I saw him earlier.' {Txt}

---

1   The language shows all word-order correlations of the VO type in Dryer (1992).

c. *góklhémbándà'*
   *go-àk+lhénh=bá'=**ndà'***
   CP-help=S3INFORM=OBJT1SG
   'He helped me.' {Txt}

In ditransitive constructions the alignment is prototypically neutral, that is, both the object, in (3a), and the recipient, in (3b), are expressed with the objective set.

(3)   a. *... bì'òndà' bénénhà'*
      *be-òè'=ò'=**ndà'**   béné'=nhà'*
      CP-give.to.3=NOM2SG=OBJT1SG person=DEF
      '... You gave me [in marriage] to that person.' {Txt}

   b. *nhá wdègó'bándà'*
      *nhá   w-dè=gâ=ò'=bá'=**ndà'***
      CONJ IRR-pass=ADV=NOM2SG=O3INFORM=OBJT1SG
      'And please pass it on to me [on the phone].' {Txt}

The language has two other types of alignment, the indirective and the secundative. The first is idiosyncratic of the verbs *nàb* 'ask' and *shàb* 'offer'; for the second see López Nicolás (2009) for more details.

7.2.3   *Grammatical Relations*

This variety of Zapotec distinguishes, in the first instance, between core grammatical relations (subject and object) and non-core ones (adjunct).[2] In the two preceding sections, two coding properties of the core relations have been implicitly given: word order (VSO) (examples in 1) and the pronominal set (examples in 2).[3] Because of the predominantly neutral alignment of the language, I use labels only for subject and object. The grammatical relation of object includes both primary and secondary objects. The order of objects with a ditransitive verb can alternate between VSO$_{REC}$O$_{THEME}$, like in (4a), or VSO$_{THEME}$O$_{REC}$, like in (4b).

---

2 I have omitted the notion of oblique here because there are only two verbs which exhibit an indirective alignment, where the oblique object is introduced by the relational noun *lhàò* 'to, facing, opposite to'.

3 In the pronominal sets, the case distinction is only found in the pronouns for first person singular and third person singular (see López Nicolás 2016: Chap. 7).

TABLE 7.1   Positions in the NP

Q	INDEF.ART	NOM.CLF	HEAD	POSS ——— ADJ	PERIPH.POSS	REL

b. *nhètònhˀ bá dxìtòˀ ...*
   nhètòˀ=nhàˀ   ba=dxìˀ=tòˀ
   1PL.EXCL_{PRO}=FOC TERM=be.seated=NOM1PL.EXCL
   'We were already sitting' {Txt}

c. *séyènhˀ zédéxhíáˀ*
   sêy=nhàˀ z-édé-xhí=áˀ
   seal=FOC PRF-come-bring=NOM1SG
   'I have come to bring the seal.' {Txt}

7.2.5   *The Nominal Phrase*

The maximum expansion of an NP in Zoochina Zapotec is outlined in Table 7.1.

Nominal classifiers, such as *lhíá* 'woman' in (7a), occur adjacent to the head of the NP. The next position to the left of the head is dedicated to indefinite articles, like in (7b). To the far left is the structural position of quantifiers, like in (7c). The head can be constituted by an independent root or it can host a set of clitics expressing several semantic categories and morphosyntactic values; one of the most relevant for the purposes of this study is the determiner *=nhàˀ*, which marks definiteness, like (7a).

(7) a. *... lêbánhàˀ blhùèˀydbá lhíá Ntônhnàˀ*
        lêbáˀ=nhàˀ   *b-lh⟨o⟩èˀy+d=báˀ*   **lhíá** Ntônh=nhàˀ
        3INFORM_{PRO}=FOC CP-show=S3INFORM CLF A.=DEF
        '... She taught Antonia.' {Txt}

     b. *shghàtìbtòˀ nhó xhònhˀ jérg ...*
        sh-yêgh-yìb=tòˀ   **nhó**   xhònh jérg
        ICP-go-wash=NOM1PL.EXCL INDF:NON.SPEC CLF   blanket
        'We were going to wash some blankets.' {Txt}

     c. *nhá nlàgtòˀ xôngh nhó bûrr*
        nhá   nh-lhàg=tòˀ   **xôngh** nhó   bûrr
        CONJ ST-run.after=NOM1PL.EXCL some   INDF:NON.SPEC donkey
        'And we herded some donkeys.' {Txt}

Of the structural positions to the right of the head, it is important to show only the expression of the RC, which occurs at the right end of the NP, like in (8).[4]

(8) *dxônlá bíʔchíánhʔ zó méjìkòʔ*
     dx-ónh+lá   bíʔchè=*áʔ*=nhàʔ   [*zó   Méjìkoh=nhàʔ*]
     ICP-mock   son=POSS1SG=DEF   exist:AN M.=DEF
     'He makes fun of my son who lives in Mexico.' {Txt}

The morphosyntactic features described so far will serve as a background to the discussion on the formal and semantic properties of full-headed RCs in the following sections.

7.3   Structural Types of RCs

In Zoochina Zapotec, RCs are embedded, externally headed, postnominal clauses, which are properties consistent with its typological classification as an OV language. The example in (9a) shows an instance of a relative construction in which the noun *bíʔdáóʔ* 'child' is the head and the clause *shyêghgàk skúèl-hnhàʔ* 'they go to school' is the RC, whose function is to restrict the reference of the domain nominal, which is the subject of the matrix clause. As it may be seen, the head occurs outside the RC, so it is an external head, and the RC is post-nominal. The head and the RC are adjacent and form a syntactic constituent, as shown in (9b), where the subject NP containing the domain nominal and the RC precede the object NP *békòʔnhàʔ* 'that dog'. Contiguity of the domain nominal and the RC can also be seen when the NP is fronted to focus position, like in (9c).

(9) a. *béséylháʔ bíʔdáónhʔ shghàʔàk skúèlhèʔ* ...
         b-s+ʔ-ey+láʔ   **bíʔdáóʔ=nhàʔ** [*sh-yêgh=gak skúèlh=nhàʔ*]
         CP-S:PL-return.here child=DEF   ICP-go=O:PL school=DEF
         'The children who go to school have come back ...' {Txt}

     b. *bsóʔòt bíʔdáóʔnh shghàʔàk skúèlhènh békòʔnhàʔ*
         b-s+ʔ-ót   **bíʔdáóʔ=nhàʔ** [*sh-yêgh=gak skúèlh=nhàʔ*] *békòʔ=nhàʔ*
         CP-S:PL-hit   child=DEF   ICP-go=O:PL school=DEF   dog=DIST
         'The kids who go to school hit that dog.'

---

4   The definite determiner =*nhàʔ* has three allomorphs: =*nhʔ*, =*àʔ* and =ʔ.

    c. *bíʔdáónʰ shghàʔàk skúèlnhàʔ bsòʔòtbá békoʔnhàʔ*
       bíʔdáóʔ=*nhàʔ* [*sh-yêgh=gàk skúèlh=nhàʔ*] *b-s+ʔ-ót=bàʔ*
       child=DEF   ICP-go=O:PL school=FOC CP-S:PL-hit=S3INFORM
       békòʔ=nhàʔ
       dog=DIST
       'The kids who go to school hit that dog.'

In addition to embedded RCs, Zoochina Zapotec also has adjoined RCs, which are considered in the literature as another structural type (Lehmann 1986; Andrews 2007; *inter alia*). Adjoined RCs are separated from their head by the occurrence of other elements, so that the head and the RC do not form a contiguous constituent. An example of an adjoined RC is given in (10).

(10) *... dxìʔ bénénʰ dxáké kábésíàr nhónʰ dxápé nhàʔ*
      dxìʔ   **bénéʔ=*nhàʔ*** *dx-àk=éʔ*   *kábésíàr*
      seated.at.floor.level person=DEF ICP-happen=NOM3FORM nod
      [*nhó+nhàʔ dx-ápé   nhàʔ*]
      who   ICP-guard there
      '... The person who guards there (the church) is sitting there nodding.'
      {Txt}

7.4 Relativization Strategies

Zoochina Zapotec has two basic relativization strategies: the gap strategy and the relative pronoun strategy. Concerning the latter strategy, the language has two types of proforms that function as relative pronouns: pronouns that are derived from interrogative pronouns and pronominal classifiers. In this section, I elaborate on each of the strategies.

7.4.1 *The Gap Strategy (*without a Subordinator*)*

The gap strategy does not provide any explicit reference to the domain nominal within the RC. This means that it is not possible to identify the syntactic role of the head within the subordinate sentence. As in many languages, in Zoochina Zapotec the gap strategy is a fairly common way to recover the identity of the domain nominal. In (11) the head *nhóʔólhé* 'woman' has no formal expression within the RC. The omitted argument is indicated by an underscore in the position where it would have otherwise occurred. In the gap strategy construction, the RC is asyndetic, that is, it is not linked by a subordinator.

(11) *... gótshkâ nhóʔólhénhʔ bzó nhî*
      go-àt=shkâ   **nhóʔólhé=nhàʔ** [*b-zó*   __   *nhì*]
      CP-die=ADV woman=DEF   CP-exist:AN   here
      '... (so) the woman who lived here died.' {Txt}

The interpretation of the syntactic role of the domain nominal in the RC is ambiguous with transitive predicates, especially when such ambiguity is semantically possible. This is illustrated in (12), which can have the reading in (i) or the reading in (ii), showing relativization of object and subject, respectively.

(12) *àgé bézhình nhóʔólhénhʔ bzâgèʔ dàʔ Tómáséʔ*
      àgé=b-ey+zhình   **nhóʔólhé=nhàʔ** [*b-z-àgèʔ*   *dàʔ*
      NEG=CP-return.there woman=DEF   CP-CAUSE-stop deceased
      Tómás=nhàʔ]
      T.=DEF
      i.   Rel. Object. 'The woman whom the late Thomas arrested did not arrive.' {Txt}
      ii.   Rel. Subject. 'The woman who arrested the late Thomas did not arrive.'

The gap strategy is also used in the relativization of the two syntactic objects of ditransitive verbs. This is shown in the following examples. In (13a), the gap in the RC corresponds to the relativization of the recipient object, while in (13b) the theme is relativized. In (13c) there is ambiguity.

(13) a. *stâ nhóʔólhénhʔ bíʔò mêdxòʔ*
          z-zàʔ   **nhóʔólhé=nhàʔ** [*be-òèʔ=òʔ*   __ *mêdxoh=nhàʔ*]
          PRF-leave woman=DEF   CP-give.to.3=NOM2SG   money=DEF
          'The woman to whom you gave the money has left.'

      b. *bnhìt mêdxònhʔ bíʔò nhóʔólhénhʔ*
          b-nhìt   **mêdxo=nhàʔ** [*be-òèʔ=òʔ*   *nhóʔólhé=nhàʔ* ___]
          CP-lose money=DEF   CP-give.to.3=NOM2SG woman=DEF
          'The money you gave to the woman was lost.'

      c. *bídé nhóʔólhénhʔ bíʔò bíʔdáóʔnhàʔ*
          b-ídé   **nhóʔólhé=nhaʔ** [*be-òèʔ=òʔ*   *bíʔdáóʔ=nhàʔ*]
          CP-come woman=DEF   CP-give.to.3=NOM2SG child=DEF
          i.   Rel. Recipient. 'The woman to whom you gave the child came.'
          ii.   Rel. Theme. 'The woman you gave to the child came.'

TABLE 7.2   Relative pronouns from interrogative pronouns

Interrogative		Relative
nhő	'who?'	nhó+nhàˀ 'who'
bǐ	'what?'	–
bìx+chèˀ	'why?'	–
gǎ	'where?'	gá+nhàˀ 'where'
nhǎk	'how?'	–
bǎt	'when?'	–
nhòlhé=PRO	'which?'	–
gháˀké=PRO	'how many? (INAN)'	–
bàlé=PRO	'how many? (AN)'	–

TABLE 7.3   Relative pronouns from pronominal classifiers

béné	Human formal
bíˀ	Human informal
bé	Animal
dáˀ	Inanimate

7.4.2   *The Relative Pronoun Strategy*

Zoochina Zapotec has two paradigms of relative pronouns of different origins: those derived from interrogative pronouns (Table 7.2) and the pronominal classifiers that function as anaphoric elements in the RC (Table 7.3). While the relative pronouns derived from interrogatives maintain features of animacy or case, relative pronouns from pronominal classifiers provide information on the animacy and honorificity of the referent.

Interrogative pronouns, like the ones in (14), necessarily occur at the left edge of the clause and require the focus marker =*nhàˀ*, suggesting that, in the grammaticalization process to become relative pronouns, the focus marker became lexicalized. Additionally, relative pronouns exhibit a high tone that contrasts with the ascending tone of their interrogative counterparts.

(14) a. ... *nhónhˀ blháˀ*?
         ***nhőˀ**=nhàˀ*   *b-lháˀ*
         WHO~PRO.INTER~=FOC CP-arrive.here
         '... Who arrived?' {Txt}

      b. ... *gánhˀ shêghéˀ ...*?
         ***gắˀ**=nhàˀ*   *shêgh=éˀ*
         WHERE~PRO.INTER~=FOC IRR.go=NOM3FORM
         '... Where will he go ...?' {Txt}

Pronominal classifiers do not co-occur with the classified nominal, they stand in for it instead. Example (15a) illustrates the use of the pronominal classifier *bíˀ* for humans with an informal treatment functioning as the subject of the intransitive predicate. Pronominal classifiers form a separate paradigm from personal pronouns, like the one in (15b).

(15) a. *kátèˀ shghàˀàk bíˀkáˀ*
         *kátèˀ shêgh=gàk   **bíˀ**=káˀ*
         when IRR.go=O:PL CLF~PRO~:INFORM=PL:DIST
         'When those go.' {Txt}

      b. *kátèˀ shghàˀàk lêbáˀ*
         *kátèˀ shêgh=gàk   **lêbáˀ***
         when IRR.go=O:PL 3INFORM~PRO~
         'When they go.'

Relative pronouns invariably occur at the beginning of the RC. The following examples illustrate the relative pronouns *nhó+nhàˀ* 'who', in (16a), *bíˀ* a pronoun for humans (informal register), in (16b), and *bé* a pronoun for animals in (16c). Since the relativized argument is semantically referred to in the relative pronoun, I use the symbol T (i.e., trace) to specify the position from which the relativized constituent has moved (Comrie 1998: 64–67). One piece of evidence that the element *nhàˀ* in the relative pronoun no longer functions as the focus marker *=nhàˀ* is that the clause does not have a resumptive pronoun when the subject is relativized. With the pronominal classifiers, like in (16b) and (16c), the marker *=nhàˀ* indicates definiteness of the domain nominal inside the RC.[5]

---

5 There are various elements *nhàˀ* that are nowadays homophonous but historically derived from a once polyfunctional element following the chain: locative adverb → distal demonstrative → definite marker // copula → focus/topic marker.

(16) a. *... bèsèbànhé nhóʔólhénhàʔ nhónh bzá kánhàʔ*

    b-s+ʔ-bành=éʔ   nhóʔólhé=nhàʔ [**nhó+nhàʔ** b-zàʔ ~~t~~

    CP-S:PL-steal=NOM3FORM woman=DEF   WHO   CP-PL

    ká+nhàʔ]

    a.while.ago

    '... They stole from the woman who left long ago.' {Txt}

  b. *zó bíʔchíánhʔ bíʔnh lê Magdalena*

    zó   bíʔchè=áʔ=nhàʔ   [**bíʔ**=nhàʔ   lhê   ~~t~~

    exist:AN offspring=POSS1SG=DEF CLF_{PRO}:INFORM=DEF ICP.name

    Magdalena]

    M.

    'I have a daughter who is called Magdalena.' {Txt}

  c. *... yézíʔbáʔ góʔn bé kóʔbáʔ lnì*

    y-ey+zíʔ=báʔ   góʔn [**bé**   kóʔò=báʔ ~~t~~

    IRR-buy=S3INFORM bull CLF_{PRO}:ANIM IRR.put.in=S3INFORM

    lnì]

    celebration

    '... He'll buy a bull that he'll donate to the village celebration.' {Txt}

In certain cases, there can be ambiguity as to the interpretation of the relativized element, either the subject or object, just like with the gap strategy. The ambiguity does not happen in focus constructions because there is an obligatory resumptive pronoun when the subject is focalized. Example (17) illustrates this ambiguity in a RC with two different types of relative pronoun.

(17) *bénhénh nhónh/bíʔnh bétoh Xhébéʔ*

    bénéʔ=nhàʔ [**nhó+nhàʔ/bíʔ**=nhàʔ   be-ót   Xhéb=nhàʔ]

    person=DEF WHO/CLF_{PRO}:INFORM=DEF CP-kill J.=DEF

    i.   Rel. Object. 'the person whom Joseph killed'

    ii.   Rel. Subject. 'the person who killed Joseph'

The only relative pronoun bearing case is the locative relative pronoun *gá+nhàʔ* 'where' in (18).[6]

---

6   The distal demonstrative *=nhàʔ* in the predicate of the relative clause in example (18) is not a resumptive pronoun, rather it indicates that the action was carried out at a specific place at a specific time.

(18) ... *yóʔònhàʔ gánhʔ ghésótòʔnhàʔ*
      yóʔò=*nhàʔ* [*gá*+*nhàʔ yêgh-zó=tòʔ*=*nhàʔ*]
      house=DEF WHERE   CP.go-exist:AN=NOM1PL.EXCL=DIST
      '... the house where we went to live' {Txt}

In summary, both the gap strategy and the relative pronoun strategy are basic strategies in Zoochina Zapotec because they participate in the relativization of the subject. Unlike in focalization, RC constructions with relative pronouns do not trigger resumptive pronouns when the subject is relativized, producing ambiguity in the interpretation under specific circumstances.

7.5   Accessibility of Syntactic Roles to Relativization

Keenan and Comrie's (1977) renowned accessibility hierarchy (i.e., SUBJECT > DIRECT OBJECT > INDIRECT OBJECT > OBLIQUE > POSSESSOR > OBJECT OF COMPARISON) needs to be adapted to account for Zoochina Zapotec RC constructions. This is by virtue of two situations: (i) the language does not distinguish—in terms of relativization—between direct and indirect objects; and (ii) obliques need to be promoted to core arguments in order to be relativized. The adapted version I propose would take the form in (19).

(19) SUBJECT > OBJECT > LOCATIVE > POSSESSOR

7.5.1   *Relativization of Core Arguments*
In Section 7.4, I have shown that both relativization strategies (i.e. with a gap and with a relative pronoun) can be used to relativize subjects and objects. For the relativization of subjects, see examples (11) and (16a), repeated here as (20a) and (20b), respectively; for objects, see examples in (21) (example (21b) is a repetition of (16c)).

(20) a. ... *gótshkâ nhóʔólhénhʔ bzó nhî*
          go-àt=*shkâ* nhóʔólhé=*nhàʔ* [*b-zó*   __ *nhì*]
          CP-die=ADV woman=DEF   CP-exist:AN   here
          '... (so) the woman who lived here died.' {Txt}

      b. ... *bèsèbànhé nhóʔólhénhàʔ nhónh bzá kánhàʔ*
          b-s+ʔ-bành=*éʔ*   nhóʔólhé=*nhàʔ* [*nhó*+*nhàʔ b-zàʔ* ₜ
          CP-S:PL-steal=NOM3FORM woman=DEF   WHO   CP-PL

*ká+nhà*ˀ]
a.while.ago
'... They stole from the woman who left long ago.' {Txt}

(21) a. ... *mêdxònh*ˀ *bésélé bí*ˀ*chíánh*ˀ
   mêdxoh=*nhà*ˀ [b-ey+sèlè*ˀ   bí*ˀchè=á*ˀ=nhà*ˀ   __]
   money=DEF   CP-send.to.source son=POSS1SG=DIST
   '... the money my son sent [home]' {Txt}

   b. ... *yézí*ˀ*bá*ˀ *gó*ˀ*n bé kó*ˀ*bá*ˀ *lnì*
   y-ey+zí*ˀ=bá*ˀ   gó*ˀn [*bé   kó*ˀò=bá*ˀ   _t_
   IRR-buy=S3INFORM bull   CLF_PRO:ANIM IRR.put.in=S3INFORM
   lnì]
   celebration
   '... He'll buy a bull that he'll donate to the village celebration.' {Txt}

Because of the predominantly neutral alignment in the language, the rela-
tivization of the two syntactic objects of ditransitive verbs shows the same
characteristics as the relativization of the object of a monotransitive verb. The
examples in (22) and (23) show that both recipient and theme objects can
be relativized by the two relativization strategies, gap and relative pronoun,
respectively; examples (22a) and (23a) are repetitions of (13a) and (13b), respec-
tively.

(22) a. *stâ nhó*ˀ*ólhénh*ˀ *bí*ˀ*ò mêdxò*ˀ
      z-zà*ˀ   nhó*ˀólhé=*nhà*ˀ [be-òè*ˀ=ò*ˀ   __ *mêdxoh=nhà*ˀ]
      PRF-leave woman=DEF   CP-give.to.3=NOM2SG   money=DEF
      'The woman to whom you gave the money has left.'

   b. *stâ nhó*ˀ*ólhénh*ˀ *nhónh*ˀ *bí*ˀ*ò mêdxò*ˀ
      z-zà*ˀ   nhó*ˀólhé=*nhà*ˀ [*nhó+nhà*ˀ be-òè*ˀ=ò*ˀ   _t_
      PRF-leave woman=DEF   WHO   CP-give.to.3=NOM2SG
      *mêdxoh=nhà*ˀ]
      money=DEF
      'The woman to whom you gave the money has left.'

(23) a. *bnhìt mêdxònh*ˀ *bí*ˀ*ò nhó*ˀ*ólhénh*ˀ
      b-nhìt   mêdxo=*nhà*ˀ [be-òè*ˀ=ò*ˀ   nhó*ˀólhé=*nhà*ˀ __]
      CP-lose money=DEF CP-give.to.3=NOM2SG woman=DEF
      'The money you gave to the woman was lost.'

b. *bnhìt mêdxònhˀ dàˀnh bíˀò nhóˀólhénhˀ*
   b-nhìt   mêdxo=*nhàˀ* [**dàˀ**=*nhàˀ*   *be-òèˀ*=*òˀ*
   CP-lose money=DEF PL_PRO:INAN=DEF CP-give.to.3=NOM2SG
   nhóˀólhé=*nhàˀ* ___]
   woman=DEF
   'The money you gave to the woman was lost.'

7.5.2 *Relativization of Non-core Participants*

I group obliques and adjuncts under the label of "non-core participants". In the following subsections, I show that obliques encoding the semantic role of a recipient, and comitative and instrumental adjuncts, exhibit the same behavior as for relativization purposes, by means of an applicative construction that promotes them to object status providing access to relativization. On the other hand, the locative argument of positional verbs is coded as a grammatical subject and, as such, has access to relativization.

7.5.2.1 Recipient, Comitative and Instrument

The language has two verbs, *nàb* 'ask' and *shàb* 'offer', which treat the recipient as an oblique introduced by the relational noun *lhàò* 'to, facing, opposite to', as shown in (24a). In this example, it is assumed that the participant with the semantic role of recipient, expressed in the NP *bénéˀ=káˀ* 'those people', is not an argument subcategorized by the monotransitive predicate *nàb* 'ask', because it needs to be promoted by the general applicative =*d* to gain access to pronominalization in the verb,[7] as seen in (24b). The ungrammaticality of (24c) shows that the applicative is a necessary mechanism to increase the valence of the predicate from transitive to ditransitive.

(24) a. *shghànàbòˀnh lháó bénékáˀ*
     sh-yêgh-nàb=*òˀ*=*nh*   **lhàò** *bénéˀ*=*káˀ*
     IRR-go-ask=NOM2SG=O3INAN to   person=PL.DIST
     'You're going to ask those people.'

    b. *kátèˀ shghàshàbdtònhéˀ góˀnèˀ*
     kátèˀ *sh-ghe-shàb*=**d**=*tòˀ*=*nhéˀ*
     when IRR-go-offer=GEN.APPL=NOM1PL.EXCL=OBJT3FORM

---

7 I analyze the marker =*d* as a clitic in this variety of Zapotec, because it can operate in different categorical domains; that is, it can be phonologically hosted by words of at least two different lexical classes, verbs and interrogative pronouns.

gó²n=nhà²
bull=DEF
'When we were going to offer them the bulls.' {Txt}

c. **sh-ghe-shàb=tò²=nhé²*   *gó²n=nhà²*
  IRR-go-offer=NOM1PL.EXCL=OBJT3FORM bull=DEF
Intended reading: *idem* (24b)

For the relativization of this oblique participant, the verb also requires the general applicative *=d*, like in (25a); omission results into ungrammaticality, as shown in (25b). Further note that the relational noun *lhàò* does not occur in the RC.

(25) a. *... bénénh² nhónh² bshàbdò² gó²nè²*
    béné²=nhà² [*nhó+nhà² b-shàb=**d**=ò²*   *gó²n=nhà²*]
    person=DEF WHO   CP-offer=GEN.APPL=NOM2SG bull=DEF
    'The person to whom you offered the bulls.'

b. **béné²=nhà²* [*nhó+nhà² b-shàb=ò²*   *gó²n=nhà²*]
    person=DEF WHO   CP-offer=NOM2SG bull=DEF
    Intended reading: *idem* (25a)

Comitatives, in (26a), and instruments, in (26b), are oblique adjuncts that are introduced with the preposition *lhénh*.

(26) a. *yîdó lhénh nâdà²*
    y-ídé=ò²   **lhénh** *nhàdà²*
    IRR-come=NOM2SG with   1SG_PRO
    'You will come with me.' {Txt}

b. *... shdáchà² lhénh lênh*
    sh-dâ=chè²=á²   **lhénh** *lênh*
    ICP-walk=ADV=NOM1SG with   3INAN_PRO
    '... I walk (more confidently) with it.' {Txt}

And in the same way as it happens with the oblique recipient, to be relativized comitatives and instruments must be promoted to objects by applicatives: *-lhénh* is used for comitatives and *-é+=d* for instruments. This is shown in (27). Omission of the applicative in relativization results into ungrammaticality, as shown in (28).

(27) a. ... *bwíxé nhóˀólhénhˀ zézálhénhàˀ*
        b-bíxé   nhóˀólhé=*nhàˀ* [*z-ey+zàˀ-lhénh=áˀ*]
        CP-fall   woman=DEF   PRF-come.to.source-COM.APPL=NOM1SG
        '... The woman I came with fell.' {Txt}

    b. ... *bíbénhˀ dàˀnh chîbédtòˀ lhàdxèˀnhàˀ*
        bíbé=*nhàˀ*   [*dàˀ=nhàˀ*
        jojoba=DEF CLF_{PRO}:INAN=DEF
        chîb-é=d=tòˀ   *lhàdxèˀ=nhàˀ*]
        IRR.wash-INSTR.APPL=GEN.APPL=NOM1PL.EXCL clothing=DEF
        '... The jojoba we used to do our laundry with.' {Txt}

(28) a. *b-bíxé   nhóˀólhé=*nhàˀ* [*z-ey+zàˀ=áˀ*]
         CP-fall   woman=DEF   PRF-come.to.source=NOM1SG
        Intended reading: *idem* (27a)

    b. *bíbé=*nhàˀ*   [*dàˀ=nhàˀ*   *chîb=tòˀ*
        jojoba=DEF CLF_{PRO}:INAN=DEF IRR.wash=NOM1PL.EXCL
        lhàdxèˀ=nhàˀ]
        clothing=DEF
        Intended reading: *idem* (27b)

As for relativization strategy, as noted in the examples, for the relativization of non-core participants such as oblique recipients, comitatives and instruments, both the gap and relative pronoun strategy can be used.

7.5.2.2   Locative Adjuncts
In Zoochina Zapotec, we distinguish between two groups of locative adjuncts: those that are introduced by means of relational nouns, like in (29a), and those (mainly toponyms) that are locative NPs, like in (29b). As I will show, both types behave differently for relativization purposes.

(29) a. *bá béyôlh zhành zhîlh ...*
        ba=b-ey+ôlh   **xhành**   *zhîlh*
        TERM=CP-exit RN:under stove's.hotplate
        'It [fire] has already gone out under the stove's hotplate ...' {Txt}

    b. ... *sghàsdâbá láˀ*
        z-yêgh-ez-dâ=báˀ   **Láˀ**
        PRF-go-REPTV-walk=S3INFORM Oaxaca
        'She must have gone to Oaxaca again.' {Txt}

In Section 7.4.2, I have shown that the relative pronoun *gá+nhàʔ* 'where' is used for the relativization of a locative. Locative adjuncts are relativized by the relative pronoun strategy, like in (30a). The ungrammaticality of (30b) indicates that the gap strategy is not possible for this function.

(30) a. *àgé nhòmbìàʔlhé nhàʔ gánhʔ shnhàtòʔ bèghwâgé*
          àgé=nh-ônh+bìàʔ=lhé   nhàʔ [*gá+nhàʔ* sh-nhà=tòʔ*
          NEG=ST-know=NOM2PL there WHERE   ICP-say=NOM1PL.EXCL
          Bègh+wágé]
          B.
          'You don't know there [the spot] where we call Bèghwâgé.' {Txt}

      b. *àgé=nh-ônh+bìàʔ=lhé*   nhàʔ [*sh-nhà=tòʔ*   *Bègh+wágé*]
          NEG=ST-know=NOM2PL there ICP-say=NOM1PL.EXCL B.
          Intended reading: *idem* (30a)

However, locative adjuncts introduced by relational nouns use the relative pronoun *gá+nhàʔ* 'where' plus the corresponding relational noun, and both elements head the RC, like in (31).

(31) *byèy lháshghénhʔ kʷít gánhʔ dxâzáʔ*
        b-yèy   lháshghé=*nhàʔ* [*kʷít*   *gá+nhàʔ* dx-àz=á*ʔ]
        CP-burn hill=DEF   RN:side where   ICP-sow=NOM1SG
        'The hill, on whose side I sow, was burned.'

The fronting of the entire adpositional constituent in (31) indicates that there is pied-piping. Only in interrogatives do we find what Smith-Stark (1988) calls 'pied-piping with inversion', where there is an inversion of the order of the elements in (31), as shown in (32).

(32) *gǎ kʷítènhʔ dxàzòʔ?*
        gǎ   *kʷít*=*nhàʔ*   dx-àz=ò*ʔ
        LOC$_{PRO.INTER}$ RN:side=FOC ICP-sow=NOM2SG
        'Next to where do you sow?'

7.5.2.3   Positional Verbs

Zoochina Zapotec has set of positional verbs that encode the background (i.e., the locative participant) as their grammatical subject. To illustrate the case, consider the examples in (33). In (33a) the NP *máshét=nhàʔ* 'the machete' is the only argument of the positional verb *âlé* 'hang', the locative adjunct *zèʔè*

'wall' is introduced by the relational noun *lèˀè*. In (33b), in contrast, the semantic location *bdxòb* 'basket' functions instead as the subject of the verb *yóˀó* 'be tucked in'. We can see this by the fact that it is not introduced by any relational noun, but in preverbal focus position it triggers the use of a resumptive pronoun. The spatial figure (i.e., the entity located in a space), expressed in the NP *xhúáˀ* 'maize' is a pseudo-subject (for more details, see López Nicolás 2015).[8]

(33) a. *nhâlhé máshétèˀ lèˀè zèˀènhàˀ*
        *nh-âlé   máshét=nhàˀ **lèˀè** zèˀè=nhàˀ*
        ST-hang machete=DEF RN:on wall=DIST
        'The machete is hanging on that wall.'

      b. *léˀ bdxòbbènhˀ, yóˀònh xhúáˀ*
        *léˀ   **bdxòb**=nhàˀ yóˀó=**nh**   xhúáˀ*
        because basket=FOC be.tucked.in=S3INAN corn
        'Because the basket contains corn.' {Txt}

The locative participant in the locative construction of (33b) with asymmetric subjects can be relativized by the locative pronoun strategy, like in (34), where it is treated as a locative adjunct.

(34) *blháˀá xwágénhˀ gánhˀ yózhé nhìsèyèˀnhàˀ*
      *b-lháˀá   xwágé=nhàˀ [**gá**+**nhàˀ** yózhé   nhìs+yèˀ=nhàˀ]*
      CP-break jug=DEF   WHERE   be.contained corn.drink=DEF
      'The jug, which contained the corn drink, broke.'

But it can also be relativized by the relative pronoun strategy with a pronominal classifier, like in (35a), or even by the gap strategy, like in (35b). The availability of such strategies reveals that the locative participant is treated as the subject of the construction.

(35) a. *xwágénhˀ dàˀnh yózhé nhìsèyèˀnhàˀ*
        *xwáge=nhàˀ [**dàˀ**=nhàˀ   yózhé   nhìs+yèˀ=nhàˀ]*
        jug=DEF   CLF_PRO:INAN=DEF be.contained corn.drink=DEF
        'The jug that had the corn drink.'

---

8 In this construction, a pseudo-subject does not have the properties of a fully-fledged object. This type of construction always has a possessive reading in which the locative participant is interpreted as the possessor and the figure as the possessed entity.

b. *xwágénhˀ yózhé nhìsèyèˀnhàˀ*
   xwáge=*nhàˀ* [*yózhé   nhìs+yèˀ=nhàˀ*]
   jug=DEF   be.contained corn.drink=DEF
   'The jug that had the corn drink.'

In this section, I have shown that oblique recipients, comitatives, instruments and a particular type of locative participants are all relativized using basic relativization strategies of object or subject. In the following section, I study the relativization of possessors.

7.5.3 *Relativization of the Possessor*

Relativization of the possessor is not very common in the language. When this occurs, the relative pronoun strategy is preferably used, like in (36a). The gap strategy in (36b), although it does not seem to present restrictions, is dispreferred. The relativization of the possessor is more accessible with patient subjects such as the subject of the verb *yèy* 'burn'. It is ungrammatical when the possessor is a dependent of agentive subjects, such as the subject of the verb *xhíté* 'jump', in (36c).

(36) a. *gòt nhóˀólhénhˀ nhónhˀ byéy lhìzhèˀ*
     go-àt   nhóˀólhé=*nhàˀ* [**nhó+nhàˀ** b-yèy   lhìzh=nhàˀ]
     CP-die woman=DEF   WHO   CP-burn PSSD.house=DEF
     'The woman whose house burned down died.'

   b. *gòt nhóˀólhénhˀ byéy lhìzhèˀ*
     go-àt   nhóˀólhé=*nhàˀ* [b-yèy   lhìzh=nhàˀ]
     CP-die woman=DEF   CP-burn PSSD.house=DEF
     'The woman whose house burned down died.'

   c. *nhóˀólhé=*nhó* [**nhó+nhàˀ** t-xhíté   xhíˀi=nhó]
     woman=DEF WHO   ICP-jump PSSD.son=DEF
     Intended reading: 'The woman whose son jumps.'

As for ditransitive verbs, neither the possessor of the theme object nor the possessor of the recipient object has access to relativization. This is shown by the ungrammaticality of the examples in (37).

(37) a. **go-àt* bénéˀ=*nhàˀ* [nhó+nhàˀ x-mêdxoh=nhàˀ   be-òèˀ
     CP-die person=DEF WHO   POSSD-money=DEF CP-give.to.3

Júành=nhàʔ bíʔ=nhàʔ]
J.=DEF   CLF_PRO:INFORM=DEF
Intended reading: 'The man, whose money John gave to him, died'

    b. **go-àt*   bénéʔ=nhàʔ [*nhó+nhàʔ xhíʔìn=nhàʔ   Júành=nhàʔ*
     CP-die person=DEF WHO   PSSD.son=DEF J.=DEF
    be-òèʔ   mêdxoh]
    CP-give.to.3 money
    Intended reading: 'The man, whose son John gave money to, died.'

The examples in (38) illustrate the relativization of the possessor of an agent, which is a marginal construction in natural discourse. Note that the relative pronoun is preceded by the possessed following a pattern of pied-piping without inversion, where both the possessed and the possessor appear flagged by the focus marker =*nhàʔ*.[9]

(38) a. *blhéʔydàʔ bénénhʔ xhíʔìnènhʔ nhónh bdápèʔ bíʔnhàʔ*
       b-lhéʔy+d=áʔ   bénéʔ=nhàʔ [*xhíʔình=nhàʔ nhó+nhàʔ b-dápèʔ*
       CP-see=NOM1SG person=DEF PSSD.son=FOC WHO   CP-knock
       bíʔ=nhàʔ]
       CLF_PRO:INFORM=DEF
       'I saw the man whose son beat him.'

    b. *blhéʔydàʔ bénénh xhíʔìnènhʔ nhónh bxhòngh*
       b-lhéʔy+d=áʔ   bénéʔ=nhàʔ [*xhíʔình=nhàʔ nhó+nhàʔ b-xhòngh*]
       CP-see=NOM1SG person=DEF PSSD.son=FOC WHO   CP-run
       'I saw the man whose son ran.'

I have shown in this section that the relativization of a possessor does not constitute a uniform construction and that it is tied to the role of the possessed. In the following section, I introduce the roles that do not have access to relativization.

---

9 When a possessive NP is focalized, only the NP encoding the possessor receives the focus marker. There is no resumptive pronoun for subject.
    xhíʔình Júànànhʔ bxhòngh
    [*xhíʔình   Júành=**nhàʔ***] *b-xhòngh*
    PSSD.son J.=FOC   CP-run
    'John's son ran.'

7.5.4   *Roles with No Access to Relativization*

The syntax of Zoochina Zapotec does not allow for the relativization of reason, time or manner adjuncts, nor the object of comparison. This restriction is illustrated by the ungrammaticality of examples in (39).

(39) a. *b-lhéʔy+d=áʔ*   nhóʔólhé=*nhàʔ* [***nhìchè***(+*nhàʔ*) ***nhó+nhàʔ***
      CP-see=NOM1SG   woman=DEF   CAUSE   WHO
      b-ey+lháʔ≐oʔ]
      CP-return=NOM2SG
      Intended reading: 'I saw the woman you came back for.'

    b. *zàʔ+lhàzhèʔ=áʔ*   zhà=*nhàʔ* [***bát***(+*nhàʔ*) *b-ídé=òʔ*]
      ICP.remember=NOM1SG day=DEF WHEN   CP-come=NOM2SG
      Intended reading: 'I remember the day when you came.'

    c. *nèz+d=éʔ*   sbánh=*nhàʔ* [***nhák***(+*nhàʔ*) *sh-nè=òʔ*]
      know=NOM3FOR ugly=DEF   like   ICP-speak=NOM2SG
      Intended reading: 'He knows how badly you speak.'

    d. *bíʔdáóʔ=nhàʔ* [***ká***(+*nhàʔ*) *nhó+nhàʔ n-dxàòʔ=dx=òʔ*]
      child=DEF   as   WHO   ST-big=INT=NOM2SG
      Intended reading: 'The child with respect to whom you're bigger.'

7.6   Final Comments

In this paper, I have described the most relevant formal properties of RCs in Zoochina Zapotec with a full head, a domain of complex clause structure that has not yet been addressed in sufficient depth in the Zapotec languages. This study has shown that this language has embedded RCs as well as adjoined RCs. Embedded RCs are externally headed and postnominal. I have further shown that the language uses two relativization strategies: the gap strategy and the relative pronoun strategy. The latter strategy involves two pronominal paradigms: one from interrogative pronouns and another from pronominal classifiers. Both the gap strategy and the relative pronoun strategy concur in the relativization of core syntactic positions in the accessibility hierarchy proposed by Keenan and Comrie (1976). However, the relative pronoun strategy has a wider scope because it also covers locatives. These facts are summarized in Table 7.4.

Table 7.4 shows that under the grammatical relation of object the syntax of this language subsumes different object types such as direct and indirect

TABLE 7.4   Relativization strategies and accessibility of grammatical roles

	Subject	Object (Patient; Theme; Recipient; Comitative; Instrument)	Possessor	Locative	Reason, time & manner	Object of comparison
Gap Relative PRO	✓	✓	✓	✗	✗	✗
INT.PRO	✓	✓	✓	✓	✗	✗
CLF.PRO	✓	✓	✗	✓	✗	✗

object or primary and secondary object. This is explained by the general neutral alignment that the language exhibits in ditransitive constructions, making positions such as indirect object or oblique object irrelevant for the purposes of the accessibility hierarchy in Zoochina Zapotec. Oblique recipients, comitatives and instrumental adjuncts must be promoted to object via applicative constructions. Other adjuncts, such as manner, time or reason, as well as the object of comparison, do not have access to relativization in this language.

Acknowledgements

Bibliography

Andrews, Avery. 2007. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. II, 206–236. Cambridge: Cambridge University Press.

Comrie, Bernard. 1985. Causative verb formation and other verb-deriving morphology. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. III, 309–348. Cambridge: Cambridge University Press.

Comrie, Bernard. 1998. Rethinking the typology of relative clauses, *Language Design* 1: 59–85.

De Vries, Mark. 2002. The syntax of relativization. PhD Dissertation. University of Amsterdam, Holanda.

Dryer, Matthew. 1992. The Greenbergian word order correlations, *Language* 68: 81–138.

Guarcax González, José C. 2016. Las cláusulas relativas en kaqchikel de Sololá. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Gutiérrez Bravo, Rodrigo. 2015. *Las cláusulas relativas en maya yucateco*. México: El Colegio de México.

Jiménez Jiménez, Silviano. 2014. Esbozo gramatical y oraciones de relativo en el zoque de San Miguel Chimalapa. MA Thesis in Indoamerican Linguistics. CIESAS, México.

Keenan, Edward and Bernard Comrie. 1977. Noun phrase accessibility and universal grammar, *Linguistic Inquiry* 8: 63–100.

Lehmann, Christian. 1986. On typology of relative clauses, *Linguistics* 24: 663–680.

López Nicolás, Oscar. 2009. Construcciones de doble objeto en el zapoteco de Zoochina. MA Thesis in Indoamerican Linguistics. CIESAS, México.

López Nicolás, Oscar. 2015. La gramaticalización de los verbos posicionales en el zapoteco de Zoochina, *Amerindia* 37: 31–68.

López Nicolás, Oscar. 2016. Estudios de la fonología y gramática del zapoteco de Zoochina. PhD Dissertation. CIESAS, México.

Messineo, Cristina and Andrés Porta. 2009. Cláusulas relativas en toba (guaycurú), *International Journal of American Linguistics* 75: 49–68.

Smith-Stark, Thomas. 1998. "Pied piping" con inversión en preguntas parciales. México: COLMEX. ms.

Smith-Stark, Thomas. 2007. Algunas isoglosas zapotecas. In Cristina Buenrostro et al (eds.), *Clasificación de las lenguas indígenas de México*, 69–131. México: Universidad Nacional Autónoma de México.

CHAPTER 8

Relative Clauses in Tilapa Otomi

Enrique L. Palancar

8.1 Introduction

In this chapter, I describe the relative clause (RC) syntax in Tilapa Otomi, an
Otomian language of the Oto-Pamean branch of Oto-Manguean, which has
recently become extinct in 2020 after the demise of its last fluent speaker, Mrs.
Petra Cruz Gutiérrez-Mora. I propose that this language has three types of RCs
that can be used in headed relative constructions:[1] (i) an asyndetic RC (i.e., a
RC introduced by no subordinator); (ii) a RC introduced by a determiner that I
analyze as a relativizer; and (iii) a RC introduced by a relative pronoun recruited
from WH-words. The two first types involve a gap as a relativization strategy
and in headed relative constructions they are used to relativize a wide range
of functions in the relativization hierarchy. In contrast, the relative pronoun
strategy on which type (iii) is based can only employ WH-words for WHO and
WHERE, and it is remarkable in two ways: first, the locative relative pronoun
strategy based on WHERE is the only way in the language to relativize a loca-
tive adjunct; second, a RC based on WHO in relative constructions headed by
a full nominal can only be used to relativize a human subject or a human pos-
sessor. This is typologically surprising, because there is an expectation that the
restriction of such a construction should be based on the animacy feature of
the domain nominal, not on its syntactic function; that is, one expects the rel-
ative pronoun strategy based on WHO to relativize subjects and objects alike.
However, this is not what happens in Tilapa Otomi. Interestingly, the same sit-
uation is reported in Zenzontepec Chatino (see Campbell, this volume).

In the chapter, I further show how the three types of RCs are also used in
headless relative constructions, with the addition of a fourth type involving a
light head. In contrast to what happens in headed relative constructions, type
(iii) involves a larger set of relative pronouns and has a wider functional scope.

To understand the syntax of RCs in Tilapa Otomi, there are a few things
about the grammar of this language that have to be briefly introduced first,
namely: (i) verbal inflection; (ii) nominal syntax, particularly with regard to

---

1 I use the concept of a relative construction as in Lehmann (1986).

type of determiners and their function; (iii) clausal word order; and (iv) a word about interrogatives given their relation to relative pronouns. I introduce this information in the following subsections. Following this, in Section 8.2, I introduce headed RCs and study in detail each of the three types of RCs mentioned above, finishing in Section 8.2.4 with their distribution in the relativization of different roles (based on the well-known hierarchy by Keenan & Comrie 1977). In Section 8.3, I study headless RCs following the same schema, where I further introduce the light-headed type of RCs. Section 8.4 is a summary of the proposal.

8.1.1 *Basics of Verbal Inflection*

Verbs inflect for TAM values by means of inflectional markers that always precede the verbal stem, which I refer to as 'inflectional formatives'. Inflectional formatives may also convey notions of associated motion and voice, and they may even register the occurrence of adjuncts in focus in the clause (see Hernández-Green, 2016). Inflectional formatives also realize person of subject cumulatively for both transitive and active intransitive verbs (reference to a third person is indirect).[2] I represent inflectional formatives as independent words to emphasize the periphrastic nature of Otomi inflection, but phonologically, they may be uttered as bound words when they are monosyllabic, like in (1). When they do so, they may procliticize to verb stems as in (1a), or encliticize to a previous word, especially in hesitative discourse, like in (1b) (indicated by ≈). We also have complex formatives, like in (1c), which consist of more than

---

2 In contrast to active intransitive verbs, inactive intransitive verbs inflect for person of subject by means of a set of person suffixes that is also used to index the object of transitive verbs. For this, compare (i) with (ii). A bare stem realizes third person, as in (i.b) or (ii.b). However, inactive verbs still use the same inflectional formatives to encode TAM. This is why information about a third person subject for both transitive and active intransitive verbs is realized (i.e., it is not part of the inherent meaning conveyed by the formative). In the examples, I only gloss reference to a third person object (or subject of an inactive intransitive) when it is anaphoric.

i. a. *bi   hwötsi-gi*
        PFV tremble.AS-s_o1
        'I trembled.' {Txt}
    b. *bi   hwöts'i*
        PFV tremble[s_o3]
        'S/he/they trembled.' {Txt}
ii. a. *bi   wïn-gi*
        PFV[s3] feed.AS-s_o1
        'S/he/they fed me.'
    b. *bi   wïni*
        PFV[s3] feed[o3]
        'S/he/they fed him/her/them.' {Txt}

TABLE 8.1   Four TAM subparadigms of
nde 'want' in Tilapa Otomi

		'want'			
		Realis		**Irrealis**	
IPFV	1st	tŕá	*nde*	gra	*nde*
	2nd	grá	*nde*	gra	*nde*
	3rd	ra	*nde*	tŕa	*nde*
PFV	1st	tú	*nde*	gu̠	*nde*
	2nd	gú̠	*nde*	gi	*nde*
	3rd	bi	*nde*	ti	*nde*

one syllable and they behave like more canonical phonological words. Both the formatives *gu̠* in (1a) and (1b) and *giti* in (1c) realize the same values (i.e., perfective irrealis for first person); they stand as allomorphs selected by the conjugation class of the verb.[3]

(1)   a. ***gu̠***=   *mba̠≈'a*   T'o̠k'eñö ***gwu̠***=
          PFV.IRR.S1 SS/go.PL.INCL≈P C.   PFV.IRR.VEN.S1>EXLOC
          ʰpa̠=hu̠
          sell=PL.INCL
          'We go to Coatepec to sell.' {Txt}

      b. ***gu̠***=   *mba*   *≈gu̠ ...*   ***gu̠***=   *ʰtsi=a*
          PFV.IRR.S1 SS/go PFV.IRR.S1 PFV.IRR.S1 ingest=CL
          'I'll go to drink it.' (Lit. 'I'll go I'll ... I'll drink it.') {Txt}

      c. ***giti***   *nëx='be=a*   *ta*=   *mba*
          PFV.IRR.S1 set.on.course[O3].AS=PL.EXCL=CL PFV.IRR[S3] SS/go
          'We'll set them on course so that they go.' {Txt}

Table 8.1 shows the inflectional formatives of four basic (discourse frequent) TAM subparadigms of the transitive verb *nde* 'want'.

---

3   **Orthography:** Deviations from the IPA. Consonants: C' /Cˀ/ (ejective); *ʰC* (pre-aspirated); ' /ʔ/; *ñ* /ɲ/; *ch* /ʧ/; *tŕ* [ʈʂ]; *dŕ* [ɻ]; *ndy* [ɳ]; *r* /ɾ/; *x* /ʃ/; and *y* /j/. Vowels: *a̠* /ɔ/ [ɒ]; *e̠* /ɛ/; *o̠* /ə/; *u̠* /ɨ/; *ę* [ę̃]; *o̧* [o̧]; and ¨ nasal vowel. High tone is represented by an acute accent only in inflectional

In the verbal phrase, a set of elements can precede inflectional formatives (in what I shall refer to as the 'preverbal zone'), such as adverbials (including negation adverbs) and indefinite pronouns. Examples are given in (2): (2a) illustrates the manner/reason adverbial *khąn*; (2b) the conjunctive adverbial *xųn* 'also'; and (2c) the negation marker *hín* and the degree adverbial *=ts'ę* 'just'.

(2) a. **khąn**≈dá   mátų́ 'otų='mbe   i   txindi
     MANN/RSN=PFV.ADV.S1 IMPF make.AS=PL.EXCL PL tamale
     'We made tamale because of that.' {Txt}

   b. 'neh≈ka   **xųn**≈dŕá   he=tho   mi   pahni
     and.AS≈1[SG]_PRO also=IPFV.S1 dress=DEL POSS1♀ shirt
     'And I also put on my shirt.' {Txt}

   c. **hín** =ts'ę   taga   'yo
     NEG=just PFV.IRR.ADLAT[S3] walk
     'She no longer goes for a walk.' {Txt}

8.1.2 *Basics of Nominal Syntax*

In Section 8.2.2, I show that in Tilapa Otomi there are RCs that are introduced by definite determiners. To understand their structure, I give an overview of nominal syntax here. In this respect, nouns can occur in bare NPs, like in (3), but more often than not they co-occur with a nominal classifier, like in (4).[4]

(3) tų   ^htyü **po'kö**
     PFV.IRR.VEN[S3] bring manioc
     'He'd bring manioc.' {Txt}

(4) a. bi   kha   **ar**   'ręde
     PFV[S3] place CLF.SG ladder
     'He placed the ladder.' {Txt}

---

formatives. **Abbreviations specific to this paper:** ≈ indicates the encliticization of an element that in other circumstances could be a free word or a proclitic; ♀: female speaker; ♂: male speaker.

4 Nominal classifiers always co-occur with nouns in Otomi (i.e., they cannot be used pronominally).

b. *tu̱*   *ʰtyü*   *i*   *za*
PFV.IRR.VEN[S3] bring CLF.PL wood
'He'd bring firewood.' {Txt}

While there is only one plural classifier for all nouns (*i* in 4b),[5] there are at least three nominal classifiers for the singular. One is the general classifier *ar* in (4a). A second one is the classifier *ru̱*, which occurs with a closed set of lexically specified nouns and with loanwords, like the noun *xe̱bo̱* 'animal grease' in (5a) from Spanish *sebo*. The classifier *ru̱* also serves as the host for a floating tone that is a suprasegmental exponent of a third person possessive, like in (5b).[6] The third classifier is *ra*, which is used in verbal nominalizations, like in (6).

(5)   a. *po̱ngi*   ***ru̱***   *xe̱bo̱*
        Q:much[S3] CLF.SG animal.grease
        'It has a lot of grease.' {Txt}

      b. *khapu̱-bu̱≈**rú***   *ʰpresio̱*
        [IMP]put.AS-DAT3.AS≈CLF.SG.POSS3 price
        'Put a price on it!'
        (Lit. 'Put its price to it.') {Txt}

(6)   *mádi*   *zix-ku̱=a*   ***ra***   *mbeni*
     IMPF.HAB[S3] SS/take.animate.AS-O1[SG].AS=CL CLF.NMLZ wash
     'She used to take me to do the laundry.' {Txt}

Nominal classifiers have no bearing on the encoding of definiteness. For definiteness, speakers can embed the NP in DPs headed by the definite article, either singular or plural, like in (7). There is also an indefinite article, illustrated in (8) with the singular.

(7)   a. *(pu)s* *ke̱h=a*   ***a***   *řaso̱='ä*
        well COP[S₀3].AS=CL DEF.SG reason=3SG$_{PRO}$
        'Well, that's the truth.' {Txt}

---

5   Mass nouns are often used in the plural.

6   In the plural, the element that may serve as a base for the suprasegmental can be the definite plural *yi* and the distal demonstrative plural *yu̱*.

    b. *tu̱≈du̱*   *'mbe̱h=a*   **yi**   *phani*
        PFV.IRR.VEN≈INCH[S3] PASS/lose.AS=CL DEF.PL horse
        'Horses are going to be extinct.' {Txt}

(8)   *tú̱*   *mïh=ka*   **nt'a**   *t'egi*
      PFV.S1 grab.AS=1[SG]_{PRO} INDF.SG car
      'I took a bus.' {Txt}

Definite DPs are often headed by demonstratives, which are used as definite
determiners, like in (9). The phrases in question may further include a pos-
sessed NP. A singular DP can be headed by the definite article and include
demonstratives, like in (10a) and (10b). In the plural, however, the inverse order
is attested, as shown in (10c).

(9)   a. *bi*   *'ye̱ʲ'=k'e*   **ni**   *kařo?*
        PFV[S3] SS/push.AS=2[SG]_{PRO} DEM.SG car
        'Did the/that car run over you?' {Txt}

      b. *mádi*   *t-'ëm-bi*   **"yu̱**   *ʰpuño̱"*
        IMPF.HAB[S3] PASS-say.AS-DAT3 DEM.PL fist
        'He used to be called "the fists".' {Txt}

(10) a. *ru̱*   *kha̱'ni* **a**   **ni**   *'mbe̱ʲʰtse̱*
        CLF.SG.POSS3 person DEF.SG DEM.SG kid
        'The people of the kid' {Txt}

      b. *bwu̱*   *khu̱ʰti-gi*   **a**   **na**   *mi*   *'ye̱=a*
        PFV.VEN[S3] grab.DTR-DAT1[SG] DEF.SG DEM.SG POSS1♀ hand=CL
        'They grabbed me by this hand.' {Txt}

      c. *xu̱*   *'mbo̱x=a*   **ki**   **yi**   *hme*
        PRF[S3] IMPER/place.AS=CL DEM.PL DEF.PL tortilla
        'They've placed the tortillas.' {Txt}

Demonstratives can be used pronominally, like in (11a) where a demonstrative
refers to the object. But there are also proper personal pronouns for third per-
son, like in (11b). All proforms in Tilapa Otomi are enclitics; the full paradigm
is given in Table 8.2.

TABLE 8.2   Pronominal enclitics in Tilapa Otomi

		Singular		**Dual**	**Plural**
1st		=ga/ka	EXCL	–	=ga/ka=’mbe
			INCL	=ga/ka=wi	=ga/ka=hu̱
2nd		=k’e		–	=k’e=wi
3rd		=’a/’ä		–	=k’u̱
DEM	PROX	=na		–	=ya
	DISTAL I	=ni		–	=yu̱
	DISTAL II	(=k’a)		–	=k’i

(11) a. *ta*   *’mboh=**ni***   *’a* *ʰpatyọ*
         PFV.IRR[S3] IMPER/throw.AS=DEM.SG_{PRO} P   courtyard
         'They're going to throw it at the courtyard.' {Txt}

      b. *ru̱*   *khạ’ni=’ä*
         IPFV.NOM.PRED[S3] person=3SG_{PRO}
         'He's a man.' {Txt}

8.1.3   *Basics of Word Order*

To understand RC syntax in Tilapa Otomi it is important to appreciate certain aspects of word order because of two phenomena: (i) in Section 8.2.1, I show that RCs have a fixed word order; and (ii) there is a light-headed RC that I introduce in Section 8.3.4.1 that is only distinguishable from a canonical headed-RC by the position of the light head with respect to the RC.

First and foremost, Tilapa Otomi is a verb initial language, as can be seen in (12).

(12) **VS** a. *x≈á*   *’öxki*   [*rú*   *nkü*]_{SUBJ}
             already≈IPFV.ST be.nice[S_O3] CLF.SG. POSS3 house
             'Her house is very nice.' {Txt}

      VO b. *’ne* *gu̱*   *ʰpehti-k’i=wi*   [*nt’a*   *istoria*]_{OBJ}
             and PFV.IRR.S1 tell.DTR-DAT2=PL INDF.SG tale
             'And I'll tell you all a story.' {Txt}

With two overt participant phrases, the order is VOS (the opposite word order to that reported for neighboring Acazulco Otomi by Hernández-Green, forthcom-

ing). This is not only true of transitive clauses like (13), but also in intransitive
clauses that exhibit the locative arguments of motion verbs, like in (14).

(13) *mádíkha   hín≈a   ʰpö≈[ra   syö]*$_{OBJ}$ *[i*
    in.the.past NEG≈IPFV[S3] know.AS≈CLF.NMLZ word   CLF.PL
    khạ'ni]$_{SUBJ}$
    person
    'In the past, people did not know how to speak.' {Txt} (Lit. '… know word-
    ing.')

(14) a. *hạm≈bi   ʼëh=kwa   [ʼa nikhö]*$_{OBL}$ *[ntẹrọ yụ   skụ*
      again≈PFV[S3] come.AS=here P   church Q:all DEM.PL DIM
      ʼmbẹ^{jh}tsẹ]$_{SUBJ}$
      kid
      'All the kids came to church again.' {Txt}

    b. *komo   mádi   ʰpa [ʼa Mp'onda]*$_{OBL}$ *[a   skụ dihuntu*
      because IMPF.HAB[S3] go P   M.   DEF.SG DIM late
      mi   ʰta]$_{SUBJ}$
      POSS1♀ father
      'Because my father used to go to Mexico.' {Txt}

Phrases can be fronted for information prominence, like in (15). In the context
from where it was taken, the fronted DP in (15a) functioned as a contrastive
topic; the PP in (15b) shows a location in focus.

(15) a. *o [ni   di   mimụkhạ]*$_{SUBJ}$ *ta   za   [skụ ngọ]*$_{OBJ}$
      or DEM.SG POSS2 sister.in.law PFV.IRR[S3] SS/eat DIM meat
      'Or your sister-in-law is going to eat the meat.' {Txt}

    b. *pwes [ʼa Nzümüni]*$_{OBL}$ *bwụ   tạt'i mp'et'o [nt'a*
      so   P T.   PFV.VEN>EXLOC[S3] find firstly INDF.SG
      skụ nana]$_{OBJ}$
      DIM woman
      'It was in Toluca that they went and found a little girl.'
      (Lit. 'In Toluca they went and found a little girl.') {Txt}

The fronted DP in (15a) involves a possessed NP. When this is not the case, the
fronted phrase is introduced by the presentational particle *ñü*, like in (16).

(16) *kha*   [*ñü=a*   *Lasaro*]_{SUBJ} *má*   *'mbwṵ 'a lagloria*
     and.then PRTCL=DEF.SG L.   IMPF[S3] live   P heaven
     'And then Lazare was in heaven.' {Txt}

With fronted pronouns, there are two possibilities. They either occur hosted by
a fronted adverbial or a conjunction, in which case they are always topical, like
in (17); or they form pronominal phrases based on the particle *ñü*. When this
happens, they are contrastive, either contrastive topic or contrastive focus. An
example of contrastive focus is given in (18).

(17) *'ne   xa=k'e*   *xin≈grṵ*   *mula=k'e=a!*
     and then=2[SG]_{PRO} also≈IPFV.NOM.PRED.S2 mule=2[SG]_{PRO}=CL
     'And as for you, you are also a mule!' {Txt}

(18) *'ne   ñü=ga*   *giti*   *ndoya=ga*
     and PRTCL=1[SG]_{PRO} PFV.IRR.S2 call[O3]=1[SG]_{PRO}
     'It's me who's going to call him.'
     (Lit. 'I am going to call him.') {Txt}

Pronominal phrases like the one in (18) cannot occur post-verbally. This is
shown by the ungrammaticality of (19). This is important, because as we will see
in Section 8.3.4.1, light-headed RCs in Tilapa Otomi are introduced by pronouns
based on *ñü*, but in such constructions the pronouns can occur post-verbally,
which is an indication that these structures are not mere instances of a relative
construction headed by a pronoun.

(19) **'ne   giti*   *ndoya(=ga)*   *ñü=ga*
      and PFV.IRR.S2 call[O3]=1[SG]_{PRO} PRTCL=1[SG]_{PRO}
     Intended reading: *idem* (18)

8.1.4   *Basics of Interrogative Syntax*
Interrogatives constitute another area of the grammar of Tilapa Otomi that has
a direct impact on RC syntax, because relative pronouns in this language come
from WH-words. The WH-words in (20) ask for the identity of arguments based
on a human *vs.* a non-human distinction, while the things being questioned in
(21) are adjuncts.

(20) a. *to≈bi*   *syoni-k'i=a?*
        WHO≈PFV[S3] ss/look.for.DTR[O3]-DAT2[SG]=CL
        'Who looked for it for you?' {Txt}

b. ***te***   ***bwu̱≈tu̱***   *'na-k'u̱=wi?*
   WHAT PFV.VEN[S3]≈INCH give.to.1/2-S$_O$2.AS=PL
   'What were you given?' {Txt}

(21) a. ***'abwu̱***   *ke̱*   *gú*   *phu̱nts'i?*
       WHERE COP[S$_O$3] PFV.S2 fall
       'Where is it that you fell?' {Txt}

b. *kha* ***mbwu̱*** *ke̱*   *ta*   *zo̱x≈a*
   FOC WHEN COP[S$_O$3] PFV.IRR[S3] SS/arrive.here.AS≈DEF.SG
   taldia?
   so.and.so.day
   'When is it that that so-and-so day will arrive?' {Txt}

Questions about manner, quantity or instrument involve a set of inflectional
formatives from special subparadigms that I call 'adverbial inflection' (ADV),
whose main function is to register the occurrence of an adjunct in focus (see
Hernández-Green 2016 for more details). Examples are given in (22). As we
will see in Section 8.2.4, adverbial inflection is also used to relativize instru-
ments.

(22) a. ***'a***   ***gata***   *^{h}tso̱'tu̱=ga?*
       HOW PFV.RR.ADV.S1 arrive.there.AS=1[SG]$_{PRO}$
       'How am I going to get there?' {Txt}

b. ***'angu***   ***taga***   *to*   *opera=gi=a?*
   HOW.MUCH PFV.RR.ADV[S3] INCH operate.on=S$_O$1[SG]=CL
   'How much is it going to cost to operate on me?'
   (Lit. 'For how much am I going to be operated on?') {Txt}

c. ***te***   ***gata***   *^{h}tsi+hme?*
   WHAT PFV.IRR.ADV.S1 ingest+tortilla
   'With what am I going to eat (my tortillas)?' {Txt}

Interrogative clauses can also be embedded as complements of matrix verbs.
The examples in (23) illustrate two different uses of the same WH-word for
WHAT: in (23a) the WH-word refers to an argument participant; and in (23b),
with adverbial inflection, it encodes purpose.

(23) a. *gu*   *ẹm-bwụ=ga*   [*te*   *kẹ*   *ra*
PFV.IRR.S1 say.AS-DAT3.AS=1[SG]$_{PRO}$ WHAT COP[S$_{o}$3] IPFV[S3]
nde=a=na]
want=CL=DEM.SG$_{PRO}$
'I'm going to ask him what it is that he wants.' {Txt}

   b. *'a*   *gata* ^{h}*pöh=ka='mbe*   [*te*   *ga*
HOW PFV.IRR.ADV.S1 know.AS=1$_{PRO}$=PL.EXCL WHAT IPFV.ADV[S3]
mba]?
SS/go
'How are we going to know what he's going after?' {Txt}

Having seen some basics of the grammatical structure of Tilapa Otomi, in the following sections I concentrate on the syntax of RCs. In the next section, I present headed RCs. This will set up the general background that is necessary to understand the structure of headless RCs in Section 8.3, which are RCs that work as arguments or adjuncts of the matrix clause, and which have more intricate syntax.

8.2   Headed Relative Clauses

In this section, I introduce the three different types of headed RCs found in Tilapa Otomi: namely, (i) asyndetic RCs; (ii) RCs introduced by a determiner as a relativizer; and (iii) RCs introduced by a relative pronoun. All RCs, regardless of their type, have three properties in common: (i) they are finite clauses; (ii) they are postnominal; and (iii) they are externally headed.

8.2.1   *Asyndetic Headed Relative Clauses*

The most common type of headed RC in Tilapa Otomi is one that is asyndetic. In other words, it is NOT introduced by a linking element (i.e., it exhibits neither a complementizer nor a relative pronoun). This strategy appears to be characteristic of the Otomian branch of Oto-Pamean, because it is not only quintessential to Otomi (it has for example been reported in other Otomi languages, such as Acazulco Otomi by Hernández-Green, 2021; and in Northern Otomi by Palancar 2008), but it is also found in the Atzinca branch, such as in Matlatzinca (Palancar & Carranza 2021).

An asyndetic RC has a gap (i.e., there is no overt manifestation of the head inside the RC) and it is used as a basic strategy (i.e., it can be, and is often, used to relativize a subject). Examples of headed asyndetic RCs are given in

(24–27) and show the scope of functions that can be relativized: (24) illustrates relativized subjects, a human subject in (24a) and an inanimate in (24b); (25) involves the relativization of an object; (26) a temporal adjunct; and (27) a genitive phrase encoding the possessor. I indicate the function of the relativized element in small caps after the sign ___, which indicates the gap.

(24) a. *para* *gu̲gu̲*   *mba* *gu*   *'a̲nu̲≈mu̲+nt'a*   *nt'a*
        PURP PFV.IRR.S1 SS/go PFV.IRR.S1 ask.AS≈other+INDF.SG INDF.SG
        nana   [*ra*   *ʰpa̲=ni*   ___ *SUBJ* *'a* *nt'a*   *iskina*]
        woman IPFV[S3] sell=there   P INDF.SG corner
        'So that I'll go and ask another woman who sells in one corner.' {Txt}

    b. *tó*   *'̈öt'u̲='mbe*   *ni*   nkü   [*ra*
        PFV.S1 paint.AS=PL.EXCL DEM.SG house IPFV[S3]
        kha=ni   ___ *SUBJ*]
        exist=there
        'We painted the house that is over there.' {Txt}

(25) *pe* *rá*   *ʰku̲*   *a*   'i   [*tru̲ti*
      but IPFV.ST taste.good[s_o3] DEF.SG chili HAB.S1
      kha='mbe   ___ *OBJ*]
      do=PL.EXCL
      'But the chili we cook tastes nice.' {Txt}

(26) *bi*   *zo̲x=a*   *a*   fetxa [*tu̲*
      PFV[S3] SS/arrive.there.AS=CL DEF.SG date PFV.1
      thö̈ʰtu̲='mbe   *'a* sibil ___ *OBL*]
      get.married.AS=PL.EXCL P civil
      'The date arrived that we got married at the civil registrar.' {Txt}

(27) *ton≈ke̲=a*   *ni*   khani [*bi*   *tyü*   *rú*
      who.AS≈COP[s_o3]=CL DEM.SG man   PFV[S3] SS/die CLF.SG.POSS3
      phani ___ *GEN*] *='a?*
      horse   =3SG_PRO
      'Who is the man whose horse died?' (Elic.)

The fact that a RC of this type has no linker to introduce it as a subordinate clause makes its interpretation as a subordinate clause more dependent on its prosodic structure. To achieve the right interpretation, the string that constitutes the clause needs to be uttered within the same intonational unit as the

	nir	*khani*	[**má ꞌëhë**]	ba tyü	i	*trindi*
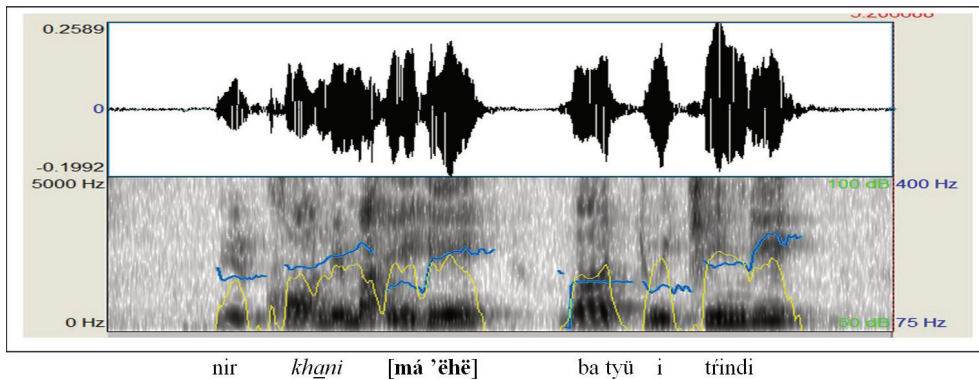
FIGURE 8.1   The prosody of the asyndetic headed RC in (28)

NP containing its head. This is particularly obvious when the NP in question is fronted before the verb, as shown in example (28).[7] The utterance in (28) is given in the spectrogram in Figure 8.1, which shows that both the fronted NP and its RC form one intonational unit. The complex fronted constituent formed by the DP and the restricted RC is then separated from the string encoding the VP by a slight pause; that intonational unit in turn forms part of the larger intonational contour of the matrix clause.

(28) *ni≈r*   khani [*má*   *ëhë*] *ba*   *tyü*   *i*
      DEM=CLF.SG man   IMPF[S3] come PFV.VEN[S3] SS/bring CLF.PL
      trindi
      tamale
      'The man who came brought tamales.' (Elic.)

The fact that the RC and its head must always occur in the same prosodic unit is also a sign of the syntactic integration of the RC. When there is a pause between the head and its RC, the interpretation of the RC as a subordinate clause is broken, resulting in a chain of paratactic clauses. This is shown by the contrast between (29a) and (29b). If speakers pause at any point, the only option available to them is to pause after the inflectional formative of the predicate in the RC, which is then hosted as an enclitic on the head. The enclitic may or may

---

7   Example (28) is elicited from Spanish and it mimics the SVO order of Spanish. It is not a natural rendition in Tilapa Otomi, and it does not even exhibit the presentational particle *ñü*, but it is the best one that I have in my data to show the prosodic dependence of an asyndetic RC on its head.

not be repeated in the RC. This is shown in (29c), which is the actual attested example of (29a). In the examples, the sign # indicates a pause, and as described in Note 3, the sign ≈ indicates the encliticization of an element that does not belong to the syntactic phrase of the phonological host.

(29) a. *gi*   *khüt'i=wi a*   perhuisio [*gú   kha=wi*]#
      PFV.IRR.S2 pay=PL   DEF.SG damage   PFV.S2 do=PL
      'You'll pay for the damage you've made.'

   b. *gi*   *khüt'i=wi a*   perhuisio# [*gú   kha=wi*]#
      PFV.IRR.S2 pay=PL   DEF.SG damage   PFV.S2 do[O3]=PL
      'You'll pay for the damage, (because) you've made it.'
      (Infelicitous for the reading in 29a)

   c. *gi*   *khüt'i=wi a*   perhuisio≈[*gú# gú   kha=wi*]#
      PFV.IRR.S2 pay=PL   DEF.SG damage≈PFV.S2 PFV.S2 do=PL
      'You'll pay for the damage you've … you've made.' {Txt}

Asyndetic RCs are well known in the literature, mainly because English allows for them with a relativized object, as in *the man* [*I saw __OBJ*] or in the translations of (29). Such structures are called 'contact relatives', and they always allow for equivalent structures with the complementizer *that*, as in *the man* [*that I saw __OBJ*].[8] The same behavior is shown in complement clauses that function as objects of the matrix, as in *I saw* [*that he came*], which is equal to *I saw* [*he came*]. This has triggered the idea that all such structures have the same syntax, and that the asyndetic examples exhibit a phonologically silent or a zero complementizer. In turn, this means that in the analysis, when there is no linker one should theoretically assume that there is still one, because the generative model assumes that all languages have the same arborescent syntactic structure and that all of them have complement phrases. While this may be true for English, which always has the option of having an overt complementizer, it is not entirely clear what benefits assuming the same analysis for the syntax of languages like Tilapa Otomi would bring to the description. In any case, the language has no overt complementizers in other domains when they are typologically expected, such as in purpose or complement clauses, like

---

8 Quirk et al. (1985: 1252) point out that contact relatives abound in more informal discourse, and that they are preferred when the syntactic string of the head is not complex and when "the relative clause itself [is] fairly short and simple".

the examples in (30) and (31), respectively, which also exhibit asyndetic subordinate clauses. In light of these examples, the use of asyndesis in RCs can be interpreted as a manifestation of the natural syntactic option for subordination in the language.

(30) 'ne   gwu̱   ᶣpehnu̱=gu̱='mbe
     and PFV.IRR.VEN>EXLOC.S1 send[O3].AS=1[SG]_PRO.AS=PL.EXCL
     [ta   xo̱ʷts'i]
     PFV.IRR[S3] lift[O3]
     'And we're going to send him there so that he can lift it (the wall) up.' {Txt}

(31) 'ne   tú̱   ñü=a   [pa   ë̈='ku]
     and PFV.S1 see=CL PFV.VEN[S3] come.AS=there
     'And I saw that she came from over there.' {Txt}

Another syntactic property of asyndetic RC, which could be extended to all types, is that the order of constituents has to be predicate initial. This restriction suggests that this type of subordinated clause does not allow for any syntactic projections to the left of the predicate. This can be seen by comparing (32a) with the ungrammaticality of (32b).[9]

(32) a. má   kha nt'a   kwentǫ [mádi
        IMPF[S3] exist INDF.SG tale   IMPF.HAB[S3]
        mbehti-gi='mbe   mi   sku̱ ᶣtö̈ᶣtsu]
        SS/tell.DTR-DAT1=PL.EXCL POSS1♀ DIM granny
        'There was a tale that my granny used to tell us.' {Txt}

     b. *má   kha nt'a   kwentǫ [mi   sku̱ ᶣtö̈ᶣtsu
        IMPF[S3] exist INDF.SG tale   POSS1♀ DIM granny
        mádi   mbehti-gi='mbe]
        IMPF.HAB[S3] SS/tell.DTR-DAT1=PL.EXCL
        Intended reading: 'There was a tale that MY GRANNY used to tell us.'

But it should be clear that it is not the verb that occurs in initial position, but the predicate phrase and, as such, it can involve elements of the preverbal zone, such as negation and other elements, as exemplified in (33).

---

9 Objects are rarely fronted in matrix clauses, so there is no expectation to find fronted objects in a RC if subjects cannot be fronted.

(33) *ba*   *'ëh≈*pa   [*hín=ts'e taga*   *kha ya*
     IPFV.VEN[S3] come.AS≈day NEG=just PFV.IRR.ADV[S3] exist DEM.PL
     yụ≈skụ   *thẹhwö=ya*]
     DEF.PL.AS≈DIM fish=CL
     'The day's coming that these tiny fish will no longer exist.' {Txt}

8.2.2   *Headed Relative Clauses Introduced by a Determiner as a Relativizer*
Another, although less common, type of RC in Tilapa Otomi is a RC introduced
by a determiner. I follow Polian & Aissen's (2021) proposal and analyze the
determiner in such RCs as a complementizer. However, as this special com-
plementizer is only used in RCs, I will treat it as a 'relativizer'. This type of
RC occurs in a relative construction where the head noun is embedded in
a definite DP. This is illustrated in (34), an example of subject relativization
that additionally shows that the construction uses a basic relativization strat-
egy.

(34) *kẹh=a*   *rú*   *kwentọ ar*   nana   [*a*
     COP[S₀3].AS=CL CLF.SG.POSS3 tale   CLF.SG woman REL
     maṣ≈mú   *rú*   *limpya* ___ SUBJ] *='na*
     INT≈IMPF[S3] HAB[S3] be.clean   =REP
     'It's the tale of a woman who was very clean.' {Txt}

The Tilapa Otomi relative construction in (34) is similar to the construction
reported for Tsotsil in Polian & Aissen (2021) shown in (35). Here the proxi-
mal determiner *li* is used to introduce a headed RC every time the matrix NP is
embedded in a DP headed by *li*. Aissen & Polian (2021) analyze the determiner
li in Tsotsil as a complementizer (hence the gloss COMP), but one that agrees
in deixis with the matrix DP (hence the subscript DEIX).

     TSOTSIL
(35) *bat k-ak'-tikotik*   *il-uk*   **li*ᵢ** j-vun-tikotik   [***li*ᵢ**
     go A1-give-1PL.EXCL see-SBJV DET A1-paper-1PL.EXCL COMP_DEIX
     kok'-em   *ta Tuxta un=e*]
     leave-PRF P T.   PT=CL
     'We went to show our papers that had been issued in Tuxtla.' {Txt} (Polian
     & Aissen (2021:411))

Note that an element like *li* in the RC in (35) is not analyzed as a relative pro-
noun, because deixis is not a feature of the head noun, but rather a property of
the DP in which the noun is embedded. Hence the agreement is not with the

noun, but with the determiner. A similar analysis could be postulated for Tilapa Otomi, and most probably for Acazulco Otomi, as described in Hernández-Green (2021), where a similar construction is also found.

When there is more than one determiner in the DP embedding the domain nominal, the determiner introducing the RC agrees with the head of the DP, which is the first determiner to the right of the phrase. This can be seen in (36a), where we have two determiners (the definite singular *a*, and the demonstrative singular *ni*) and the agreement is with the definite determiner. Agreeing with the second one is ungrammatical, as shown in (36b).

(36) a. *tú̱   xo̱=hmö   a₍ᵢ₎   ni   khut'i [a₍ᵢ₎   má   khut'i]*
         PFV.S1 open=hardly DEF.SG DEM.SG door REL IMPF[S3] close
         'I hardly opened the door that was closed.' {Txt}

      b. **tú̱   xo̱=hmö   a   ni₍ᵢ₎   khut'i [ni₍ᵢ₎   má   khut'i]*
          PFV.S1 open=hardly DEF.SG DEM.SG door REL IMPF[S3] close
          Intended reading: *idem* (36a)

In cases where there is only one determiner, like in (37) or (38), this determiner is selected as the controller of agreement, regardless of whether it is a definite article as in (37) or a demonstrative (38). Examples like (36–38) illustrate that it is not deixis controlling agreement, but rather the determiner head of the DP. The examples additionally illustrate that the scope of relativization of this construction goes beyond subject to include objects (in the case of (37), an indirect one) and genitive phrases, like in (38), which is an alternative to (27).

(37) *tú̱   ñü=ga   a₍ᵢ₎   kha̱'ni [a₍ᵢ₎   gú̱   ʰpa̱h-py=a≈r*
      PFV.S1 see=1[SG]_PRO DEF.SG man   REL PFV.S2 sell.DTR-DAT3=CL≈SG
      'oni   ___ OBJ]
      chicken
      'I've seen the man to whom you sold the chicken.' (Elic.)

(38) *ton≈ke̱=a   ni₍ᵢ₎   khani [ni₍ᵢ₎   bi   tyü*
      who.AS≈COP[S_O3]=CL DEM.SG man   REL PFV[S3] ss/die
      rú̱   phani ___ GEN] ='a?
      PFV.SG.POSS3 horse   =3SG_PRO
      'Who is the man whose horse died?' (Elic.)

This RC structure cannot be used when the domain nominal is encoded in an NP (i.e., with no determiner), because there is no element to serve as a controller for the agreement, as shown by the ungrammaticality of (39).

(39) *'nah-ku̱≈r   khwa [a   grí   taʰku̱≈ngo̱]
         [IMP]give.to.1/2.AS-1O.AS≈CLF.SG knife REL IPFV.ADV.S2 cut.SS≈meat
       Intended reading: 'Pass me the knife you cut the meat with!' (Elic.)

8.2.3 *Headed Relative Clauses Introduced by a Relative Pronoun*
Headed RCs can also be introduced by relative pronouns, which are recruited from WH-words. But in headed RCs, this only happens with two pronouns: the WH-word for humans *to* 'WHO', as in (40a), and the locative pronoun *'abwu̱* 'WHERE', in (40b). In the next section, I elaborate on the scope of relativization of this strategy.

(40) a. *'ne   tŕá   ̈em-bi   i   kha'ni [to*$_{SUBJ}$ *má*
             and IPFV.S1 say.AS-DAT3 CLF.PL man   WHO   IMPF[S3]
             xo̱x=a]
             lift[O3].AS=CL
             'And I tell the men who lifted it (the wall) up …' {Txt}

      b. *ntose ra   ʰpe'ts'i ar   sku̱ khut'i ['abwu̱*$_{LOC}$ *ta*
             then IPFV[S3] have   CLF.SG DIM door WHERE   PFV.IRR[S3]
             nyu̱ty≈a   ta̱te̱khe̱ para ti   hi]
             SS/enter.AS≈DEF.SG patient PURP PFV.IRR[S3] bathe
             'Then there's a small door where the patient goes through to have a bath.' {Txt}

8.2.4 *Scope of Relativization of the Different Types of Relative Clauses*
In this section, I compare the scope of relativization of the three types of RCs that are used in headed relative constructions in Tilapa Otomi. A general overview is given in Table 8.3.

As noted in Table 8.3, for the relativization of a location the syntax of Tilapa Otomi only allows for the relative pronoun strategy by means of a RC introduced by the locative relative pronoun *'abwu* 'WHERE'. All other types of RCs regardless of strategy can serve as a basic strategy (i.e., strategies to relativize a subject). However, it should be noted that the RC introduced by the WH-word for humans *to* 'WHO' is only used for subjects and possessors (see further below about comitatives). In the light of what is common typologically, this is surprising because there is a latent expectation that if the relative pronoun strategy is

TABLE 8.3   Scope of relativization: ✓ attested in corpus; [✓] elicitation; – not possible

		SUBJ	OBJ	INSTR	COM	GEN	TIME	LOC
Basic	GAP, ASYNDETIC	✓	✓	[✓]	✓	✓	✓	–
	GAP, REL (DET)	✓	✓	✓	✓	✓	✓	–
	HUM.REL.PRO *to*	✓	–	–	✓	✓	–	–
Secondary	LOC.REL.PRO *'abwṳ*	–	–	–	–	–	–	✓

available with a human domain nominal it should be used for the relativization of any core grammatical role involving a human. But this is not what happens in Tilapa Otomi, because while example (41a) is grammatical, example (41b) is ungrammatical.[10]

(41) a. *ra   'mbʷṳ yṳ́   ʰtsü yi   khạ'ni [to$_{SUBJ}$ bi*
        IPFV[S3] exist   DEM.PL.POSS3 wife DEF.PL man   WHO   PFV[S3]
        'ñëm-bi   yṳ́   skṳ bạhtsi]
        SS/bear.child.AS-DAT3 DEM.PL.3POSS DIM child
        'The men have wives who gave them children.'
        (Lit. 'The men's wives exist who ...') {Txt}

    b. **to$_{OBJ}$** *nana   [to$_{OBJ}$ tṳ́   ñü]*
        DEM.SG woman WHO PFV.S1 see
        Intended reading: 'The woman that I saw.' (Elic.)

The restriction may be more widespread than previously thought, because Campbell (this volume) reports the same phenomenon for Zenzontepec Chatino, a language of the Zapotecan branch of Oto-Manguean that is too distant from Otomi to allow for an argument based on genetic proximity. Besides subject, the same construction can be used to relativize a comitative participant and the possessor in a genitive phrase.

The fact that objects are not accessible to relativization by the RC based on *to* 'WHO', but that comitatives are, could be taken to be a violation of Keenan & Comrie's (1977) relativization hierarchy. In reality, it is not. The label 'COM' in Table 8.3 simply points to the semantic role of a comitative participant, but

10   The fact that the relative construction based on *to* 'WHO' is only accessible to relativize human subjects could be an indication that the construction is a recent development from the syntax of interrogatives.

2021131 [Palancar] 009-Ch8-Palancar-proof-03 [version 20210820 date 20210820 11:13] page 271

says nothing about its grammatical encoding. In this connection, I have argued in Palancar (2012) that the comitative phrase in the comitative construction in Otomian languages functions as a second subject that controls subject agreement in number on the verb. The construction in question involves a conjunctional split, where the phrase encoding the subject and the phrase encoding the comitative are always discontinuous in the clause (i.e., they occur in different positions in the clause; and cannot be subsumed under the plural pronoun analysis in Schwartz 1985, 1988 or Aissen 1989). An example of the construction from Tilapa Otomi is given in (42), where the subject is a pronominal phrase in focus.

(42) *kha*　　　[*ñü=k'e$_i$*]$_{SUBJ}$　　*giti*　　　*thö^{h}t$\underline{u}$=wi$_{i+j}$*　　　[*ni*
　　and.then　PRTCL=2[SG]$_{PRO}$　PFV.IRR.S2　get.married.AS=PL　DEM.SG

　　mi　　　*t'ixü$_j$*]$_{COM}$?
　　POSS1♀　daughter
　　'And YOU are going to marry my daughter?' {Txt}

Any of the basic strategies in Table 8.3 can be used to relativize a comitative. Example (43a) presents an asyndetic RC, while (43b) shows an instance of a RC introduced by the WH-word *to* 'WHO'. The fact that the latter construction can be, and is often, used for this function is further evidence that the role of the comitative phrase in (42) or (43) is of a second subject (i.e., it is not an applicativized object).

(43) a. *ñü=a*　　　　nana　[*bi*　　*thö^{h}ti=wi*　　　___ COM]　*bi*
　　　PRTCL=DEF.SG　woman　PFV[S3]　get.married=PL　　　　　PFV[S3]
　　　z$\underline{u}$h=a
　　　SS/tell.off.AS[O3]=CL
　　　'The woman whom he married told him off.'
　　　(Lit. 'The woman with whom he married ...') {Txt}

　　b. *pwes tú*　　*'wë='mbe*　　　　　　*ni*　　*sk$\underline{u}$*　nana　[*to*$_{COM}$
　　　well　PFV.S1　be.distant.AS=PL.EXCL　DEM.SG　DIM　woman　WHO
　　　tá　　　　　　*ntx'o='mbe*]
　　　IPFV.VEN>EXLOC.S1　MIDDLE/walk=PL.EXCL
　　　'Well, I've distanced myself from the woman with whom I used to go walking.' {Txt}

A RC introduced by the WH-word *to* 'WHO' is also used for the relativization of a possessor, illustrated in the elicited examples in (44) (note that no natu-

ral examples were found in my text corpus).[11] In example (44a), the possessed phrase *rú phani* 'his horse' is left *in situ*; in (44b) it shows pied-piping with inversion (Smith-Stark, 1988).[12]

(44) a. *ni*   kha'ni [*to*$_{GEN}$ *bi*   *tyü*   *rú*   *phani*]
    DEM.SG man   WHO   PFV[S3] SS/die CFL.SG.3POSS horse
    'The man whose horse died.' (Elic.)

    b. *ni*   kha'ni [*to*$_{GEN}$ *rú*   *phani bi*   *tyü*]
    DEM.SG man   WHO   CFL.SG.3POSS horse PFV[S3] SS/die
    idem (44a)

For the remaining relativizing functions, both RCs with the gap strategy (i.e., asyndetic RCs and RCs introduced by a determiner/relativizer) are in principle interchangeable, although all else being equal, asyndetic RCs are by far the most natural and common choice, with the exception of two situations, outlined below.

The first exception concerns the relativization of instruments for which a RC introduced by a determiner/relativizer is the preferred choice. While example (45a) shows that an asyndetic RC is possible, the options in (45b) and (45c) are more natural. To relativize an instrument, the verb requires 'adverbial inflection' (see Section 8.1.4 above). In (45a), adverbial inflection involves the formative *tagá* for perfective irrealis instead of basic *ta*; in (45b) *ga* is used for imperfective realis, instead of basic *ra*; and in (45c) the formative cluster *támádi* expresses imperfect realis of first person, instead of basic *tŕámádi*.

(45) a. *giti*   *'nah-ku̱≈ni=r*   khwa
    PFV.IRR.S2 give.to.1/2-O1[SG].AS≈DEM.SG=CLF.SG knife
    [*tagá*   *tahki*   ___ *INSTR*]
    PFV.IRR.ADV[S3] SS/cut[S3O]
    'Give me the knife that she's going to cut it with.' (Elic.)

---

11   The fact that this construction is also allowed for the relativization of a possessor is further
      evidence in favor of Lehmann's (1986) claim that the genitive phrase should be treated as
      a category which is independent of the relativization hierarchy.

12   Pied-piping with inversion may also be used in the interrogation of a possessor, as in (i).
      (i) *to*   *rú*   *ngü* *gú*   *ʰta̱?*
      WHO CLF.SG.POSS3 house PVF.S2 buy
      'Whose house did you buy?' (Elic.)

b. *bi   syo̱'m-bi   a̱ᵢ   rú̱   sku̱   'angaria*
   PFV[S3] SS/unload.AS-DAT3 DEF.SG CLF.SG.POSS3 DIM saddlebag
   [*a̱ᵢ   ga   ntyüxu̱≈'ya   ___ INSTR*]
   REL   IPFV.ADV[S3] TS/carry.AS≈fertilizer
   'He unloaded it (the donkey) from the saddlebag that he was carrying
   the fertilizer in.'
   (Lit. '… with which he was carrying the fertilizer') {Txt}

c. *'neh≈ka   xim≈bi   gwah=a   ni̱ᵢ=r*
   and.AS≈1[SG]ₚᵣₒ also≈PFV[S3] SS/finish.AS=CL DEM.SG=CLF.SG
   khwa [*ni̱ᵢ támádi   tahki   ni   txühme ___ INSTR*]
   knife   REL IMPF.ADV.S1 SS/cut DEM.SG   bread
   'And as for me, the knife that I used to cut the bread with has also bro-
   ken.' (Elic.)

The second exception concerns the relativization of the subject of an inactive
verb, for which only the asyndetic RC can be used (i.e., any other type of RC is
ungrammatical). As most property concepts are encoded by means of stative
verbs, which are a subclass of inactive verbs, the attribution of such concepts
to a given entity is always carried out by means of an asyndetic RC, like in (46).

(46) *má   'mbwu̱ nt'a   rú̱   ʰtsü   [rá*
     IMPF[S3] live   INDF.SG CLF.SG.POSS3 woman   IPFV.ST
     ndö   ___ SUBJ]
     be.fat[S₀3]
     'He had a wife who was fat.'
     (Lit. 'A wife of his who was fat existed/lived.') {Txt}

8.3   Headless Relative Clauses

Following Caponigro (2021), I take a headless RC to be a RC that is used as an
argument or an adjunct of a given predicate in a clause. In Tilapa Otomi, there
are various types of structures that serve this function. Three of them are clearly
variations of the three types of RCs that we have seen in the headed construc-
tions in the previous section. I introduce those first. Then I present another type
of clause which is functionally equivalent to a headless RC, but which is headed
by a pronominal that works as a light head. In the last subsection, I discuss the
role of headless RCs in the formation of clefts in Tilapa Otomi, because clefts
are a common structural environment where headless RCs abound in natural
discourse.

8.3.1   *Asyndetic Headless Relative Clauses*

As well as in headed relative clauses (as we saw in Section 8.2.1), asyndetic RCs can also be used as headless RCs in Tilapa Otomi. This is shown in the examples in (47–50). In (47) and (48), the RC functions as the subject of the matrix verb; in (49), it serves as the object (having been fronted before the verb); and in (50), it is the oblique stimulus of the emotion verb in the matrix clause.

(47) *porke*   *kha*   *ti*   *z̲o̲='k̲u̲=wi*
      because LOC.FOC PFV.IRR[S3] SS/arrive.there.AS=there=DU
      [*nkhonts'ẹ*   *yí*   *kha̲'ni* ___ GEN]SUBJ
      not.exist[S_o3] DEF.PL.POSS3 person
      'Because it's there where those who have no family end up.'
      (Lit. '… (those whose) their family doesn't exist …') {Txt}

(48) *konke*   *txi-tx'u̲=tho*   [*ra*
      because DIM-little[S_o3]=DEL IPFV[S3]
      ntx'o=wi   ___ COM]SUBJ
      MIDDLE/walk=DU
      'Because it's just a little bit what she's got.'
      (Lit. '… (what) she walks with …') {Txt}

(49) [*xpi etxaperder*   ___ SUBJ]OBJ *tu̲*
      PRF go.off.food[S_o3]   PFV.IRR.VEN>EXLOC[S3]
      'uny=a
      give[O3].AS=CL
      'What had gone off (i.e., the gone-off food), he'd go and give to them.'
      (Lit. '… (what) has gone off …') {Txt}

(50) *porke*   *tu̲dú*   *^{h}tsü=a*   [*bi*
      because PFV.S1 get.scared=CL PFV[S3]
      mbe^{h}ti-gi   ___ OBJ]OBL
      SS/tell.DTR-DAT1[SG]
      'Because I got scared of what he told me.'
      (Lit. '… (what) he told me …') {Txt}

The headless RCs in (47–50) all involve definite referents. The referents in question are the ones that have been relativized, for which there is a gap in the structure. The role of the referent within the RC can vary significantly. In (47), it is the possessor or the genitive phrase (i.e., 'the family of THOSE PEOPLE');

in (48), it is the comitative participant, which functions as a second subject in the RC (i.e., 'she walked (with) THAT THING'); in (49), it is the subject of the inactive predicate in the RC (i.e., 'THAT THING has gone off'); and in (50), it is the object (i.e., 'he told me THAT THING').

All such headless RCs are semantically equivalent to maximal free relatives (see Section 8.3.3 below), but the structure can also be used to encode indefinite referents, like in (51), which has a comitative (i.e., 'I shall walk (with) SOME-BODY'). In contrast to all other examples, the headless RC in (52) just expresses a wish (i.e., 'WHATEVER God may allow me'), and it is thus an appositive structure not integrated into the syntax of the matrix clause.

(51) *porke   hí-nkho≈[gata*
    because NEG≈not.exist[s~o~3].AS≈ADLAT.IRR.S1
    ntx'o='mbe   ___ COM]SUBJ
    MIDDLE1./walk=DU.EXCL
    'Because I have nobody to go to (to ask for help).'
    (Lit. 'Because there isn't (who) I shall go with.') {Txt}

(52) *ntonses, [Khöndyọ rati   'yon-gụ=tho   ___ OBJ], todabia*
    then   god   IPFV[S3] allow.AS-O1[SG].AS=DEL   still
    tŕá ...   tŕá   'mbwụ
    IPFV.S1 IPFV.S1 live
    'Then, whatever (i.e., more years) God may allow me! I am still alive.'
    (Lit. '... (what) God may allow me! ...') {Txt}

8.3.2 *Headless Relative Clauses Introduced by a Determiner as a Relativizer*

The type of RC introduced by a determiner that I presented in Section 8.2.2 above can also be used as a definite headless RC. Whereas the choice of determiner in the headed relative construction is determined by agreement with the head of the DP embedding the domain nominal, when used as a headless RC the choice of determiner in the clause is triggered by the definiteness or the deixis semantics associated with the entity to which the clause makes reference. The construction is illustrated in examples (53–55). In (53), the RC is introduced by the definite singular determiner *a*, while in (54) and (55), the clauses are introduced by demonstratives: the proximal singular *na* 'this' and the distal plural *yụ* 'those'. In examples (53) and (55), the RCs function as subject in the matrix clause, whereas in (54) the RC is the (secondary) object. In both (53) and (54), the syntactic role of the relativized element in the RC is that of object, whereas in (55) it is subject.

(53) *hinghí≈pọngi*   [*a*   *giti*   *'nah-ki*   ___ OBJ]SUBJ
     NEG.AS≈be.a.lot[s_o3]   REL 2.PFV.IRR give.to.1/2-O1[SG]
     'What you're going to give me is not much.' {Txt}

(54) *Khöndyọ ti*   *sokorre=k'e*   [*na gráti*
     god   PFV.IRR[S3] help.in.need=2[SG]$_{PRO}$ REL IPFV.S2
     hwë-ġi   ___ OBJ]OBJ
     give.as.present.AS-O1[SG]
     'May God help you with this that you're giving me!' {Txt}

(55) *porke*   *ti*   *mp'ụh=a*[≈*yụ*   ... *este* ... *ni* ...   *yụ*
     because   PFV.IRR[S3]   SS/live.AS=CL≈DEM.PL HES   DEM.SG DEM.PL
     ta   *khụ*   *ra*   *'di* ___ SUBJ]SUBJ
     PFV.IRR[S3] grab   CLF.NMLZ   run
     'neh=a≈[*yụ*≈*ti* ...   *ti*   *në*   ___ SUBJ]SUBJ
     and=CL=DEM.PL≈PFV.IRR[S3] PFV.IRR[S3] dance
     'neh=a≈[*yụ*   ... *este* ... *ti* ^{h}*tyühü* ___ SUBJ]SUBJ
     and=CL=DEM.PL HES   PFV.IRR[S3] sow
     'Because there's going to be those that ... *ehh* ... that one that ... those that
     run, and those that sing, and those that ... *ehh* ... sow.' {Txt}

8.3.3   *Free Relatives: Headless Relative Clauses Introduced by* WH-*Words*

Free RCs are headless RCs introduced by wh-words (Caponigro, 2003). We have
seen in Section 8.2.3 that Tilapa Otomi also allows for the relative pronoun strat-
egy in headed relative constructions, but there it can only involve the wh-word
for humans *to* 'WHO' when the relativized element is subject (comitative or pos-
sessor), and the locative *'abwụ* 'WHERE' when it is a location. In contrast, when
it comes to headless RCs, there are two key differences: (i) the wh-word for
humans *to* 'WHO' can be used to relativize a greater number of elements; and
(ii) a larger inventory of wh-words is possible.

The first of these differences is exemplified in (56) which shows instances of
RCs introduced by the wh-word for humans *to* 'who'. In (56a), the RC clause is
the subject of the matrix clause, while in (56b) and (56c), it is the object. Within
the RC, (56a) shows relativization of subject, whereas (56b) and (56c) illustrate
relativization of object and possessor, respectively. All examples have a definite
referent.

(56) a. *'ne=a*   [*to*$_{SUBJ}$ *ti*   *hi-'ku̱=a*]SUBJ   *tŕa*
      and=CL WHO   PFV.IRR[S3] bathe-O2[SG].AS=CL IPFV.IRR[S3]
      phe̱bi-'ku̱=a
      beat.AS-O2[SG].AS=CL
      'And [the one] who will bathe you, will be beating you.' {Txt}

    b. *para*   *hín≈da ...*   *sye̱gi*   [*to ...*   *to*$_{OBJ}$≈*ta*
      PURP   NEG≈PFV.IRR[S3] SS/leave WHO WHO≈PFV.IRR[S3]
      tha̱ndy=a   *a*   *hingi_ʰtsa̱*]OBJ
      tempt.AS=CL DEF.SG devil
      'So that they won't leave alone those ... those whom the devil will
      tempt.' {Txt}

    c. *bi*   *zoh=a*   [*to*$_{GEN}$ *bi*   *tyü*   *rú̱*
      PFV[S3] SS/talk.AS=CL WHO   PFV[S3] SS/die CLF.SG.POSS3
      mbe]OBJ
      mother
      'He talked to the one whose mother had died.' {Txt}

In terms of the inventory of WH-words that is possible with headless RCs in contrast to headed RCs, the headless relative construction can further involve the inanimate WH-word *te* 'WHAT'. Examples in (57) illustrate definite headless RCs which function as objects. Inside the RC, (57a) involves the relativization of subject, which in (57b) it is the object that is relativized.

(57) a. *pe*   *hín≈dé*   *ëm-bi*   [*te*$_{SUBJ}$ *rati*   *ʰpasa=gi*]OBJ
      but NEG≈PFV.S1 say.AS-DAT3 WHAT IPFV[S3] happen=O1[SG]
      'But I didn't tell her what is happening to me.' {Txt}

    b. *hín≈dṟ́úti*   *ntiende='mbe*   [*te*$_{OBJ}$ *ru̱*   *mö*]OBJ
      NEG≈HAB.S1 understand=PL.EXCL WHAT HAB[S3] say
      'We don't understand what they say.' {Txt}

All the above examples of headed RCs, including the asyndetic and the determiner/relativizer types, are used for arguments. For adjuncts, it is necessary to use free relatives. For a locative adjunct, we find the WH-word *'abwu̱* 'WHERE', as in (58).

(58) *bi*   *mba*   *di*   *nthoh=a*   [*'abwu̱*_{LOC} *má*
PFV[S3] SS/go PFV.ADLOC[S3] TS/pass.AS=CL WHERE   IMPF[S3]
kha   *i*   *t'axt'aphi*   *nt'a*   *rų́*   *sobrina*]
make CLF.PL agave.drink INDF.SG CLF.SG.POSS3 niece
'He went and passed by the place where one of his nieces made agave drink.' {Txt}

Free relatives can involve other WH-words. For example, temporal clauses introduced by *mbwu̱* 'WHEN' (59), or locative clauses introduced by the WH-word *'a* 'WHERE' (60).

(59) [*mbwu̱*_{TIME} *ta*   *'wö*] *hín=ts'ę* *tigi*   *khų't'i*
WHEN   PFV.IRR[S3] rain NEG=just PFV.IRR.ADLAT[S3] leak
'When it rains, it will no longer be leaking away.' {Txt}

(60) *pero* *mismo* *'neh=a*   [*'a*_{LOC}   *mí*   *'o*]   *kha* *tú*
but   right   and.AS=CL WHERE IMPF[S3] sleep FOC PFV.S1
phų̱ntsu̱=ny=a
fall.AS=there=CL
'But where he was sleeping, it was right there where I fell down.' {Txt}

In all Otomi languages there is a polysemy between locative and manner, in such a way that RCs bearing the locative relative pronoun *'a* 'WHERE' can also be used to express manner semantics. To achieve such a manner reading, the predicate in the RC is inflected with adverbial inflection. An example of a manner free relative is given in (61) (I indicate the polysemy as 'WHERE>HOW').

(61) *hín≈dŕá*   *m-pendy=a*   [*'a*_{MANN}   *tátų́*
NEG≈IPFV.S1 MIDDLE-recall.AS=CL WHERE>HOW PFV.ADV.S1
xu̱=a]
chop.wood=CL
'I don't recall how I chopped wood.' (Elic.)

The argumental free relatives that I have illustrated so far are all definite. This means that they stand for a definite DP. This can be seen in an example like (62), where the appositional DP comes as an afterthought revealing the identity of the referent introduced by the free relative.

(62) *ta*   *nyu̠t'y=a*   [*to*   *ti*   *xu̠ʰky=a*],   *a*
     PFV.IRR[S3] SS/go.in.AS=CL WHO IPFV.IRR[S3] wash.up.AS=CL DEF.SG
     sku̠ *tö-kha̠'ni*
     DIM old-person
     'The one who'll wash it up will come in, the old woman.' {Txt}

Free relatives in Tilapa Otomi can equally be used to designate an indefinite referent; the indefinite reading is provided by the context and by predicates such as "search for", "have" or "exist". Such free relatives are called 'existential' in Caponigro (2003). Two textual examples are given in (63).

(63) a. *'ne=a*   *ru̠*   *hony=a*   [**to**≈*r(u̠)*
       and=CL HAB[S3] look.for.AS=CL WHO≈HAB[S3]
       ñöny=a   ___ *SUBJ*]OBJ
       help.AS[O3]=CL
       'She looks for someone who's going to help her.' {Txt}

     b. *ñü=k'i*   *sku̠* *tyü* *nkhonts'e̠* *ra*   *ʰpe̠'ts'i*
       PRTCL=DEM.PL_{PRO} DIM dead no.longer IPFV[S3] have
       [**to**≈*ta ...*   **to**≈*ta*   *to̠'mi*   ___ *SUBJ*]OBJ
       WHO≈PFV.IRR[S3] WHO≈PFV.IRR[S3] SS/wait[O3]
       'Those dead people no longer have someone who may wait for them.'
       {Txt}

The third and last type of free relative identified in Caponigro (2003) is called 'free-choice'. Free-choice headless RCs introduce a range of possible alternatives, all of them equally valid. In principle, the meaning of a simple free relative can be derived from the context, as for example in (64), which refers to all types of locations where the speaker could live, and not to a specific one.

(64) *'ne* [**'abwu̠** *gu̠tu̠*   *'mbwu̠*] *ra*   *'mbwu̠* *i*   *ts'iʰpangu*
     and WHERE PFV.IRR.S1 live   IPFV[S3] live   CLF.PL mouse
     'And wherever I may live there are mice.' {Txt}

But more often than not, the interpretation of an open set of alternatives is conveyed by the use of the particle *xo̠*, which here is translated as 'EVER'. The same particle is also found in Acazulco Otomi, as reported in Hernández-Green (2021). Examples are given in (65–67) with different WH-words. In my corpus, when a free-choice free relative is an argument, it is commonly fronted.

(65) [**to≈xǫ**   ra   nde   ta   mbą=a]   ba
    WHO≈EVER IPFV[S3] want PFV.IRR[S3] SS/sell[O3]=CL EXHORT
    ta   mbą
    PFV.IRR[S3] SS/sell[O3]
    'Whoever wants to sell it may sell it.' {Txt}

(66) [**te≈xǫ**   x≈tų   hạ   a   nana]
    WHAT≈EVER already≈PFV.IRR.VEN>EXLOC[S3] find DEF.SG woman
    tų   'uni
    PFV.IRR.VEN>EXLOC[S3] give.to.3.AS[O3]
    'Whatever the old lady finds, she gives it to him.' {Txt}

(67) 'ne mba   ['**abwų≈xǫ**   grá   nde]
    and [IMP]go WHERE≈EVER IPFV.IRR[S3] want
    'And go wherever you want.' {Txt}

In Tilapa Otomi, we also find syntactic clippings of free-choice free relatives that work as indefinite NPs of the type "whatever car" with the meaning "any car", like in (68).

(68) a. trúti   müntsų=hų   [**te≈xǫ**   mų   skų za],
       HAB.S1 gather.AS=PL.INCL WHAT≈EVER kind.of DIM tree
       [**te≈xǫ**   mų   skų t'o]
       WHAT≈EVER kind.of DIM stick
       'We're gathering any twig, any small stick.' {Txt}

    b. [**te≈xǫ**   ngạt'y=a] ti   heh=a
       WHAT≈EVER all.AS=CL PFV.IRR[S3] deliver.AS=CL
       'They'll deliver anything.' (Lit. 'They'll deliver whatever all.') {Txt}

Free-choice semantics applied to manner is never conveyed by a free relative. For this, there is a special construction involving the adverbial *pạn=* 'however' that occurs in the preverbal zone, as illustrated in (69).

(69) **pạn≈gi**   kha=tho ya   yi   ʰkosa
    however≈IPFV.ADV[S3] do=DEL DEM.PL DEF.PL thing
    'He does these things in no matter what sort of way.' {Txt}

8.3.4   *Light-Headed Relative Clauses*

In the previous sections, we have seen three types of headless RCs in Tilapa Otomi which are also used in headed relative constructions, namely, asyndetic RCs; RCs introduced by a determiner as a relativizer; and RCs introduced by a WH-word. Headless RCs can either serve as arguments or adjuncts in the clause. There is another type of RC in Tilapa Otomi that is functionally equivalent to other types of headless RCs that function as arguments, but which is headed by a pronominal element. Following Citko (2004), I call such RCs 'light-headed' RCs. Examples in (70–71) illustrate this type. In (70), the RCs make reference to a human and in (71) to inanimate entities.

(70) a. **ñü=k'u̱**   [**to**   ra   ʰpe̱'tsṳ≈yí   sku̱ ...
        PRTCL=DEM.PL_PRO WHO IPFV[S3] have.AS≈DEF.PL.POSS3 DIM
        yí   sku̱   kostura], bati   presenta=k'u
        DEF.PL.POSS3 DIM sewing   IMP.VEN>EXLOC present[O3]=there
        'Those who have their embroideries, go and present them there!' {Txt}

   b. *ra*   *ën-gu̱='mbe*   **ñü=k'u̱**   [**to**   *tú*
        IPFV[S3] say-DAT1=PL.EXCL PRTCL=DEM.PL_PRO WHO PFV.S1
        mï='mbe] ...
        sit=PL.EXCL
        'Those we sat with told us …' {Txt}

(71) a. *mbwṳ gi*   *ñü=wi* **ñü=yu̱**   [*ta*   *thoh=kwa*
        then   PFV.IRR.S2 see=PL PRTCL=DEM.PL_PRO PFV.IRR[S3] pass=here
        'a mṳñö]
        P   above
        'Then you're going to see those that pass over here.' {Txt}

   b. *'uni=wi*   *k'u̱*   *mṳ*   *'yo* **ñü=k'u̱**   [*gráti*
        [IMP]give=PL DEM.PL POSS1♂ dog PRTCL=DEM.PL_PRO IPFV.S2
        müntsi=gwa   *'a mexa*]
        gather.AS=here P   table
        'Give my dogs what you gather at the table here!' {Txt}

The head of this type of RC is a pronominal phrase that is based on the presentational particle *ñü*, but we also encounter instances of the construction with the quantifier pronoun *nga̱t'i* 'all/everything', like in (72).

(72) *'ne   té   'em-bwu̱='mbe*   **ngat'i** [*xpa≈tu̱*
    and PFV.S1 say.AS-DAT3.AS=PL Q:all_PRO PRF[S3] ≈INCH
    khah-ki]
    do.DTR-DAT1[SG]
    'And we told him everything that they did to me.' {Txt}

In this relative construction, the pronoun heads a RC as a light head. If the referent is human, like in (70), the RC must follow the relative pronoun strategy and be introduced by the WH-word *to* 'WHO', but if the referent is non-human, like in (71) or (72), an asyndetic RC is used instead. The co-occurrence of the relative pronoun and the pronominal in the structure in (70) strongly suggests that instances like (71–72) do indeed involve a light head and a RC and not a RC introduced by a relative pronoun.

    We have seen that light heads in these relative constructions are pronominal elements. However, relative constructions with light heads exhibit a different distribution to the very pronominals on which they are based. When the pronominal phrases are used independently, they can only occur before the predicate, as seen in the examples in (73), which contrast with the ungrammaticality of those in (74). However, as we have seen in examples (70b), (71) and (72), when the same proforms function as light heads, the relative construction in question can occur after the predicate as with any DP.

(73) a. ***ñü̱=k'u̱***   *ta*   *zi*
      PRTCL=DEM.PL_PRO PFV.IRR[S3] SS/ingest[O3]
      'They're going to eat it.' {Txt}

    b. ***ngat'i*** *tŕú̱tí*   *kha='mbe*
      Q:all_PRO HAB.S1 do[O3]=PL.EXCL
      'We all do it.' {Txt}

(74) a. **ta*   *zi*   *ñü̱=k'u̱*
      PFV.IRR[S3] SS/ingest[O3] PRTCL=DEM.PL_PRO
      Intended reading: *idem* (73a)

    b. **tŕú̱tí*   *kha='mbe*   *ngat'i*
      HAB.S1 do[O3]=PL.EXCL Q:all_PRO
      Intended reading: *idem* (73b)

Light-headed relative constructions that stand for a locative adjunct have a different type of head, which I describe in the next section. In this connection,

there are other instances of locative headless RCs in Tilapa Otomi that are puzzling. These are discussed in Section 8.3.4.2, where I propose that such headless RCs can only be interpreted as bearing an internal cleft to place the location in focus.

8.3.4.1 Locative Light-Headed Relative Clauses

While argumental light-headed RCs are headed by pronominal phrases, locative ones are headed by a pronominal enclitic that can be associated with the matrix predicate, like in (75).[13]

(75) a. *mba̱≈gu̱*   *ʰtyü=hu̱=k'u*   ['*a*
    [IMP]SS/go.PL.INCL.AS≈PFV.IRR.S1 SOW=PL.INCL=there WHERE
    bi   zoʲ-ġi   *a   sku̱   dihu̱nto̱ ni   mi*
    PFV[S3] SS/leave.DTR-DAT1[SG] DEF.SG DIM   late   DEM.SG POSS
    ʰta]
    father
    'Let's go over there where my late father left it (a cornfield) to me.' {Txt}

   b. *tu̱*   *ʰtso̱tu̱='mbe='**kw**[≈'**a***   *ra   'mbwu̱ ki*
    PFV.S1 arrive.AS=PL.EXCL=there≈WHERE IPFV[S3] live   DEM.PL
    sku̱   txango̱]
    DIM   monkey
    'We arrived there where the monkeys were.' {Txt}

As in example (61) above, the locative to manner polysemy 'WHERE>HOW' is also found in light-headed RCs. In such a construction, both the locative pronoun and the locative relative pronoun in the RC convey manner semantics, like in (76).

(76) *bi   nkha='**kw**[≈'**a***   *tá*
    PFV SS/be.so[S3]=there>so≈WHERE>HOW PFV.ADV.S1

---

13   The distal locative enclitic in the examples in (75) has a different surface realization because of prosodic parsing. In (75a), the enclitic appears unmodified at the end of a phonological phrase. In contrast, in (75b) the speaker has chosen to integrate the free relative into the matrix clause by encliticizing the relative pronoun *'a* 'where', as the first free word of the clause, to the matrix predicate. Under this process, the right boundary of the predicate, here realized by the locative enclitic, undergoes morphotactic adjustment to serve as a phonological host for the relative pronoun.

xạh-pụ='mbe]
teach.DTR-DAT3=PL.EXCL
'It was that way that we taught him.'
(Lit. 'It was so how we taught him.') {Txt}

The locative enclitic in (75–76) is the only pronominal enclitic that can serve as a light head in this type of relative construction. This is shown by the grammaticality contrast in examples like (77), where example (77a) is a repetition of (70b) above.

(77) a. *ra*   *ën-gụ='mbe*   **ñü=k'ụ**   [*to   tụ́*
         IPFV[S3] say-DAT1.AS=PL.EXCL PRTCL=DEM.PL_{PRO} WHO PFV.S1
         mï='mbe] ...
         sit=PL.EXCL
         'Those ones we sat with told us ...' {Txt}

    b. **ra*   *ën-gụ='mbe=a=**k'ụ**   [*to   tụ́*
         IPFV[S3] say-DAT1.AS=PL.EXCL=CL=DEM.PL_{PRO} WHO PFV.S1
         mï='mbe]
         sit=PL.EXCL
         Intended reading: *idem* (77a)

The ungrammaticality of (77b) is intended to show that a pronominal enclitic that refers to an argument functioning as a light head is not permitted. Such pronominal enclitics are fine when used to refer to an argument of the predicate, like in (78a), where the pronominal enclitic refers to the subject. Example (77b) can only be grammatical if the free relative is interpreted as an appositional headless RC, that is, a RC which elaborates further on the reference of the pronominal so that the right referent can be identified, like in (78b).

(78) a. *ra*   *ën-gụ='mbe=a=k'ụ*
         IPFV[S3] say-DAT1.AS=PL.EXCL=CL=DEM.PL_{PRO}
         'Those [they] told us.'

    b. *ra*   *ën-gụ='mbe=a=k'u,*   [*to   tụ́*
         IPFV[S3] say-DAT1.AS=PL.EXCL=CL=DEM.PL_{PRO} WHO PFV.S1
         mï='mbe]
         sit=PL.EXCL
         'Those ones told us, the ones we sat with.'

8.3.4.2   Some Puzzling Instances of Locative Headless Relative Clauses

We have seen so far two different types of headless relative constructions with locative meaning: one that involves a free relative with a locative relative pronoun *'a* 'WHERE', like in (79a); and another that involves a light-headed RC with a locative light head and a RC bearing the same locative pronoun, like in (75a), repeated here as (79b).

(79) a. *bi   mba=na   ['a   kha   nt'a   sku̱*
          PFV[S3] SS/go=DEM.SG_PRO WHERE exist INDF.SG DIM
          t'o̱ho̱]='na
          mountain=REP
          'And they say that this one went where there was a hill.' {Txt}

      b. *mba̱≈gu̱   ʰtyü=hu̱=k'u   ['a*
          [IMP]SS/go.PL.INCL.AS≈PFV.IRR.S1 sow=PL.INCL=there WHERE
          bi   zoʲ-ġi   a   sku̱   dihu̱nto̱   ni
          PFV[S3] SS/leave.DTR-DAT1[SG] DEF.SG DIM   late   DEM.SG
          mi   ʰta]
          POSS1♀ father
          'Let's go over there where my late father left it (a cornfield) to me.' {Txt}

In natural discourse, speakers of Tilapa Otomi also use headless relative constructions that involve a RC with the locative relative pronoun *'abwu̱* 'WHERE' hosting a locative pronominal enclitic. The examples in (80) illustrate this possibility. Note that (80b) is an instance of a free-choice free relative.

(80) a. *'ne   gi   'üʰti-ki   ['abwu̱=k'u   ra   kha*
          and PFV.IRR.S2 show.DTR-O1[SG] WHERE=there IPFV[S3] exist
          a   otel]
          DEF.SG hotel
          'And show me (there) where the hotel is.' {Txt}

      b. *pus   gu̱   mbe̱='mbe=a   ['abwu̱='ku*
          ah.well PFV.IRR.S1 SS/go.DU=PL.EXCL=CL   WHERE=there
          xo̱≈ti   ts'ix-ku̱='mbe=a]
          EVER≈PFV.IRR[3] PASS/carry.animate.AS-O1=PL.EXCL=CL
          'Ah well, we'll go (there) wherever they take us.' {Txt}

The construction in (80) is puzzling and calls for an explanation. Although it may seem so, the structure in (80) cannot be interpreted as exhibiting a reten-

tion relativization strategy with an internal light head, mainly because of the
co-occurrence of the locative relative pronoun *'abwu̲* 'WHERE'. Given that such
an account is not appealing, one might wonder what type of construction the
examples in (80) instantiate. It is true that an example like (80a) can be alter-
natively rendered like (81) with exactly the same meaning.

(81) *'ne gi̲   'ü*ʰ*ti-ki*=**k'u**   [*'abwu̲ ra   kha*
      and PFV.IRR.S2 show.DTR-O1[SG]=there WHERE IPFV[S3] exist
      a   otel]
      DEF.SG hotel
      idem (79a)

If both (80a) and (81) have the same semantics, one could argue that the con-
struction in (80) obtains after a morphotactic shift of the locative pronoun with
respect to its phonological and syntactic host, e.g. from [V=**LOC** [WH …]] to
[V [WH=**LOC** …]], which results in a surface structure that appears to reflect
an internal light head. Such an analysis would be tenable, if it were not for
instances exhibiting double marking, like in (82).[14]

(82) *mba̲ha̲   gu̲   ʰpö=hu̲*=**k'w**=*a*   [*'abwu̲*=**k'u**
      SS/go.PL.INCL PFV.IRR.S1 know.AS=PL.INCL=there=CL WHERE=there
      hín≈gra   ʰpö=hu̲]
      NEG≈IPFV.IRR.S1 know.AS=PL.INCL
      'Let's go and visit those places where we have never been to.'
      (Lit. 'Let's go to know there where we don't know.') {Txt}

The fact that the locative pronoun occurs twice in the same construction sug-
gests that it has a different function each time it is used. If we accept that the
first instance is a canonical light head, just like in (81), then we just need to
account for the instance within the RC. I propose that the locative pronoun
inside the RC in constructions like (80) and (82) realizes a copular construc-
tion, so that these examples can be interpreted as instances where the location
is presented in focus. Evidence for this analysis comes from the syntax of inter-
rogatives.

Most interrogative clauses in Tilapa Otomi are based on clefts, and clefts are
based on the copular construction (see Palancar 2018a for more details). The

---

14 The enclitic =*a* associated with the matrix predicate after the locative pronoun has no
    bearing on the syntax of the construction, but simply indicates the prosodic boundary of
    a phonological phrase.

copular construction in Tilapa Otomi may involve just a copula, like in the question in (21), repeated here as (83a), or it may also involve a pronominal enclitic at the right edge of the clause that cross-references the subject in focus (see Palancar 2019b), like in (27), repeated here as (83b).

(83) a. *'abwu̱* *ke̱* *gú̱* *phu̱nts'i?*
WHERE COP[S$_o$3] PFV.S2 fall
'Where is it that you fell?' {Txt}

b. *ton≈ke̱=a*   *ni*   khani$_i$ [*bi*   *tyü*   *rú̱*
WHO.AS≈COP[S$_o$3]=CL DEM.SG man   PFV[S3] SS/die CLF.SG.POSS3
phani]*='a$_i$?*
horse=3SG$_{PRO}$
'Who is the man whose horse died?' (Elic.)

When asking about a location, the cleft construction in (83a) can be used, or the cleft construction in (84), where the copular cross-referencing enclitic is pied-piped to the front of the clause and is hosted on the WH-word.

(84) *'abwu̱$_i$='ku$_i$*   *a*   *di*   *hñïñü?*
WHERE=there DEF.SG POSS2 village
'Where is your village?' {Txt}
(Lit. 'Where is there your village?')

I propose that the optimal way to interpret the structures in (80) and (82) is to think of them as instantiating RCs bearing the relative pronoun *'abwu̱* 'WHERE' that further display an internal cleft, in the same fashion as (84). In this light, the difference between the constructions in (79) and those in (80) and (82) is one based on information structure, so that the locations referred to in (80) and (82) are presented as being in focus. In such a way, examples (80a), (80b) and (82) should be literally translated as "show me where it is that the hotel is"; "we'll go wherever it is that they take us"; and "let's go to know there where it is that we don't know", respectively.

8.4   Summary of the Proposal

In this chapter, I have described RCs in Tilapa Otomi. Methodologically, I have distinguished two main types of relative constructions: those that are headed by a full nominal and modify that domain nominal by restricting its reference,

which I have treated as 'headed relative constructions'; and those that func-
tion as clausal arguments or adjuncts of a matrix predicate, which I treat as
'headless relative constructions'. I have first concentrated on the three types of
RCs that can function as modifiers in headed relative constructions: (i) a type
that is asyndetic; (ii) another that is introduced by a determiner (that I have
argued is a relativizer which agrees with the head of the DP embedding the
domain nominal); and (iii) a third type that uses a relative pronoun strategy,
only available to two relative pronouns derived from WH-words: *to* 'WHO' and
'abwu̱ 'WHERE'.

I have shown that the types of RCs which employ a gap relativization strategy
are used to relativize a wide range of functions in the relativization hierar-
chy, while those based on the relative pronouns WHO and WHERE are more
restricted and have their own idiosyncrasies. The locative relative pronoun
strategy based on *'abwu̱* 'WHERE' is the only possible way to relativize a loca-
tive adjunct. The RC based on *to* 'WHO' can only relativize a human subject
and a human possessor, but I have shown that it can also be used to relativize
a comitative participant because in Tilapa Otomi, just like in other Otomian
languages, comitatives are encoded as second subjects in a split conjunction
construction where the matrix predicate agrees in number with both subject
and comitative.

The three types of RCs can also be used in headless relative constructions.
The one based on a relative pronoun strategy gives rise to free relatives that
are used to relativize a wider range of functions in the relativization hierarchy
(including subject and comitative, object, instrument, temporal, locative and
manner). Free relatives can be definite or maximal, indefinite or existential, or
free-choice (Caponigro, 2003). I have also argued that the language has a fourth
type of RC used in a headless relative construction that involves a pronoun as
a light head.

Acknowledgements

and observations made. I am also grateful to Timothy Feist for proofreading the English language for me. All errors and deficiencies remain my own responsibility.

Bibliography

Aissen, Judith L. 1989. Agreement controllers and Tzotzil comitatives, *Language* 65: 518–536.

Caponigro, Ivano. 2003. Free not to ask: On the semantics of free relatives and wh-word cross-linguistically. PhD Thesis. University of California at Los Angeles.

Caponigro, Ivano. 2021. Introducing Headless Relative Clauses and the findings from Mesoamerican languages. In Ivano Caponigro, Harold Torrence & Roberto Zavala Maldonado (eds.), *Headless Relative Clauses in the Mesoamerican Languages*, 1–57. New York: Oxford University Press.

Citko, Barbara. 2004. On headed, headless, and light headed relatives, *Natural Language and Linguistic Theory* 22: 95–126.

Hernández-Green, Néstor. 2016. Registration versus applicative constructions in Acazulco Otomi, *International Journal of American Linguistics* 82(3): 353–383.

Hernández-Green, Nestor. 2021. Headless relative clauses in Acazulco Otomi. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 111–144. New York: Oxford University Press.

Keenan, Edward & Comrie, Bernard. 1977. Noun phrase accessibility and universal grammar, *Linguistic Inquiry* 8 (1): 63–99.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–680.

Palancar, Enrique L. 2012. A typology of split conjunction, *Linguistic Typology* 16: 265–320

Palancar, Enrique L. 2018a. Clefts in Otomi: Extended uses of the copular construction, *International Journal of American Linguistics* 84(1): 93–145.

Palancar, Enrique L. 2018b. Subjects and focus in clefts: The case of Tilapa Otomi. In Evangelia Adamou, Katharina Haude and Martine Vanhove (eds.), *Information structure in lesser-described languages: Studies in prosody and syntax*, [SLCS 199], 245–264. Amsterdam: John Benjamins

Palancar, Enrique L. & Leonardo Carranza Martínez. 2021. Headless relative clauses in Matlatzinca. In Ivano Caponigro, Harold Torrence & Roberto Zavala (eds.), *Headless relative clauses in Mesoamerican languages*, 145–176. New York: Oxford University Press.

Polian, Gilles & Judith Aissen. 2021. Headless relative clauses in Tseltalan. In Ivano Caponigro, Harold Torrence & Roberto Zavala Maldonado (eds.), *Headless Relative Clauses in the Mesoamerican Languages*, 403–443. New York: Oxford University Press.

Schwartz, Linda. 1985. Plural pronouns, coordination, and inclusion. In Nancy Stenson (ed.), *Papers from the Tenth Minnesota Regional Conference on Language and Linguistics*, 152–184. Minneapolis: Department of Linguistics, University of Minnesota.

Schwartz, Linda. 1988. Conditions for verb-coded coordination. In Michael Hammond, Edith A. Moravcsik & Jessica R. Wirth (eds.), *Studies in syntactic typology*, 53–73. Amsterdam: Benjamins.

Smith Stark, Thomas C. 1988. Pied-piping con inversion en preguntas parciales. México: COLMEX. ms.

CHAPTER 9

Restrictive Relative Constructions in Pesh: A Predominantly Internally-Headed Relative Clause Language

Claudine Chamoreau

9.1   Introduction

In his definition, Lehmann (1986: 664) introduces the different components included in relative constructions: "A relative construction is a construction consisting of a nominal (or a common noun phrase, in the terms of categorial grammar) (which may be empty) and a subordinate clause interpreted as attributively modifying the nominal. The nominal is called the head and the subordinate clause the relative clause (RC). The attributive relation between head and RC is such that the head is involved in what is stated in the clause". This definition is broad as it may be applied to both headed and headless and to restrictive and non-restrictive (or appositive) RCs. Lehmann's proposition is schematized in (1):

(1)   [[(head) nominal]ᵣᴄ]ᵣ.construction
       [[head nominal]ᵣᴄ]ᵣ.construction

In (1), the position of the elements follows the order of presentation in Lehmann's definition inside the relative construction. However, no presuppositions are introduced about the order or the type of relation between the RC and the head nominal, also known as the domain nominal (Andrews 2007: 214).

   In this chapter, I focus on restrictive headed RCs in Pesh,[1] the northernmost of the Chibchan languages, and the only one spoken in Honduras. This chapter offers the first description and analysis of this type of construction in Pesh, which has not been studied in the scanty literature available on this language (Conzemius 1928, Holt 1999). The first goal is to show that the syntactic role of the head nominal within the RC is important for distinguishing three types of restrictive RC. The first type, an internally-headed RC (henceforth IHRC), occurs

---

1   For a study of headless RCs in Pesh see Chamoreau (2020a).

when the head nominal has the role of a genitive (possessee) or a core argument in the RC. The enclitic that occurs at the end of the relative construction may be a case marker or the topic marker. It corresponds to the syntactic role of the head nominal in the matrix clause, as in (2) where the accusative enclitic *=ra* marks the fact that the head nominal *korta* 'the woman' is the primary object (PO) in the matrix clause regardless of its role in the RC. In (2) the nominal *korta* 'the woman' is the A in the RC. This behavior coincides with Comrie's description of an IHRC (1989 [1981]: 145).

(2)   *tàsmà kàpàn kàpàn kórtà tayèʔ kàtʃɛ̀̃mirà wíʃkarí*[2]
      tas=ma [*kapan   kapan   korta   ta-yeʔ*
      1_PRO=TOP morning morning woman POSS1-small
      Ø-ka-tʃã-Ø-pi]*=ra*   *Ø-wiʃ-k-a-ri*
      O3SG-APPL:R-see-S3SG-FUT=ACC O3SG-give.O3-K-S1SG-PST
      'I entrusted him to the woman who will take care of my son every morning.' {Txt}[3]

The second type, an externally-headed RC (henceforth EHRC), is in complementary distribution with relativization by means of an IHRC, since an EHRC is used when the head nominal has a peripheral role (oblique or adjunct) in the RC. The case marker that obligatorily occurs at the end of the RC corresponds to the syntactic role of the head nominal in the RC, as in (3); the comitative/instrumental enclitic *=yo* indicates that the head nominal *kukarska* 'the hoe' is the instrument in the RC regardless of its role in the matrix clause, an O in (3). The nominal that functions as the head of the RC occurs outside the RC, being represented in the RC by a gap marked by __ in the examples of EHRCs.

(3)   *kúkàrskà yèʔhá tàkìʔyó úhàrí*
      kukarska [*yeʔ-ha*   __ *ta-ka-Ø-i*]*=yo*   *Ø-uh-a-ri*
      hoe   small-NMLZ   O1-hit-S3SG-PST=INSTR O3SG-hide-S1SG-PST
      'I hid the hoe with which the small boy hit me.'

---

2   In the examples in Pesh, the first line represents a simple transcription (the accents indicate types of stress or tone, we currently do not know exactly which, and the tilde is for the nasal vowel). The second line is the phonological transcription (no stress or tone are transcribed); the third line gives the morpheme-by-morpheme glosses; the fourth line provides an English translation.

3   {Txt} indicates that the example comes from a textual natural corpus. Examples that come from elicited data bear no special mark.

TABLE 9.1   Accessibility to different relativization strategies

Strategy	S/A	PO	SO	GEN	INSTR	COM	O.COMP	LOC
IHRC	+	+	+	+	−	−	−	−
EHRC	−	−	−	−	+	+	+	+
WH-RC	−	−	−	−	−	−	−	+

PO: primary object; SO: secondary object; O.COMP: object of comparison

The third type is the RC introduced by a WH-word that functions as a relative pronoun (WH-RC). It is less common and only occurs when the head nominal has the syntactic role of the locative adjunct in the RC regardless of its role in the matrix clause. In (4) the nominal *ta-kaʔo* 'my house' is the O in the matrix clause. The head nominal that functions as the head of the RC occurs outside the RC, as in (4) *ta-kaʔo* 'my house'. The RC is introduced by the clause-initial WH-word *pi-ah* 'where' which shows its semantic role in the RC. The fronting of the constituent indicating the locative role is indicated by a trace, in the original position, marked by a $_t$ (Comrie 1998: 64–67). The RC is obligatorily marked by a subordinator encliticized at the end of the predicate, usually a verb, for example the uncertainty subordinator *=sri* in (4).

(4)   *kètʃá tàkàʔó pìáh tàs tʃàʔárísrí tʃὰ̃brí*
      ketʃa   ta-kaʔo   [*pi-ah*   *tas* $_t$ *tʃa-a-ri=sri*]
      yesterday POSS1-house place-NMLZ 1$_{PRO}$ be_there-S1SG-PST=UNCRT
      Ø-tʃã-ber-i
      O3SG-see-S1PL.EXCL-PST
      'Yesterday, we saw the house where I was born.' {Txt}

IHRCs employ a non-reduction strategy, also called circumnominal RC (Comrie 1989 [1981]: 146, Lehmann 1986: 665), whereas EHRCs and WH-RCs are described as reduction strategies. In Pesh, they are embedded and always postnominal.

The distribution of the three relativization strategies in Pesh clearly responds to the accessibility restrictions on specific functions summarized in Table 9.1: argument and genitive with IHRCs, oblique and adjunct (comitative, instrumental, locative, and object of comparison) with EHRCs, and locative with WH-RCs. This distribution shows a specific position for locative role as the WH-RC is represented only by this role and it is the sole one that is present in two types of constructions. The IHRC is the predominant and primary strategy used in Pesh because it corresponds to the relativization of the subject function.

The distribution found in Pesh matches Lehmann's (1986: 666–668) hierarchy composed of several sub-hierarchies: firstly, functions that modify verbs as shown in (5a); and secondly, functions that modify nouns, in (5b). This complex hierarchy explains why core arguments and genitives that have a higher position in the two sub-hierarchies share the same IHRC strategy (in bold) and why obliques and adjuncts that have a lower position share the same EHRC strategy (in roman). The locative role appears in italics because it can be relativized via two different strategies, the EHRC and the WH-RC.

(5)   a. **S/A—SO—PO**—OBL—ADJUNCT (*LOC*)
       b. **GEN**—OCOMP

The second goal of this chapter is to show the correlation between the degree of finiteness and the type of RC. A common characteristic of RCs is to be subordinated (Comrie 1989 [1981]: 142–144, Lehmann 1986: 666, Andrews 2007: 206, 231–232) while at the same time subordinate RCs have been described as nominalized to varying degrees. This type of grammatical nominalization may be defined as a syntactic process "via which a finite verbal clause […] is converted into a noun phrase" (Givón 2016: 272). From this perspective, finiteness is evaluated on the relative construction, not only on the verb or on the RC (Chamoreau & Estrada 2016). There is a continuum where several degrees may arise between prototypical finite verbal clause and prototypical noun phrase (Givón 2001: 25). Pesh has an interesting way of distinguishing two degrees of finiteness as the finite WH-RC displays a clearly different type of structure from the most nominalized IHRC and EHRC. The RC with WH-word is finite and its subordinate feature is marked by a subordinator at the end of the verb. In contrast, in IHRCs and EHRCs, the marker that obligatorily occurs at the end of the relative construction in IHRCs and at the end of the RC in EHRCs (see Sections 9.3 and 9.4 for descriptions) is a case or the topic enclitic marker prototypically used at the end of noun phrases and postpositional phrases. Even if the verbs in (2) and (3) display finite features (pronominal and tense markers), the most nominalized features of IHRCs and EHRCs are inferred from the occurrence of case or topic enclitic markers. This nominal property is exhibited by the relative construction that functions in the matrix clause as an NP or a PP.

As the internally and externally-headed RCs are in complementary distribution and possess similar characteristics, I will describe them first and then discuss the particular features of the RC introduced by a WH-word. The chapter is thus organized as follows: Section 9.2 provides a general overview of the main grammatical features, focusing on topics necessary for understanding the
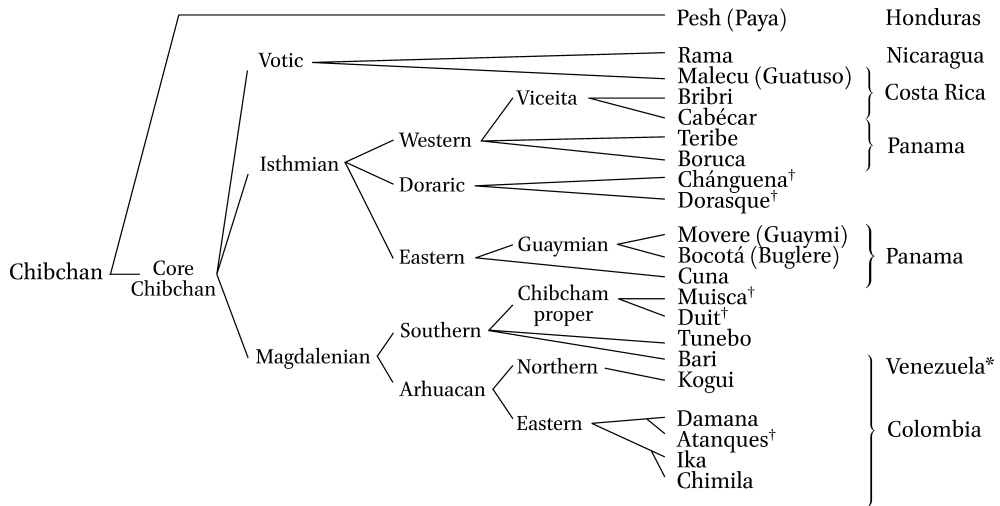
FIGURE 9.1 Chibchan language family
ADAPTED FROM CONSTENLA UMAÑA 2012

processes described in the following Sections. Section 9.3 presents the features of the IHRC, and Section 9.4 those of the EHRC in Pesh. Section 9.5 discusses the specificities of the RC introduced by a WH-word. Section 9.6 addresses the question of the degrees of finiteness in the different strategies and concludes the chapter.

9.2   Main Features of Pesh

Pesh (Pech, Paya, ISO pay) is the northernmost of the sixteen living Chibchan languages (Constenla Umaña 2012, Quesada 2007: 33), and the only one spoken in Honduras. Pesh is classified as the only language in the family that constitutes a unique branch; it is the sole language that does not belong to Core Chibchan (see Figure 9.1).

9.2.1   *Basic Morphosyntactic Features*
Pesh exhibits the main features associated with a verb-final, or more precisely an AOV constituent order, language. Thus the respective roles of the NPs preceding the verb are indicated by their position, as in (6) where the A *patasuwama* 'our grandmothers' precedes the O *munia* 'munia'.[4] Postpositional

---

4 The *munia* is a yucca drink.

phrases (PP) usually appear before the verb, and are marked by an enclitic marker, as the locative enclitic marker =*yã* in (7).

(6) *pàtàsùwámà mǚnyà kīʔrə̀ʰ*
     A   O   V
     pa-ta-suwa=ma   *munia* *Ø-kaʔ-ir-wa*
     INCL-POSS1-grandmother=TOP   munia   O3SG-make-S3PL-PFV
     'Our grandmothers make munia.' {Txt}

(7) *wàhǽnǎ́ nǎ̊áwá, pã̀hàkààs péʔpá*
     LOC   V   O   V
     waha=yã   *nã-a-wa*   *pãh aka=as*   *Ø-peʔ-pa*
     mountain=LOC   go-S1SG-PFV wood big=INDF   O3SG-bring-S1SG.FUT
     'I go to the mountain, I will bring a big piece of wood.' {Txt}

The properties of NPs are those typically associated with head-final characteristics. The possessor occurs before the possessee, as in (8) the possessor *katʃara-ha* 'stream' is preposed to the possessee *a-tah* 'foot' which is obligatorily marked by a possessive marker. The numeral and the article are always postposed, as in (7) and (8).

     Possessor—Possessee (modifier—head)
(8) *krís yèkōrtā pōg tʃìrǐ̃wǎ́ʔ kātʃáráhá àtǎ́nã*
     kris ye   korta pok tʃa-er-ri-wã   *katʃara-ha*
     once small woman two be_there-S3PL-PST-PRF   stream-NMLZ
     a-tah=yã
     POSS3SG-foot=LOC
     'Once, two young women were at the foot of a stream of water.'

Pesh features a split alignment that depends on the way the arguments are expressed. It has a nominative-accusative alignment for agreement affixes and an optional ergative-absolutive or tripartite alignment for flagging free NP arguments (Chamoreau, 2021).[5] Pesh has compulsory verb agreement. This is a double marking language. The sole argument of an intransitive verb, as in (9),

---

5   In independent and matrix clauses, the alignment is ergative-absolutive in the Carbon variety and tripartite (subject in intransitive verbs, ergative and accusative in transitive verbs) in the Culmi variety as in this latter, the subject of the intransitive verb is never marked (Chamoreau 2019). For the term 'optional', see McGregor and Verstraete 2010 and Chamoreau, 2021.

and the two arguments of a monotransitive verb, as in (10), are obligatorily encoded in the verb.

Intransitive verb

(9) *ké yùímằyh kàhnì tèʃkrí*
     *ke   yui   mằyh kahni teʃ-k-**er**-i*
     already moon three four   walk-K-S3PL-PST
     'Already three or four months had passed.' {Txt}

Monotransitive verb

(10) *kōrʰtālèrmằ: yùkú àtèʔw àtʃēʰrà*
     *korta-ler=ma   yuku a-tewa   **a**-tʃah-**er**-wa*
     woman-PL=TOP meat POSS3SG-chili O3SG-put-S3PL-PFV
     'The women add chili to the meat (the chili of the meat).' {Txt}

In the case of a ditransitive verb, Pesh exhibits a secundative alignment for indexing: the participant that can be encoded is the PO (11) and (12), while the SO cannot be encoded (Chamoreau 2017a).

Ditransitive verb

(11) *tàtùs tàs tàsùwá wíʃkrí*
     *ta-tus   tas   ta-suwa   **Ø**-wiʃ-k-**er**-i*
     POSS1-father 1$_{PRO}$ POSS1-grandmother O3SG-give.O3-K-S3PL-PST
     'My parents entrusted me **to my grandmother**.' {Txt}

(12) *tàkàkì tàsùwárá tằ̃yhí̃*
     *ta-kaki   ta-suwa=ra   **ta**-ã̃yh-**Ø**-i*
     POSS1-mother POSS1-grandmother=ABS O1-give.O1/2-S3SG-PST
     'My mother entrusted my grandmother **to me**.'

Pesh is a case-marking language with six case enclitics, listed in (13).

(13) Phrasal case enclitics
     =*ya*   Ergative
     =*ra*   Absolute (=*ro*, a dialectal variation used in the Carbon dialect)
     =*yã*   Locative
     =*yo*   Comitative/instrumental
     =*kan*   Similative (=*ken*, a dialectal variation used in the Carbon dialect)
     =*ri*   Temporal/manner

Case-marking enclitics are phrase final, as in (14).

(14) *íspáràh àmùktá tẽ̀náhyó kàtǔʃkáwá*
    isparah amukta tẽnah=yo   ***katũʃ-k-a-wa***
    machete rotten   heavy=INSTR work-K-S1SG-PFV
    'I worked with the rotten and heavy machete.' {Txt}

An optional ergative and absolutive or accusative enclitic marking is displayed (see note 5); its use is motivated by information structure, in particular the focusing of a participant (a precise study is in progress). For flagging, the A of a transitive verb may be indicated by the ergative marker *=ya*, as in (15).

(15) *ã̀ árʰwɔ̃́rò kì:ná wìʃã̀ àkákiyá*
    ã   ***arwã=ro*** *Ø-kaʔ-Ø-i=na*   ***wiʃã***
    DEM.DIST man=ABS O3SG-make-S3SG-PST=REP fish
    a-kaki=ya
    POSS3SG-mother=ERG
    'They said that it was to this man that the mother of the fishes did it.' {Txt}

In the variety of Carbon, the S of an intransitive verb, as in (16), the O of a mono-transitive verb (17), and both O in a ditransitive verb may all be marked by the absolutive case marker *=ro*, as we also observe in the case of the SO in (12) and the PO in (15). In a ditransitive verb, Pesh exhibits a neutral object alignment for flagging (see note 5 for the tripartite alignment in the Culmi variety).

(16) *àkàwàyó tauwèhí ĩàpùrùrō tāwārkwá*
    a-kawa=yo   *tawe-Ø-hi*   *ĩ*
    POSS3SG-spouse=COM go_up-S3SG-PST DEM.PROX
    a-puru=ro   *ta-war-k-Ø-wa*
    POSS3SG-canoe=ABS MIDD-capsize-K-S3SG-PFV
    'He went up with his spouse, and this canoe capsized.'{Txt}

(17) *tóʔ tāwɔ̃̄wɔ̃̄ʰ àyèʔkórtàʔró éhkíí*
    toʔ   *ta-wãwãh*   *a-ye*   *korta=ro*
    DEM.MED POSS1-grandfather POSS3-small woman=ABS
    Ø-eh-k-i-i
    O3SG-repair-K-S3SG-PST
    'My grandfather healed the girl.' {Txt}

9.2.2   *Topic Enclitic =ma*

The topic enclitic *=ma* is optional and is usually correlated with thematic discontinuity or referent complexity, that is, with the need to encode the topic to maintain discourse coherence (Chamoreau 2020b). It may indicate a continuing, shifted or contrastive topic. It is also used for frame-setting topics. The topic is usually left-dislocated; when various arguments are attested in a sentence, it occurs as the first NP. In (18), the syntactic O *sira=ma* 'the meal' is left-dislocated and marked by the topic marker, since this NP represents a shift of the topic. It is positioned before the A *juana*.

(18) *sìràmà juanayá kìʔí*
      *sira=**ma**   juana=ya   Ø-kaʔ-i-i*
      meal=TOP   J.=ERG   O3SG-make-S3SG-PST
      'As for the meal, Juana made it.' {Txt}

When *=ma* is used in a subject NP as in (10) or an object NP as in (18), it is impossible to use the ergative or absolutive case marker. The topic marker *=ma* is used alone with the constituent that expresses a core argument. In contrast, in a PP, when the topic is an oblique or adjunct constituent, such as the locative in (19), the string with the case enclitic and the enclitic *=ma* are obligatory.

(19) *ã́yã́mà tàsùwáyó àkàtíʃkárí*
      *ã=yã=**ma**   ta-suwa=yo*
      DEM.DIST=LOC=TOP POSS1-grandmother=COM
      a-katiʃ-k-a-ri
      REFL/RECP-bring.up-K-S1SG-PST
      'There, I was raised by my grandmother.' {Txt}

9.3   Internally-Headed Relative Clauses

In Pesh, the IHRC constitutes the most frequent and the primary strategy of forming RCs, since this type of construction is the only one used to relativize the subject. Comrie (1989 [1981]: 145) treats this construction as a relative construction in which "the head noun remains expressed within the RC, in the usual form for a noun of that grammatical relation within a clause, and there is no overt expression of the head in the main clause … The fact that a clause is functioning as a noun phrase referring to the head is even clearer in Diegueño, where the clause in question can take the appropriate suffix to indicate its syn-

tactic role in the main clause." ɪʜʀᴄs constitute a subtype of the non-reduction strategy (Comrie & Kuteva 2005), in which the head nominal is a constituent of the ʀᴄ (Basilico 1996: 499).

In Pesh, relativization by means of an ɪʜʀᴄ is used when the head nominal either has the function of a genitive (possessee) or is a core argument in the ʀᴄ (most commonly the subject). When this happens, the phrasal marker that occurs at the right edge of the relative construction (which coincides with the right boundary of the ʀᴄ, see Section 9.3.3.) indexes the syntactic role of the head nominal in the matrix clause. This marker is mandatory. In ʀᴄs, the alignment is nominative-accusative, as the marker =*ma* is used when the head nominal is the s as in (20) or the possessee as in (21) in the matrix clause. The nominative case marker =*ma* is only used in ʀᴄs, which is the reason why it does not belong to the list in (13).

Nominal: Genitive in ʀᴄ—s in matrix clause
(20) *kwíʔás yèʔhá pèʃtùs nẽ̀ímà àkàkíyó tàwàrkrí*
[*kwiʔ as*   yeʔ-ha   *peʃ-tus*   *nã-Ø-i*]=***ma***
year   one small-ɴᴍʟᴢ ᴘᴏss3ᴘʟ-father go-s3sɢ-ᴘsᴛ=ɴᴏᴍ
a-kaki=yo   *tawar-k-ir-i*
ᴘᴏss3sɢ-mother=ᴄᴏᴍ stay-ᴋ-s3ᴘʟ-ᴘsᴛ
'The small boys whose father went out one year ago stayed with his (the father's) mother.' {Txt}

Nominal: s in ʀᴄ—genitive (possessee) in matrix clause
(21) *kètʃàtàyèʔ pèʃóʔlàkàs ĩ̀ɲã̀ tʃìràmà õ̀ːɲì̀*
[*ketʃa*   ta-yeʔ   *peʃ-oʔlak   as   ĩ=yã*
yesterday ᴘᴏss1-small ᴘᴏss3ᴘʟ-horse one ᴅᴇᴍ.ᴘʀᴏx=ʟᴏᴄ
tʃa-ir-wa]=***ma***   *õː-n-Ø-i*
be_there-s3ᴘʟ-ᴘꜰᴠ=ɴᴏᴍ sleep-ᴅᴜʀ-s3sɢ-ᴘsᴛ
'Yesterday, one horse of my boys who live here died.' {Txt}

The marker =*ra* is used when the head nominal is an ᴏ in the matrix clause, as in (22).

Nominal: ᴀ in ʀᴄ—ᴘᴏ in matrix clause
(22) *tàsmà kàpàn kàpàn kórtà tayèʔ kàtʃ̃ẽ̀mìrà wíʃkarí*
tas=ma [*kapan   kapan*   korta   *ta-yeʔ*
1ᴘʀᴏ=ᴛᴏᴘ morning morning woman ᴘᴏss1-small
Ø-ka-tʃã-Ø-pi]=***ra***   *Ø-wiʃ-k-a-ri*
ᴏ3sɢ-ᴀᴘᴘʟ:ʀ-see-s3sɢ-ꜰᴜᴛ=ᴀᴄᴄ ᴏ3sɢ-give.ᴏ3-ᴋ-s1sɢ-ᴘsᴛ

'I entrusted him to the woman who will take care of my son every morning.' {Txt}

The presence of internally-headed relative constructions in Pesh is consistent with the verb-final order language type (Keenan 1985: 163, Lehmann 1986, Basilico 1996). Dryer (2013) shows that in his corpus of 63 languages with IHRCs, 58 languages, that is to say 93 %, are OV. Some counterexamples of the relation between IHRCs and OV constituent order exist in Austronesian languages, such as Tkang Besi, Tagalog or Seediq (Aldridge 2004).

9.3.1   *Position of the Head Nominal*

In Pesh, the IHRC is used when the role of the head nominal in the RC is a core argument or a genitive, as illustrated in (23) for S, in (24) for O, and in (20) for genitive.

Nominal: S in RC—locative in matrix clause

(23) *tèwà àwò tìbtòrás túʔ tʃɔ̀k tʃìrĩ́ỹ ã́*
tewa awo tib-a-tV-i=ras   [tuʔ   tʃok
still   rifle fire-S1SG-NEG-PST=RSN DEM.MED hill
tʃa-ir-i]=yã̀
be_there-S3PL-PST=LOC
'Because I still didn't fire in these hills that were (there).' {Txt}

Nominal: SO in RC—instrumental in matrix clause

(24) *tàsmà tàtùs íspáràh tã̀ỹhryó wã̀rí àmáskáríʔ*
tas=ma [ta-tus   isparah ta-ãyh-Ø-ri]=yo   wãri
1ₚᵣₒ=TOP POSS1-father machete O1-give.O1/2-S3SG-PST=INSTR pig
a-mas-k-a-riʔ
O3SG-kill-K-S1SG-PST
'I killed the pig with the machete that my father gave to me.' {Txt}

The nominal occupies its syntactic position according to its role in the RC. Therefore, the nominal may occur as the first constituent in the relative construction, as in (23), that is to say as the left-most element (Boyle 2016:260). Alternatively, it may have a more internal position, as in (20) or (24). The position is an important parameter but not the most significant. In example (23), the RC includes two constituents, namely the nominal, that is the head and that functions as the S, and the V, so the nominal is the left-most element, in keeping with the verb-final order. Nevertheless, if another element is introduced as a locative constituent, it appears to the left of the RC, as in (25). The relevant

feature for analyzing the RC in (23) as an IHRC is, firstly, the syntactic role of the head nominal in the RC and, secondly, the fact that the marker at the end of the relative construction corresponds to the role of the nominal in the matrix clause. The position of the nominal is analyzed as internal even if it occurs on the left.

Nominal: s in RC—locative in matrix clause

(25) *tèwà àwò tìbtòrás ã́yã́ túʔ tʃɔk tʃìrĩ́yã́*
    tewa awo tib-a-tV-i=ras   [ã=yã   tuʔ*   tʃok
    still   rifle fire-S1SG-NEG-PST=RSN DEM.DIST=LOC DEM.MED hill
    tʃa-ir-i]=yã
    be_there-S3PL-PST=LOC
    'Because I still didn't fire in these hills that were there.' {Txt}

The order within the RC corresponds to a verb-final, more specifically an AOV, constituent order, especially when the referents of the nominal are equal in degree of animacy. When two arguments are encoded by nominals, the nominal that functions as the A occurs before the one that functions as the O in the RC, as in (26).

Nominal: A in RC—O in matrix clause

(26) *árwã́ òníh tàkàkì àrkàpáʃtèʔnè̀rírà kàpròháwá*
    [arwã onih *ta-kaki*
    man   dead POSS1-mother
    *a-r-kapaʃ-teʔ-nã-er-ri]=**ra***   *ka-proh-a-wa*
    O3SG-APPL:PAT-speak-come-go-S3PL-PST=ACC O3PL-look_for-S1SG-PFV
    'I looked for the dead men who came to speak to my mother and went away.' {Txt}

In (27), the order is A—SO—PO. In Pesh, the strict order means that no ambiguity occurs, unlike what has been reported for IHRCs in other languages (Comrie 1989 [1981]: 146, Keenan 1985: 163).

Nominal: PO in RC—s in matrix clause

(27) *pà ĩ̀nsì árwã́ kàkàkúhrímà ùwã̀ nè̀rí*
    [*pa ĩnsi*   arwã *ka-ka-kuh-u-ri]=**ma***   uwã
    2PRO medicine man O3PL-APPL:R-buy-S2-PST=NOM quickly
    nã-er-i
    go-S3PL-PST
    'The men from whom you bought the medicine went quickly.' {Txt}

Some flexibility is possible when the encoding of the arguments is represented by different persons. As Pesh has a strict head-marking pattern, the arguments are encoded in the verb. In (28) the nominal that functions as the primary object, *korta* 'the woman', occurs before the nominal that functions as the SO *ĩnsi* 'the medicine', and before the pronoun that functions as the A *tas*; but since this is the first person, it is encoded as the suffix *-a* in the verb.

Nominal: PO in RC—S in matrix clause

(28) *kórtà ĩ̀nsì tàsàkàkáhrímà kúkúràɲá̃ tʃúá*

[korta   ĩnsi   tas   a-ka-kuh-a-ri]=**ma**   kukura=yã

woman medicine 1PRO O3SG-APPL:R-buy-S1SG-PST=NOM Moradel=LOC

tʃa-Ø-wa

be_there-S3SG-PFV

'The woman from whom I bought the medicine lives in Moradel.' {Txt}

In (29), the nominal that is the A of the RC *arwã pok* 'two men' is postposed to the pronoun of the first person *tas* that functions as a PO (external possession in this context). As both are indexed in the verb, no misinterpretation is possible.

Nominal: A in RC—S in matrix clause

(29) *tàs árwá̃ pók tàkò̃:nìrʃómàỹá̃há̃ tèkkrí*

[tas   arwã   pok   *ta-ka-õ̃:-n-ir-ʃi-wa*]=**ma**

1PRO man   two   O1-APPL:R-sleep-DUR-S3PL-PST.REC-PFV=NOM

ã̃=yã̃=hã̃   *teʔ-k-ir-i*

DEM.DIST=LOC=FOC   come-K-S3PL-PST

'The two men who died (on me) came here.' {Txt}

In (30), the order of the nominals that introduce the two objects is reversed: the PO *pa* 'you' occurs in the front position and the SO, the nominal *yoʔra* 'cassava', occurs after it. No ambiguity is possible because the A, the first person singular *-a*, and the PO, the second person *pi-*, are indexed in the verb. Thus the sole reading is that the head nominal *yoʔra* is the SO in the RC and the S in the matrix clause.

Nominal: SO in RC—S in matrix clause

(30) *pà yóʔrà pìkàkúhápéʔkárímà éɲàrí*

[pa   yoʔra   *pi-ka-kuh-a-peʔ-k-a-ri*]=**ma**

2PRO cassava O2-APPL:R-buy-S1SG-bring-K-S1SG-PST=NOM

eɲa=r-Ø-i
good=COP-S3SG-PST
'The cassava that I bought and I brought to you was good.' {Txt}

In Pesh, in an IHRC the order usually follows the AOV constituent order. The head nominal appears in an internal position and its position usually depends on its syntactic role in the RC. Some pragmatic strategies allow for changing the order of the nominals that function as subject or object, but only if no ambiguity arises.

9.3.2   *Referential Status of the Head Nominal*

Various authors claim that in IHRCs the referential status of the head nominal is indefinite (Cole et al. 1982, Williamson 1987, Culy 1990, Basilico 1996: 507–510, Boyle 2016: 255). For example, Boyle (2016: 255) shows that Hidatsa, like other languages with IHRCs, obeys the indefiniteness restriction first proposed by Williamson (1987) for Lakota. This restriction on the head nominal follows from the quantificational analysis of IHRCs. Williamson claims that indefinites are not quantifiable, that is, they are "quantifier-free," and that quantifiers are excluded as heads because semantically such a quantifier is interpreted as a restrictive term. A definite is known and presupposes the content of its predicate. This property is not consistent with the existence of a RC in which the head would be already familiar to the hearer, as further specification by the RC is unnecessary. As a consequence, for these authors, the head of an IHRC can only be indefinite.

The examples in Pesh do not abide by the indefiniteness restriction, since indefinite nominals and definite nominals may be heads in an IHRC. The head nominal may be indefinite, as *arwã-s* 'a man' in (31), but also definite, as in (32) and (33).

　　　Nominal: A in RC—PO in matrix clause

(31) *tàsmà ĩ̃yã́ árwã̌s tayèʔ kàtʃúíʃmimà wíʃkarí*

　　　tas=ma   [*ĩ=yã*   arwã-s   ta-yeʔ
　　　1_PRO=TOP DEM.PROX=LOC man-INDF   POSS1-small

　　　Ø-ka-tʃuiʃ-Ø-pi]=***ma***   *Ø-wiʃ-k-a-ri*
　　　O3SG-APPL:R-learn-S3SG-FUT=TOP   O3SG-give.O3-K-S1SG-PST

　　　'I entrusted him to a man who will teach my son here.' {Txt}

Nominal: A in RC—S in matrix clause

(32) *ìkìtmà tóʔministro ɲȅhȕmȁ tèʔkwá*
    ĩkita=ma [*toʔ*   ministro *Ø-yẽh-Ø-wa*]=***ma***
    now=TOP DEM.MED minister O3SG-say-S3SG-PFV=NOM
    teʔ-k-Ø-wa
    come-K-S3PL-PFV
    'This minister who commands comes now.' {Txt}

Nominal: O in RC—S in matrix clause

(33) *tárwɑ̃́ wákáʃ pók kàkúhímà kàʔyèrí*
    [*ta-arwã*   wakaʃ *pok ka-kuh-Ø-i*]=***ma***
    POSS1-man cow   two O3PL-buy-S3SG-PST=NOM
    kaʔ-yeʔ-er-i
    make-small-S3PL-PST
    'The two cows my husband bought gave birth.' {Txt}

Pesh has an indefinite article *-s* 'a', in (31) but does not have a definite article; however, the presence of a demonstrative in (32) shows that the NP is definite. In (33), the definiteness is the result of the pragmatic context expressed in the RC. The two cows are definite and referential cows because they are the two that the husband bought and presented earlier in the story.

9.3.3 *Position of the Enclitic Marker*

In IHRCs in Pesh, a mandatory enclitic marker appears in the final position. This obligation contrasts with the situation in which the enclitic marker is used in an NP where the case marking is optional for subjects and objects and only obligatory for the oblique and adjunct cases in PPs (see Section 9.2.1). This constraint in RCs signals that the clause is subordinated, since a subordinate clause (complement, adverbial, or relative) has an obligatory marker on the predicate, as in (34) for an adverbial temporal clause (see also example (23) for a subordinate of reason).

(34) *àpìʃkáwá èyèʃkrámɑ̃̀*
    apiʃ-k-a-wa   [*Ø-eyeʃ-k-er-wa*]=***mã***
    lie.down-K-S1SG-PFV O3SG-sing-K-S3PL-PFV=when/if
    'I go to bed when they sing.' {Txt}

In an IHRC, the boundary of the RC and of the relative construction are the same, and the relative construction may function as a core argument, as in (33), or a postpositional phrase, as in (35), in the matrix clause. This is the reason

why the enclitic marker always occurs at the right edge of the relative construction, as it is a phrasal enclitic. In example (35), I illustrate the position of the enclitic marker using the double square brackets. When the syntactic role of the head is an oblique or adjunct in the matrix clause, that is, when the relative construction functions as a PP, the corresponding case marker is used: the comitative/instrumental, as in (35) for comitative and (36) for instrumental, and locative, as in (37).

Nominal: A in RC—comitative in matrix clause

(35) *ìkìtà árwā́ éyè̀ʃkwáyó kápà̀ʃìʃkwá*
    [[*ĩ̀kita* arwã *Ø-eyê̌ʃ-k-Ø-wa*]_{RC}]_{R construction}=***yo*** *kapaʃ-iʃ-k-Ø-wa*
    now   man O3SG-sing-K-S3SG-PFV=COM   speak-DES-K-S3SG-PFV
    'He wants to speak with the man who is now singing.' {Txt}

Nominal: SO in RC—instrumental in matrix clause

(36) *íspáràh tà̀yhúríyó kàtṵ̀ʃkáwá*
    [isparah *ta-ã̌yh-u-ri*]=***yo***   *katṵ̌ʃ-k-a-wa*
    machete O1-give.O1/2-S2-PST=INSTR work-K-S1SG-PFV
    'I work with the machete you gave to me.' {Txt}

Nominal: O in RC—locative in matrix clause

(37) *ìkìtà àsò wàrà tīkè̀rɳā́ kìtíhéréʔ*
    [*ĩ̌kita* aso   wara *ti-k-er-wa*]=***yã̌***
    now water green say-K-S3PL-PFV=LOC
    Ø-ka-tV-Ø-i=here
    O3SG-make-NEG-S3SG-PST=MIR
    'He made it in the green water as they now call it.' {Txt}

When the function of the head nominal is the S or the A in the matrix clause, the enclitic marker is always the nominative marker =*ma*, as in (38a) and (39a). Use of the ergative case marker =*ya* with transitive verbs, as in (38b), or the absolutive case marker =*ra* with intransitive verbs in Carbon variety, as in (39b), is ungrammatical. The requirement to use the marker =*ma* together with the ungrammaticality of the ergative and absolutive markers in this context shows that the relativization of the subject is related to topicality, as the nominative marker =*ma* has evolved from the topic marker (Chamoreau 2020b, Shibatani 1991).

Nominal: PO in RC—A in matrix clause

(38) a. *kórtà ̀ĩnsì tàsàkàkáhrímà kètʃá kìí*

    [korta   ĩnsi   tas a-ka-kuh-a-ri]=***ma***   *ketʃa*

    woman medicine 1_{PRO} O3SG-APPL:R-buy-S1SG-PST=NOM yesterday

    Ø-ka-Ø-i

    O3SG-make-S3SG-PST

    'The woman from whom I bought the medicine made it yesterday.'
    {Txt}

    b. * [korta *ĩnsi tas a-ka-kuh-a-ri*]=***ya*** *ketʃa Ø-ka-Ø-i*

Nominal: SO in RC—S in matrix clause

(39) a. pà yóʔrà pìkàkúhápéʔkárímà éɲàrí

    [*pa* yoʔra   *pi-ka-kuh-a-peʔ-k-a-ri*]=***ma***

    2_{PRO} cassava O2-APPL:R-buy-S1SG-bring-K-S1SG-PST=NOM

    eɲa=r-Ø-i

    good=COP-S3SG-PST

    'The cassava that I bought and I brought to you was good.' {Txt}

    b. * [*pa* yoʔra *pi-ka-kuh-a-peʔ-k-a-ri*]=***ra*** *eɲa=r-Ø-i*

When the function of the head nominal is the O in the matrix clause, two types of enclitic marker are possible. The accusative case marker may be used, as in (40), or the topic marker, as in (41). The reason for the distribution of use of these markers is pragmatic: when the topic marker is used the nominal is topicalized, and when the accusative case is used it is focalized (in the meaning of Lambrecht's focus, 1994). Focalization is the main reason for the use of the accusative marker (see Chamoreau, 2021 and Section 9.2.1, a precise study is in progress). In (40), *korta* 'the woman' marks a selective focus (Chamoreau 2018).

Nominal: A in RC—PO in matrix clause

(40) *tàsmà kàpàn kàpàn kórtà tayèʔ kàtʃ ̀̃mirà wíʃkarí*

    tas=ma [*kapan* *kapan* korta   *ta-yeʔ*

    1_{PRO}=TOP morning morning woman POSS1-small

    Ø-ka-tʃã-Ø-pi]=***ra***   *Ø-wiʃ-k-a-ri*

    O3SG-APPL:R-see-S3SG-FUT=ACC O3SG-give.O3-K-S1SG-PST

    'I entrusted him to the woman who will take care of my son every morning [not another woman].' {Txt}

Nominal: O in RC—O in matrix clause

(41) *kápànùtʃà ằpàrʃìmà àsòwáyắ káskírí*

[*kapani* utʃa *Ø-ã-par-ʃì*]=**ma**   *aso-ha=yã*
morning fish O3SG-eat-S1PL.INCL-PST.REC=TOP water-NMLZ=LOC
Ø-kas-k-ir-i
O3SG-fish-K-S3PL-PST

'As for the fish we ate in the morning, they fished it from the river.' {Txt}

In this Section, relativization by means of an IHRC has been described as the most frequent and predominant strategy used to relativize nominals that have the role of a core argument or a genitive in the RC. In Pesh, this construction is consistent with the claim that it is common in languages with head-final order (Keenan 1985:163, Dryer 2013). But this construction does not abide by the indefiniteness restriction and the fact that an IHRC has been described as potentially ambiguous.

9.4 Externally-Headed Relative Clauses Using the Gapping Strategy

In an EHRC, the head nominal occurs outside the RC. The RC is always post-nominal and the external head nominal is represented by a gap marked by __ inside the RC, as in (42).

Nominal: Locative in RC—S in matrix clause

(42) *kàhắ nằpìryắ páʔk kàhắhí*

kahã   [__ *nã-pir-pi*]=**yã**   *paʔk kahã=i*
village   go-S1PL.INCL-FUT=LOC lake village=COP.S3SG.PFV

'The village where we will go is the village La Laguna.' {Txt}

The postnominal position may not be expected as a feature of an OV language. Nevertheless, Dryer (2007:97) notes that among OV languages, postnominal and prenominal orders are about equally common. In the case of Pesh, there are two reasons for this position. First, in an NP, modifiers such as the indefinite article and numeral are postposed (see examples (7) and (8), Section 9.2.1). Second, in an independent clause, the verb is usually postposed. The frequency of final position for verbs is relatively high. A text count conducted on a corpus of texts from five hours of recording revealed that 71% of the transitive predicates are postposed. In subordinate clauses (complement, adverbial, and relative), the embedded verb occurs at the right edge of the clauses (see example (23)).

In Pesh, an EHRC is used when the head nominal functions as an oblique or adjunct in the RC, as in (42) for locative, in (43) for instrumental, in (44) for comitative, and in (45) for similative or object of comparison. This is an embedded construction, since the nominal forms an immediate constituent with the RC.

Nominal: Instrumental in RC—O in matrix clause
(43) *kúkàrskà yèʔhá tàkiʼyó úhàrí*
    kukarska [*yeʔ-ha*   ___ *ta-ka-Ø-i*]=*yo*   *Ø-uh-a-ri*
    hoe   small-NMLZ O1-hit-S3SG-PST=INSTR O3SG-hide-S1SG-PST
    'I hid the hoe with which the small boy hit me.'

Nominal: Comitative in RC—O in matrix clause
(44) *árwã̌ kápàʃíʃkáwáyó kàkòrstá*
    arwã [___ *kapaʃ-iʃ-k-a-wa*]=*yo*   *Ø-ka-kors-t-a-wa*
    man   speak-DES-K-S1SG-PFV=COM O3SG-APPL:R-write-DUR-S1SG-PFV
    'I write to the man with whom I want to speak.' {Txt}

Nominal: Similative in RC—O in matrix clause
(45) *ã̀ɲã̀ ɲè̀húríkán kàárí*
    ãɲã [___ *Ø-yẽh-u-ri*]=*kan*   *Ø-ka-a-ri*
    thus   O3SG-say-S2-PST=SIM O3SG-make-S1SG-PST
    'I did it in the way you said.' {Txt}

9.4.1 *Position of the Enclitic Marker*

In an EHRC, as in an IHRC, the enclitic is mandatory. This strategy results in an unambiguous RC because the marker is the one that involves the significant semantic information in the RC (locative, comitative, instrumental, similative). The position of the case enclitic at the right edge of the RC is not expected because the enclitic is a phrasal enclitic (see Section 9.2.1). In example (45), if the square brackets of the relative construction were used, the position should be: [ãɲã [___ Ø-yẽh-u-ri]_RC=**kan**]_R.construction (compare with example (35) for IHRC).

Nevertheless, this position can be explained by three factors. First, the phrasal enclitic is expected to occur in association with the head nominal in the RC. But the representative of the head nominal in the RC is a gap. The enclitic cannot attach to a gap; it needs a distinctive host. For this reason, the enclitic migrates to the right edge of the RC (Weber 1983: 41–46). The use and migration of the case marker result in an unambiguous RC.

The second factor is provided by the deletion of the RC. When the case enclitic corresponds to the syntactic role of the head nominal in the RC, this case enclitic could be deleted. Compare (44) with (46):

(46) *árwɛ̃́ kàkòrstá*
       arwã   Ø-ka-kors-t-a-wa
       man   O3SG-APPL:R-write-DUR-S1SG-PFV
       'I write to the man.'

The third factor involves the possibility of a string of enclitics; each enclitic corresponds to a distinctive domain (two enclitics in the same domain, for example two case enclitics, are not possible). The enclitics have a strict order: =case enclitic =topic enclitic.

– The first enclitic is an oblique or adjunct case enclitic. It occurs at the right edge of the RC, where it flags the syntactic role of the head nominal in the RC: locative (47), comitative (48), instrumental (49), or object of comparison (50).

– The second enclitic is the topic enclitic. It occurs at the end of the relative construction and indicates the pragmatic function (topic) of the head nominal in the matrix clause.

       Nominal: Locative in RC—topicalized S in matrix clause
(47) *kàhɛ̃́ tʃàʔáríyɛ̃́mà yèʔí*
       kahã   [___ *tʃa-a-ri*]=**yã**=**ma**   *yeʔ=i*
       village   be_there-S1SG-PST=LOC=TOP small=COP.S3SG.PFV
       'As for the village where I was born, it is small.' {Txt}

       Nominal: Comitative in RC—topicalized O in matrix clause
(48) *kórtà tèʔkúríyómà kàhírtáwá*
       korta   [___ *teʔ-k-u-ri*]=**yo**=**ma**   *ka-hir-a-tV-wa*
       woman   come-K-S2-PST=COM=TOP O3PL-know-S1SG-NEG-PFV
       'As for the the women with whom you came, I didn't know them.' {Txt}

       Nominal: Instrumental in RC—topicalized S in matrix clause
(49) *kàsúrústà sìrà tásbèrʃyómà tò̃ʃkí*
       kasurusta [*sira* ___ *Ø-tas-ber-ʃi*]=**yo**=**ma**
       knife   food   O3SG-cut-S1PL.EXCL-PST.REC=INSTR=TOP
       tõʃ-k-Ø-i
       disappear-K-S3SG-PST
       'As for the knife with which we cut the food, it disappeared.' {Txt}

Nominal: Similative in RC—topicalized A in matrix clause

(50) *yùkú kàtùhúkánmà tàhtétwá*

yuku [___ *Ø-ka-tuh-u-wa*]=***kan***=***ma***

meat   O3SG-APPL:R-cook-S2-PFV=SIM=TOP

ta-hte-Ø-tV-wa

O1SG-like-S3SG-NEG-PFV

'As for the meat the way you cook it, I don't like it.' {Txt}

9.4.2   *Constraints on the Role of the Head Nominal in the Relative Clause*

In EHRCs, the head nominal functions as an oblique or adjunct in the RC, as in (42) for locative, in (43) for instrumental, in (44) for comitative, and in (45) for similative or object of comparison. In the matrix clause, the head nominal functions most frequently as a subject, as in (42), or an object, as illustrated in (43), (44), and (45). The fact that the head is predominantly a subject or an object in the matrix clause is probably a consequence of the optional case marking attested in the language for arguments and the absence of a genitive case marker (see Section 9.2.1). The head nominal can also function as a locative in both the RC and the matrix clause, as in (51).

Nominal: Locative in RC and in matrix clause

(51) *sũẽ́smà àsò wìʃã̀ úrìs tʃìrúyã́ nàstìrí*

sũẽs=*ma*   aso   [*wiʃã uris*   ___   *tʃa-ir-wa*]=*yã*

donkey=TOP water fish   many   live-S3PL-PFV=LOC

nast-ir-i

jump-S3PL-PST

'The donkeys jumped in the water where many fish were.' {Txt}

When in both the RC and the matrix clause the oblique or adjunct function of the nominal is anything other than locative, a relative construction is never attested. The two clauses are linked paratactically, as in (52) and (53).

(52) *tàũ̀ɲyó kàpáʃkáríʔ ĩ́yó tèʔkí*

[*ta-aũɲa*=***yo***   *kapaʃ-k-a-riʔ*]   [*ĩ*=***yo***

POSS1-woman's_sister=COM speak-K-S1SG-PST DEM.PROX=COM

teʔ-k-Ø-i]

come-K-S3SG-PST

'I spoke with my sister, I came with her.'

Intended meaning: 'I came with my sister with whom I spoke'.

(53) *pràwàmà àtʃáháyẫ tʃirí pàkừ ẫyó káàrí*
   [*prawa=ma atʃaha=yã tʃa-ir-i*]   [*pakũ ã=yo*
   candy=TOP box=LOC be_there-S3PL-PST dog   DEM.DIST=INSTR
   Ø-ka-a-ri]
   O3SG-hit-S1SG-PST
   'The candies were in the box, I hit the dog with it.'
   Intended meaning: 'I hit the dog with the box where the candies were'.

In this Section, relativization by means of an EHRC has been described as a
strategy used when the syntactic role of the head nominal in the RC is periph-
eral (adjunct or oblique). The head is usually a subject or an object in the matrix
clause and may also have a locative role in the matrix clause, showing the speci-
ficity of this role.

9.5   Relative Constructions Introduced by a WH-Word

The relative constructions with a WH-word that functions as a relative pro-
noun are only used in the locative role. They are used in various villages but
are uncommon.

9.5.1   *The WH-Words* Piah *'Where' and* Pikan *'Where, in Which Direction'*
In this strategy, the head nominal occurs outside the RC, and is taken up inside
the RC by means of the WH-words *piah* 'where' or *pikan* 'where, in which direc-
tion' that play the semantic role of the head in the RC. These WH-words function
as relative pronouns. This type of RC is less common, as it only occurs when the
head nominal has the syntactic role of a locative adjunct within the RC. The
WH-word *piah* 'where' is formed by the verb *pi* 'place, put down' and the nomi-
nalizer *-ah*, as in (54), and the WH-word *pikan* (or the dialectal variant *piken*) is
formed by the verb *pi* and the case maker *=kan* 'similative', as in (55).

   Nominal: Locative in RC—O in matrix clause
(54) *kètʃá tàkàʔó pìáh tàs tʃãʔárísrí tʃã̀brí*
   ketʃa   ta-kaʔo   [*pi-ah*   *tas*ₜ *tʃaʔ-a-ri=**sri***
   yesterday POSS1-house place-NMLZ 1_PRO be_there-S1SG-PST=UNCRT
   Ø-tʃã-ber-i
   O3SG-see-S1PL.EXCL-PST
   'Yesterday, we saw the house where I was perhaps born.' {Txt}

Nominal: Locative in RC and in matrix clause

(55) tàpàtʃà kúʔkàkáyá̰ pìkén tʃèʔèríkén tèkkrí
 ta-patʃa   kuʔk *aka=yã* [*pi=ken*   ₜ
 POSS1-man's_sister earth big=LOC place-SIM
 tʃaʔ-er-i=ken]   *teʔ-k-ir-i*
 be_there-S3PL-PST=DBT come-K-S3PL-PST
 'My sisters came from the big land where they (possibly) lived.' {Txt}

The WH-word always occurs at the beginning of the clause and indicates the role of the head nominal within the RC, as in (54) *kaʔo* 'house' and in (55) *kuʔk aka* 'big land'. If the head functions as a locative in the matrix clause, the case marker occurs after the head nominal, as in (55). This type of RC is always postnominal and is embedded, as the head nominal forms an immediate constituent with the RC.

When the head nominal is locative in the RC and in the matrix clause, the external head nominal is flagged by the locative case. This feature distinguishes this type of RC from the EHRC, where it is impossible for the locative case to mark the external head nominal. Compare (55) with (51).

The WH-word that functions as a relative pronoun pronominalizes the whole locative nominal and has a clause-initial position that does not represent the prototypical position occupied by the adjunct phrase in a simple clause. Comparing (54) with (56), we observe that the fronting of the constituent that indicates the locative role leaves a trace in the original position (Comrie 1998: 64–67), marked by ₜ in (54) and (55).

(56) *tàs tàkàʔóyá̰ tʃã̀ʔárí*
 tas   *ta-kaʔo=yã*   *tʃaʔ-a-ri*
 1_PRO POSS1-house=LOC be_there-S1SG-PST
 'I was born in my house.'

The relative pronouns are grammaticalized from the WH-word *piah* 'where', as in (57) and *pikan* 'where, in which direction' as in (58). From the 18 elements used as WH-words found in Pesh (Chamoreau 2020a) *piah* 'where' and *pikan* 'where, in which direction' are the only two that are used in a headed relative construction.

(57) *pìáh nḛ̀rísà*
 pi-ah   *nã-er-ri=sa*
 place-NMLZ go-S3PL-PST=WH
 'Where did they go?' {Txt}

(58) *pìkán pìtùswá nẽ̀ísà*
    pi=kan   pi-tus-wa   nã-Ø-i=sa
    place=SIM POSS2-father-2PL go-S3SG-PST=WH
    'Where (in which direction) did your father go?' {Txt}

9.5.2 *The Subordinator*

In a RC introduced by a WH-word, the verb is obligatorily marked by a subordinate marker. These subordinators indicate the status of syntactic dependence of the RC in relation to the matrix clause. Three subordinators have been attested: the subordinator *=sri* in (54), which semantically conveys the state of affairs as uncertain; the dubitative subordinator *=kan* (or dialectal *=ken*) in (55); and the subordinator *=ma* in (59), which conveys certainty. These subordinators are encliticized on the verb. The difference between these enclitics corresponds to the degree of probability that the event described in the proposition will happen or has happened (Chamoreau 2020a).

(59) *tàkàʔó pìáh tʃã̀ʔárímá àhíráẃá*
    ta-kaʔo   [*pi-ah*   ₜ *tʃaʔ-a-ri=**ma***]
    POSS1-house place-NMLZ   be_there-S1SG-PST=CRT
    a-hir-a-wa
    O3SG-know-S1SG-PFV
    'I know the house where I was born.' {Txt}

The subordinator *=sri* indicates uncertainty and may be translated in English by including 'perhaps' in the clause. The subordinator *=kan* is grammaticalized from the similative enclitic *=kan* (see Section 9.2.1 and Chamoreau 2017b: 331–335, Chamoreau 2020a). Compare the use of the similative enclitic in an EHRC in (45) and (50). In (45) and (50), the meaning is of similarity (or object of comparison) and the marker functions as a phrasal enclitic. In a subordinate clause, the marker is grammaticalized, with the meaning of doubt or weak possibility, as in (55) and (60).

    Nominal: Locative in RC—O in matrix clause
(60) *kàhã pìkán nèíkán àhírtáẃá*
    kahã   [*pi=kan*   ₜ *na-Ø-i=kan*]   *a-hir-a-tV-wa*
    village place=SIM   go-S3SG-PST=DBT O3SG-know-S1SG-NEG-PFV
    'I didn't know the village to where he possibly went.' {Txt}

The certainty marker *=ma* as in (59) is related to the topic marker *=ma* in an NP, as in (10) and (18). Topic and certainty markers share the same characteristic of introducing a given or actualized participant or event (Chamoreau 2020b).

In this Section, RCs introduced by a WH-word that functions as a relative pronoun have been described as a strategy—distinct from IHRC and EHRC structures—using a WH-word at the beginning of the RC, in which the verb is marked by a subordinator. This is the sole role that is expressed by two strategies in Pesh, perhaps because RCs with the locative are more commonly used than RCs with other adjunct roles.

9.6   Pesh: A Predominantly Internally-Headed Relative Clause Language

In this chapter, I have described the three strategies of headed restrictive relative constructions in Pesh, showing that these three types are not used to the same extent in the language. In Pesh, the syntactic role of the head nominal in the RC is important for distinguishing the three types of restrictive relative construction. Pesh is a predominantly internally-headed RC language: this is its primary and most frequent strategy, because it is used when the head corresponds to a core argument or a genitive in the RC. In Pesh IHRCs are consistent with the different features known to describe this type of construction except for the indefiniteness restriction, since indefinite and definite nominals may be heads in the IHRC. In contrast, EHRCS and WH-RCs are less frequent, as they are used when the head corresponds to a peripheral function in the RC. RCs introduced by a WH-word are the least frequent as they are only used in the locative role. EHRCS are more frequent than WH-RCs but less so than IHRCS. EHRCS are used when the head corresponds to an adjunct or an oblique role, such as the instrumental, comitative, locative or object of comparison.

If we momentarily exclude WH-RCs, we observe that IHRCS and EHRCS have a complementary distribution. This process may be the consequence of the optional case marking attested in the language for arguments and the absence of a genitive case marker (see Section 9.2.1). In IHRCS, what is important is to mark the syntactic role of the head nominal in the matrix clause (obliques, adjuncts or arguments), but not in the RC: as this is an argument or a genitive, a marker is optional. In contrast, in EHRCS the information to be highlighted is the syntactic role of the head in the RC (obliques, adjuncts or arguments) because the head appears outside the RC. The language has found strategies for marking the syntactic roles that carry the necessary information for avoiding misinterpretation. As in the case of WH-RCs, this strategy is only used for the locative. Relative constructions for the locative role show a specific position in different systems (see Chapter 1 in this volume).

The compulsory use of a marker at the end of the verb for RCs introduced by a WH-word, at the right edge of a RC for EHRCs, and at the right edge of a relative construction for IHRCs shows clearly that the construction is always subordinated. The presence of the marker is obligatory and is analyzed as a specific constraint on subordinating these clauses. In all the RCs in Pesh the verb is finite, since the verb is marked for both arguments and tense and aspect, and it may be a complex serial verb, as in (61) for an IHRC. These verbal characteristics are associated with finiteness features.

Nominal: S in RC—O in matrix clause

(61) árwǎ̀ òníh tàkàkì àrkàpáʃtèʔnè̌rírà kàpròháwá
      [arwã onih *ta-kaki*
      man   dead POSS1-mother
      a-r-kapaʃ-teʔ-nã-er-ri]=***ra***   *ka-proh-a-wa*
      O3SG-APPL:PAT-speak-come-go-S3PL-PST=ACC O3PL-look_for-S1SG-PFV
      'I looked for the dead men who came to speak to my mother and went away.' {Txt}

Nevertheless, in this language, two different degrees of finiteness exist: RCs introduced by a WH-word have a higher degree of finiteness, as the subordination is marked by the presence of the relative pronoun and a subordinator at the end of the verb, while IHRCs and EHRCs have a lower degree of finiteness, since the nominal character of IHRCs and EHRCs may be inferred from the presence of case or topic enclitics, usually used in NPs and in PPs. This type of lower degree of finiteness or grammatical nominalization may be defined as a syntactic process "via which a finite verbal clause … is converted into a noun phrase" (Givón 2016: 272). Finiteness is evaluated on the relative construction, not only on the verb or on the RC (Chamoreau & Estrada 2016).

The present study provides a first analysis of RCs in Pesh, in particular the relevance of internally-headed relative constructions, but it is also an invitation to continue studying this type of construction in the indigenous languages of Mexico and Central America.

Acknowledgments

Bibliography

Aldridge, Edith. 2004. Internally-headed relative clauses in Austronesian languages, *Language and Linguistics* 5: 99–129.

Andrews, Avery D. 2007. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. 2, 206–236. Cambridge: Cambridge University Press.

Basilico, David. 1996. Head position and internally-headed relative clauses, *Language* 72: 498–532.

Boyle, John P. 2016. The syntax and semantics of internally-headed relative clauses in Hidatsa. In Catherine Rudin & Bryan J. Gordon (eds), *Advances in the study of Siouan languages and linguistics*, 255–287. Berlin: Language Science Press.

Chamoreau, Claudine. 2017a. A preliminary grammatical sketch. Report ELDP. August 2017 (ms 158 pp.).

Chamoreau, Claudine. 2017b. Multifunctionality and polysemy of the similative marker —*kán* in Pesh. In Yvonne Treis & Martine Vanhove (eds), *Similative and equative constructions: A cross-linguistic perspective*, 321–337. Amsterdam: John Benjamins Publishing Company.

Chamoreau, Claudine. 2018. Constituent order flexibility, differential case marking, and focus in Pesh. Paper presented at the workshop "OV basic word order correlates and information structure," LABEX-EFL, INALCO, SEDYL.

Chamoreau, Claudine. 2019. Alineamiento escindido en pesh. Invited talk at V Congreso Internacional de ACALING, Universidad Nacional de Costa Rica (UNA), Heredia. 28 August 2019.

Chamoreau, Claudine. 2020a. Headless relative clauses in Pesh. In Ivano Caponigro, Harold Torrence, and Roberto Zavala Maldonado (eds.), *Headless Relative Clauses in the Mesoamerican Languages*, 509–546. New York: Oxford University Press.

Chamoreau, Claudine. 2020b. Overt topic marking and discourse coherence in Pesh. Between correlation and divergence. *Anthropological Linguistics* 61(2): 1–30.

Chamoreau, Claudine. 2021. Morphological split-ergative alignment and syntactic nominative-accusative alignment in Pesh. *International Journal of American Linguistics* 87(4): 1–37.

Chamoreau, Claudine and Estrada-Fernández, Zarina. 2016. Finiteness and nominalization: An overview. In Claudine Chamoreau and Zarina Estrada-Fernández (eds), *Finiteness and Nominalization*, 1–12. Amsterdam: John Benjamins.

Cole, Peter, Harbert, Wayne, and Hermon, Gabriela. 1982. Headless relative clauses in Quechua, *International Journal of American Linguistics* 48: 113–124.

Comrie, Bernard. 1989. Relative clauses. In Bernard Comrie (ed.), *Language universals and linguistic typology. Syntax and morphology*, 138–164. Oxford: Basil Blackwell Publisher, 2nd edition.

Comrie, Bernard. 1998. Rethinking the typology of relative clauses, *Language Design* 1: 59–86.

Comrie, Bernard and Kuteva, Tania. 2005. Relativization strategies. In Martin Haspelmath, Matthew Dryer, David Gil, and Bernard Comrie (eds.), *World atlas of language structures*, 494–497. Oxford: Oxford University Press.

Constenla Umaña, Adolfo. 2012. The Chibchan languages. In Lyle Campbell and Verónica Grondona (eds), *The indigenous languages of South America: A comprehensive guide*, Vol. 2: 391–437. Berlin: Mouton de Gruyter.

Conzemius, Edward. 1928. Los indios paya de Honduras. Estudio geográfico, histórico, etnográfico, y lingüístico, *Journal de la Société des Américanistes* 20: 253–360.

Culy, Christopher. 1990. Grammatical relations and verb forms in internally-headed relative clauses. In Patrick Farrell, Katharina Dziwirek and Errapel Meijas Bikandi (eds.), *Grammatical relations: a cross-theoretical perspective*, 83–93. Stanford: CSLI Publications.

Dryer, Matthew. 2007. Word order. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. 1: 61–131. Cambridge: Cambridge University Press.

Dryer, Matthew. 2013. Order of relative clause and noun. In Martin Haspelmath, Matthew Dryer, David Gil, and Bernard Comrie (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at http://wals.info/chapter/90, accessed on 2016-10-22.)

Frank, Paul. 1990. *Ika syntax*. (Studies in the Languages of Colombia, 1.) Arlington: Summer Institute of Linguistics and The University of Texas at Arlington.

Givón, T. 2016. Nominalization and re-finitization. In Claudine Chamoreau and Zarina Estrada Fernández (eds), *Finiteness and Nominalization*, 271–296. Amsterdam: John Benjamins.

Holt, Dennis. 1999. *Pech* (*Paya*). Munich: Lincom Europa.

Keenan, Edward. 1985. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. 2: *Complex constructions*, 141–170. Cambridge: Cambridge University Press.

Lambrecht, Knud. 1994. *Information structure and sentence form. Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.

Lehmann, Christian. 1986. On the typology of relative clauses, *Linguistics* 24: 663–680.

McGregor, William B. and Verstraete, Jean-Christophe. 2010. Optional ergative marking and its implications for linguistic theory. *Lingua* 120: 1607–1609.

Quesada, Diego. 2007. *The Chibchan languages*. Costa Rica: Editorial Tecnológica de Costa Rica.

Shibatani, Masayoshi. 1991. Grammaticalization of topic into subject. In Elizabeth Closs Traugott and Bernd Heine (eds), *Approaches to grammaticalization, Volume II. Focus on types of grammatical marker*, 93–133. Amsterdam: John Benjamins.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In Robert M.W. Dixon (ed.), *Grammatical categories in Australian languages*, 112–171. Canberra: Australian Institute of Aboriginal Studies.

Weber, David. 1983. *Relativization and nominalized clauses in Huallaga (Huanuco) Quechua*. Berkeley: University of California Publications.

Williamson, Janis Shirley. 1987. An indefiniteness restriction for relative clauses in Lakhota. In Eric Reuland and Alice ter Meulen (eds), *The representation of (in)definiteness*, 168–190. Cambridge: MIT Press.

Afterword

We conclude this book by briefly highlighting its most important contributions to the creation of new typological knowledge on the syntax of the indigenous languages of Mesoamerica from the light shed by their RC structure. This exercise leads us to further propose some lines for future research that we believe are essential to cover if we want our knowledge of this area to be more complete.

As we have pointed out in Chapter 1, RC structure represents a unique object of study for linguists, because it provides us with the opportunity of gaining knowledge about a great deal of the syntactic structure of a given language. This is because in RC syntax many aspects converge, as they involve not only aspects of extraction syntax that relate them to focus constructions, such as interrogatives or clefts, but also aspects of nominal phrase syntax, constituent order syntax, alignment configurations, nominalization and subordination. A good understanding of RCs in a language requires at least some basic understanding of all these areas, with the result that a good description of RC structure will shed invaluable light on different aspects of the syntax of the languages in question. The studies in this book serve precisely this purpose on languages or language families about which we have hitherto known little or nothing about this area of grammar, and they do so on the basis of natural textual data.

1   Canonical RC Structure in Mesoamerica

In Chapter 1 we have presented a number of features that represent the canonical profile of RCs in a Mesoamerican language. We list some of them here:
– Morphosyntactically, the RCs in Mesoamerican languages are morphologically and syntactically finite. This is in clear contrast to the nominalization syntax found in the languages in the North of Mesoamerica, such as the northern Uto-Aztecan languages, as well as in the languages at the southern border, such as Pesh, a Chibchan language of Honduras.
– As far as relativization strategies are concerned, we find that the gap strategy is predominant in headed RCs. The strategy has two subtypes, which can be (and usually are) found in the same language, but with idiosyncratic differences in distribution. First there is the syndetic RC subtype. This RC can in turn be introduced by one of three different types of linking words: (i) a subordinator that is specific to RC structure, which we call "relativizer", and

which in the OV languages of Mesoamerica is the only subordinating connective occurring in clause-final position; (ii) a general subordinator that also introduces other types of subordinated clauses, such as complement or adverbial clauses; or (iii) a determiner which agrees in deixis with the determiner of the DP including the nominal head, when the reference is construed as definite. This last type is specific to Mesoamerica. The other type of RC with a gap is an asyndetic RC; that is, a clause which is not introduced by an explicit linking word, and which in many cases (except when the RC exhibits a stranded adposition or when the predicate is inflected in a special subordinating mood) looks like a matrix clause superficially, only to be interpreted as an instance of a RC because of prosodic cues that commonly involve a RC that forms a unified intonational unit together with the head.

– While all languages in the area exhibit a relative pronoun strategy in headed RCs, in many of them this strategy is ONLY used to relativize a locative. This restriction is not uniquely Mesoamerican though, because it is also found in non-Mesoamerican languages like Pesh. In headless RCs, on the other hand, the relative pronoun strategy is common for other roles (see the various works in Caponigro et al. 2020).

There are other less widespread strategies, such as the resumptive pronoun strategy observed in some Mixtec languages and the internal head strategy, which in Mesoamerica is found in the Mixe-Zoquean languages from Chiapas and Oaxaca, and which can be explained as a by-product of verb-final syntax, just as it is also found in other verb-final languages outside the area, such as Pesh. While such strategies are not specific to Mesoamerica, finding them in Mesoamerica presents a more typologically diverse picture of relativization in the area. To this, we need to add the extraposed RCs of the Mixe-Zoquean languages of Oaxaca and Chiapas, and the puzzling internally-headed RCs with co-occurring relative pronouns that are exhibited by Nahuatl variants and some Totonac languages, but which could be alternatively explained as a by-product of non-configurational syntax, as shown by Flores Nájera in Chapter 5 for Tlaxcala Nahuatl.

2 Revisiting the Areal Features of Mesoamerica in the Light of RC Structure

Mesoamerica is a linguistic melting pot. This melting pot emerged after centuries of intense linguistic and cultural contact between speakers of neighboring languages, as well as between speakers of local languages and speakers of non-local languages with social and religious prestige. As the political–military

hegemony of different ethnic groups rose and fell, these non-local languages were displaced one after the other. Campbell et al. (1986) proposed to understand this linguistic melting pot in terms of the linguistic area model. In this connection, in order to define the area they advanced five distinctive features: (a) non-verb-final basic word order; (b) a nominal possession construction of the type "his-dog the man" for "the man's dog"; (c) the expression of oblique and adverbial relations by means of possessed relational nouns; (d) vigesimal numeral systems; and (e) several widespread semantic calques.

Of these five features, the first three are the only ones which are genuinely linguistic in nature. We now know that NONE of them hold. Against (a), we know now that the basic word order of Proto-Mixe-Zoquean, which is one of the fundamental pillars of the area, was verb-final and that this order is preserved in many of the modern languages. Similarly, against (b) and (c), we know now that there are languages with genitive case (some Zoquean languages) and the use of relational nouns is a common widespread feature outside the Mesoamerican borders.

On the other hand, the feature in (d) is cultural and not linguistic, so it does not count for defining a linguistic area. The feature in (e) is more interesting. It is actually based on previous work by Thomas C. Smith-Stark which was only published at a later stage in a revised version as Smith-Stark (1994). The author observed that in the languages of the Mesoamerican cultural area, many words in the lexicon reflect similar concepts (e.g. the "wrist" is called "neck (of the hand)"; a "boa" is called "deer snake"; a "score" is called "man" or "person"; the verb for "kiss" is polysemous and it also means "suck", etc.). This semantic evidence led Smith-Stark (1994) to propose that in ancient times there was intense lexical borrowing in the languages of the area but that the borrowing was primarily achieved through semantic-syntactic calques. Lexical borrowings, as part of the conceptual imagery of a language community, can be understood at the border between culture and language, in the same way as the number systems. So strictly speaking, neither (d) nor (e) should be really thought of as linguistic features.

We can think of the Mesoamerican melting pot through the lens of prototype theory in such a way that membership of the area is not ascribed by sharing a set of sufficient features, but by prototype resemblance. Our understanding of this linguistic melting pot is enriched as we add more features to it that speak of high degrees of convergence, but not all of them have to be exhibited by a given language to be treated as Mesoamerican. However, in order to achieve a proper characterization of Mesoamerica as a linguistic area, what we need are linguistic features that are uniquely area-specific from a typological point of view. This is precisely what we have proposed in Chapter 1.

In this respect, we first established that RC structure can be borrowed as a consequence of intense linguistic contact. We know this from the fact that linking words used in RCs can be borrowed, as evidenced for example by the fact that Sierra Popoluca, a Zoquean language from the Gulf Zoque subgroup, acquired the subordinator used in RCs from a neighboring Nahuatl variety. In the same way, Proto-Cholan borrowed its relativizer from Proto-Zoquean, a fact that further triggered a reshuffling of the syntax of relativization in these Mayan languages with the simultaneous acquisition of prenominal RCs, which were adjusted to express property concepts.

On the basis of evidence of RC structure borrowings such as these, we have proposed the existence of three constructions involved in RCs that we consider to be specific linguistic features of Mesoamerica. As expected, these three constructions do not occur at the same time in all languages of this cultural area, but it is enough that one of them is observed in a given system for that system to be considered without any doubt as emerged within the sphere of linguistic convergence of Mesoamerica.

Firstly, only in Mesoamerica do we find RCs introduced by determiners which agree in deixis with the determiner of the DP in which the nominal domain of the relative clause is embedded. Secondly, only in Mesoamerica do we find the so-called 'pied-piping with inversion' introduced by Smith-Stark (1988) for interrogatives, which we treat as having percolated into RC structure for the relativization of non-argumental roles marked with adpositions. For example, for the relativization of a comitative, in addition to a possible construction with a stranded adposition ("the man I went with"), we may find a puzzling pied-piped configuration in verb-initial languages of the type "the man **whom with** I went" instead of the expected "the man **with whom** I went". This structure is foreign to the syntax of verb-initial languages, and it escapes an account in terms of syntactic derivation, since it could only be explained by a totally ad hoc rule of "inversion" that would explain nothing. We propose that the structure in effect results from the borrowing as a syntactic calque of the equivalent native structure of Mixe-Zoquean languages, whereby the REL.PRO/INTER.PRO+POST.P configuration ("whom with") in the pied-piped adpositional phrase represents the natural syntactic configuration of a verb-final language. The third and last feature involves the existence of headless RCs with a gap; that is, headless RCs where there is little morphosyntactic indication as to the role of the relativized element.

3   A Wish-List for Future Research on RCs

Given that RCs represent an optimal descriptive tool for the study of the syntax of a given language, and given that in the specific case of Mesoamerica, the study of RC structure sheds light of great importance for the understanding of Mesoamerica as a linguistic area, we envision several areas of research to develop if possible in a not-so-distant future, especially due to the endangered or threatened situation in which most of the indigenous languages of Mexico and Central America find themselves in our times:

– We are in need of RC studies in the language isolates of the area: Huave, Chontal de Oaxaca and Purepecha.

– We are in need of word-order studies in the Totonac-Tepehua languages, as well as in other Nahuatl variants of the Puebla highlands, carried out under the hypothesis that there may be features of non-configurational syntax in the RC structure of these languages.

– We need more in-depth studies of more core and non-core Mesoamerican languages. In particular on languages at the northern border, such as Northern and Central Pame and Chichimec, but also on the Uto-Aztecan languages of Northern Mexico. The same applies to the languages at the southern border of Mesoamerica, such as the Tol languages and Belizean Garifuna (which shows traces of contact with languages of the Mayan family, cf. Munro 2017).

– We need corpus-based studies to examine the distribution of different strategies for the same role and for different ones, and we need to deepen our understanding of the distribution of headless RCs with a gap as opposed to other types of headless RCs.

– At a qualitative level, we are in want of understanding the factors that trigger the use of one construction over another, perhaps by revisiting the relationship between RC syntax and information structure more precisely in each language in natural texts, as it is for example explored by Campbell in Chapter 6.

– In particular, for the languages whose RC structure is already more familiar, we need to further explore cleft constructions and their structural relation between clefts and other monoclausal focus constructions.

In times of hope and renewal, in the Spring of 2021 …

Enrique L. Palancar
Roberto Zavala Maldonado
Claudine Chamoreau

Bibliography

Campbell, Lyle, Terrence Kaufman y Thomas C. Smith-Stark. 1986. Meso-America as a linguistic area, *Language* 92: 530–570.

Caponigro, Ivano; Harold Torrence & Roberto Zavala Maldonado (eds.). 2020. *Headless Relative Clauses in the Mesoamerican Languages*. Oxford: Oxford University Press.

Munro, Pamela. 2017. The Mesoamerican linguistic area revisited. In Karen Dakin, Claudia Parodi and Natalie Operstein (eds.), *Language Contact and Change in Mesoamerica and Beyond*, pp. 335–353. Amsterdam: John Benjamins.

Smith-Stark, Thomas. 1988. Pied-piping con inversión en preguntas parciales en lenguas de Mesoamérica. MS

Smith-Stark, Thomas. 1994. Mesoamerican calques. In Carolyn J. MacKay and Verónica Vázquez (eds.), *Investigaciones Lingüísticas en Mesoamérica*, pp. 15–52. Mexico City: Instituto de Investigaciones Filológicas, Universidad Nacional Autónoma de México.

Author Index

Language Index

Subject Index