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## Relative Clause Structure in Mesoamerica Languages.

Enrique L. Palancar, Roberto Zavala Maldonado, Claudine Chamoreau

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## Relative Clause Structure in Mesoamerican Languages

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# Relative Clause Structure in Mesoamerican Languages

*Edited by*

Enrique L. Palancar  
Roberto Zavala Maldonado  
Claudine Chamoreau



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## 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 “Mésomérique 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.<sup>1</sup>

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.

<sup>1</sup> 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.



We acknowledge the support of various institutions for the research behind this book. In France, we want to thank CNRS for their support through the 2015–2017 research project CNRS-PICS “Mésoamérique et la syntaxe de la proposition relative”, and especially the UMR-8202 *Structure et dynamique des langues* (SeDyL) and the UMFRE-16 *Centre d’études mexicaines et centraméricaines* (CEMCA). In Mexico, we acknowledge the support of CIESAS-CONACYT, especially CIESAS-Sureste at San Cristóbal de las Casas, Chiapas. We want to thank the two anonymous reviewers for their comments and suggestions and for the precious time devoted to this book. We are also grateful for the support of two specific people who were responsible for different important aspects of the book: to Timothy Feist for proof-reading the English in the manuscript and making sure that it sounded idiomatic and for pointing out inconsistencies that needed correction; and to Hugo H. Vázquez López for ensuring that the manuscript was formatted consistently

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*In the times of confinement of 2020 ...*

*Enrique L. Palancar  
Roberto Zavala Maldonado  
Claudine Chamoreau*

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## 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                               |

## ABBREVIATIONS

## XVII

|        |                                    |
|--------|------------------------------------|
| 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                        |

## XVIII

## ABBREVIATIONS

|          |                                      |
|----------|--------------------------------------|
| 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                             |

## ABBREVIATIONS

XIX

|          |                                  |
|----------|----------------------------------|
| 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     | objective 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                       |

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## ABBREVIATIONS

|                |                                   |
|----------------|-----------------------------------|
| 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 <sub>o</sub> | subject of an inactive predicate  |
| SAP            | speech act participants           |
| SS             | secondary stem                    |
| ST             | stative                           |
| SUB            | subordinator                      |
| SUBJ           | subject (as a syntactic function) |
| TEMP           | temporal                          |

ABBREVIATIONS

XXI

|       |                          |
|-------|--------------------------|
| 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, particularly 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.<sup>1</sup>

### TEXISTEPEC POPOLUCA (MIXE-ZOQUEAN)

- (1) ... *byatij* *kyet* *pelota* *ma’pi’* *wiipke’m*  
*y-batij* *y-ket* *pelota* [*ma’=pi’* *y-wéép-ké’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 Alejandro 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

<sup>1</sup> 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) *é t,á:taʔat [tí ru-ih wa-té-kúʔustiʔa-sí]*  
 DET man S3SG<sub>[SUB]</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 tàkìyó 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).<sup>2</sup> 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

<sup>2</sup> 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 p̄in 'iy nukokmangxukki*  
 [∅=tsij-pa=p̄i'k]      p̄in 'iy=nuk-'ok.mang-xuk-wi  
 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 mi'a 'in niwaktammi' 'in pinik tikjonang*  
*bi mi'a* [PAUSE] [*'in=niwak-tam-wi=p̄i'*]      *'in=pik-nik-wi*  
 DET deer                      A1.I=steal-PL.SAP-CP.I=REL A1.I=grab-go-CP.I  
*tik=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 =*p̄i'*/*pu'*, a cognate of San Miguel Chimalapa's =*p̄i'* 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' ∅-nim [∅-tiw-ki'da'a=p̄i'] kaaj-da'a*  
 then PFV S3.I-say S3.I-big-ADJ=REL tiger-AUG  
 'Then the largest tiger said [...].' {Txt} (Díez Alejandro 2019: 29; apud Wichmann 1993)
- b. [*∅-ech=pu' njem*] suutu'  
 S3.I-be=REL there young.man  
 'The young man who is over there.' {Txt} (Díez Alejandro 2019: 31; apud Wichmann 1993)

- c. [*u=pu' y-a'nyí'-jo'y*] yoomí'  
 IPFV=REL S3.D-teach-AND woman  
 'teacher' (Lit. 'the woman who teaches') {Txt} (Díez Alejandro 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 =*bi*, which is a cognate of Texistepecan =*pi'* or San Miguel Chimalapa's =*pi'*. 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-miñ-i-Ø ixim [chonkol=bi 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.<sup>3</sup>

- CHOL (MAYAN)  
 (9) *che' bajche ixí [p'el-el-Ø=ix=bi] 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)

<sup>3</sup> 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 tijawi bi 'eskwela*  
*'axta ka=ja [donde Ø=tij-'a-wi 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. *'iy nikwaxuk(ki) gaj(a) donju tejidam(mi)*  
*'iy=nik-wak-xuk-Wi ka=ja [don=ju*  
 A3=body-break-3PL-CP.I DIST=LOC WHERE=WHERE  
*Ø=teji-tam-Wi]*  
 S1.I=exist-PL.SAP-CP.I  
 ‘They assaulted him over there where we were.’ {Txt} (Jiménez 2014: 307, 308)

Similarly, Sierra Popoluca, a Gulf Zoquean language, has borrowed the subordinator *?iga* 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 Nahuatl. 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. *ʔiʔtxtyim ʔigaʔich dya ʔanhjoʔykáʔ*  
*ʔi-ʔlx-W-tyi-ʔam ʔiga=ʔich dya ʔan-joʔy\_kaʔ-W*  
 A3-see-CP-just-already SUB=1<sub>PRO</sub> 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-wi 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) *árwá kápàʔfjkáwáyó kàkòrstá*  
*arwã [kapaf-ʔf-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-SIPL-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 èjts jä'äy ntseky mte'p jajp tsënnaatyëp*  
*ka't èjts jä'äy n-tsok-y [mète'p jaaj-p*  
 NEG 1SG<sub>PRO</sub> 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* *ějts* [*mēte’p* *jaaj-p* *Ø-tsën-naay-të-p]*

NEG 1SG<sub>PRO</sub> 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-míʔi* [*tí* *m<sup>w</sup>a-čéih*]

viper S3SG CP-die.SG S3SG<sub>[SUB]</sub> O2SG-bite.PST

‘The viper that bit you died.’ (Vázquez Soto 2002: 317)

(Lit. ‘The viper died, that bit you.’)

b. *wa-míʔi* *i* *kú:kuʔu* [*tí* *m<sup>w</sup>a-čéih*]

[S3SG]CP-die.SG DET viper S3SG<sub>[SUB]</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'yi'kida'mbi pit masuɲdena'ajk musoyajpabi*  
*te' [ \_ Ø-yi'=ki=ta'm=pi' ] piɲ mas='uj=te=na'ak*  
 DET S3-PROX=EXT.LOC=PL=REL man more=REP=COP=CONTR  
*Ø-mus-'oy-yaj-pa=pi'*  
 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<sup>4</sup> A3-send-PFV-APPL:R-POL.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'u='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 =*pi'* 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

<sup>4</sup> 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).<sup>5</sup>

## OCOTEPEC ZOQUE (MIXE-ZOQUEAN)

- (20) a. *kuando diosisis 'yijisu 'uj ke ji' 'yidi sa'syapi' 'ijtku'y*  
*kuando dios='is y-'is-u='uj [ke ji'n y-'it-i*  
 when God=ERG3 A3-see-CP=REP COMP NEG.ICP S3D-exist-DEP1  
*Ø-sa'sa=pi' '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'ujna'ajk wa'a syeyijtsijku kijpku'yis*  
*rrey='is y-sun-pa='uj=na'ak [wa'a y-seyi-tsik-u*  
 king=ERG3 A3-want-ICP=REP=CONTR COMP A3-go.on-do-DEP2  
*kip=ku'y='is]*  
 fight=NMLZ=ERG3  
 'The king wanted the fight to go on.' {Txt} (Ramírez Muñoz 2016: 2)

## PUREPECHA (ISOLATE)

- (21) a. *isi ari-s-p-ka=ni ima ahati-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 *m̄* 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. *u<sup>H</sup>ne kuzë<sup>H</sup> [ndi ta<sup>H</sup>-tehe ga<sup>H</sup>-sü?ü-k?] ki-ngwæ<sup>H</sup> ome*  
 that pig REL FUT.S3-get.out FUT.S3-bite-O2 FUT.S2-hit[O3] or  
*ki<sup>H</sup>-čirir*  
 FUT.S3-stab[O3]  
 ‘Beat or kill the pig that may get out to bite you.’ {Txt} (Lastra 2018: 128, 227)

- b. *ikag<sup>H</sup> e<sup>H</sup>-nu?u [paha<sup>H</sup> e<sup>H</sup>-nehe]*  
 1SG<sub>PRO</sub> 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 commonly 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. *ka<sup>L</sup>-hie<sup>LM</sup> hná<sup>HL</sup> [ʔ<sup>L</sup> ηaʔ<sup>L</sup> ieʔ<sup>L</sup>]*  
 PST-see.TR.INAN.1SG 1SG<sub>PRO</sub> SUB go.home.INTRAN.PST.3SG elder  
 ‘I saw that the old man went home.’ (Foris 2000: 320)

- b. *mí<sup>M</sup>ηii<sup>L</sup> [ʔ<sup>L</sup> ka<sup>L</sup>-kuéʔ<sup>L</sup> ieʔ<sup>L</sup> ʔ<sup>H</sup>miiʔ<sup>ML</sup>]*  
 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 fwi-ri]*  
 1SG<sub>PRO</sub> want-1SG SUB come-2HON  
 ‘I want you to come (here).’ {Txt} (Adamou & Costaouec 2013: 202)

- b. *fiwa-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 & Costaeuec  
 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, Tzeltal *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 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 Acazolco Otomi (Otomian; Oto-Pamean) in (27),<sup>6</sup> 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 chooses to gloss it as a complementizer (COMP).

6 Acazolco 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’á*, 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=´yot´e*                      *k´a=´m=chí*  
 FOC=POSS3SG=property DET.NVIS.SG=POSS1=DIM  
*t´u=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. *“kamal b’eh” u-b’l*                      *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-tüq-ik*                      *ka-tüq-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                                  'mbuh=ku=a]  
 PROX.PL<sub>PRO</sub>=IPFV[S3] be.located=LOC.PROX=ENCL  
*geh=ya* [=x=na                                  póngi=a]  
 COP=PROX.PL<sub>PRO</sub>=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.<sup>7</sup> 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 AI-give-1PL.EXCL see-SBJV DET POSS1-paper-1PL.EXCL COMP<sub>DEIX</sub>  
*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 *í* 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 í tíʔíri:-œ [í ti Petra tekʷáraʔi-se*  
 1SG-PO3PL-CP-see DET child-PL REL<sub>DEIX</sub> S3SG<sub>[SUB]</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 nyatē [ʔne 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) *nk-w-ísū=ū? j-nā kwetā.kyaʔā? [nu nk-yaq]*  
 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 *tí* in (39). The first is only used in matrix clauses, whereas the second is used only in subordinated clauses (Vázquez Soto 2002: 296).<sup>8</sup>

8 The set of pronominals to which *tí* 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. *tí*; 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-méʔi* [*tí m<sup>w</sup>a-čéih*]  
 viper S3SG CP-die.SG S3SG<sub>[SUB]</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.<sup>9</sup> 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. *ni<sup>3</sup>-xi<sup>2</sup>ni<sup>2</sup>=i<sup>3</sup> i<sup>3</sup>na<sup>2</sup> [ni<sup>2</sup>-xi<sup>2</sup>i<sup>3</sup>]*  
 CP-see=S1SG dog CP-die  
 ‘I saw the dog that died.’ (Ramírez Pérez 2014: 63)
- b. *ni<sup>2</sup>-tna<sup>1</sup>nu<sup>2</sup> ma<sup>1</sup>chi<sup>2</sup>ti<sup>3</sup> [ni<sup>2</sup>-xe<sup>2</sup>nde<sup>2</sup> ndi<sup>2</sup>i<sup>23</sup>=n yu<sup>2</sup>tnu<sup>23</sup>]*  
 CP-break machete CP-cut with=S2SG tree  
 ‘The machete with which you cut the tree broke.’ (Ramírez Pérez 2014: 67)
- ii. a. *ni<sup>3</sup>-xi<sup>2</sup>ni<sup>2</sup>=i<sup>3</sup> ma<sup>1</sup>chi<sup>2</sup>ti<sup>3</sup> [saa<sup>12</sup> ni<sup>2</sup>-tna<sup>1</sup>nu<sup>2</sup>]*  
 CP-see=S1SG machete SUB CP-break  
 ‘I saw the machete that broke.’ (Ramírez Pérez 2014: 62)
- b. *\*ni<sup>3</sup>-xi<sup>2</sup>ni<sup>2</sup>=i<sup>3</sup> i<sup>3</sup>na<sup>2</sup> [saa<sup>12</sup> ni<sup>2</sup>-xi<sup>2</sup>i<sup>3</sup>]*  
 CP-see=S1SG dog SUB CP-die  
 Intended reading: idem (i.a) (Ramírez Pérez 2014: 63)
- iii. *xi<sup>2</sup>ni<sup>3</sup>=o<sup>2</sup> [saa<sup>12</sup> ndau<sup>12</sup>=o<sup>27</sup>]*  
 [ICP]see=S1PL.INCL SUB be.poor=S1PL.INCL  
 ‘We know that we are poor.’ {Txt} (Ramírez Pérez 2014: 63)
- iv. *ñá<sup>1</sup>di<sup>23</sup> kuu<sup>23</sup> [saa<sup>12</sup> ni<sup>3</sup>-ka<sup>1</sup>ba<sup>12</sup>]*  
 woman [ICP]COP<sub>2</sub> 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. *purumhë<sup>h</sup> ikag<sup>h</sup> ki<sup>h</sup>ku<sup>h</sup> ntʔa ri<sup>h</sup>gu<sup>h</sup> e<sup>h</sup>-pihi//* [*ma<sup>h</sup>tü*  
 but ISG<sub>PRO</sub> here one stick PRS.S1-bring dead  
*e-ʔa<sup>h</sup>ha-r*]  
 PRS.S3-speak-PL[03]  
 ‘But I’m carrying a stick that makes the dead speak.’ {Txt} (Lastra 2018: 126)

- b. *e<sup>h</sup>ntʔa ki ru-nhu<sup>h</sup>// e<sup>h</sup>ntʔa u<sup>h</sup>ri<sup>h</sup> [tahyr<sup>h</sup> e<sup>h</sup>-pihi*  
 one and SEQ.S3-see.S3PL one person rifle PRS.S3-bring  
*e<sup>h</sup>-mæhæ i<sup>h</sup>-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. *ikag<sup>h</sup> kiʔi<sup>h</sup> ka<sup>h</sup>ndanʔ<sup>h</sup> [ndi ka<sup>h</sup>-tehe] keʔen<sup>h</sup> ga<sup>h</sup>-ndyʔ-r*  
 ISG<sub>PRO</sub> these worker REL PRS.S1-come also FUT.S3-go-PL[S3]  
*u<sup>h</sup>rhanʔ ga<sup>h</sup>-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. *ba<sup>h</sup>naʔi<sup>h</sup> čičahaʔ [ndi u-nda<sup>h</sup>ha-b], ba<sup>h</sup>naʔi<sup>h</sup> čičahaʔ*  
 all bird REL PST.S3-ask-DAT3 all bird  
*u<sup>h</sup>-mhä//: “ni pa<sup>h</sup>me”; manʔi<sup>h</sup> su-nhu<sup>h</sup>-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,<sup>10</sup> 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-etzā? jī?ī nyatē kitzē [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 Textistepec Zoque (Gulf Zoquean; Mixe-Zoquean), as shown in Díez Alejandro (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*            *'mb<sup>w</sup>u yú*                            *h<sup>t</sup>sü yi*            *khá'ni* [*to<sub>SUBJ</sub>* *bi*  
 IPFV[S3] exist    DEM.PL.POSS3 wife DEF.PL man    WHO    PFV[S3]  
*'ñëm-bi*                            *yú*                            *sku bahtsi*  
 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* [*to<sub>OBJ</sub>* *tú*            *ñü*]  
 DEM.SG woman WHO PFV.S1 see  
 Intended reading: 'The woman that I saw.' (Palancar this volume)

## ZENZONTEPEC CHATINO (ZAPOTECAN)

- (45) *nyatē* [*nu chu<sub>GEN</sub>*                            *nk-yāá?*            *liti=kā?á*]            *nyā?ā*  
 person SUB HUM.REL.PRO PFV-be.built home=also[3] see.2SG  
*ta*            *nk-wāti?=<sup>u</sup>?*            *tula*            *?ne=<sup>u</sup>?*  
 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 sāṣī 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 tìvi=ri yùʔu*  
 CLF.ANIM bee CP.sting=AN 1SG<sub>PRO</sub>  
 ‘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’.<sup>11</sup>

## ZENZONTEPEC CHATINO (ZAPOTECAN)

- (48) *kwi-tyāá jī chu tíʔi, [jī chu nālá jī]*  
 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)

<sup>11</sup> 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 Ocotepéc 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'subitsi tuwi'is ka'u*  
*te' [Ø-ki's-u=pi'=tsi tuwi'=is] Ø-ka'-u*  
 DET PO1-bite-CP=REL=1ABS<sub>PRO</sub> 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 pinjinang witti' mi'yyi*  
*[mari pin=jinang Ø=wit-wi=pi'] Ø=mi'iy-wi*  
 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 Nahuatl 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 configurability 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-configurability 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)



*Ø-ka-tfã-Ø-pi]=ra*                      *Ø-wif-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 yè?há tàkíyó úhàrí*  
*kukarska* [*ye?-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 lháo bénéká?*  
*sh-yégh-nàb=ò'²=nh lhào béné'²=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. *yídó lhénh nhàdà?*  
*y-íde=ò'² lhénh nhàdà?*  
 IRR-come=NOM2SG with 1SG<sub>PRO</sub>  
 'You'll come with me.' {Txt} (López Nicolás this volume)

ZOOCHINA ZAPOTEC (ZAPOTECAN)

(60) a. ... *bénénh² nhónh² bshàbdò² gó²nè²*  
*béné'²=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.' {Txt} (López Nicolás this volume)

- b. ... *bwíxé nhó'ólhénh' zézálhénhà'*  
*b-bíxé nhó'ólhé=nhà' [z-ey+zà'-lhénh=á']*  
 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 wi? lóʔō juti=q̄?*  
 exist=1PL.EXCL there with father=1SG  
 'We live there with my father.' {Txt} (Campbell this volume)

- b. *lē?.wí?.nū nkw-eta=yu jíʔi tyáʔā*  
 and.then PFV-wait.for=3SG.M O companion[S3]  
 [*n-te-taʔq=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*                      *Dèlfin dǐdz 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 d'ǎdz* ]  
 ST-exist WHO RN.FACE CP-show D. word  
 'There's someone whom Delfino warned.' (Antonio Ramos 2021: 246)

TILAPA OTOMI (OTO-PAMEAN)

- (65) *ní* *khà'ni* [ *to rú* *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'yàd' bénénh' xhí'nènh' nhónh bdápè' bí'nhà'*  
*b-lhé'y+d=á' béné'=nhà' [xhí'inh=nhà' nhó+nhà' b-dápè'*  
 CP-see=NOM1SG person=DEF PSSD.son=DEF WHO CP-hit  
*bí'=nhà']*  
 CLF<sub>PRO</sub>=DEF  
 'I saw the man whose son beat that one.' (López Nicolás this volume)
- b. *byèy lhashghénh' k'wít gánh' dxázá'*  
*b-yèy lhashghé=nhà' [k'wít gá+nhà' dx-áz=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 k'wítènh' dxázò'*  
*gǎ k'wít=nhà' dx-áz=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 rú ngü gú hta?*  
 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 Nahuatl (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 3<sub>PRO</sub>=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.  $\theta\acute{a}i^M$   $hn\acute{a}^{HL}$   $ca^Lku\acute{a}^H$   $\text{?}^L$  [ $\text{?}^L$   $hm\acute{e}^H$   $\theta\acute{e}\text{?}^M$   
 like.ST.T.AN.S1SG I horse that.AN SUB TERM stand.ST.IAN  
 $\eta i^H$   $\theta io^H$ ]  
 place yonder  
 ‘I like that horse that was standing over there.’ (Foris 2000: 310)

- b.  $\theta\acute{a}i^M$   $hn\acute{a}^{HL}$   $ca^Lku\acute{a}^H$  [ $\text{?}^L$   $hm\acute{e}^H$   $\theta\acute{e}\text{?}^M$   $\eta i^H$   
 like.ST.T.AN.S1SG I horse SUB TERM stand.ST.IAN place  
 $\theta io^H$ ]  $\text{?}^L$   
 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.  $\theta\acute{a}i^M$   $hn\acute{a}^{HL}$   $ca^Lku\acute{a}^H$  [ $\text{?}^L$   $hm\acute{e}^H$   $\theta\acute{e}\text{?}^M$   $\text{?}^L$   
 like.ST.T.AN.S1SG I horse SUB TERM stand.ST.IAN that.AN  
 $\eta i^H$   $\theta io^H$ ]  
 place yonder  
 ‘I like that horse that was standing over there.’ (Foris 2000: 311)

- b.  $ka^L-l\acute{a}u^H$   $hn\acute{a}^{HL}$   $si^M$  [ $\text{?}^L$   $hm\acute{e}^H$   
 PST-buy.used.T.INAN.S1SG 1SG<sub>PRO</sub> book SUB TERM  
 $\text{?}i^M$   $h\acute{a}u^M$   $c\acute{a}^M$   $\text{?}^L$ ]  
 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. ʔí<sup>H</sup>miiʔ<sup>MH</sup> [ʔí<sup>L</sup> ka<sup>L</sup>-kuéʔ<sup>L</sup> cú<sup>M</sup> háu<sup>M</sup> m<sup>t</sup>ηí<sup>L</sup>]  
 bread SUB PST-give.D.INAN.S3 3<sub>PRO</sub> that.INAN pig  
 ‘That bread that s/he gave the pig.’ (Foris 2000: 314)
- b. ʔí<sup>H</sup>miiʔ<sup>MH</sup> [ʔí<sup>L</sup> ka<sup>L</sup>-kuéʔ<sup>L</sup> háu<sup>M</sup> ieʔ<sup>L</sup> m<sup>t</sup>ηí<sup>L</sup>]  
 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.<sup>12</sup>

## SOCHIAPAM CHINANTEC (CHINANTECAN)

- (76) a. ʔmá<sup>M</sup> [ʔí<sup>L</sup> ka<sup>L</sup>-pã<sup>L</sup> cú<sup>M</sup> háu<sup>M</sup> cáí<sup>M</sup>]  
 wood SUB PST-hit.T.AN.S3 3<sub>PRO</sub> that.INAN dog  
 ‘That stick that s/he hit the dog with.’ (Foris 2000: 315)
- b. ηíú<sup>M</sup>míʔ<sup>H</sup> [ʔí<sup>L</sup> ka<sup>L</sup>-ʔáí<sup>L</sup> \*(ʔí<sup>L</sup>) Huã<sup>M</sup> m<sup>t</sup>áí<sup>M</sup>]  
 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

<sup>12</sup> 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) 'y nɪpɪkwakxukki jemji, 'y 'angnitpa'

'y=ni-pik-wak-xuk-wi                      jemji \_\_ [PAUSE] ['y='ang'it-pa=pi']

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-wi bi [Ø='ix-ten-'oy-pa=pi']*  
 now S<sub>3,I</sub>=sleep-ICP.I DET S<sub>3,I</sub>=see-stand-AP-ICP.I=REL  
 ‘Now the one that is the sentinel fell asleep.’ {Txt} (Jiménez this volume)
- b. *dey bi yiji witpa' piyukixoyi*  
*[tey bi yi=ji Ø=wit-pa=pi'] Ø=piyu-kix-'oy-wi*  
 now DET PROX=LOC S<sub>3,I</sub>=walk-ICP.I=REL S<sub>3,I</sub>=chicken-eat-AP-CP.I  
 ‘The one that is walking about here ate chicken.’ {Txt} (Jiménez 2014: 353)
- c. *mari pinjinang witti' mi'yyi*  
*[Mari pin=jinang Ø=wit-wi=pi'] Ø=mi'iy-wi*  
 M. man=COM S<sub>3,I</sub>=walk-CP.I=REL S<sub>3,I</sub>=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 Tzeltalan 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 Tzeltal in (82).<sup>13</sup>

- 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.

<sup>13</sup> The same construction can be found in headed RCs; see Campbell (this volume) for Zen-zontepec 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-wi [iga Ø=tokoy-wi]*  
 S3=arrive-CP SUB S3=loss-CP  
 'The time of his death arrived.' {Txt} (López 2021: 506)

## ZENZONTEPEC CHATINO (ZAPOTECAN)

- (85) *yākwá táká [nu nka-suṛū tī j-nāáqʔ] 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 'i'a'myaj kuyujyajwi'ip*  
*'oy-wi='am i='a'm-yaj-wi [Ø=kuyuj-yaj-wi=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) *tsyjkyaju tsa'bi*  
*y-tsik-yaj-u [Ø-tsa'=pi']*  
 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 ...]*  
 PRCL 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'anjobal 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* —<sub>SUBJ</sub>]<sub>SUBJ</sub> *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 pēki [khwén pu=n pantí —<sub>OBJ</sub>]<sub>SUBJ</sub>*  
 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 zo='ku=wi*  
 because LOC.FOC PFV.IRR[S3] SS/arrive.there.AS=there=DU  
*[nkhontsé yí kha'ni —<sub>GEN</sub>]<sub>SUBJ</sub>*  
 not.exist[S<sub>03</sub>] 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 —<sub>SUBJ</sub>]<sub>OBJ</sub> tu='uny=a*  
 PFV go.off.food[S<sub>03</sub>] 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:]<sub>OBJ</sub> muʔu=rí wa-βáʔana*  
 S3PL<sub>SUBJ</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 relativizer) or asyndetic—represent a structural type that has not been identified

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

| <b>RC introduced by:</b> |     |      |
|--------------------------|-----|------|
| 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)

| <b>RC introduced by:</b> | <b>Type of RC</b> |                 |                     |     |    |     | <b>Total</b> |      |
|--------------------------|-------------------|-----------------|---------------------|-----|----|-----|--------------|------|
|                          | <b>Headed</b>     | <b>Headless</b> | <b>Light-headed</b> |     |    |     |              |      |
| 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 Alejandro (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)

| RC introduced by: | Type of RC |      |          |      |              |      |       |      |
|-------------------|------------|------|----------|------|--------------|------|-------|------|
|                   | 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*]<sub>OBJ</sub><sub>SUBJ</sub> *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*<sub>OBJ</sub>]<sub>OBJ</sub> *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. *kàpákúmà tàyèʔí*  
 [*kapaf-k-Ø-wa=ma*<sub>SUBJ</sub>]<sub>SUBJ</sub> *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. *ñēherirà kàrjāwì*  
 [*Ø-yēh-er-i=ra*]<sub>OBJ</sub> *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).<sup>14</sup>

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

<sup>14</sup> 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 Ocotepéc Zoque which instantiate the type of headless RC in (86) with a relativizer. Another example is (98) from Tzeltal with a headless RC with a subordinator like the one in (83).

## OCOTEPEC ZOQUE (MIXE-ZOQUEAN)

(97) a. *tiyandeke ni mnhgä'subi'**tiyi='an=te=ke* [ni m-kä's-u=pi']

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 ni nhgä'subi'**ju'wi'=t=te* [ni n-kä's-u=pi']

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<sup>15</sup> 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 Ocotepéc 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

<sup>15</sup> 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. *takujst' unhnde pyijkyaju*  
*takus=ti='unh=te*                      *y-pik-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 pyijkyajubi'*  
*te'=na=te*                      [*y-pik-yaj-u=pt'*]  
 DEM<sub>PRO</sub>=only=COP A3-grab-PL3-CP=REL  
 'It was only that what they grabbed.' {Txt} (Ramírez Muñoz forthcoming)

The string in (99a) *pyijkyaju* 'they grabbed' is clearly NOT a headless RC in Ocotepc 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 *pyijkyaju* 'they grabbed' in (99a), that is, to the naked eye it does not look like a headless RC.<sup>16</sup>

TILAPA OTOMI (OTO-PAMEAN)

- (100) *kəʔn=ts'e=a='a*                      [*grá nde=ʔwi*]≈'a?  
 COP.AS=just=CL=3SG<sub>PRO</sub> IPFV.S2 want=[s]PL≈3SG<sub>PRO</sub>  
 '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

<sup>16</sup> 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* [*'abwu tú m-pe='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 keh=a=ya* [*giti*  
 PURP COP.AS=CL=DEM.PL<sub>PRO</sub> PFV.ADV.S2  
*'pendy=a*]≈*ya*  
 wash.clothes[O3].AS=CL≈DEM.PL<sub>PRO</sub>  
 '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.

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## 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 naminyi tuum puktuuku yagatspi'k*  
*si'ip na-miny-i* [tuum puktuuku [ $\emptyset$ =*yakats=pi'k*]]<sub>NP</sub>  
 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'y-pa titsne'wi'ip kiipi*  
*dya 'an=tinh-'a'y-pa* [[ $\emptyset$ =*tits-ne'-w='ip*] kiipi]<sub>NP</sub>  
 NEG 2:I=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 jääy* 'the man' precedes the verb, whereas the RC introduced by the relativizer *mäte'p* follows the verb as an extraposed modifier.

TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)

- (2) *ja'a jääy o'kp mäte'p jam tunp*  
*ja'a jääy Ø-'ook-p [mäte'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 Ocoatepec Zoque. In example (3) the head, *ku'tku'y* 'food' follows the verb, while the RC marked by the relativizer *=pi* precedes the verb as a preposed modifier.

OCOTEPEC ZOQUE (CHIAPAS ZOQUE)

- (3) *mijtsi listobi maka ndsyi'ye ku'tku'y*  
*mijtsi [Ø-listo=pi] 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) *yí'im 'ity je'm tsoy tyími 'iny+cho'yí'yí'p 'inh+kaawaj*  
*yí'im Ø='ity-w je'm tsoy [tyi-mí 'in=tsoy-'í'y-w*  
 here s<sub>3,I</sub>=be-CP.I that medicine what-LOC A<sub>2,I</sub>=medicine-VRS-CP.I  
*yí'p 'in=kaawaj]*  
 this POSS<sub>2</sub>=horse  
 'Here there is a medicine [with which you cure your horse].' {txt} (Boudreault, 2009: 870)

## TAMAZULÁPAM MIXE (SOUTH HIGHLAND MIXE)

- (5) *yäätsa' já'äy jyëkwätsey pën te'n tunäntëp*  
*yää=ts=ja'a já'äy Ø-jëk-wätsow-y [pën te'n*  
 PROX=FOC=DIST man s<sub>3,D</sub>-PASS-invite-ICP.D who thereby  
*Ø-tun-wä'än-të-p]*  
 s<sub>3,I</sub>-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 relativization strategy has been reported only for the Zoquean languages spoken in Chiapas (Jitototec and Chiapas Zoque) and Oaxaca (San Miguel Chimalapa 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 Ocotepéc 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 function. 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'dubi te' tip kejku*  
 [te' jo'nchi='is y-ku't-u=pi te' tim] 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 pobyabi'is ni nyuktyo'u tumi mixu*  
 [te' tuwi Ø-poy-pa=pi]='is ni y-nuktyo-wi tumi 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

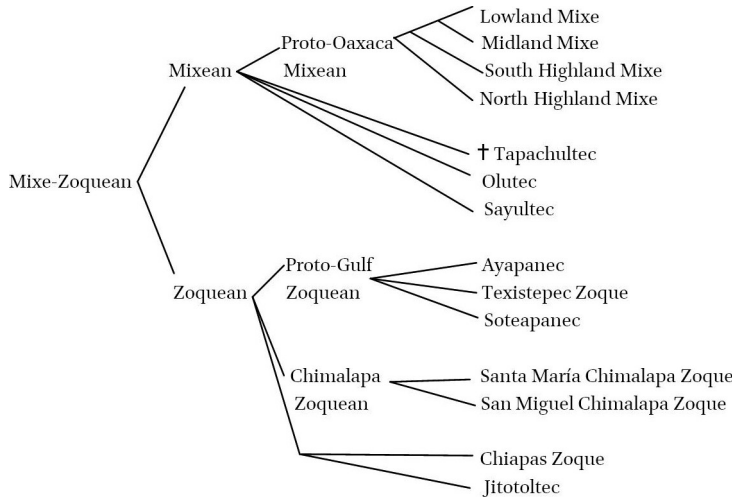
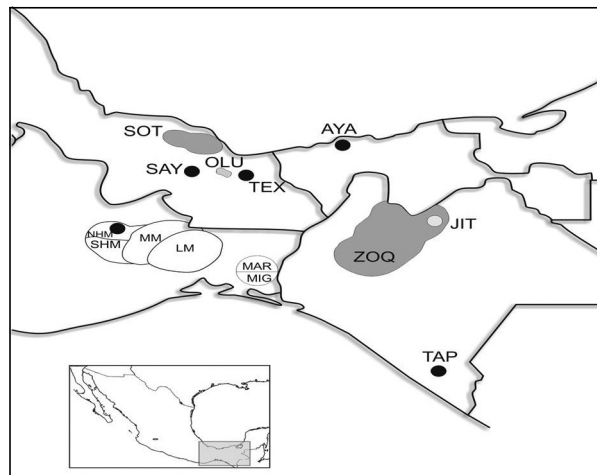


FIGURE 2.1 Mixe-Zoquean language family  
WICHMANN 1995:10, ZAVALA 2011



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: Jitotoltec and TAP: Tapachultec

languages spoken in Veracruz), languages with a handful of speakers and semispeakers (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:ptkixij*  
*mejor=ak min=wintoj-'e:p-pik-kix-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 ALI=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 tamotowkixpowikoj je'k ja.yajtik polisya*  
*je' 'u:ra=k ta=motow-kix-pow-i=koj je'=k ja:=ya'aj-tik*  
 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) *nimpaxiki ta'e:p'o:kpek tanta:tawo'k*  
*Ø=nim-pa=xi=k tan='e:p-i-'o:k-pe=k*  
 S3.I=say-ICP.I.INTR=REP=AN ALI=see-NMLZ-die-ICP.I.TR=AN

*tan=ta:ta-wok*  
 POSS<sub>3</sub>=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*                    *yěě*            *něk*            *tikejx*  
*ku=ts*                    *yěě*            *něk*            *ti=kax-jl*  
 when=ASSERTV PRO<sub>3,SG</sub> paper A<sub>3,D</sub>=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 A<sub>3</sub>-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 mjuyi m'asa sunyityambi*  
*mus-pa m-juy-i m'-asa Ø-sunyiy-tam=pi*  
 can-ICP A2-buy-DEP2 POSS2-dress S3-nice-PL=REL  
 'You can buy nice clothes.' (Faarlund, 2012: 40)

- b. *te' koa'is maka mbyi'n'ityi*  
*te' koa='is manh-pa ny-pin'ty-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'ixit pen mtö'nixjup xi mpöjxin*  
*x='ix-it pen m=tön-ix-ju-p xi m=pöjxin*  
 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. *jätsike’e jä jäyu nyëmixji*  
*jäts=ik=e’e jä jäyu y=nëm-ix-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 incomplete aspect in independent and dependent verbs. In (18) the dependent status of the verb is triggered by the auxiliary.

## (17) OLUTEC (MIXEAN): Independent Clause

*takappako ’i:s*  
*ta=kay-pa=koj ’i:ts*  
 S1.I=eat-ICP.I=just PRO1  
 ‘I just eat.’ {txt}

## (18) OLUTEC (MIXEAN): AUXILIARY + Dependent Clause

*kixumpo’k tankaye*  
*kix-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 ALI=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, Jitototec 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  |
|----------------------------|----|-----|----|------------|
| <i>Independent clauses</i> |    |     |    |            |
| 1st                        | Ø= | n=  | x= | Tripartite |
| 2nd                        | m= | m=  | m= | Neutral    |
| 3rd                        | Ø= | y=  | Ø= | Ergative   |
| <i>Dependent clauses</i>   |    |     |    |            |
| 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”

*tamoyiwak tuk**ta=mo'y'-i-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 'itikmi mi: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=tik-mi mi: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 'ipa:tu'a' pu'mayemaj ja'*  
 Ø=*chikxpak=ak* 'i=*majaw* [*'i=pa:t-u=a'* *pu'mayjemjaj*  
 S3=*pretty=AN* POSS3=*woman* A3.I=*find-CP.I=REL* J.  
*ja'*]  
 PRO<sub>3</sub>  
 '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'jisyajpa te' tida'mde makabi kidi*  
*y-'is-yaj-pa* *te'* *ti=ta'm=te* [*manh-pa=pi*  
 A3-*see-3PL-ICP.I* DEF *thing=PL=FOC* AUX:*go-ICP.I=REL*  
 Ø=*kit-i*]  
 S3-*pass-DEP1*  
 'They see the things that are going to happen.' {txt}

- b. *mityajpa te' konu'ksyajpabi pinda'm*  
 Ø=*min-yaj-pa* *te'* [Ø=*konu'ks-yaj-pa=pi*] *pin=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. *pin gaja xokijo jeppa' 'im 'ixpikpa*  
*pin* [*ka=ja* *xoki=jo* Ø=*jej-pa=pi'*] *'im='ix-pik-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 kixjayyi'k kajan 'iy yakyakkawi 'iy win*  
*i [bi wakax 'iy=kix-jay-wi=pi'k] kajan*  
 and DEF cow A3.I=eat-R.APPL-CP.I=REL jaguar  
*'iy=yak-yak-ka'-wi 'iy=win*  
 A3.I=CAUS-CAUS-die-CP.I POSSI=REFL  
 'And the jaguar that ate his cow let itself be killed.' {txt} (Jiménez, 2014: 2)

## JITOTOLTEC (ZOQUEAN)

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

- b. *ni myetz xa'xab yomo*  
*ni y-metz-wi [Ø-xa'xa=pi] 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. *byatinh kyet pelota ma'pi' wiipke'm*  
*y-batinh y-ket pelota [ma'=pi' 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 Alejandro, 2019: 29)
- b. *entonse ma' nim tiwki'da'api' kaanhda'a*  
*entonse ma' Ø-nim [Ø-tiw-ki'da'a=pi'] kaanh-da'a*  
 then PFV S3-say S3-big-ADJ=REL tiger-AUG  
 'Then the tiger that was big said.' {txt} (Díez Alejandro, 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  $=(\text{p}\acute{i})'$  whereas the relativizer of prenominal RCs is  $=(\text{p})\acute{i}'k$ . 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 *mí'a* 'deer' and the postnominal RC '*in niwaktammi*' '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 mí'a 'in niwaktammi' 'in pinik tikjonang*  
*bi mí'a [PAUSE] ['in=niwak-tam-wi=pi'] 'in=pi-k-nik-wi*  
 DET deer                    A1.I=steal-PL:SAP-CP.I=REL A1.I=grab-go-CP.I  
*tik=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 attached 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. *pín díx tikiyyi'jinang 'ín 'íxxi*  
*pín [tíx Ø=tík'íy-wi=pi' =jinang] 'ín='íx-wi*  
 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. *'ín juyyi bi títinkuy 'ín yoya yakawi'pít*  
*'ín=juy-wi bi títinkuy [yoya 'ín=yak-ka'-wi=pi' =pít]*  
 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. *tík 'ím powi'angji di ye'tstammí*  
*tík ['ím=po'-wi=pi' ='ang=ji] tí=ye'ts-tam-wi*  
 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. *'ín 'íxxi bi yoma' di tíjji'go*  
*'ín='íx-wi bi yoma' [tí=tij-wi=pi' =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 ndiw*  
*Ø-ka'-wi jega yomo [Ø-min-wi=pi' =tu'm n-tiw]*  
 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-wi=pi' =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'wibix chada*  
*n-ken=tsi pin [Ø-ka'-wi=pi =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 Ocotepéc 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 'ijtubi 'omotsi nimekede wibi*  
*te' kuerpo [Ø-'it-u=pi ='omo='tsi] nimeke=te Ø-wi=pi*  
 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 '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 malefactors as applied arguments with a suffix which is cognate with the reconstructed form *\*-Ha.y'* (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 taxnimayi:tisa'*  
*tuk=ak yo'jwa [tax=nim-ay-i:t-its='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' 'ëets'e jä vo'mim mpëmji*  
*jä yö'ön [juu' 'ëets=ve'e jä vo'mim 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 piixiny ki takupoya'ypapi'k*  
*Ø='it-wi piisin [ki ta=kupoy-'a'y-pa=pi'k]*  
 S3=be-CP man SUB POL.INCL=escape-R.APPL-ICP=REL  
 'There are men that escape from us.' {txt} (López Márquez' corpus)

## JITOTOLTEC (ZOQUEAN)

- (38) *nixtsi jega yomo nu'badzyiwbix kyaxi*  
*n-'ix=tsi jeka yomo [Ø-nu'm-ay-ti-wi=pi='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-i-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 t'i ni tami:nikxwa'*  
 Ø=*ka:=natspa:t'i.y'-u* je' metzko warril t'i:n'+i  
 S3.I=NEG=be\_enough-CP.I DEF two barrel shit  
 [*tan=mi:-nikx-w=a'*]  
 AL.I=COM.APPL-go-CP.I=REL  
 'The two barrels of shit I carried weren't enough.' {txt}

## TOTONTEPEC MIXE (NORTHERN MIXE)

- (40) a. *tějnu jä 'escalera juu' 'ëts ntukpajt*  
 Ø=*těj-ni-u* jä 'escalera [*juu' 'ëts*  
 S1.I=break-already-CP.I DEF ladder REL PRO1.SG  
*n=tuk-pat*]  
 AL.I=INSTR.APPL-ascend.CP.I  
 'The ladder we went up with broke.' (Guzmán, 2012: 143)
- b. *jä tējextejk juu' jä yää'tyëk ki timëttsini*  
 jä tēj-tëk [*juu' jä yää'y-tëk*  
 DEF woman-house REL DEF man-house  
*kë=ti=mët-tseännäy-j'i*]  
 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 wiiti*  
 je'm tik [*iga 'an='it-ka'-ta'm-pa*] tzaam piimi  
 DEF house SUB AL.I=be-INSTR.APPL-PLSAP-ICP.I much strong  
 wiiti  
 spacious  
 'The house that we live in is very spacious.' {txt} (López Márquez' corpus)
- b. *je'm tujukuy 'inyasi'pa'ap chi'tya matik*  
 je'm tujukuy [*'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 piixiny ki ’ankuminytyip*

*Ø=nik-u=’am je’m piisin [ki ’an=ku-min-ti’p-wi]*

S3=go-CP-already DEF man SUB AL.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).<sup>1</sup>

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 mēēt ttsük*

*jä’ä tsujx [jü’ü mēēt 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,

<sup>1</sup> 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*(*ék*) is cognate with the relativizer enclitic present in languages of both branches of the family.

## TAMAZULAPAM MIXE (SOUTH HIGHLAND MIXE)

- (43) *pěna' mējpjā'äy 'ëxëë tsyí'kypy*  
*pěn=ja'a [Ø-měj=p] jā'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 *mēte'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 jā'äy 'o'kp mēte'p jam tunp*  
*ja'a jā'äy Ø-'ook-p [mēte'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 puɟx tpääty mēte'm tjëkkëtä'äp.*  
*ka't puɟx t-pää't-y [mēte'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 mēte'p ojts mēēt mnijky.*  
*'ojts kiixy n-'ejx-y [mēte'p 'ojts mēēt m-nějky-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. *pēs 'ojtsa mixy jyēnmä'imp'yäät'y te'p te'n Juankäjt'p.*  
*pēs 'ojts ja'a mixy y-jēnmäy+ēmp'yäät-y [te'ep te'n*  
 then PST PROX boy S<sub>3,D</sub>-wonder-ICP.D REL DEM  
*Ø-Juan-ät-p]*  
 S<sub>3,I</sub>-J.-VBZR-ICP.I.INTR  
 'Then the young man who is called Juan had a thought.' (Romero, 2009: 570)
- b. *tyä ējts tu'uk cuento nmätyä'äk'än este te'ep ojts nan tat xtu'kmētey*  
*tyää ējts tu'uk cuento n-matyä'äk-än este [te'ep ojts nan*  
 DEIX PROISG one story A<sub>1,D</sub>-tell-IRR.D HES REL PST mother  
*tat x-tuk-mētoo-y]*  
 father PO<sub>1,D</sub>-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:kani ti'tzaj*  
*te'ej kix-u je' jaykak-ko'ke 'i=yak-to:k-a'n*  
 now finish-CP.I DIST man-fish S<sub>3,D</sub>=PASS-sell-IRR.D  
*[Ø=ti'tz='aj]*  
 S<sub>3,I</sub>=dry=REL  
 'Now, they finished selling the dried sea bass.' {txt}
- b. *jaykako'ke nikxpa tapiki ti'tzaj*  
*jaykak-ko'ke nikx-pa ta=pik-i [Ø=ti'tz='aj]*  
 man-fish go-ICP.I.INTR A<sub>3,D</sub>=grab-ICP.D S<sub>3,I</sub>=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 listobi maka ndsyi'ye ku'tku'y*  
*mijtsi* [ $\emptyset$ -*listo=pi*] *manh-pa ny-tsi'-ye* *ku'tku'y*  
 PRO2.ABS S3-prepared=REL AUX:go-ICP PO2-give-3PL.DEPI food  
 'They are going to give you food which is prepared.' {txt} (de La Cruz' corpus)
- b. *'awajkubi 't mba'du te' tijk*  
 [ $\emptyset$ -*'awak-u=pi*]=*t* *n-pa't-u te' tik*  
 S3-open-CP=REL=ERG1 A1-find-CP DEF house  
 'I found the house that was open.' {txt} (de La Cruz' corpus)
- c. *pojke yiti tsye'bi't nimidu nmatsyin*  
*poke yiti* [ $\emptyset$ -*tsye'=pi*]=*t* *n-ni+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 \*=*pi'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 Nahuatl, as in (41a). Mixean languages spoken in Oaxaca developed other relativizers that grammaticalized from the WH word 'what': *mēte'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 *\*=p'i'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 pre-colonial period. The form of the relativizer in Chol is the enclitic *=bi* and in Chontal *=ba* as shown in the examples in (48) and (49) in which the RC precedes the head.

#### CHOL (CHOLAN)

- (48) *chi'=ich bajche ixí [p'el-el-Ø=ix=bi] 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=bi]*  
 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'=bi 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 chik-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=mi* 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) *yé'im 'ity je'm tzoy tyimi 'iny+cho'yé'yé'p 'inh+kaawaj*  
*yé'im Ø='ity-w je'm tzoy [tyi=mi 'in=tzoy-'é'y-w*  
 here S3.I=be-CP.I that medicine what=INSTR A2.I=medicine-VRS-CP.I  
*yé'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) *yäütsa' 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-wään-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) *mi:t tijunaj pa'ko jayka'k pin 'iwanuja'*  
*mi:t*  $\emptyset$ =*tij-u=na*      *pa'ko jaykak* [*pin 'i=wa:n'-u=ja'*]  
 and s<sub>3,I</sub>=stay-CP.I=still many people who A<sub>3,I</sub>=want-CP.I=PRO<sub>3</sub>  
 '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' juxpi' upu' yuk*  
*y-limeeta'* [*jux=pi' 'u=pu' y-'uk*]  
 POSS<sub>3</sub>=bottle what=REL IPFV=REL A<sub>3</sub>-drink  
 'The bottle that he drank.' {txt} (Díez Alejandro, 2019: 35)
- b. *tum lukar juch dik nyakjak tsu'*  
*tum lukar* [*juch dik n-yak-jak tsu'*]  
 one place where go A<sub>1</sub>-CAUS-pass night  
 'A place where I can pass the night.' {txt} (Díez Alejandro, 2019: 35)
- c. *asta los syete diiaj jes kbejp, dyim, meñix ta npokeñseet*  
*asta los* Syete diiaj [*jes k-bej-p*] *y-dim n-beñ-ix*  
 until DEF.PL seven days when S<sub>1</sub>-come-FUT A<sub>3</sub>-say S<sub>1,D</sub>-come-FUT  
*ta n-pokeñ-seet*  
 1PL.INCL A<sub>1</sub>-roll-return  
 'In seven days when I will come, it is said, we will come and stir it up.'  
 {txt} (Díez Alejandro, 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 relativize only locative (58a) and time (58b).

HIGHLAND POPOLUCA (GULF ZOQUEAN)

- (57) a. *koonychugum je'm taablajyukmi ju tu'yne'tabum 'idyik*  
*Ø=kon-tsukum-wi je'm taablaj=yuk=mi [juty*  
 S3.I=sit-arise-CP.I DEF board=top=LOC where  
*Ø=tu'yne'-taj-pa='am 'ityik]*  
 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 'oytyi'p 'iny'am*  
*dyam='am Ø='it-wi je'm 'uuraj [jutsis 'oy=ti'p-wi*  
 NEG=already S3.I=be=CP.I DEF hour when AUX:go=FRUST-CP.I  
*'in='am-wi]*  
 2A.D=see-ICP.D  
 'He was not there by the time you went to see him.' {txt} (López Márquez' corpus)
- c. *'agi'ankusuni'y je'm moodoj ju'uts 'iwatyki'ps 'i'apa*  
*'agi='an=kusun'i'y-wi je'm moodoj [ju'tz 'i=wat-ki'ps-wi*  
 INT=A1.I=want-CP.I DEF way how A3.I=do-measure-CP.I  
*'i='apa]*  
 POSS3=mother  
 'I really liked the way she imitated his mother.' {txt} (López Márquez' corpus)
- d. *dya 'anhmada'y je'm motiboj tyi'iga 'oy*  
*dya Ø='anhmat-'a'y-wi je'm motiboj [tyi='iga Ø='oy-wi]*  
 NEG A3.I=tell-RAPPL-CP.I DEF reason what=SUB S3.I=go-CP.I  
 'He didn't tell me the reason why he came.' {txt} (López Márquez' corpus)

## TOTONTEPEC MIXE (NORTHERN MIXE)

- (58) a. *tsää'njii'tsp jömä yë Jäköb tsyinä*  
 tsää'n-jii'ts-p [jömä yë Jäköb y=tsëen-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 Chimalapa 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 dix la berda yan 'ixpikki tun ju pi'tpa bi sebe*  
 pe tix la berda ya 'in='ix-pik-wi tun [ju  
 but PRO1 the truth NEG A1.I=see-grab-CP.I.NEG road where  
 Ø=pi't-wi 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 tijiy tsake donju dix di mongpa*  
 pama=jo tij-wi 'iy=tsak-e [don+ju tix  
 bed=LOC go\_and\_return-CP.I A3.I=abandon-CP.D where PRO1  
 ti=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'ixpikpa bi sacerdote 'iwixi mi pa'tti*  
*'in='ix-pik-pa bi sacerdote ['iwi=kix=ji mi=pa't-wi]*  
 AL.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'wi bi tsa' jugixi kimangngi*  
*Ø=yo'-wi bi tsa' [ju=kix=ji Ø=kimang-wi]*  
 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 komangekitikji donju 'angkimobangji*  
*ka'=te komange=kitik=ji [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 Ocotepéc 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) *minni 'in yoje dey 'in jaymanak 'iy serbesay 'ukki'*  
*min-wi 'in=yoj-e tey ['in=jaya-manak 'iy=serbesa*  
 come-ICP.I AL.D=pay-CP.D today POSS1=male-child POSS3=beer  
*'iy='uk-wi=pi']*  
 A3.I=drink-CP.I=REL  
 'I came today to pay the beer that my son drank.' {txt} (Jiménez, 2014: 334)

### JITOTOLTEC (ZOQUEAN)

- (62) *ngendiwib yomox 'etspa wiik*  
*[n-ken-ti-wi=pi yomo=x] Ø-'ets-pa wiik*  
 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'dubi te' tip kejku*  
 [te' jo'nchi='is y-ku't-u=pi te' tim] 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'äj k wijpy*  
 y-ëmu'ukyjä'äy'-at-y [mëte'p 'ënä'äj k 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'ëxy'py mëtëpë jaay xyajktsooky*  
 y-ëxy-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=tits* '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 witawinjɨnang di 'angmayyi' 'in pa'tti xokijo*  
 ['in=witawin=**jinang** ti='angmay-wi=pi'] 'in=pa't-wi xoki=jo  
 POSS1=friend=COM S1.I=study-CP.I=REL ALI=find-CP.I C.=LOC  
 'I met my friend with whom I studied in Las Conchas.' (Jiménez, 2017: 257)

- b. *bi jupi bin titspi't 'in tukki 'no'tsimmi*  
 [bi jupi bi 'in=tits=pi't 'in=tuk-wi=pi']  
 DET thread DET POSS1=tooth=INSTR ALI=cut-CP.I=REL  
 Ø=no'ts-'im-wi  
 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 relative 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 nyjkkxy*  
*ka't t-pää-t-y [mëte'p to'oxytyëjk 'ojts mëët y-nëjkk-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.

## OCOTEPEC ZOQUE (CHIAPAS ZOQUEAN)

(68) *midu* [*nijspijkjapyabit yomo'is yune*]*Ø-min-u* [*n-'is-pik-jay-pa=pi'=it*] *yomo='is*S3.I-come-CP.I A1-see-grab-R.APPL-ICP.I=REL=PRO1.ERG woman=GEN  
*y='une*]

POSS3=son

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

Unlike other languages in which internally-headed RCs are expressed as nominalizations (Basilico 1996: 500), RCs 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 RCs 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 MIGUEL CHIMALAPA ZOQUE (OAXACA ZOQUEAN)

(69) *tum yoma papinjinang witpa' nunca ya ka jejpa*[*tum yoma papin=jinang Ø=wit-pa=pi'*] *nunca ya*

INDF woman devil=COM S3.I=walk-ICP.I=REL never NEG

*Ø=ka-a* *Ø=jej-pa*

S3.I=die-ICP.NEG S3.I=live-ICP.I

'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 RC 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 |
|-----------------------------|-----|-------|-----|-----------|-----|
| <b>SAN MIGUEL CHIMALAPA</b> |     |       |     |           |     |
| Gapping                     | +   | +     | +   | +         | –   |
| Relative PRO                | –   | –     | –   | –         | +   |
| Internal head               | +   | +     | +   | +         | –   |
| <b>JITOTOLTEC</b>           |     |       |     |           |     |
| Gapping                     | +   | +     | +   | +         | –   |
| Relative PRO                | –   | –     | –   | –         | +   |
| Internal head               | +   | +     | +   | +         | –   |
| <b>TAMÁZULAPAM MIXE</b>     |     |       |     |           |     |
| 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 *\*=pɪ'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 Popolucan borrowed a relativizer from Gulf Nahuatl, 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 allow 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.

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## 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 *=pi'*. The language also has a prenominal RC using the gap strategy as will be discussed later. 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 *pin* '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. *pin gaj(a) xokij(o) jejpa' 'im 'ixpikpa*  
**pin** [PAUSE] [*ka=ja xoki=jo Ø=jej-pa=pi'*]  
 man DIST=LOC snail=LOC 3S.I=live-ICP.I=REL  
*'im='ix-pik-pa*  
 2A.I=see-grasp-ICP.I  
 'You know the man who lives there in Las Conchas.' (Jiménez 2014: 2)
- b. *dix la berda yan 'ixpikki tun ju pi'tpa bi sebe*  
*tix la.berda ya 'in='ix-pik-wi 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      |

$\emptyset=pi't-wi$       *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 pinjinang witti' mi'yyi*

[*Mari pin=jinang*  $\emptyset=wit-wi=pi'$ ]       $\emptyset=mi'iy-wi$

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 =*pi'*k.

- (6) a. *bi 'angkimoba'k pin ga' wajaka*  
*bi* [*∅='ang-kim-'oy-pa=pi'k*] *pin* *∅=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 pin 'iy nukokmangxukki*  
*[∅=tsij-pa=pi'k]* *pin* *'iy=nuk-'ok.mang-xuk-wi*  
 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 =*pi'*k, postnominal RCs are marked by the relativizer =*pi'*, as in (7).<sup>1</sup>

- (7) *bi mi'a 'in niwaktammi' 'in pinik tikjonang*  
*bi* *mi'a* [*PAUSE*] [*'in=niwak-tam-wi=pi'*] *'in=pi'k-nik-wi*  
 DET deer 1A.I=steal-PL:SAP-CP.I=REL 1A.I=grab-go-CP.I  
*tik=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 =*pi'* when the predicate of the RC ends in a consonant, but as =*'* when the predicate ends in a vowel.

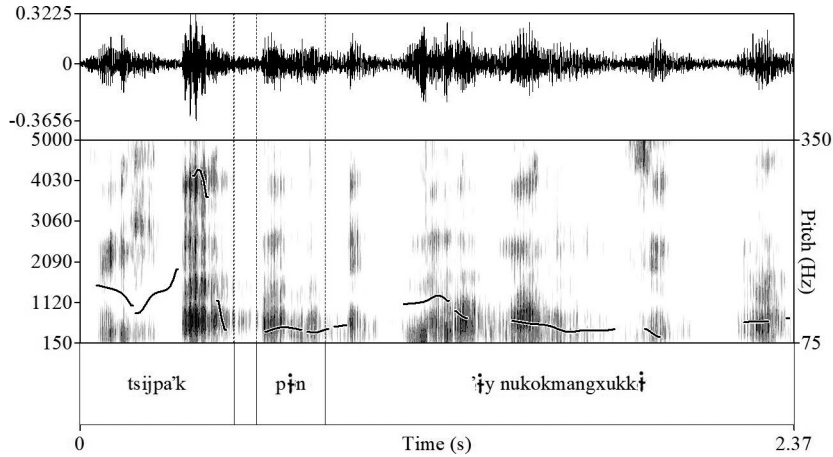


FIGURE 3.1 Spectrogram of a prenominal RC

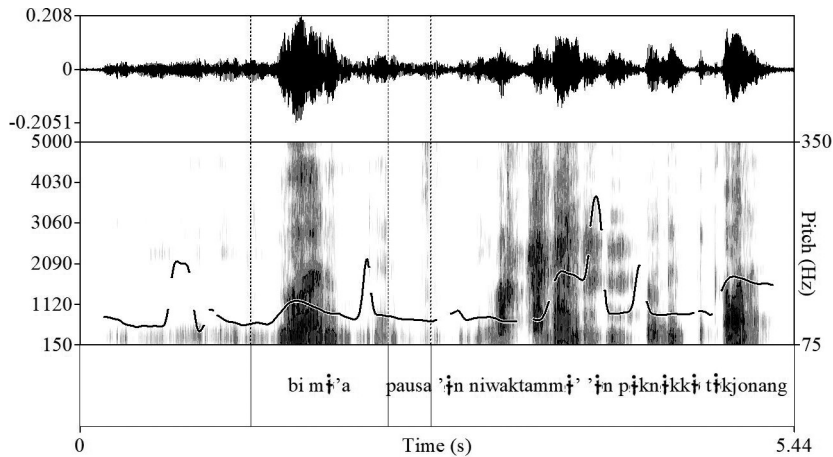


FIGURE 3.2 Spectrogram of a postnominal RC

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).

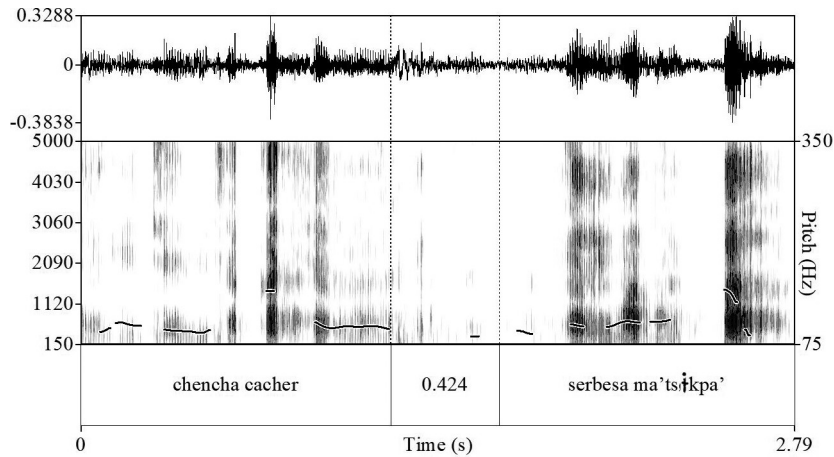


FIGURE 3.3 Spectrogram of a non-restrictive (postnominal) RC

- (8) *chencha kacher, serbesa matsikpa' ...*  
 Chencha Kacher [PAUSE] [ $\emptyset$ =*serbesa-matsik-pa=pi'*]  
 Ch. C. 3S.I=beer-sell-1CP.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 ...*  
 [ $\emptyset$ =*serbesa-matsik-pa=pi'k*] [PAUSE] Chencha Kacher  
 3S.I=beer-sell-1CP.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 pinikta'ma tum lugarjo ju teji xek paja'k*  
*mix pik-nik-tam-'a tumi 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 *'iwi* 'who' is used, like in (11).

- (11) *'in'ixpikpa bi saserdote 'iwigixi mi pa'tti*  
*'in='ix-pik-pa bi saserdote ['iwi=kix=ji mi=pa't-wi]*  
 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 di tijtammi tsamkuyjo ju'angjin 'ixtammi bi kajan*  
*tumi pong ti=tij-tam-wi tsam-kuy=jo*  
 one time 1S.I=go.return-PL:SAP-CP.I season-NMLZ.INSTR=LOC  
*[ju='ang=ji 'in='ix-tam-wi 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(mi) xokijo ju xempaji perfectu jimenes 'i'aldegundu*  
*Ø=ye'ts-tam-wi 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 pi'tpa pwentejo ju kamilu 'angji 'im pa'tti*  
*'im=pi't-pa pwente=jo [ju Kamilu ='ang=ji*  
 2S.I=pass-ICP.I bridge=LOC where C. =RN:mouth=LOC

'im=pa't-wi]

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 tɪŋkuypɪ't kɪptukki' ke'tti*

[*fan tɪŋkuy=pi't*    *Ø=kɪpi-tuk-wi=pi'*]    *Ø=ke't-wi*

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 *pongoyyi'* 'they burned'.

(15) *'am bweno bi chik undik(ay) pongngoyyi'*

[*'am bweno bi chik 'une-tikay* *Ø=pong-'oy-wi=pi'*]

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

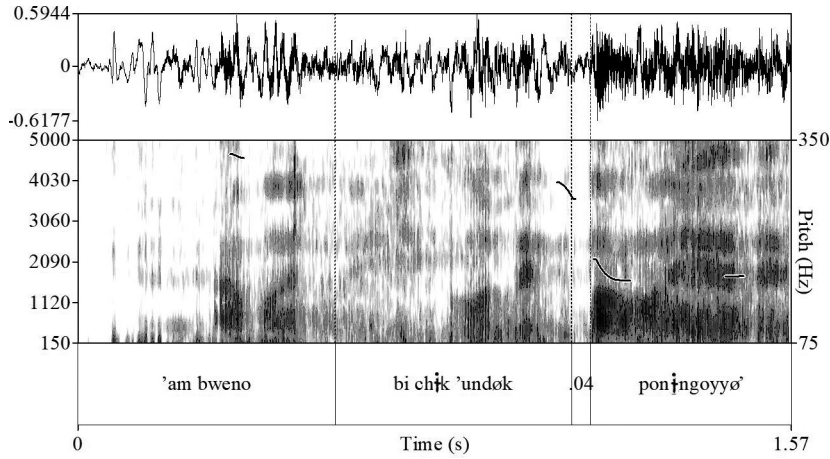


FIGURE 3.4 Spectrogram of an example of a RC with an internal head

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

|          | Arguments |     |     | GEN | Oblique |       |     | Adjuncts |      | 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. *'iy nipikwakxukki jemji, 'iy 'angnitpa'*  
*'iy=ni-pik-wak-xuk-wi jemji* \_\_ [PAUSE]  
 3A.I=BODY-grasp-split-3PL-CP.I all  
 ['iy='ang'it-pa=pi']  
 3A.I=have-1CP.I=REL  
 ‘They stole all (the gold) that he had.’ {Txt}
- b. *'in juyyi memtsan yakawi'pi't 'in yoya*  
*'in=juy-wi metsang* \_\_ [PAUSE] [*'in=yak-ka'-wi=pi'* =*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.



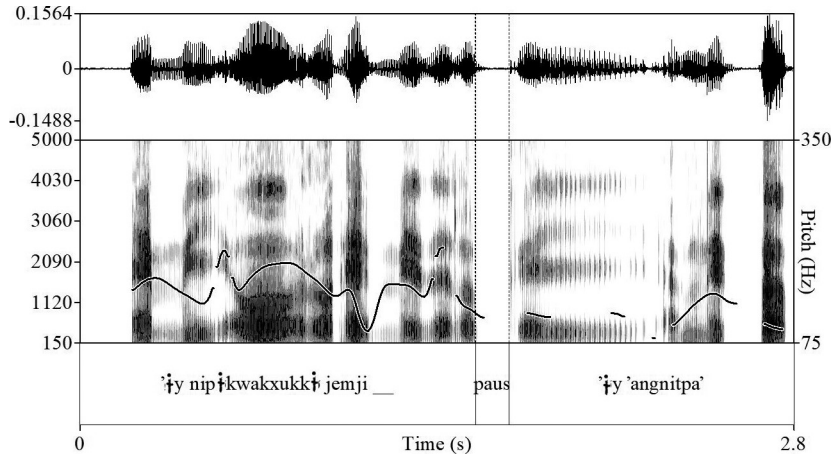


FIGURE 3.5 Spectrogram of a RC with an elided nominal

- (17) a. *dey bi jemji 'iy tsikxuki' tokoyam*  
 [tey bi **jemji** \_\_ 'iy=tsik-xuk-wi=pi'] Ø=tokoy-wi='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. *'iy 'otongngixukpa gaj metsang kummi'*  
 'iy='otong-'iy-xuk-pa [ka'=ja **metsang** \_\_ Ø=kum-wi=pi']  
 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 tingkuypi't kiptukki' kitti*  
 [Wan **metsang** \_\_ =pi't Ø=kipi-tuk-wi=pi'] Ø=kit-wi  
 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 ungrammaticality 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) \* *'iy nipikwakxukki 'iy 'angnitpa'k jemji*  
*'iy=ni-pik-wak-xuk-wi* [*'iy='ang'it-pa=pi'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) \* *'iy nipikwakxukki jemji ju mongngi*  
*'iy=ni-pik-wak-xuk-wi* *jemji* \_\_ [*ju*  $\emptyset$ =*mong-wi*]  
 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) \* *tumi powi'angji bin 'awin di ye'tstammi*  
*tumi* \_\_ [*PAUSE*] [ $\emptyset$ =*po'-wi=pi'* =*'ang=ji* *bi*  
 one 3S.I=be.born-CP.I=REL =RN:mouth=LOC DET  
*'in='awin]* *ti=ye'ts-tam-wi*  
 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      |                |
| yí       | yítikay    | PROXIMAL            | ney'iwi       | 'someone'          | yakiwi        | 'no one'       |
| te/tí    | te/títikay | NEUTRAL             | neyti         | 'something'        | yaki'/yakti   | 'nothing'      |
| ka'      | ka'tikay   | DISTAL              | neyjuti'      | 'anyone'           | yakjuti'      | 'nothing'      |
|          |            |                     | neyjutseng    | 'in some quantity' |               |                |
|          |            |                     | neyju'        | 'somewhere'        | yakju         | 'nowhere'      |
|          |            |                     | neyjuting     | 'anywhere'         |               |                |
|          |            |                     | neyjuti(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 *yí* to be a light head.

- (21) *tijyíy nimja'e yí minpa'*  
*tij-wí 'íy=nim-jay-e yí [PAUSE] [Ø=min-pa=pi']*  
 go-CP.I 3A.I=say-APPL:R-CP.D PROX<sub>PRO</sub> 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, pronominal RCs with a light head are ungrammatical, as illustrated by the contrast in (23).

- (22) *dey yí tejixukki' yay níyixukkam*  
*[tey yí Ø=teji-xuk-wi=pi'] ya*  
 now PROX<sub>PRO</sub> 3S.I=exist-3PL-CP.I=REL NEG  
*'íy=níy-'íy-xuk-wi='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 |       |     | Adjunts |      | 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. *j̣ɨy pay pa'txuki yi, tikiyyi'*  
*j̣ɨy-pa 'ɨy=pa't-xuk-wi yi [PAUSE]*  
 cry-ICP.I 3A.D=find-3PL-ICP.D PROX<sub>PRO</sub>  
 [ $\emptyset$ =tik.'ɨy-wi=pi']  
 3S.I=enter-CP.I=REL  
 'They found this one crying as he came in.'

b. \* *j̣ɨy pay pa'txukki tikiyi'k yi*  
*j̣ɨy-pa 'ɨy=pa't-xuk-wi [Ø=tik.'ɨy-wi=pi'k] yi*  
 cry-ICP.I 3A.D=find-3PL-ICP.D 3S.I=enter-CP.I=REL PROX<sub>PRO</sub>  
 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 'ixi ga di tiji'go*  
*'in='ix-wi ka' [PAUSE] [ti=tij-wi=pi' =ko]*  
 1A.I=see-CP.I DIST<sub>PRO</sub> 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 'iy nukxukki bi pin*  
*'antonse 'iy=nuk-xuk-wi bi pin*  
 then 3A.I=grab-3PL-CP.I DET man  
 ‘Then, they apprehended the man.’ {Txt}

b. *bi tsikoyyi 'iy nimjaxukki*  
*bi [PAUSE] [∅=tsik-'oy-wi=pi] 'iy=nim-jay-xuk-wi*  
 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'tsxukki tum 'iy nukxukki'*  
*∅=koye'ts-xuk-wi tum [PAUSE] ['iy=nuk-xuk-wi=pi']*  
 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 yiji witpa'piyukixoyi*  
 [tey **bi** yi=ji Ø=wit-pa=pi'] Ø=piyu-kix-'oy-wi  
 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'tsi bi 'angkimoba' bi wixi*  
 Ø=ye'ts-wi [bi Ø='ang-kim-'oy-pa=pi'] 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-wi [bi Ø='ix-ten-'oy-pa=pi']  
 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) *xukki 'iy kixxi*  
 Ø=xuk-wi ['iy=kix-wi=pi']  
 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) \* *'angtsongngoyyi pa'toyyi'k bi*  
 Ø=*'ang-tsong-'oy-wi* [Ø=*pa't-'oy-wi=pi'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 powi'angji bin 'awin di ye'tstammi*  
**bi** [PAUSE] [Ø=*po'-wi=pi'* =*'ang=ji* **bi**  
 DET 3S.I=be.born-CP.I=REL =RN:mouth=LOC DET  
*'in='awin*] *ti=ye'ts-tam-wi*  
 2POSS=brother 1S.I=arrive-PL:SAP-CP.I  
 'We got to where your brother was born.'
- b. *bi juting pitsim(mi) tum chikxa*  
**bi** [*ju=ting* Ø=*pitsim-wi tumi 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).

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TABLE 3.6 Scope of access to relativization in RCs with a determiner head

|              | Arguments |     |     | GEN | Oblique |       |     | Adjunts |      | 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) \* *'in 'ixxi bi di tiji'go*

*'in='ix-wi bi [PAUSE] [ti=tij-wi=pi' =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) *'in 'ixi ga di tiji'go*

*'in='ix-wi ka' [PAUSE] [ti=tij-wi=pi' =ko]*

1A.I=see-CP.I DIST<sub>PRO</sub> 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) \* *'iy 'ixtenpa bi/tum*

*'iy='ix-ten-pa bi / tum*

3A.I=see-stop-ICP.I DET INDF

Intended reading: 'Take care of that one/one.'

(35) \* *'iy 'ixtenpa bidikay*

*'iy='ix-ten-pa bi=tikay*

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 '*iwi*' 'who' is given in (36).

- (36) *'iy nimjaxukpa 'iwi 'iy pa'tti bi komaxan*  
*'iy=nim-jay-xuk-pa* [*'iwi 'iy=pa't-wi 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) \* *'iy nimjaxukpa pin 'iwi 'iy pa'tti bi komaxan*  
*'iy=nim-jay-xuk-pa pin* [*'iwi 'iy=pa't-wi 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

| <i>'iwi</i>     | 'who'   |
|-----------------|---------|
| <i>ti'</i>      | 'what'  |
| <i>ju.ti'</i>   | 'which' |
| <i>ju</i>       | 'where' |
| <i>ju.tiya'</i> | 'when'  |
| <i>junang</i>   | 'how'   |
| <i>tiko'</i>    | 'why'   |

- (38) *'iy yakaxukki 'iwi jinang pitsimmi fan*  
*'iy=yak-ka'-xuk-wi* [*'iwi=jinang*  $\emptyset$ =*pitsim-wi 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) *ninti 'iwi' nikpan tsiyime'tsodammi jinang*  
 $\emptyset$ =*nin=ti* [*'iwi nik-pa 'in=tsiyime'ts-'oy-tam-wi =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  | yes  | * |

TABLE 3.9 Relative pronouns in free choice free relatives

|      |          |                       |
|------|----------|-----------------------|
| 'abe | 'iwi     | '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) *nikpan yoxi 'abe 'iwi minpa*  
*nik-pa 'in=yox-wi* [*'abe 'iwi 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 relativization 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. *minni 'iy tujxukki*  
*Ø=min-wi* [*'iy=tuj-xuk-wi=pi'*]  
 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   |     | *        | *    | *    | *    | * |

- b. *'iy nipikwakxukki 'iy 'angnitpa'*  
*'iy=ni-pik-wak-xuk-wi* [*'iy='ang'it-pa=pi'*]  
 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) *ninti 'iy tujpa'*  
 $\emptyset$ =*nin=ti* [*'iy=tuj-pa=pi'*]  
 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.

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## CHAPTER 4

## 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.<sup>1</sup> 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}

<sup>1</sup> 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 INDEF.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 subtypes (the determiner selects the RC as complement with a referential function); and free RCs (the free RC constitutes the relative construction with a referential reading). The three constructions differ in structure, in the selection 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 available at ELAR, SOAS) supplemented with elicitation (from two or three speakers).

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, Torrence 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 different 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 contains 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, incomplete 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.<sup>2</sup>

- (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

<sup>2</sup> 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.<sup>3</sup> 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) meltzoy 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)        |
|----------------------|----------|---------------------------|
| <i>mak(txel)</i>     | who      | Entity (DP)               |
| <i>tzet(al)</i>      | what     | Entity (DP)               |
| <i>b'ay(tal)</i>     | where    | LOCATIVE (AdvP, AdpP, DP) |
| <i>b'aq'in</i>       | when     | TIME (Adv, Adp)           |
| <i>tzet(b'il)</i>    | how      | MANNER (Adv, AdpP)        |
| <i>jantaq (+N)</i>   | how much | Quantity (Q +N)           |
| <i>jay+NCLF (+N)</i> | 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/tzetal* '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.<sup>4</sup> 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) ayX* '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:

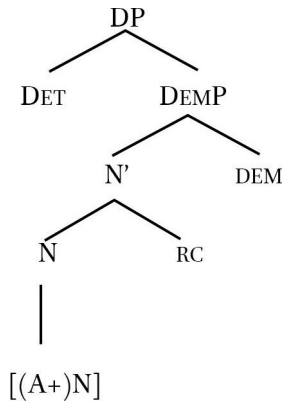


FIGURE 4.1 The basic structure of the noun phrase in Q'anjob'al

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).<sup>5</sup> 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-∅*    *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).<sup>6</sup> 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-∅* *y-un*    *pitzk'oj*    *naq tu*  
 that.is CP-O3 A3-happen become\_alive CLF DIST  
 'That is how he [Pedro] became prosperous.' {Txt}

<sup>6</sup> *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)     | <i>jun, juntzan</i>  | no       |
| DEM              | <i>ti, tu</i>        | no       |
| PL (+DEM)        | <i>heb' (tu)</i>     | yes      |
| CLF (+DEM)       | <i>an (tu)</i>       | yes      |
| QUANT (+DEM)     | <i>oxeb' (tu)</i>    | yes      |
| PL + CLF (+DEM)  | <i>heb' naq (tu)</i> | yes      |
| CLF+QUANT (+DEM) | <i>an oxeb' tu</i>   | 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, Guarca 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.<sup>7</sup> 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).<sup>8</sup> 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).<sup>9</sup>

(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 kaj-an-Ø heb']*  
 CP-S3 burn-DIR CLF POSS2SG-small house where living-S3  
 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.<sup>10</sup> Furthermore, unlike RCs that

<sup>10</sup> 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. *max-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-meltzøj 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.<sup>11</sup>

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 condition and those are the ones that we brought. In this case, the RC precedes the demonstrative *tu*. A similar example is shown 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

<sup>11</sup> The light head analysis differs from the noun elision analysis proposed for Yucatec (Gutiérrez 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) /xʝl.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

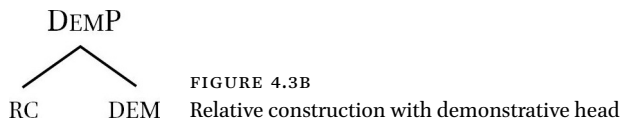
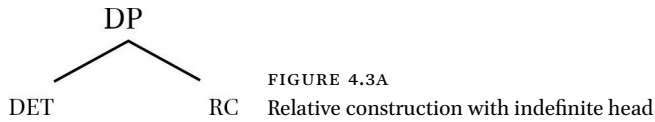
This section describes relative constructions headed by determiners which I analyze as light heads.

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



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-meltzoy 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.'



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 *qmeltzoy* and the relative pronoun *maktxel* in the RC have word stress as no phrasal boundary precedes the RC.

- (61) /*Q*MEL.tzoy *MAK.txel* *MA.xach toj* *YE.toq TU*/  
*q-Ø-meltzoy [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 (62a). A gap strategy is unattested in texts and it is ungrammatical in elicitation, (62b). 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 (63a), an o argument in (63b), 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-q’-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 constructions 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 existential *ay* takes indefinite or generic NP arguments and this is coherent with the indefinite reading of the free RCs.<sup>12</sup>

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

<sup>12</sup> 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 *xmeltzøj* 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.tzøj MAK.txel MA.xach b'et ye.TOQ/*  
*x-Ø-meltzøj [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 *meltzøj* 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 Šimik 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.<sup>13</sup> 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-

<sup>13</sup> 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-oché-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   |
| (8o) a. <i>ay-∅</i> |     |     |     |    |       |     | LOC  |
|                     |     |     |     |    |       |     | EXIST-S3 CP-S1PL go_return play-INF POSS3-behind                   |
|                     |     |     |     |    |       |     | 'There are some [pine trees] that we went to play behind.'         |
| b. <i>ay-∅</i>      |     |     |     |    |       |     | INSTR  |
|                     |     |     |     |    |       |     | EXIST-S3 CP-O3 A1PL-cut CLF meat POSS3-with                        |
|                     |     |     |     |    |       |     | 'There is that [knife] which we cut the meat with.'                |
| c. <i>?ay-∅</i>     |     |     |     |    |       |     | IO   |
|                     |     |     |     |    |       |     | EXIST-S3 CP-O3 A2PL-give CLF money to                              |
|                     |     |     |     |    |       |     | Intended: 'There are those [children] to whom you gave the money.' |
| d. <i>*ay-∅</i>     |     |     |     |    |       |     | COM  |
|                     |     |     |     |    |       |     | EXIST-S3 CP-S3 go PL CLF woman POSS3-with                          |
|                     |     |     |     |    |       |     | Intended: 'There are those [people] that the lady went with.'      |
| e. <i>*ay-∅</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<br>Relative pronoun (locative)                   | Noun-headed relative construction       |
| Determiner     | INDEF: Gap/relative pronoun<br>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.<sup>14</sup>

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.

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## 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 relative 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 preceding it, like in (1) or following it, like in (2).<sup>1</sup>

- (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}

<sup>1</sup> 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*                      [*∅-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-∅-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  $\emptyset$ ), 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.<sup>2</sup> The author argues that not all the grammar of Panare is non-configurational, because at the level of the

<sup>2</sup> 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<sub>PRO</sub> 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).<sup>3</sup>

(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.<sup>4</sup> 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).

<sup>4</sup> In other Nahuatl varieties, such as Chicontepepec 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.<sup>5</sup> 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-chnoch* ‘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-chnoch*  
 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

<sup>5</sup> 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.<sup>6</sup>

- (18) *ye y=0-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 0-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 constructions 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 syntactically 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 constructions: (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 reference 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 reduction 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=0-0-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=0-0-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 configurability 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.<sup>7</sup> In such relative constructions, the RC can be post-nominal or pre-nominal and it forms a single constituent with its head. In

<sup>7</sup> 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-mpa 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).<sup>8</sup> 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 Ocotepéc 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'* *tím*] 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 *onimonamihth* ‘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 kali* ‘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 Nahuatl varieties.

TABLE 5.2 Linguistic classification of the Nahuatl group

| Pochutec |         |                   |   |
|----------|---------|-------------------|---|
| Nahuatl  | Nahuatl | Western periphery | Western coast<br>State of Mexico<br>Durango-Nayarit   |
|          |         | Central           | <b>Nuclear sub-area<br/>Puebla-Tlaxcala</b><br>Xochitepec-Huatlatlahuaca<br>Southeast of Puebla<br>Central Guerrero<br>South Guerrero |
|          |         | <b>Huastecan</b>  | Puebla Highlands<br>Isthmus<br>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'.<sup>9</sup>

<sup>9</sup> 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<sub>PRO</sub> 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.<sup>10</sup>

## 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)

<sup>10</sup> 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.

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## 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.<sup>1</sup>

- (1) *nk-w-ísū=ū? j-nā kwetā.kya?ā? [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-etzā? jī?ī nyatē kitze [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 nyatē [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-u?we tī itā tatīyá [xī nte-tyūkwá itā]*  
 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=q? [xī tāká patrō jy-á?]*  
 POT-go=1SG LOC.REL.PRO exist boss GEN-1SG  
 ‘I am going to *where my boss lives*.’ {Txt}

<sup>1</sup> The orthography used here differs from the IPA as follows: *kw* = [kʷ], *tz* = [ts], *r* = [r], *ty* = [tʃ], *ly* = [lʲ], *ny* = [nʲ], *ch* = [tʃ], *x* = [ʃ], *y* = [j], *j* = [h], *Ÿ* = nasal vowel, *VV* = long vowel, *Ŷ* = mid tone, *Ŵ* = high tone, ‘+’ = compound boundary.

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-sāʔá=sanā=kāʔá=jūʔ* [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.<sup>2</sup> Linguistic examples are presented in three or four lines with interlinearized morphemic glossing.

<sup>2</sup> 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-tiyaq]<sub>V</sub> [tzaka torō<sub>N</sub> jlyū<sub>ADJ</sub>]<sub>S</sub>  
 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).<sup>3</sup>

- (10) jlyū júū  
 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-túkwá=ū? titō majlyā  
 HAB-CAUS.be\_put\_in=3PL several almud  
 ‘They plant several *almuds*<sup>4</sup> (of corn).’ {Txt}

- (12) nt-u-túkwá=ya túkwa majlyā ntzúkwa?  
 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*]<sub>POSSESSUM</sub> [*na jneʔe luwe=Vʔ*]<sub>POSSESSOR</sub>  
 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 *jiʔĩ* (15).

- (15) *wī tzoʔō nti-ka+kiyāʔ na* [*lúkwī=Vʔ*]<sub>POSSESSUM</sub> *jiʔĩ* [=yá]<sub>POSSESSOR</sub>  
 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]<sub>NP</sub>

Basic constituent order in transitive clauses is VAO (17). Objects of monotransitive constructions are preceded by another marker with the form *jiʔĩ*, 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*]<sub>V</sub> [*na nkwítzq=Vʔ*]<sub>A</sub> [*jií*]<sub>O</sub>  
 then PFV-grab=also DEF child=ANA ash  
 ‘Then the child also grabbed some ash.’ {Txt}



- (18) [*nka-s-atī?*]<sub>V</sub>            *tī*    [*nī? kū?wí=V?*]<sub>A</sub> *jī?ī* [*nā late?*  
 PFV.CAUS-TRNZ-untie TPLZ 3RSP drunk=ANA OBJ DEF cloth  
*chaja=V?*]<sub>O</sub>  
 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*]<sub>O</sub> [*nch-ujwi?*]<sub>V</sub> *tī*    [*kwaá*]<sub>A</sub>  
 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?*]<sub>A</sub> [*nka-su?ū=ā?*]<sub>V</sub> [*nkwítzq*]<sub>O</sub> *nteē*  
 1SG<sub>PRO</sub> 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 nkwítzq nteē jy-á?*]<sub>A</sub> [*lúkwi tzo?ō k-ājá j-ú?*]<sub>O</sub>  
 DEF child    PROX GEN-1SG mezcal good POT-get[3] DAT-3PL  
 [*nt-ī=ū?*]<sub>V</sub>  
 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 soq yaka. nte-tyúwe Ø*  
 PRG-clear\_field[3] PRG-cut[3] base tree PRG-chop.up[3] (3<sub>PRO</sub>)  
 ‘(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 *jiʔi* would likely be present after the verb.

An example of such a stranded *jiʔi* 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 nkwítzq=Vʔ tatīyá sateʔ kusō*  
 PFV-gather DEF child=ANA all clothes old[3]  
 ‘The child gathered all of (his) old clothes.’
- b. *nka-tūkwá jiʔi nanēʔ tzaka kichuwī kusō*  
 PFV-put[3] OBJ[3] inside INDEF basket old  
 ‘(He) put (the clothes) inside of an old basket.’
- c. *lēʔ nka-tótzā+tzqʔ jiʔi*  
 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, *jiʔi* precedes topical O arguments, and O arguments never encliticize to verbs. S and A arguments are never flagged by *jiʔi*, 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 *jiʔi* if topical. Coding of the recipient-like argument is subtly different: it is always flagged by *jiʔi*, 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 *jiʔi* marker remains alone (but reduced) after the verb.

- (24) *tza pesū=ri nkā-tāá jī*  
 one peso=only PFV-give(.3i) DAT(.3j)  
 'He<sub>i</sub> gave him<sub>j</sub> only one peso.' {Txt}

The theme and the recipient may both be flagged by *jiʔi* in the same clause, as shown in (25).<sup>5</sup> The example displays the unmarked order of constituents: Verb Agent Theme Recipient.

- (25) *jā ná kutzā tī wiʔ nkā-tāá tī kwaa j-nā*  
 CONJ NEG while TPLZ there PFV-give TPLZ 1EXCL OBJ-DEF  
*kitī=Vʔ jī*  
 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 *jiʔi*, regardless of their information structural status.

<sup>5</sup> Since *jiʔi* also flags alienable possessors, such constructions may also be analyzable as monotransitives with possessed themes.

(26) *wī nuwē? nū nte-cha?ne jī?ī=yu*  
 and 3ANA now PRG-multiply[3] DAT=3SG.M  
 ‘And that (the peso) is now multiplying for him.’ {Txt}

(27) *nkwi-tyaa jī?ī tī nū jā y-ālā? jī*  
 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 *ló?ō* ‘with’ and together form a second oblique category: Oblique *ló?ō*.

(28) *tāká=ya wī? ló?ō juti=q̄?*  
 exist=1EXCL there with father=1SG  
 ‘We live there with my father.’ {Txt}

(29) *nt-u-lājá=ya ló?ō yaā?=ya ló?ō jlyekwā ló?ō*  
 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=ū? tya kē.kinī*  
 PRG-go=3PL towards Tututepec  
 ‘They went towards Tututepec.’ {Txt}

(31) *nch-ā+tzaka tyākwé tī luwī? n-chaa*  
 PRG-become+one road TPLZ then HAB-go.back[3]  
*nti-chaa la kitzē*  
 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              | <i>jiʔi</i> if topical |
| (Oblique) Dative      | recipient of ditransitive, beneficiary, maleficiary | <i>jiʔi</i>            |
| Oblique <i>lóʔō</i>   | instrument, comitative                              | <i>lóʔō</i>            |
| <i>other adjuncts</i> | other locational, directional, temporal, etc.       | various                |

(32) *yākwá ʔne=q jī tzūʔ kuxeɛ*  
 there POT.do=INCL 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* [nyatē [nu ʔne            *tí: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.<sup>6</sup>

Clearer evidence for the embeddedness of the relative clause within the matrix clause NP is visible in (34). The distal demonstrative enclitic =*ʔ* attaches to the end of the NP whose head it modifies;<sup>7</sup> in this case the head is *nyatē* ‘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 Otomanguan 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 tzeʔā na nyatē nu ntētāá kwanaá nū yākwá*  
*n-tzuʔu tzeʔā [na nyatē [nu nte-tāá kwana]=V] nū 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.<sup>8</sup>

- (35) *tukwi ntujwiʔ nyatēé nu kaku nikaq̄ʔ*  
*tukwi nt-ujwiʔ [nyatē=V] [nu k-aku nikaq̄=āʔ]*  
 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 jīʔi [nyatē [nu n-tyaʔq nteē]] nyatē*  
 dog HAB-show.2SG DAT person SUB HAB-go\_around[3] here person  
*tīʔi*  
 poor  
 ‘You sicced the dogs on the people *that came here*, the poor people.’ {Txt}

- (37) *n-tonēʔé ike [nyatē [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 ?ne=ya kitze ji?i=ya ló?ō nyatē ji?i=ya*  
 thus HAB.do=1EXCL village GEN=1EXCL WITH person GEN=1EXCL  
*ló?ō [nkwítzā kwénē? [nu tí? 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) *lyakwā nēē jy-á? nu [kwīchí [nu léē.rū? jlyū]]*  
 why order.2SG DAT-1SG SUB jaguar SUB very large[3]  
*tz-akī?yá=ā?*  
 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 *ji?i*.

- (40) *nteē la-siya [yuu [nu k-u-lā?ā]]*  
 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 *ji?i*.

- (41) *jā.nu ta k-ājá tī nuwē? [xika? tí?i ntāā [nu*  
 CONJ already POT-get TPLZ 3ANA gourd mole bean SUB  
*k-ī?yá=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-toq* [teʔe [xī ki-sōʔ jīʔi]]  
 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+jlyā seeʔ n-tya+jlyā xinkqʔ* [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* [tyākwé [xī nch-aa=ūʔ]] *nī nkā-naʔa=ūʔ*  
 and road LOC.REL.PRO PRG-go=3PL well PFV-see=3PL  
*n-tákwī tzaka nyatē 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 nyatē 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 pronoun, either *nu* or *xī*, other relative constructions have neither. In these asyndetic constructions what typically follows the head is the relative clause predicate. In (46) the head is specific and non-topical.

- (46) *nteē=ri tāká* [nkwítzə [nt-ujwiʔ jīʔi]]  
 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=kāʔá* [nyatē kusūʔ [ná nch-a+toq=tīʔ]]  
 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 subject 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.kwinyoʔ nt-usāʔá j-úʔ* [kūnáʔa  
 surely tortilla\_bean HAB-make DAT-3PL woman  
 [y-a+y-oō=Vʔ]]  
 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) *tikwq l-aa lyūkwá* [nte-taʔq+lóʔō=yu se.yakq=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) [jniḡ [y-ūlá+kīyaʔ=q̄ʔ tyāʔ jyánā]] nch-ūlá+kīyaʔ=tzoʔō=q̄ʔ  
 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-tyaʔq=q*      *lóʔō nyatē tyāʔ tzuʔ kuxeē*      [tzáā [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 subordinator appears to correlate to some degree with specificity and non-topicality of the relativized head.

Consider the example in (52), in which a new (non-topical) but specific and important participant in the narrative is first introduced; there is no subordinator.

- (52) *n-tyoq*                      *n-tyoq*                      [nyatē [nijyaq                      itzqʔ=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) *n-te-lāstí=na*                      [kwítī      tzoʔō [nu nk-yuʔu      jīʔī nyatē  
 PRG-abandon=1INCL medicine good SUB PFV-exist[3] GEN person  
*kusūʔ jīʔī=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.<sup>9</sup>

<sup>9</sup> See discussion of (35) vs (34) for the position of demonstratives in non-restrictive relative clause constructions.

- (54) *tāká* [*na nyaʔne=V̇*] [*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 kitɛ]*]  
 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 *jiʔi*.

- (56) [*na kosā [nu nkā-naʔa+tikáʔā]* *j-yū* *y-aku*  
 DEF thing<sub>i</sub> SUB PFV-see+cherished[3<sub>j</sub>] GEN-3SG.M<sub>j</sub> PFV-eat[3<sub>i</sub>]  
*j-yū*  
 OBJ-3SG.M<sub>j</sub>  
 ‘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-tiyaq* [*tzaka nyatɛ [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 kwēyá?* [*nu nt-ii=ya k-ulóó=ya*  
 PFV-arrive one time SUB HAB-feel=1EXCL POT-take\_out=1EXCL  
*lúkwī*]]  
 mezcál  
 'A time when we wanted to make mezcál 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 relativizable, 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 modify nouns (adnominal) may be only loosely orderable with respect to functions related to verbs (adverbal), and it is perhaps more appropriate to treat adverbial and adnominal functions as two sub-hierarchies. As was sketched in Section 6.2.3, the adverbial 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 relativizing the (oblique) Dative and Alienable Possessor functions, the dative or genitive marker *jiʔĩ* 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 function (61) are frequently relativized in Zenzontepec Chatino.

(61) *nti-xaʔa tĩ chujlyāʔ.jnyá ku-sūʔ jiʔĩ* [chujlyāʔ.jnyá [nu  
 HAB-shout TPLZ authority ADJZ-get\_old OBJ authority SUB  
*k-ukwā jnyá*]]  
 POT-grab[3] work  
 ‘The previous authorities will call out to the authorities *who will take positions*.’ {Txt}

In (62) the relativized noun is direct object. It is topical, but recall that the object marker *jiʔĩ* does not occur if a topical object is relativized.

(62) *ná k-aku=qʔ* [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) [nyatē [nu chu nk-yāá? líti=kāʔá]] nyāʔā  
 person SUB HUM.REL.PRO PFV-be\_built home=also[3] see.2SG  
 ta nkwātiʔ=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 jiʔiʔ=IO* ‘give orders to someone’ (lit. ‘speak work to X’). The relativized indirect object is omitted in the relative clause but its dative marker *jiʔiʔ* is stranded.

- (64) naʔā.laa [nyatē [nu ki-kwiʔ=na jnyá jiʔiʔ  
 no\_more\_exist person SUB POT-speak=1INCL work DAT[3]  
 k-aka tī xikq]]  
 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 *jiʔiʔ*), 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 jī chu tiʔi jī [chu nālá jī]  
 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 jī*  
 HAB-beat=3RSP OBJ[3]  
 ‘With his rod, *with which his horse was beaten*, he began beating her.’ {Txt}

- (67) *k-aka chaq=ūʔ ʔne=ūʔ jnyá lóʔō* [tyáʔā  
 POT-be\_able POT.return=3PL POT.do=3PL work with companion[3]  
 [tāká naa]]  
 exist INCL  
 ‘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.nū nkw-eta=yu jīʔī* [tyáʔā  
 and\_then PFV-wait\_for=3SG.M OBJ companion[3]  
 [nte-taʔq=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-ʔnyá=ūʔ*]]  
 HAB-clear\_field=3PL  
 ‘They were chopping up and cutting (it) during the time *that they clear the fields*.’ {Txt}



- (70) [tzáã [nu nku-la=kāʔá jniʔ na kwénā=Vʔ]]  
 day SUB PFV-be\_born=also offspring DEF snake=ANA  
 nku-la=kāʔá na nkwítzq=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* [tyākwé [xī n-tyaʔq nu n-tyaʔq  
 NEG.exist road LOC.REL.PRO HAB-go.around SUB HAB-go\_around  
*jlyá 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             | ✓             | ∅ on verb; ( <i>chu</i> before verb)                                 | gap (or rel. pron. <i>chu</i> )                            |
| Inalienable Poss.   | ✓             | ∅ on possessum; ( <i>chu</i> before verb)                            | gap (or rel. pron. <i>chu</i> );<br>pronoun retention (72) |
| Direct Object       | ✓             | ∅; omission of <i>jiʔi</i> , even if topical                         | gap  |
| (Oblique) Dative    | ✓             | ∅; <i>jiʔi</i> obligatory and stranded                               | gap  |
| Alienable Poss.     | ✓             | ∅; <i>jiʔi</i> obligatory and stranded;<br>( <i>chu</i> before verb) | gap (or rel. pron. <i>chu</i> )                            |
| Oblique <i>lóʔō</i> | ✓             | ∅; omission of <i>lóʔō</i>   | gap  |
| Temporal adverb     | ✓             | ∅  | gap  |
| Locative            | ✓             | relative pronoun <i>xī</i>   | 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 lyaʔā [tī yu-wiʔ [nu n-tonēʔę  
nasty well smelly TPLZ 3SG.M-ANA SUB ST-be.piled.up  
s-eʔę=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    wíʔ]] k-esāʔq̄  
 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 *tātīyá* is shown in pronominal function in (74) and the numeral ‘one’ that functions as an indefinite article serves as a pronoun in (75).

- (74) nteē ntzuʔu            tātīyá  
 here ST-be\_inside everything  
 ‘Here there is everything.’ {Txt}
- (75) lēʔ    la.tzáq̄.rā            nkā-ríʔyé=yu            ntákq̄ʔ jī    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) [tātīyá [nu k-aku=q̄ʔ]]    [nu tyúʔu            jy-áʔʔ]] nch-ātíʔ=q̄ʔ  
 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=q̄ʔ*            *tzaka kwentū jiʔĩ* [tzaka [chu  
 POT.give=again=1SG one story GEN one HUM.REL.PRO  
*n-tzaʔq*            *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 *xĩ* 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=wq 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-taʔq=ri=yu*]  
 HAB-stay=3SG.M WHERE PRG-go\_around=only=3SG.M  
*nt-yatē=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-uxikq tī nuwēʔ* [*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 nuwē?* [*xī nu*  
 necessary SUB POT.arrive TPLZ 3ANA LOC.REL.PRO SUB  
*tiyaa nchātí?=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+kwēyá?* [*nu chu nt-u-xikā?* *j-nā*  
 HAB-be+measure SUB HUM.REL.PRO HAB-CAUS-be\_tied OBJ-DEF  
*ya ni?i=V?*  
 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-eyatí?=kā?á*] *nyā?ā ?ne+tzq?=ū?*  
 SUB HUM.REL.PRO NEG HAB-believe=also see.2SG HAB.do+back=3PL  
*ji?í*  
 OBJ[3]  
 'Those who also don't believe, they turn their backs on it.' {Txt}

- (87) *ná tzaka* [*nu chu ná nti-nīnyá tī jī 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-tyōtí?*    *j-nū.ntē*  
 HAB-know OBJ-PROX  
 ‘It would be possible if there were somebody *who knew this*’ {Txt}

- (89) *ná* *k-a-lu?u*    *tī*    *kwa*    *tī*    *laa?* *naxí?i*    *nu*    *tāká* [*nu*  
 NEG POT-be-alive TPLZ IEXCL COND thus NEG.be SUB exist SUB  
*chu*                    *n-te-?ne 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-yāá?*                    *liti=V?*]    *nī.jni?*  
 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-su?ū*    *tī*    *j-nāá?*]    *mastrū* *j-nāá?*  
 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 jiʔʔ]*  
 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 kiʔyū]*  
 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 nijyaq [xī tyākqʔ=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.<br>poss. | DO | (Obl.)<br>dat. | Alien.<br>poss | Obl.<br><i>lóʔō</i> | Temp.<br>adv. | Loc. |
|-------------------------------------|---|----------------|----|----------------|----------------|---------------------|---------------|------|
| Gap                                 | ✓ | ✓              | ✓  | –              | –              | ✓                   | ✓             | –    |
| Gap, stranded <i>jiʔi</i>           | – | –              | –  | ✓              | ✓              | –                   | –             | –    |
| Rel. pronoun <i>xī</i> , obligatory | – | –              | –  | –              | –              | –                   | –             | ✓    |
| Rel. pronoun <i>chu</i> , 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.

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## 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-Manguenan; 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 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 R[elative] C[lausure]. 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 Zochina 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 Zochina 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

Zochina 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 Zochina 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, Zochina Zapotec presents a basic vs and vso word order.<sup>1</sup> 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 xshilhènh? lé?*  
*ba=dx-s+<sup>2</sup>-bézé [béné xshilh=nhà?] [lé?]*  
 TERM=ICP-S:PL-wait CLF<sub>PRO</sub> Zochila=DEF 3<sub>PRO</sub>  
 ‘Those from Zochila were already waiting for him.’ {Txt}  
 \* ‘He was already waiting for those from Zochila.’

### 7.2.2 *Alignment*

Zochina 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 gòlghá?*  
*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}

<sup>1</sup> 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 wdègò?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).<sup>2</sup> 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).<sup>3</sup> 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  $vso_{\text{REC}}O_{\text{THEME}}$ , like in (4a), or  $vso_{\text{THEME}}O_{\text{REC}}$ , 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).



- (4) a. *bì'ò bí'dáó'nh yìshè'*  
*be-òè'=ò' bí'dáó'=nhà' yìsh=nhà'*  
 CP-give.to.3=NOM2SG child=DEF paper=DEF  
 'You gave the papers to the boy.'
- b. *wnhéxhghúá mósènh'nhó'lhénhà'*  
*w-nhéxhghoh=á' mós=nhà' nhó'ólhé=nhà'*  
 IRR-lend=NOM1SG worker=DEF woman=DEF  
 'I'll lend the worker to woman.'

Adjuncts occur after the core arguments and may either be introduced by relational nouns or by the preposition *lhénh*, like in (5a), or by juxtaposed NPs or adverbial phrases, like in (5b).

- (5) a. *bègà'ànà' lhénh lé'*  
*b-ey+gà'àn=á' lhénh lé'*  
 CP-stay.at.source=NOM1SG with 3<sub>PRO</sub>  
 'I stayed with her.' {Txt}
- b. ... *sghá'kbá zhí'lhé*  
*z-yégh=gak=bá' zhí'=lhé*  
 PRF-go=O:PL=S3INFORM downhill=DIR  
 'They have gone down.' {Txt}

#### 7.2.4 Focalization

In Zochina Zapotec any constituent internal to the clause can be moved to preverbal position by focalization. Additionally, core arguments, oblique participants and locative adjuncts specifically require the focus marker *=nhà'*. The examples in (6) show these two properties. Focalization of the subject, either of a transitive verb like in (6a) or of an intransitive verb in (6b), obligatorily requires a correferential resumptive pronoun in the verbal base. Focalization of an object does not involve a resumptive pronoun, as shown in (6c).

- (6) a. *k'ínhènh' dxòtè'nh*  
*k'ính=é'=nhà' dx-òtè'=é'=nh*  
 REFL=NOM3FORM=FOC ICP-sell=NOM3FORM=O3INAN  
 'He [the owner] is selling it himself.' {Txt}

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TABLE 7.1 Positions in the NP

| Q | INDEF.ART | NOM.CLF | HEAD | POSS | PERIPH.POSS | REL |
|---|-----------|---------|------|------|-------------|-----|
|   |           |         |      | ADJ  |             |     |

- b. *nhètònh² bá dxìtò² ...*  
*nhètò²=nhà²      ba=dxì²=tò²*  
 1PL.EXCL<sub>PRO</sub>=FOC TERM=be.seated=NOM1PL.EXCL  
 ‘We were already sitting’ {Txt}
- c. *séyènh² zédéxhíá²*  
*séy=nhà² z-édé-xhí=á²*  
 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 *lhía* ‘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 *=nhà²*, which marks definiteness, like (7a).

- (7) a. ... *lêbánhà² blhèè²ydbá lhía Ntònhnà²*  
*lêbá²=nhà²      b-lh<o>è²y+d=bá²      lhía Ntònh=nhà²*  
 3INFORM<sub>PRO</sub>=FOC CP-show=S3INFORM CLF A.=DEF  
 ‘... She taught Antonia.’ {Txt}
- b. *shghàtibò² nhó xhònh² jérg ...*  
*sh-yêgh-yìb=tò²      nhó      xhònh jérg*  
 ICP-go-wash=NOM1PL.EXCL INDF:NON.SPEC CLF blanket  
 ‘We were going to wash some blankets.’ {Txt}
- c. *nhá nlàgtò² xòngh nhó bùrr*  
*nhá nh-lhàg=tò²      xòngh nhó      bùrr*  
 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).<sup>4</sup>

- (8) *dxónlá bí?chíánh? zó méjìkò?*  
*dx-ónh+lá bí?chè=á?=nhà?* [zó Méjìkoh=nhà?]  
 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 Zochina 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 *bí?dáó?* ‘child’ is the head and the clause *shyêghgàk skúèl-hnhà?* ‘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 postnominal. 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 *békò?nhà?* ‘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. *béséylhá? bí?dáónh? shghà?àk skúèlhè? ...*  
*b-s+<sup>2</sup>-ey+lhá? bí?dáó?=nhà?* [*sh-yêgh=gak skúèlh=nhà?*]  
 CP-S:PL-return.here child=DEF ICP-go=O:PL school=DEF  
 ‘The children who go to school have come back ...’ {Txt}
- b. *bsó?ót bí?dáó?nh shghà?àk skúèlhènh békò?nhà?*  
*b-s+<sup>2</sup>-ót bí?dáó?=nhà?* [*sh-yêgh=gak skúèlh=nhà?*] *békò?=nhà?*  
 CP-S:PL-hit child=DEF ICP-go=O:PL school=DEF dog=DEF  
 ‘The kids who go to school hit that dog.’

4 The definite determiner =nhà? has three allomorphs: =nh?, =à? and =?.

- c. *bí<sup>?</sup>dáónh<sup>?</sup> shghà<sup>?</sup>àk skúèlnhà<sup>?</sup> bsò<sup>?</sup>òtbá béko<sup>?</sup>nhà<sup>?</sup>*  
**bí<sup>?</sup>dáó<sup>?</sup>=nhà<sup>?</sup>** [*sh-yégh=gàk skúèlh=nhà<sup>?</sup>*] *b-s+<sup>?</sup>-ót=bà<sup>?</sup>*  
 child=DEF ICP-go=O:PL school=FOC CP-S:PL-hit=S3INFORM  
*békò<sup>?</sup>=nhà<sup>?</sup>*  
 dog=DIST  
 ‘The kids who go to school hit that dog.’

In addition to embedded RCs, Zochina 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) ... *dxì<sup>?</sup> bénénh<sup>?</sup> dxáké kábésàr nhónh<sup>?</sup> dxápé nhà<sup>?</sup>*  
*dxì<sup>?</sup>                      béné<sup>?</sup>=nhà<sup>?</sup> dx-àk=é<sup>?</sup>                      kábésàr*  
 seated.at.floor.level person=DEF ICP-happen=NOM3FORM nod  
 [*nhó+nhà<sup>?</sup> dx-ápé nhà<sup>?</sup>*]  
 who ICP-guard there  
 ‘... The person who guards there (the church) is sitting there nodding.’  
 {Txt}

#### 7.4 Relativization Strategies

Zochina 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 Zochina Zapotec the gap strategy is a fairly common way to recover the identity of the domain nominal. In (11) the head *nhó<sup>?</sup>ólhé* ‘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) ... *gótshká nhó'ólhénh' bzo nhí*  
*go-àt=shká nhó'ólhé=nhà' [b-zó \_ nhí]*  
 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 nhó'ólhénh' bzâgè' dà' Tomásé'*  
*àgé=b-ey+zhình nhó'ólhé=nhà' [b-z-àgè' dà'*  
 NEG=CP-return.there woman=DEF CP-CAUSE-stop deceased  
*Tómás=nhà']*  
 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 nhó'ólhénh' bí'ò mèdxò'*  
*z-zâ' nhó'ólhé=nhà' [be-òè'=ò' \_ mèdxoh=nhà']*  
 PRF-leave woman=DEF CP-give.to.3=NOM2SG money=DEF  
 'The woman to whom you gave the money has left.'
- b. *bnhìt mèdxònh' bí'ò nhó'ólhénh'*  
*b-nhìt mèdxo=nhà' [be-òè'=ò' nhó'ólhé=nhà' \_]*  
 CP-lose money=DEF CP-give.to.3=NOM2SG woman=DEF  
 'The money you gave to the woman was lost.'
- c. *bídé nhó'ólhénh' bí'ò bí'dáó'nhà'*  
*b-ídé nhó'ólhé=nhà' [be-òè'=ò' bí'dáó'=nhà']*  
 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.'

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TABLE 7.2 Relative pronouns from interrogative pronouns

| Interrogative |                    | Relative        |
|---------------|--------------------|-----------------|
| nhó           | ‘who?’             | nhó+nhà? ‘who’  |
| bí            | ‘what?’            | –               |
| bix+chè?      | ‘why?’             | –               |
| gá            | ‘where?’           | gá+nhà? ‘where’ |
| nhák          | ‘how?’             | –               |
| bát           | ‘when?’            | –               |
| nhòlhé=PRO    | ‘which?’           | –               |
| ghá?ké=PRO    | ‘how many? (INAN)’ | –               |
| bàlé=PRO      | ‘how many? (AN)’   | –               |

TABLE 7.3 Relative pronouns from pronominal classifiers

|      |                |
|------|----------------|
| béné | Human formal   |
| bí?  | Human informal |
| bé   | Animal         |
| dá?  | 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 =nhà?, 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. ... *nhónh? blhá?*  
*nhó=nhà?                      b-lhá?*  
 WHO<sub>PRO.INTER</sub>=FOC CP-arrive.here  
 ‘... Who arrived?’ {Txt}
- b. ... *gánh? shéghé? ...?*  
*gǎ=nhà?                      shégh=é?*  
 WHERE<sub>PRO.INTER</sub>=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 *bl?* 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. *kátè? shghà?àk bl?ká?*  
*kátè? shégh=gàk      bl?=ká?*  
 when IRR.GO=O:PL CLF<sub>PRO:INFORM</sub>=PL:DIST  
 ‘When those go.’ {Txt}
- b. *kátè? shghà?àk lébá?*  
*kátè? shégh=gàk      lébá?*  
 when IRR.GO=O:PL 3INFORM<sub>PRO</sub>  
 ‘When they go.’

Relative pronouns invariably occur at the beginning of the RC. The following examples illustrate the relative pronouns *nhó+nhà?* ‘who’, in (16a), *bl?* 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  $\tau$  (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 *nhà?* in the relative pronoun no longer functions as the focus marker =*nhà?* 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 =*nhà?* indicates definiteness of the domain nominal inside the RC.<sup>5</sup>

5 There are various elements *nhà?* 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 nhó'ólhénhà' nhónh bzá kánhà'*  
*b-s+²-bành=é' nhó'ólhé=nhà' [nhó+nhà' b-zà' t*  
 CP-S:PL-steal=NOM3FORM woman=DEF WHO CP-PL  
*ká+nhà']*  
 a.while.ago  
 '... They stole from the woman who left long ago.' {Txt}
- b. *zó bí'chíánh' bí'nh lê Magdalena*  
*zó bí'chè=á'=nhà' [bí'=nhà' lhé t*  
 exist:AN offspring=POSS1SG=DEF CLF<sub>PRO</sub>:INFORM=DEF ICP.name  
*Magdalena]*  
 M.  
 'I have a daughter who is called Magdalena.' {Txt}
- c. ... *yézi'ba' gó'n bé kó'ba' lni*  
*y-ey+zí'=ba' gó'n [bé kó'ò=ba' t*  
 IRR-buy=S3INFORM bull CLF<sub>PRO</sub>:ANIM IRR.put.in=S3INFORM  
*lni]*  
 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/bí'nh bétoh Xhébé'*  
*béné'=nhà' [nhó+nhà'/bí'=nhà' be-ót Xhéb=nhà']*  
 person=DEF WHO/CLF<sub>PRO</sub>: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+nhà'* 'where' in (18).<sup>6</sup>

6 The distal demonstrative =*nhà'* 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 yégh-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 Zochina 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 Zochina 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 b-zó nhî  
 go-át=shkâ nhóʔólhé=nhàʔ [b-zó \_ nhî]  
 CP-die=ADV woman=DEF CP-exist:AN here  
 ‘... (so) the woman who lived here died.’ {Txt}
- b. ... bèsèbànhé nhóʔólhénhàʔ nhónh b-zá kánhàʔ  
 b-s+²-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}

(21) a. ... *mêdxònhʔ bésélé bíʔchíánhʔ*

*mêdxoh=nhàʔ [b-ey+sèlèʔ bíʔchè=áʔ=nhàʔ \_\_\_]*

money=DEF CP-send.to.source son=POSS1SG=DIST

'... the money my son sent [home]' {Txt}

b. ... *yéziʔbáʔ góʔn bé kóʔbáʔ lni*

*y-ey+ziʔ=báʔ góʔn [bé kóʔò=báʔ t*

IRR-buy=S3INFORM bull CLF<sub>PRO</sub>:ANIM IRR.put.in=S3INFORM

*lni]*

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 relativization 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), respectively.

(22) a. *stá nhóʔólhénhʔ bíʔò mêdxòʔ*

*z-záʔ 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. *stá nhóʔólhénhʔ nhónhʔ bíʔò mêdxòʔ*

*z-záʔ nhóʔólhé=nhàʔ [nhó+nhàʔ be-òèʔ=òʔ t*

PRF-leave woman=DEF WHO CP-give.to.3=NOM2SG

*mêdxoh=nhàʔ]*

money=DEF

'The woman to whom you gave the money has left.'

(23) a. *bnhít mêdxònhʔ bíʔò nhóʔólhénhʔ*

*b-nhít 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.'

- b. *bnhít mēdxònh² dà²nh bí²ò nhó²ólhénh²*  
*b-nhít mēdxo=nhà² [dà²=nhà² be-òè²=ò²*  
 CP-lose money=DEF PL<sub>PRO</sub>·INAN=DEF CP-give.to.3=NOM2SG  
*nhó²ólhé=nhà² \_\_\_]*  
 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 *béné²=ká²* ‘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,<sup>7</sup> 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. *shghànàbò²nh lháo bénéká²*  
*sh-yēgh-nàb=ò²=nh lhàò béné²=ká²*  
 IRR-go-ask=NOM2SG=O3INAN to person=PL.DIST  
 ‘You’re going to ask those people.’
- b. *kátè² shghàshàbdtònhé² gó²nè²*  
*kátè² sh-ghe-shàb=d=tò²=nhé²*  
 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.

*góʔn=nhàʔ*  
 bull=DEF  
 ‘When we were going to offer them the bulls.’ {Txt}

- c. \**sh-ghe-shàb=tòʔ=nhéʔ* *góʔn=nhàʔ*  
 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. ... *bénénhʔ nhónhʔ bshàbdòʔ góʔnèʔ*  
*bénéʔ=nhàʔ* [*nhó+nhàʔ b-shàb=d=òʔ* *góʔn=nhàʔ*]  
 person=DEF WHO CP-offer=GEN.APPL=NOM2SG bull=DEF  
 ‘The person to whom you offered the bulls.’
- b. \**bénéʔ=nhàʔ* [*nhó+nhàʔ b-shàb=òʔ* *góʔn=nhàʔ*]  
 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. *yídó lhénh nàdàʔ*  
*y-ídeʔ=òʔ* *lhénh nhàdàʔ*  
 IRR-come=NOM2SG with 1SG<sub>PRO</sub>  
 ‘You will come with me.’ {Txt}
- b. ... *shdáchàʔ lhénh lénh*  
*sh-dâ=chèʔ=áʔ* *lhénh lénh*  
 ICP-walk=ADV=NOM1SG with 3INAN<sub>PRO</sub>  
 ‘... 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 nhó'ólhénh' zézálhénhà'*  
*b-bíxé nhó'ólhé=nhà'* [z-ey+zà'=á']  
 CP-fall woman=DEF PRF-come.to.source-COM.APPL=NOM1SG  
 '... The woman I came with fell.' {Txt}
- b. ... *bíbénh' dà'nh chíbédto' lhàdxè'nhà'*  
*bíbé=nhà'* [dà'=nhà']  
 jojoba=DEF CLF<sub>PRO</sub>;INAN=DEF  
*chíb-é=d=tò'* *lhàdxè'=nhà'?*  
 IRR.wash-INSTR.APPL=GEN.APPL=NOM1PL.EXCL clothing=DEF  
 '... The jojoba we used to do our laundry with.' {Txt}
- (28) a. \**b-bíxé nhó'ólhé=nhà'* [z-ey+zà'=á']  
 CP-fall woman=DEF PRF-come.to.source=NOM1SG  
 Intended reading: *idem* (27a)
- b. \**bíbé=nhà'* [dà'=nhà' *chíb=tò'*  
 jojoba=DEF CLF<sub>PRO</sub>;INAN=DEF IRR.wash=NOM1PL.EXCL  
*lhàdxè'=nhà'?*  
 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 Zooschichina 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 béyólh zhành zhílh ...*  
*ba=b-ey+ólh xhành zhílh*  
 TERM=CP-exit RN:under stove's.hotplate  
 'It [fire] has already gone out under the stove's hotplate ...' {Txt}
- b. ... *sghàsdába lá'*  
*z-yégh-ez-dá=bá'* *Lá'*  
 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+nhà* ‘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 nhòmbià?lhé nhà? gánh? shnhà tò? bèghwá gé*  
*àgé=nh-ònh+bià?=lhé nhà? [gá+nhà? sh-nhà=tò?*  
 NEG=ST-know=NOM2PL there WHERE ICP-say=NOM1PL.EXCL  
*Bègh+wá gé]*  
 B.  
 ‘You don’t know there [the spot] where we call Bèghwá gé.’ {Txt}

- b. *àgé=nh-ònh+bià?=lhé nhà? [sh-nhà=tò? Bègh+wá gé]*  
 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+nhà* ‘where’ plus the corresponding relational noun, and both elements head the RC, like in (31).

- (31) *byèy lháshghénh? kʷít gánh? dxázá?*  
*b-yèy lháshghé=nhà? [kʷít gá+nhà? dx-áz=á?]*  
 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 kʷíténh? dxázò??*  
*gǎ kʷít=nhà? dx-áz=ò?*  
 LOC<sub>PRO.INTER</sub> 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=nhà* ‘the machete’ is the only argument of the positional verb *álé* ‘hang’, the locative adjunct *zè?è*

'wall' is introduced by the relational noun *lè'è*. In (33b), in contrast, the semantic location *bdxòb* 'basket' functions instead as the subject of the verb *yó'ó* '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 *xhúá* 'maize' is a pseudo-subject (for more details, see López Nicolás 2015).<sup>8</sup>

- (33) a. *nhâlhé máshétè'è' zè'ènhà'*  
*nh-âlé máshét=nhà' lè'è zè'è=nhà'*  
 ST-hang machete=DEF RN:ON wall=DEF  
 'The machete is hanging on that wall.'

- b. *lé' bdxòbènh', yó'ònh xhúá'*  
*lé' bdxòb=nhà' yó'ó=nh xhúá'*  
 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) *blhá'á xwágénh' gánh' yózhé nhisèyè'nhà'*  
*b-lhá'á xwágé=nhà' [gá+nhà' yózhé nhis+yè'è=nhà']*  
 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. *xwágénh' dà'nh yózhé nhisèyè'nhà'*  
*xwágé=nhà' [dà'=nhà' yózhé nhis+yè'è=nhà']*  
 jug=DEF CLF<sub>PRO</sub>: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. *xwágeh<sup>?</sup>yózhé nhisèyè<sup>?</sup>nhà<sup>?</sup>*  
*xwáge=nhà<sup>?</sup> [yózhé nhis+yè<sup>?</sup>=nhà<sup>?</sup>]*  
 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 nhó<sup>?</sup>ólhénh<sup>?</sup>nhónh<sup>?</sup>byéy lhìzhè<sup>?</sup>*  
*go-àt nhó<sup>?</sup>ólhé=nhà<sup>?</sup> [nhó+nhà<sup>?</sup> b-yèy lhìzh=nhà<sup>?</sup>]*  
 CP-die woman=DEF WHO CP-burn PSSD.house=DEF  
 ‘The woman whose house burned down died.’
- b. *gòt nhó<sup>?</sup>ólhénh<sup>?</sup>byéy lhìzhè<sup>?</sup>*  
*go-àt nhó<sup>?</sup>ólhé=nhà<sup>?</sup> [b-yèy lhìzh=nhà<sup>?</sup>]*  
 CP-die woman=DEF CP-burn PSSD.house=DEF  
 ‘The woman whose house burned down died.’
- c. \**nhó<sup>?</sup>ólhé=nhó [nhó+nhà<sup>?</sup> t-xhíté xhí<sup>?</sup>t=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 béné<sup>?</sup>=nhà<sup>?</sup> [nhó+nhà<sup>?</sup> x-médxoh=nhà<sup>?</sup> be-dè<sup>?</sup>*  
 CP-die person=DEF WHO POSSD-money=DEF CP-give.to.3



*Júành=nhà? bí?=nhà?*]

J.=DEF CLF<sub>PRO</sub>:INFORM=DEF

Intended reading: 'The man, whose money John gave to him, died'

b. \**go-àt béné?=nhà? [nhó+nhà? xhí?in=nhà? Júành=nhà?*

CP-die person=DEF WHO PSSD.son=DEF J.=DEF

*be-òè? mèdexoh]*

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 =nhà?<sup>9</sup>

(38) a. *blhé?ydà? bénénh? xhí?inènh? nhónh bdápè? bí?nhà?*

*b-lhé?y+d=á? béné?=nhà? [xhí?inh=nhà? nhó+nhà? b-dápè?*

CP-see=NOM1SG person=DEF PSSD.son=FOC WHO CP-knock

*bí?=nhà?]*

CLF<sub>PRO</sub>:INFORM=DEF

'I saw the man whose son beat him.'

b. *blhé?ydà? bénénh xhí?inènh? nhónh b-xhòngh*

*b-lhé?y+d=á? béné?=nhà? [xhí?inh=nhà? nhó+nhà? 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.

*xhí?inh Júành=nhà? b-xhòngh*

*[xhí?inh Júành=nhà?] b-xhòngh*

PSSD.son J.=FOC CP-run

'John's son ran.'

#### 7.5.4 Roles with No Access to Relativization

The syntax of Zochina 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=óʔ*  
           CP-return=NOM2SG  
           Intended reading: ‘I saw the woman you came back for.’
- b. \**zàʔ+lhàzhèʔ=áʔ*                    *zhà=nhàʔ* [*bát(+nhàʔ)* *b-íde=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 Zochina 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<br>(Patient;<br>Theme;<br>Recipient;<br>Comitative;<br>Instrument) | Possessor | Locative | Reason,<br>time &<br>manner | Object of<br>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 Zochina 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.

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## 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:<sup>1</sup> (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 locative 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 possessor. 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 relative pronoun strategy based on WHO to relativize subjects and objects alike. However, this is not what happens in Tilapa Otomi. Interestingly, the same situation 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

<sup>1</sup> 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).<sup>2</sup> 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 hesitant 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<sub>01</sub>  
 ‘I trembled.’ {Txt}
- b. *bi hwötsi*  
 PFV tremble[S<sub>03</sub>]  
 ‘S/he/they trembled.’ {Txt}
- ii. a. *bi wün-gi*  
 PFV[S<sub>3</sub>] feed.AS-S<sub>01</sub>  
 ‘S/he/they fed me.’
- b. *bi wüni*  
 PFV[S<sub>3</sub>] feed[O<sub>3</sub>]  
 ‘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 | t <sup>á</sup>  | <i>nde</i> | gra            | <i>nde</i> |
|        | 2nd | gr <sup>á</sup> | <i>nde</i> | gra            | <i>nde</i> |
|        | 3rd | ra              | <i>nde</i> | t <sup>á</sup> | <i>nde</i> |
| PFV    | 1st | t <sup>ú</sup>  | <i>nde</i> | g <sup>u</sup> | <i>nde</i> |
|        | 2nd | g <sup>ú</sup>  | <i>nde</i> | gi             | <i>nde</i> |
|        | 3rd | bi              | <i>nde</i> | ti             | <i>nde</i> |

one syllable and they behave like more canonical phonological words. Both the formatives *g<sup>u</sup>* 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.<sup>3</sup>

- (1) a. *g<sup>u</sup>*=            *mba*≈'a                    *T'ok'eñö* *g<sup>u</sup>*=  
 PFV.IRR.S1 SS/go.PL.INCL≈P C.            PFV.IRR.VEN.S1>EXLOC  
*hpa*=*hu*  
 sell=PL.INCL  
 'We go to Coatepec to sell.' {Txt}
- b. *g<sup>u</sup>*=            *mba* ≈*g<sup>u</sup>* ...            *g<sup>u</sup>*=            *h<sup>t</sup>si*=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' /C²/ (ejective); <sup>h</sup>C (pre-aspirated); ' /ʔ/; ñ /ɲ/; ch /tʃ/; tr' [tʃ]; dr' [ɹ]; ndy [ɲj]; r /r/; x /ʃ/; and y /j/. Vowels: a /ɑ/ [ɒ]; e /ɛ/; o /ɔ/; u /i/; e [ɛ̃]; o [ɔ̃]; 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 *khan*; (2b) the conjunctive adverbial *xun* ‘also’; and (2c) the negation marker *hín* and the degree adverbial *=ts’è* ‘just’.

- (2) a. *khan≈dá*                      *mátú* ‘*otu*=’*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*                      *xun≈d’rá*                      *he=tho*                      *mi*                      *pahni*  
 and.AS≈1[SG]<sub>PRO</sub> also=IPFV.S1 dress=DEL POSS1♀ shirt  
 ‘And I also put on my shirt.’ {Txt}
- c. *hín* =*ts’è* *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).<sup>4</sup>

- (3) *tu*                      ‘*tyü* *pø’kö*  
 PFV.IRR.VEN[S3] bring manioc  
 ‘He’d bring manioc.’ {Txt}
- (4) a. *bi*                      *kha*                      *ar*                      ‘*rede*  
 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. *tu*                      *h<sup>h</sup>tyü* *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),<sup>5</sup> there are at least three nominal classifiers for the singular. One is the general classifier *ar* in (4a). A second one is the classifier *ru*, which occurs with a closed set of lexically specified nouns and with loanwords, like the noun *xebø* 'animal grease' in (5a) from Spanish *sebo*. The classifier *ru* also serves as the host for a floating tone that is a suprasegmental exponent of a third person possessive, like in (5b).<sup>6</sup> The third classifier is *ra*, which is used in verbal nominalizations, like in (6).

- (5) a. *pøngi*            *ru*        *xebø*  
 Q:much[S3] CLF.SG animal.grease  
 'It has a lot of grease.' {Txt}

- b. *khapu-bu≈rú*                                      *h<sup>h</sup>presio*  
 [IMP]put.AS-DAT3.AS≈CLF.SG.POSS3 price  
 'Put a price on it!  
 (Lit. 'Put its price to it.') {Txt}

- (6) *mádi*                      *zix-ku=a*                                      *ra*            *m<sup>h</sup>beni*  
 IMPF.HAB[S3] SS/take.animate.AS-OI[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 *keh=a*                      *a*        *řasø=ʔü*  
 well COP[S<sub>0</sub>3].AS=CL DEF.SG reason=3SG<sub>PRO</sub>  
 'Well, that's the truth.' {Txt}

<sup>5</sup> Mass nouns are often used in the plural.

<sup>6</sup> 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 *yü*.

b. *tu≈du*                      *'mbeh=a*              *yi*              *phani*  
 PFV.IRR.VEN≈INCH[S3] PASS/lose.AS=CL DEF.PL horse  
 'Horses are going to be extinct.' {Txt}

(8) *tú*      *mih=ka*              *nt'a*      *t'egi*  
 PFV.S1 grab.AS=1[SG]<sub>PRO</sub> 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 possessed 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*              *'ye'=k'e*                      *ni*              *kařo?*  
 PFV[S3] SS/push.AS=2[SG]<sub>PRO</sub> DEM.SG car  
 'Did the/that car run over you?' {Txt}

b. *mádi*              *t-ëm-bi*                      *'yu*              *'puñø*"  
 IMPF.HAB[S3] PASS-say.AS-DAT3 DEM.PL fist  
 'He used to be called "the fists."' {Txt}

(10) a. *ru*                      *khá'ni*      *a*              *ni*              *'mbe<sup>h</sup>tse*  
 CLF.SG.POSS3 person DEF.SG DEM.SG kid  
 'The people of the kid' {Txt}

b. *bwu*                      *kh<sup>h</sup>ti-gi*                      *a*              *na*              *mi*              *'ye=a*  
 PFV.VEN[S3] grab.DTR-DAT1[SG] DEF.SG DEM.SG POSS1♀ hand=CL  
 'They grabbed me by this hand.' {Txt}

c. *xu*              *'mbox=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 person, like in (11b). All proforms in Tilapa Otomi are enclitics; the full paradigm is given in Table 8.2.

TABLE 8.2 Prenominal enclitics in Tilapa Otomi

|     |           | Singular | Dual           | Plural      |
|-----|-----------|----------|----------------|-------------|
| 1st |           | =ga/ka   | EXCL –         | =ga/ka='mbe |
|     |           |          | INCL =ga/ka=wi | =ga/ka=hu   |
| 2nd |           | =k'e     | –              | =k'e=wi     |
| 3rd |           | =a/'ä    | –              | =k'u        |
| DEM | PROX      | =na      | –              | =ya         |
|     | DISTAL I  | =ni      | –              | =yu         |
|     | DISTAL II | (=k'a)   | –              | =k'i        |

(11) a. *ta*                    *'mboh=ni*                    *'a* *hpatyo*  
 PFV.IRR[S3] IMPER/throw.AS=DEM.SG<sub>PRO</sub> P courtyard  
 'They're going to throw it at the courtyard.' {Txt}

b. *ru*                            *khä'ni=ä*  
 IPFV.NOM.PRED[S3] person=3SG<sub>PRO</sub>  
 '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*]<sub>SUBJ</sub>  
 already≈IPFV.ST be.nice[S<sub>03</sub>] CLF.SG. POSS<sub>3</sub> house  
 'Her house is very nice.' {Txt}

VO b. *'ne gu*                    *hpehti-k'i=wi*                    [*nt'a*                    *istoria*]<sub>OBJ</sub>  
 and PFV.IRR.S1 tell.DTR-DAT<sub>2</sub>=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 Acapulco 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 h̄pö≈[ra syö]<sub>OBJ</sub> [i*  
 in.the.past NEG≈IPFV[S3] know.AS≈CLF.NMLZ word CLF.PL  
*khá'ni]<sub>SUBJ</sub>*  
 person  
 'In the past, people did not know how to speak.' {Txt} (Lit. '... know word-  
 ing')

- (14) a. *ham≈bi eh=kwa [a nikhö]<sub>OBL</sub> [nterō yū sku*  
 again≈PFV[S3] come.AS=here P church Q:all DEM.PL DIM  
*'mbe<sup>h</sup>tsē]<sub>SUBJ</sub>*  
 kid  
 'All the kids came to church again.' {Txt}

- b. *komo mádi h̄pa [a Mp'onda]<sub>OBL</sub> [a sku dihuntu*  
 because IMPF.HAB[S3] go P M. DEF.SG DIM late  
*mi h̄ta]<sub>SUBJ</sub>*  
 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 mimukha]<sub>SUBJ</sub> ta za [sku ngo]<sub>OBJ</sub>*  
 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 [a Nzümüni]<sub>OBL</sub> bwū tat'i mp'et'o [nt'a*  
 so P T. PFV.VEN>EXLOC[S3] find firstly INDF.SG  
*sku nana]<sub>OBJ</sub>*  
 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]<sub>SUBJ</sub> *má* 'mbwu '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≈gru mula=k'e=a!  
 and then=2[SG]<sub>PRO</sub> also≈IPFV.NOM.PRED.S2 mule=2[SG]<sub>PRO</sub>=CL  
 'And as for you, you are also a mule!' {Txt}

- (18) 'ne ñü=ga giti ndoya=ga  
 and PRTCL=1[SG]<sub>PRO</sub> PFV.IRR.S2 call[O3]=1[SG]<sub>PRO</sub>  
 '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]<sub>PRO</sub> PRTCL=1[SG]<sub>PRO</sub>  
 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 bwu≈tu 'na-k'u=wi?*  
 WHAT PFV.VEN[S3]~INCH give.to.1/2-S<sub>0</sub>2.AS=PL  
 'What were you given?' {Txt}

(21) a. *'abwu ke gú phuntsi?*  
 WHERE COP[S<sub>0</sub>3] PFV.S2 fall  
 'Where is it that you fell?' {Txt}

b. *kha mbwu ke ta zoχ≈a*  
 FOC WHEN COP[S<sub>0</sub>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 instruments.

(22) a. *'a gata <sup>h</sup>tso'tu=ga?*  
 HOW PFV.RR.ADV.S1 arrive.there.AS=1[SG]<sub>PRO</sub>  
 '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<sub>0</sub>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 <sup>h</sup>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*            *ëm-bwu=ga*                            [*te*    *kẹ*            *ra*  
 PFV.IRR.S1 say.AS-DAT3.AS=1[SG]<sub>PRO</sub> WHAT COP[S<sub>03</sub>] IPFV[S<sub>3</sub>]  
*nde=a=na*]  
 want=CL=DEM.SG<sub>PRO</sub>  
 ‘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<sub>PRO</sub>=PL.EXCL WHAT IPFV.ADV[S<sub>3</sub>]  
*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 gugu mba gu 'anu≈mu+nt'a nt'a*  
 PURP PFV.IRR.S1 SS/go PFV.IRR.S1 ask.AS≈other+INDF.SG INDF.SG  
*nana [ra <sup>h</sup>pa=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'u='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 <sup>h</sup>ku a 'i [trúti*  
 but IPFV.ST taste.good[S<sub>o3</sub>] DEF.SG chili HAB.S1  
*kha='mbe \_\_ OBJ]*  
 do=PL.EXCL  
 'But the chili we cook tastes nice.' {Txt}

(26) *bi zox=a a fetxa [tú*  
 PFV[S3] SS/arrive.there.AS=CL DEF.SG date PFV.1  
*thö<sup>h</sup>tú='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≈ke=a ni khani [bi tyü rú*  
 who.AS≈COP[S<sub>o3</sub>]=CL DEM.SG man PFV[S3] SS/die CLF.SG.POSS3  
*phani \_\_ GEN] =a?*  
 horse =3SG<sub>PRO</sub>  
 '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



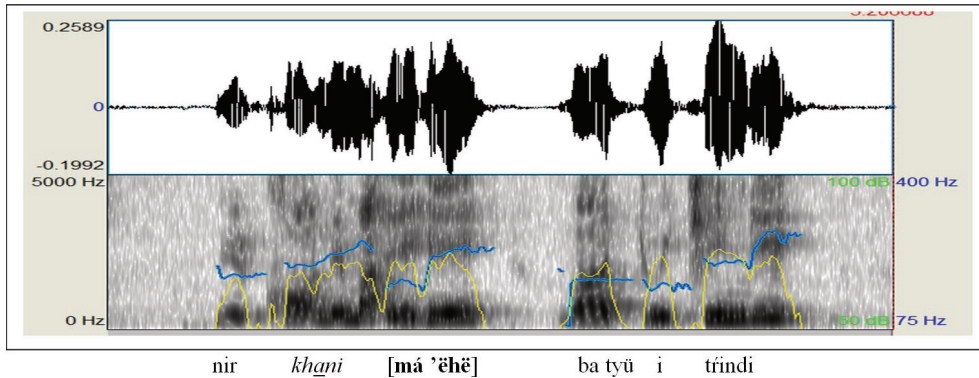


FIGURE 8.1 The prosody of the asyndetic headed RC in (28)

NP containing its head. This is particularly obvious when the NP in question is fronted before the verb, as shown in example (28).<sup>7</sup> 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) *nir khani [má 'ěhě] ba tyü i trindi*  
 DEM=CLF.SG mān IMPF[S3] come PFV.VEN[S3] SS/bring CLF.PL  
*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 *nü*, 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]*.<sup>8</sup> 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 gwu* *h'pehnu=gu='mbe*  
 and PFV.IRR.VEN>EXLOC.S1 send[O3].AS=1[SG]<sub>PRO</sub>.AS=PL.EXCL  
 [*ta* *xo<sup>w</sup>ts'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 tú* *ñü=a* [*pa* *ë='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).<sup>9</sup>

- (32) a. *má* *kha nt'a* *kwentø* [*mádi*  
 IMPF[S3] exist INDF.SG tale IMPF.HAB[S3]  
*mbehti-gi='mbe* *mi* *sku* *h'tö<sup>h</sup>tsu*  
 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* *kwentø* [*mi* *sku* *h'tö<sup>h</sup>tsu*  
 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).

<sup>9</sup> 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  
*yü≈sku*                    *thehwö=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 complementizer 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 strategy.

- (34) *këh=a*                    *rú*                    *kwentø ar*                    *nana* [*a*  
 COP[S<sub>0</sub>3].AS=CL CLF.SG.POSS3 tale CLF.SG woman REL  
*mäs≈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 proximal 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<sub>i</sub>*                    *j-vun-tikotik*                    [*li<sub>i</sub>*  
 go A1-give-1PLE.EXCL see-SBJV DET A1-paper-1PLE.EXCL COMP<sub>DEIX</sub>  
*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 pronoun, 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 Acazolco 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. *tú* *xo=hmö* *a<sub>i</sub>* *ni* *khut'i* [*a<sub>i</sub>* *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. \**tú* *xo=hmö* *a* *ni<sub>i</sub>* *khut'i* [*ni<sub>i</sub>* *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) *tú* *ñü=ga* *a<sub>i</sub>* *kha'ni* [*a<sub>i</sub>* *gú* *h<sub>p</sub>ah-py=a≈r*  
 PFV.S1 see=1[SG]<sub>PRO</sub> 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≈kə=a* *ni<sub>i</sub>* *khani* [*ni<sub>i</sub>* *bi* *tyü*  
 who.AS≈COP[S<sub>0</sub>3]=CL DEM.SG man REL PFV[S3] ss/die  
*rú* *phani* \_\_\_ GEN] =*'a?*  
 PFV.SG.POSS3 horse =3SG<sub>PRO</sub>  
 '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-ku≈r* khwa [*a gri ta<sup>h</sup>ku≈ngo*]  
 [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 *’abwu* ‘WHERE’, in (40b). In the next section, I elaborate on the scope of relativization of this strategy.

- (40) a. *’ne trá ’em-bi i kha’ni [to<sub>SUBJ</sub> má*  
 and IPFV.S1 say.AS-DAT3 CLF.PL man WHO IMPF[S3]  
*xox=a]*  
 lift[O3].AS=CL  
 ‘And I tell the men who lifted it (the wall) up ...’ {Txt}
- b. *ntose ra <sup>h</sup>pe’ts’i ar sku khut’i [’abwu<sub>LOC</sub> ta*  
 then IPFV[S3] have CLF.SG DIM door WHERE PFV.IRR[S3]  
*nyuty≈a tatekhe 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, ASYNDECTIC          | ✓    | ✓   | [✓]   | ✓   | ✓   | ✓    | –   |
|           | GAP, REL (DET)           | ✓    | ✓   | ✓     | ✓   | ✓   | ✓    | –   |
|           | HUM.REL.PRO <i>to</i>    | ✓    | –   | –     | ✓   | ✓   | –    | –   |
| Secondary | LOC.REL.PRO <i>'abwu</i> | –    | –   | –     | –   | –   | –    | ✓   |

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.<sup>10</sup>

- (41) a. *ra mb<sup>wu</sup> yú htsü yi kha'ni [to<sub>SUBJ</sub> bi*  
 IPFV[S3] exist DEM.PL.POSS3 wife DEF.PL man WHO PFV[S3]  
*ñëm-bi yú sku bahtsi]*  
 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. \**ni nana [to<sub>OBJ</sub> tú 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

<sup>10</sup> 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.

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 conjunctive 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<sub>i</sub>*]<sub>SUBJ</sub>      *giti*      *thö<sup>h</sup>t<sub>U</sub>=wi<sub>i+j</sub>*      [*ni*  
and.then PR.TCL=2[SG]<sub>PRO</sub> PFV.IRR.S2 get.married.AS=PL DEM.SG  
*mi*      *t'ixü<sub>j</sub>*]<sub>COM</sub>?  
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<sup>h</sup>ti=wi*      \_\_\_ *COM*] *bi*  
PR.TCL=DEF.SG woman PFV[S3] get.married=PL      PFV[S3]  
*z<sub>uh</sub>=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 t<sub>ú</sub>*      *'wë='mbe*      *ni*      *sku*      *nana*      [*to<sub>COM</sub>*  
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).<sup>11</sup> 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).<sup>12</sup>

(44) a. *ni*      *khá'ni* [*to<sub>GEN</sub>* *bi*      *tyü*      *rú*      *phani*]  
 DEM.SG man    WHO    PFV[S3]    SS/die    CFL.SG.3POSS horse  
 'The man whose horse died.' (Elic.)

b. *ni*      *khá'ni* [*to<sub>GEN</sub>* *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 *trámádi*.

(45) a. *giti*      *'nah-ku≈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*      *hta?*  
 WHO    CLF.SG.POSS3    house    PVF.S2    buy  
 'Whose house did you buy?' (Elic.)

- b. *bi syo'm-bi a<sub>i</sub> rú sku 'angaria*  
 PFV[S3] SS/unload.AS-DAT3 DEF.SG CLF.SG.POSS3 DIM saddlebag  
 [*a<sub>i</sub> ga ntyüxu≈'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 ni<sub>i</sub>=r*  
 and.AS≈1[SG]<sub>PRO</sub> also≈PFV[S3] SS/finish.AS=CL DEM.SG=CLF.SG  
 khwa [*ni<sub>i</sub> 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 broken.'  
 (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 'mbwu nt'a rú<sup>h</sup>tsü [rá*  
 IMPF[S3] live INDF.SG CLF.SG.POSS3 woman IPFV.ST  
*ndö* \_\_\_ *SUBJ*]  
 be.fat[s<sub>o</sub>3]  
 '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 constructions 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 zo='ku=wi*  
 because LOC.FOC PFV.IRR[S3] SS/arrive.there.AS=there=DU  
*[nkhonts'e yí kha'ni \_\_ GEN]SUBJ*  
 not.exist[S<sub>0</sub>3] 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'u=tho [ra*  
 because DIM-little[S<sub>0</sub>3]=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 tu*  
 PRF go.off.food[S<sub>0</sub>3] 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 túdú htsü=a [bi*  
 because PFV.S1 get.scared=CL PFV[S3]  
*mbe<sup>h</sup>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) SOMEBODY’). 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<sub>0</sub>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, [Khöndyō rati yon-qu=tho \_\_\_\_\_ OBJ], todabia*  
 then god IPFV[S3] allow.AS-O1[SG].AS=DEL still  
*trá... trá mbwū*  
 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 *yū* ‘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) *hĩngĩ≈pongi* [a *giti* 'nah-ki \_\_\_ OBJ]SUBJ  
 NEG.AS≈be.a.lot[S<sub>0</sub>3] REL 2.PFV.IRR give.to.1/2-O1[SG]  
 'What you're going to give me is not much.' {Txt}
- (54) *Khöndyö ti sokorre=k'e [na gráti*  
 god PFV.IRR[S3] help.in.need=2[SG]<sub>PRO</sub> REL IPFV.S2  
*hwě-gi* \_\_\_ OBJ]OBJ  
 give.as.present.AS-O1[SG]  
 'May God help you with this that you're giving me!' {Txt}
- (55) *porke ti mp'uh=a[≈yu ... este ... ni ... yu*  
 because PFV.IRR[S3] SS/live.AS=CL≈DEM.PL HES DEM.SG DEM.PL  
*ta khu ra 'di* \_\_\_ SUBJ]SUBJ  
 PFV.IRR[S3] grab CLF.NMLZ run  
*'neh=a[≈yu≈ti ... ti ně* \_\_\_ SUBJ]SUBJ  
 and=CL=DEM.PL≈PFV.IRR[S3] PFV.IRR[S3] dance  
*'neh=a[≈yu ... este ... ti htyühü* \_\_\_ 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 strategy 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 possessor), and the locative *'abwü* '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<sub>SUBJ</sub>* *ti* *hi-'ku=a*]*SUBJ* *trá*  
 and=CL WHO PFV.IRR[S3] bathe-O2[SG].AS=CL IPFV.IRR[S3]  
*phēbi-'ku=a*  
 beat.AS-O2[SG].AS=CL  
 'And [the one] who will bathe you, will be beating you.' {Txt}
- b. *para hín≈da ... syēgi* [*to ... to<sub>OBJ≈ta</sub>*  
 PURP NEG≈PFV.IRR[S3] SS/leave WHO WHO≈PFV.IRR[S3]  
*thandy=a a hingi\_ 'htsa*]*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<sub>GEN</sub>* *bi* *tyü* *rú*  
 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* *ēm-bi* [*te<sub>SUBJ</sub>* *rati* *h'pasa=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≈drúti* *ntiende='mbe* [*te<sub>OBJ</sub>* *ru* *mō*]*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 *'abwu* 'WHERE', as in (58).

- (58) *bi mba di nthoh=a [’abwu<sub>LOC</sub> má*  
 PFV[S3] SS/go PFV.ADLLOC[S3] TS/pass.AS=CL WHERE IMPF[S3]  
*kha i t’axt’aphi nt’a rú 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 *mbwu* ‘WHEN’ (59), or locative clauses introduced by the WH-word ‘WHERE’ (60).

- (59) [*mbwu<sub>TIME</sub> ta ’wö hín=ts’é tigi khu’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<sub>LOC</sub> mí ’ó] kha tú*  
 but right and.AS=CL WHERE IMPF[S3] sleep FOC PFV.S1  
*phuntsu=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 ‘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≈d’rá m-pendy=a [’a<sub>MANN</sub> tátú*  
 NEG≈IPFV.S1 MIDDLE-recall.AS=CL WHERE>HOW PFV.ADV.S1  
*xu=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 nyut'y=a [to ti xu<sup>h</sup>ky=a], a*  
 PFV.IRR[S3] SS/go.in.AS=CL WHO IPFV.IRR[S3] wash.up.AS=CL DEF.SG  
*sku tö-kha'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 ru hony=a [to≈r(u)*  
 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 sku tyü nkhonts'e ra h'pe'ts'i*  
 PRTCL=DEM.PL<sub>PRO</sub> DIM dead no.longer IPFV[S3] have  
*[to≈ta ... to≈ta t'o'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 [abwu gutu 'mbwu] ra 'mbwu i ts'i'pangu*  
 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 *xo*, which here is translated as ‘EVER’. The same particle is also found in Acapulco 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≈xɔ*     *ra*     *nde ta*     *mba=a*]     *ba*  
 WHO≈EVER IPFV[S3] want PFV.IRR[S3] SS/sell[O3]=CL EXHORT  
*ta*     *mba*  
 PFV.IRR[S3] SS/sell[O3]  
 ‘Whoever wants to sell it may sell it.’ {Txt}
- (66) [*te≈xɔ*     *x≈tu*     *hɑ*     *a*     *nana*]  
 WHAT≈EVER already≈PFV.IRR.VEN>EXLOC[S3] find DEF.SG woman  
*tu*     *’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*     [*’abwu≈xɔ*     *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*     *müntsü=hu*     [*te≈xɔ*     *mü*     *sku za*],  
 HAB.S1 gather.AS=PL.INCL WHAT≈EVER kind.of DIM tree  
 [*te≈xɔ*     *mü*     *sku t’o*]  
 WHAT≈EVER kind.of DIM stick  
 ‘We’re gathering any twig, any small stick.’ {Txt}
- b. [*te≈xɔ*     *ngat’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 *pan=* ‘however’ that occurs in the preverbal zone, as illustrated in (69).

- (69) *pan≈gi*     *kha=tho ya*     *yi*     *’kosa*  
 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.  $\tilde{n}\ddot{u}=k'u$  [to ra  $hpe'tsu\approx y\acute{i}$  sku ...  
 PRTCL=DEM.PL<sub>PRO</sub> WHO IPFV[S3] have.AS $\approx$ DEF.PL.POSS3 DIM  
 $y\acute{i}$  sku 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  $\tilde{e}n-gu='mbe$   $\tilde{n}\ddot{u}=k'u$  [to t $\acute{u}$   
 IPFV[S3] say-DAT1=PL.EXCL PRTCL=DEM.PL<sub>PRO</sub> WHO PFV.S1  
 $mi='mbe$ ] ...  
 sit=PL.EXCL  
 ‘Those we sat with told us ...’ {Txt}

- (71) a.  $mbw\ddot{u}$  gi  $\tilde{n}\ddot{u}=wi$   $\tilde{n}\ddot{u}=y\ddot{u}$  [ta thoh= $kwa$   
 then PFV.IRR.S2 see=PL PRTCL=DEM.PL<sub>PRO</sub> PFV.IRR[S3] pass=here  
 $'a$   $m\ddot{u}\tilde{n}\ddot{o}$ ]  
 P above  
 ‘Then you’re going to see those that pass over here.’ {Txt}

- b.  $'uni=wi$   $k'u$   $m\ddot{u}$   $'yo$   $\tilde{n}\ddot{u}=k'u$  [gr $\acute{a}ti$   
 [IMP]give=PL DEM.PL POSS1 $\sigma$  dog PRTCL=DEM.PL<sub>PRO</sub> IPFV.S2  
 $m\ddot{u}ntsi=gwa$   $'a$   $mexa$ ]  
 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  $\tilde{n}\ddot{u}$ , but we also encounter instances of the construction with the quantifier pronoun  $ngat'i$  ‘all/everything’, like in (72).

- (72) *'ne té 'em-bwu='mbe ngat'i* [xpa≈tu  
 and PFV.S1 say.AS-DAT3.AS=PL Q:all<sub>PRO</sub> 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. *ñü=k'u ta zi*  
 PRTCL=DEM.PL<sub>PRO</sub> PFV.IRR[S3] SS/ingest[O3]  
 'They're going to eat it.' {Txt}
- b. *ngat'i trúti kha='mbe*  
 Q:all<sub>PRO</sub> HAB.S1 do[O3]=PL.EXCL  
 'We all do it.' {Txt}
- (74) a. *\*ta zi ñü=k'u*  
 PFV.IRR[S3] SS/ingest[O3] PRTCL=DEM.PL<sub>PRO</sub>  
 Intended reading: *idem* (73a)
- b. *\*trúti kha='mbe ngat'i*  
 HAB.S1 do[O3]=PL.EXCL Q:all<sub>PRO</sub>  
 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).<sup>13</sup>

- (75) a. *mba≈gu* *h<sup>t</sup>yü=h<sub>y</sub>=k'u* [*'a*  
 [IMP]SS/go.PL.INCL.AS≈PFV.IRR.S1 SOW=PL.INCL=there WHERE  
*bi zo'ji a sku dihuntø ni mi*  
 PFV[S3] SS/leave.DTR-DAT1[SG] DEF.SG DIM late DEM.SG POSS  
*h<sup>t</sup>a*  
 father  
 'Let's go over there where my late father left it (a cornfield) to me.' {Txt}

- b. *tú h<sup>t</sup>sot<sub>y</sub>=mbe='kw[≈'a* *ra mbwu ki*  
 PFV.S1 arrive.AS=PL.EXCL=there≈WHERE IPFV[S3] live DEM.PL  
*sku txangø]*  
 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.

*xah-pu='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*            *ʔn-gu='mbe*            *ñü=k'u*            [*to* *tú*  
 IPFV[S3] say-DAT1.AS=PL.EXCL PRTCL=DEM.PL<sub>PRO</sub> WHO PFV.S1  
*mí='mbe]* ...  
 sit=PL.EXCL  
 'Those ones we sat with told us ...' {Txt}

b. \**ra*            *ʔn-gu='mbe=a=k'u*            [*to* *tú*  
 IPFV[S3] say-DAT1.AS=PL.EXCL=CL=DEM.PL<sub>PRO</sub> WHO PFV.S1  
*mí='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*            *ʔn-gu='mbe=a=k'u*  
 IPFV[S3] say-DAT1.AS=PL.EXCL=CL=DEM.PL<sub>PRO</sub>  
 'Those [they] told us.'

b. *ra*            *ʔn-gu='mbe=a=k'u,*            [*to* *tú*  
 IPFV[S3] say-DAT1.AS=PL.EXCL=CL=DEM.PL<sub>PRO</sub> WHO PFV.S1  
*mí='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 sku*  
 PFV[S3] SS/go=DEM.SG<sub>PRO</sub> WHERE exist INDF.SG DIM  
*t'oho]=na*  
 mountain=REP  
 'And they say that this one went where there was a hill.' {Txt}

b. *mba≈gu htyü=hu=k'u [a*  
 [IMP]SS/go.PL.INCL.AS≈PFV.IRR.S1 SOW=PL.INCL=there WHERE  
*bi zo'i-gi a sku dihuntø 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 'abwü '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 [abwü=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 gu mbe='mbe=a [abwü='ku*  
 ah.well PFV.IRR.S1 SS/go.DU=PL.EXCL=CL WHERE=there  
*xø≈ti ts'ix-ku='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 *'abwu* '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 alternatively rendered like (81) with exactly the same meaning.

- (81) *'ne gi*                    *'ühti-ki=k'u*                    [*'abwu 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 construction 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).<sup>14</sup>

- (82) *mbaha gu*                    *<sup>h</sup>pö=hu=k'w=a*                    [*'abwu=k'u*  
 SS/go.PL.INCL PFV.IRR.S1 know.AS=PL.INCL=there=CL WHERE=there  
*hün≈gra*                    *<sup>h</sup>pö=hu*]  
 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 suggests 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 construction, 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 interrogatives.

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

<sup>14</sup> 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. *'abwu kɛ gú phunts'i?*  
 WHERE COP[S<sub>03</sub>] PFV.S2 fall  
 'Where is it that you fell?' {Txt}
- b. *ton~kɛ=a ni khani<sub>i</sub> [bi tyü rú*  
 WHO.AS~COP[S<sub>03</sub>]=CL DEM.SG man PFV[S3] SS/die CLF.SG.POSS3  
*phani]=a<sub>i</sub>?*  
 horse=3SG<sub>PRO</sub>  
 '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) *'abwu<sub>i</sub>=ku<sub>i</sub> a di hñiñü?*  
 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 *'abwu* '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 function 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 *'abwu* '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 hierarchy, 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 *'abwu* 'WHERE' is the only possible way to relativize a locative 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.

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## 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)  $[[(\text{head nominal})_{\text{RC}}]_{\text{R.construction}}]$   
 $[[\text{head nominal}]_{\text{RC}}]_{\text{R.construction}}$

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,<sup>1</sup> 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

<sup>1</sup> 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 tayè? kàtjèmirà wíŋkarí<sup>2</sup>*  
*tas=ma [kapan kapan korta ta-ye?*  
<sub>1PRO=TOP</sub> morning morning woman POSS1-small  
*Ø-ka-tfã-Ø-pi]=ra Ø-wif-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}<sup>3</sup>

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 yè?há tàkìyó úhàrí*  
*kukarska [ye?-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 piáh tàs tʃãʔárisrí tʃãbrí*  
*ketʃa ta-kaʔo [pi-ah tas t tʃa-a-ri=sri]*  
 yesterday POSS1-house place-NMLZ 1<sub>PRO</sub> 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 post-nominal.

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

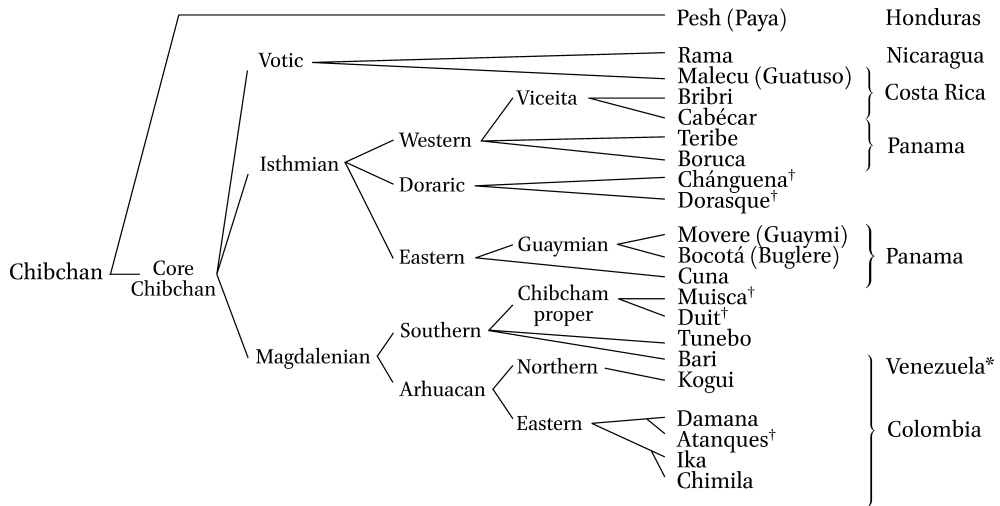


FIGURE 9.1 Chibchan language family  
ADAPTED FROM CONSTENLA UMAÑA 2012

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’.<sup>4</sup> Postpositional

<sup>4</sup> 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 mǔnyà kīʔrǎʰ*  
 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) *wàháǰá nǎáwá, pǎhàkààs péʔpá*  
 LOC V O V  
*waha=yã nǎ-a-wa pǎh 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 *katfara-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) *kris yèkòrtā pōg tʃrǎwǎʔ kǎʃáráhá àtǎnyǎ*  
*kris ye korta pok tʃa-er-ri-wǎ katfara-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).<sup>5</sup> 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 yùimãyh kàhni tɛʃkrí*  
*ke yui mãyh kahni tɛʃ-k-er-i*  
 already moon three four walk-K-S3PL-PST  
 ‘Already three or four months had passed.’ {Txt}

Monotransitive verb

- (10) *kōr<sup>h</sup>tālèrmã: yùkú àtè<sup>ʔ</sup>w àtʃɛ<sup>h</sup>rà*  
*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 tàsìwá wíʃkrí*  
*ta-tus tas ta-suwa Ø-wíʃ-k-er-i*  
 POSS1-father 1<sub>PRO</sub> POSS1-grandmother O3SG-give.O3-K-S3PL-PST  
 ‘My parents entrusted me **to my grandmother**.’ {Txt}

- (12) *tàkàki tàsìwára tàyhí*  
*ta-kaki ta-suwa=ra ta-ãyh-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* Absolutive (=ro, a dialectal variation used in the Carbon dialect)  
 =*yã* Locative  
 =*yo* Comitative/instrumental  
 =*kan* Similitive (=ken, a dialectal variation used in the Carbon dialect)  
 =*ri* Temporal/manner

Case-marking enclitics are phrase final, as in (14).

- (14) *ispàràh àmùktá tènáhyó kàtũfkáwá*  
*isparah amukta tēnah=yo katũf-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) *á ár<sup>h</sup>wóró kìná wifá àkákíyá*  
*ã arwã=ro Ø-ka?-Ø-i=na wifã*  
 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 àpùrùrō tāwārkwá*  
*a-kawa=yo tawe-Ø-hi ã*  
 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) *tó? tāwãwã<sup>h</sup> àyè?kórtà?ró éhkú*  
*to? 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) *siràrà ma juana yá kí?í*  
*sira=ma juana=ya Ø-ka?-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) *áyámà tàsùwáyó àkàtífkàrí*  
*ã=yã=ma ta-suwa=yo*  
 DEM.DIST=LOC=TOP POSS1-grandmother=COM  
*a-katíf-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.” IHRCs constitute a subtype of the non-reduction strategy (Comrie & Kuteva 2005), in which the head nominal is a constituent of the RC (Basilico 1996: 499).

In Pesh, relativization by means of an IHRC is used when the head nominal either has the function of a genitive (possessee) or is a core argument in the RC (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 RC, see Section 9.3.3.) indexes the syntactic role of the head nominal in the matrix clause. This marker is mandatory. In RCs, 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 RCs, which is the reason why it does not belong to the list in (13).

Nominal: Genitive in RC—s in matrix clause

- (20) *kwiʔás yeʔhá pèʔtùs nēímà àkàktyó tàwàrkri*  
 [*kwiʔ as yeʔ-ha pef-tus nã-Ø-i*]=*ma*  
 year one small-NMLZ POSS3PL-father go-S3SG-PST=NOM  
*a-kaki=yo tawar-k-ir-i*  
 POSS3SG-mother=COM stay-K-S3PL-PST  
 ‘The small boys whose father went out one year ago stayed with his (the father’s) mother.’ {Txt}

Nominal: s in RC—genitive (possessee) in matrix clause

- (21) *kèʔfàtàyèʔ pèʔóʔlákàs ìʔnà ʔfiràmà ò:ʔi*  
 [*ketʔa ta-yeʔ pef-oʔlak as ʔ=yã*  
 yesterday POSS1-small POSS3PL-horse one DEM.PROX=LOC  
*ʔfa-ir-wa*]=*ma* *õ:n-Ø-i*  
 be\_there-S3PL-PFV=NOM sleep-DUR-S3SG-PST  
 ‘Yesterday, one horse of my boys who live here died.’ {Txt}

The marker =*ra* is used when the head nominal is an o in the matrix clause, as in (22).

Nominal: A in RC—PO in matrix clause

- (22) *tàsmà kàpàn kàpàn kórtà tayèʔ kàʔfèmirà wíʔkari*  
*tas=ma* [*kapan kapan korta ta-yeʔ*  
 1<sub>PRO</sub>=TOP morning morning woman POSS1-small  
*Ø-ka-ʔfã-Ø-pi*]=*ra* *Ø-wif-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}

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 tú? tʃòk tʃíríyá*  
*tewa awo tib-a-tV-i=ras [tu? tʃok*  
 still rifle fire-S1SG-NEG-PST=RSN 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}

Nominal: so in RC—instrumental in matrix clause

- (24) *tàsmà tàtùs íspàràh tàỹhryó wàrí àmáskárí?*  
*tas=ma [ta-tus isparah ta-ãyh-Ø-ri]=yo wári*  
 1<sub>PRO</sub>=TOP POSS1-father machete O1-give.O1/2-S3SG-PST=INSTR pig  
*a-mas-k-a-ri?*  
 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 áyá tú? tʃòk tʃíríyá*  
*tewa awo tib-a-tV-i=ras [ã=yã tu? 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) *árwá òníh tàkàkì àrkàpáftè?nèrírà kàpròhàwá*  
 [arwã onih ta-kaki  
 man dead POSS1-mother  
*a-r-kapaf-te?-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 ìnsì árwá kàkàkúhímà ùwá nèrí*  
 [pa ìnsi arwã ka-ka-kuh-u-ri]=ma uwã  
 2<sub>PRO</sub> 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 ĩnsi tàsàkàkàhrímà kúkúràpǎ tǐúá*  
 [korta ĩnsi tas a-ka-kuh-a-ri]=*ma* kukura=yǎ  
 woman medicine 1<sub>PRO</sub> O3SG-APPL:R-buy-S1SG-PST=NOM Moradel=LOC  
*tǐa-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 *arwǎ 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 árǎwǎ pók tàkò:nǎfómǎyǎhá tǐkkri*  
 [tas arwǎ pok ta-ka-õ:-n-ir-fi-wa]=*ma*  
 1<sub>PRO</sub> man two O1-APPL:R-sleep-DUR-S3PL-PST.REC-PFV=NOM  
*ǎ=yǎ=hǎ tǐk-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 pikàkúhápéʔkárímà éǎràí*  
 [pa yoʔra pi-ka-kuh-a-peʔ-k-a-ri]=*ma*  
 2<sub>PRO</sub> cassava O2-APPL:R-buy-S1SG-bring-K-S1SG-PST=NOM



*ena=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, Basilio 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 òyá arwãs tayè? kàtfúfímimà wískarí*

*tas=ma [ĩ=yã arwã-s ta-ye?*

<sub>I<sub>PRO</sub></sub>=TOP DEM.PROX=LOC man-INDF POSS1-small

*Ø-ka-tfuiif-Ø-pi]=ma Ø-wif-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 tó?ministro nêhùmà tè?kwá*  
*íkita=ma [to? ministro Ø-yêh-Ø-wa]=ma*  
 now=TOP DEM.MED minister O3SG-say-S3SG-PFV=NOM  
*te?-k-Ø-wa*  
 come-K-S3PL-PFV  
 ‘This minister who commands comes now.’ {Txt}

Nominal: o in RC—S in matrix clause

- (33) *tárwã wákáf pók kàkúhímà kà?yèrí*  
*[ta-arwã waka? pok ka-kuh-Ø-í]=ma*  
 POSS1-man cow two O3PL-buy-S3SG-PST=NOM  
*ka?-ye?-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) *àpìkává èyè?krámã*  
*apìf-k-a-wa [Ø-eyef-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) *ìkìtá árwá éyè̀kwáyó kápà̀fìkwá*  
 [[*ìkìtá arwá Ø-eyè̀f-k-Ø-wa*]<sub>RC</sub>]<sub>R.construction</sub>=*yó kápaf-ìf-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) *ìsparàh tà̀yhúríyó kàtù̀jkáwá*  
 [isparah *ta-ã̀yh-u-ri*]=*yó kàtù̀f-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) *ìkìtá à̀sò wàrà tìkè̀rná kítìhére?*  
 [ìkìtá aso wara *ti-k-er-wa*]=*yã*  
 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 ìnsì tàsàkàkàhrímà kètḡá kíl*  
 [korta ìnsi tas a-ka-kuh-a-ri]=**ma** ketḡa  
 woman medicine 1<sub>PRO</sub> 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 ìnsi tas a-ka-kuh-a-ri]=*ya ketḡa Ø-ka-Ø-i*

Nominal: SO in RC—s in matrix clause

- (39) a. *pà yóṛrà pikàkúhápéṛkárímà épàri*  
 [pa yoṛra pi-ka-kuh-a-peṛ-k-a-ri]=**ma**  
 2<sub>PRO</sub> cassava O2-APPL:R-buy-S1SG-bring-K-S1SG-PST=NOM  
*epa=r-Ø-i*  
 good=COP-S3SG-PST  
 ‘The cassava that I bought and I brought to you was good.’ {Txt}

- b. \* [pa yoṛra pi-ka-kuh-a-peṛ-k-a-ri]=*ra epa=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 tayèṛ kàṭḡēmìrà wíḡkarí*  
*tas=ma [kapan kapan korta ta-yeṛ*  
 1<sub>PRO</sub>=TOP morning morning woman POSS1-small  
*Ø-ka-tḡā-Ø-pi]=ra Ø-wiḡ-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) *kápànùtǎ àpàrfimà àsòwáyǎ káskírí*  
 [kapani utʃa Ø-ǎ-par-fi]=ma aso-ha=yǎ  
 morning fish O3SG-eat-S1PL.INCL-PST.REC=TOP water-NMLZ=LOC  
 Ø-kas-k-ír-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) *kahǎ nǎpírýǎ páʔk kahǎhí*  
 kahǎ [ $\_$  nǎ-pír-pí]=yǎ paʔk kahǎ=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 similitive 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 yè?há tàkìyó úhàrí*  
 kukarska [*ye?-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) *árwǎ kápàǎfǎkáváyó kàkòrstá*  
 arwǎ [\_\_\_ *kapǎf-ǎf-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: Similitive in RC—O in matrix clause

- (45) *ǎǎǎ ñèhúríkán kàárí*  
 ǎǎǎ [\_\_\_ *Ø-yèh-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, similitive). 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: [ǎǎǎ [ \_\_\_ *Ø-yèh-u-ri*]<sub>RC</sub>=kan]<sub>R.construction</sub> (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) *árwǎ kàkòrstá*  
*arwǎ 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) *kàhá tǎʔáryǎmà yèʔí*  
*kahǎ [\_\_ tǎ-a-ri]=yǎ=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 tèʔkúryómà 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) *kàsúrustà sǐrà tásbèrʃyómà tǔʃkí*  
*kasurusta [sǐra \_\_ Ø-tas-ber-ʃi]=yo=ma*  
 knife food O3SG-cut-S1PL.EXCL-PST.REC=INSTR=TOP  
*tǔʃ-k-Ø-i*  
 disappear-K-S3SG-PST  
 'As for the knife with which we cut the food, it disappeared.' {Txt}

Nominal: Similitive 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 similitive 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) *sùésmà àsò wifã úris tʃiríyá nàstírí*  
*sũēs=ma* aso [*wifã 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) *tàũnyó kàpáf-ká-rí? ýó tè?kí*  
 [*ta-aũna=yo* *kapaf-k-a-ri?*] [*ĩ=yo*  
 POSS1-woman’s\_sister=COM speak-K-S1SG-PST DEM.PROX=COM  
*te?-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 àtfáháyǎ tʃírí pàkù áyó káàrí*  
 [prawa=ma atʃaha=yǎ tʃa-ir-i] [pakù 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 peripheral (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 specificity of this role.

## 9.5 Relative Constructions Introduced by a WH-Word

The relative constructions with a WH-word that functions as a relative pronoun 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 direction’ 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 nominalizer *-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 piáh tàs tʃãʔárisrí tʃãbrí*  
*kètʃa ta-kaʔo [pi-ah tas tʃãʔ-a-ri=sri*  
 yesterday POSS1-house place-NMLZ 1<sub>PRO</sub> 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) *tàpàtjà kúʔkàkáyá pikén tʃeʔèrikén 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 tàkàʔóyá tʃaʔárí*  
*tas ta-kaʔo=yã tʃaʔ-a-ri*  
 1<sub>PRO</sub> 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) *piáh n̄erísà*  
*pi-ah nã-er-ri=sa*  
 place-NMLZ go-S3PL-PST=WH  
 'Where did they go?' {Txt}

- (58) *pikán pitùswá nèísà*  
*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 piáh tʃáʔárimá àhíráwá*  
 ta-kaʔo [pi-ah tʃáʔ-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 similitive enclitic =*kan* (see Section 9.2.1 and Chamoreau 2017b: 331–335, Chamoreau 2020a). Compare the use of the similitive 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) *kahã pikán nèikán àhírtáwá*  
 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) árwá òníh tàkàkì àrkàpájtè?nèrírà kàpròhàwá  
 [arwã onih *ta-kaki*  
 man dead POSS1-mother  
*a-r-kapaf-te?-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.

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## 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-Tepohua 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*

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