

Volume 66 · 2013 · Issue 1

STUF

Offprint

Language Typology and Universals

*Sprachtypologie und
Universalienforschung*

Yucatec Maya in typological perspective

Editor: ELISABETH VERHOEVEN

Editor-in-chief: Th. Stolz, Bremen
Executive editor: C. Stroh, Bremen

Editorial Board: W. Bisang, Mainz · W. Croft, Albuquerque · W. U. Dressler, Wien
R. Fabri, Malta · J. A. Flores Farfán, México · L. Gunkel, Mannheim · S. Haberzettl, Bremen
B. Hurch, Graz · M. Koptjevskaja-Tamm, Stockholm · S. Michaelis, Leipzig
M. Mithun, Santa Barbara · C. Moyse-Faurie, Villejuif · D. Nübling, Mainz · I. Putzu, Cagliari
W. Raible, Freiburg · J. Sakel, Bristol · Ch. Schroeder, Potsdam
E. Schultze-Berndt, Manchester · Ch. Stolz, Bremen · E. Verhoeven, Bremen



Akademie Verlag

“STUF” is a forum for scholarly articles in the realm of linguistic typology and universals research. The journal covers original empirical and/or theoretical studies of the structural diversity and/or of the invariants of human language(s). Equally welcome are contributors to submit papers with a leaning towards areal typology and/or diachronic typology.

Please send manuscripts to STUF – Language Typology and Universals, Executive editor C. Stroh, Universität Bremen, Fachbereich 10, Postfach 330440, D-28334 Bremen, e-mail: cornelia.stroh@uni-bremen.de.

Orders should be addressed to:

Oldenbourg Wissenschaftsverlag GmbH, Vertrieb Zeitschriften, Rosenheimer Straße 145, D-81671 München, Phone: +49-89-45 05 12 29, Fax: +49-89-45 05 13 33, E-mail: vertrieb-zs@oldenbourg.de.

STUF – Language Typology and Universals

Editor-in-chief: Prof. Dr. Thomas Stolz, Universität Bremen, Fachbereich 10, Postfach 330440, D-28334 Bremen, Phone: +49-421-2 18 75 65, Fax: +49-421-2 18 42 83, E-mail: stolz@uni-bremen.de.

Publisher: Akademie Verlag GmbH, Markgrafenstr. 12–14, D-10969 Berlin, Phone: +49-30-42200640, Fax: +49-30-42 20 06 57; stuf.akademie-verlag.de.

Managing director: Dr. Christine Autenrieth.

Director: Prof. Dr. Heiko Hartmann.

Advertising office: Christina Gericke, Akademie Verlag GmbH, Phone: +49-30-42200640, Fax: +49-30-42 20 06 57, E-mail: gericke@akademie-verlag.de.

Typesetting: WERKSATZ Schmidt & Schulz GmbH, Gräfenhainichen.

Printed by: Concept Medienhaus GmbH, Berlin.

Subscription information: STUF is published as one volume of four issues per year. Subscription rates for Volume 66 (2013): Institutional (print and online) € 308.00 (postage extra). Single issue € 79.00 (postage extra).

Private (print and online) € 79.80 (postage extra).

Subscription runs for further 12 months, if it is not cancelled at least 8 weeks before the end of the subscription period.

Copyright: It is a general condition that submitted manuscripts have not been published and will not – without written consent by the publishers – be submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproduction, microform or any other reproductions of similar nature, and translations. Photographic reproduction, microform, or any other reproduction of text, figures or tables from this journal is not allowed without permission obtained from the publisher.

Printed on durable paper.

© 2013 Akademie Verlag GmbH, Berlin. Ein Wissenschaftsverlag der Oldenbourg Gruppe.

RODRIGO GUTIÉRREZ-BRAVO (Mexico City)

Free relative clauses in Yucatec Maya*

Abstract

This paper presents an analysis and description of the syntax of free relative clauses in Yucatec Maya, the Mayan language spoken in the Yucatán Peninsula in Mexico. The description and analysis focus on two structural properties of these free relative clauses; a) the internal nature of the relative pronoun, and, b) the absence of matching effects observed in Yucatec free relatives when a prepositional phrase is relativized. I show that these two phenomena receive a unified description in an analysis where Yucatec, in contrast with a language like English, allows the head of the noun phrase to be null.

Keywords: subordination, relative clauses, free relative clauses, relative pronouns, matching effects

1. Introduction

The typology of restrictive relative clauses has been amply studied, but descriptive and typological studies of free relative clauses (FRs) are thus far less common. In this context, this paper provides a description and a structural analysis of free relative clauses in Yucatec Maya, the Mayan language spoken in the Yucatán Peninsula, Mexico. The description and analysis revolve around two structural properties of FRs that have been the source of great debate in the formal literature, namely; a) whether the relative pronoun of FRs is internal or external to the relative clause itself, and b) the presence (or absence) of matching effects, i.e. the requirement that the relative pronoun of the FR simultaneously meet the selection requirements of the verb of the relative clause and those of the matrix verb. I conclude that the Yucatec data relating to these two phenomena receive a straightforward account in an analysis where FRs in Yucatec are taken to be pronominal relative clauses embedded in an NP headed by a null nominal head.

The paper is structured as follows. In section 2, I present a brief description of restrictive relative clauses as an introduction to the FRs to be discussed later in the paper. In section 3, I present a brief description of the different kinds of FRs observed in Yucatec. In section 4, I provide an analysis of the structure of these FRs. In this analysis I conclude that, a) the relative pronoun of FRs is internal to the relative clause, and b) that FRs in Yucatec are in

* I would like to thank IVANO CAPONIGRO, LINE MIKKELSEN, two anonymous reviewers, and the audiences at UC Berkeley and at the *XI Encuentro de Lingüística del Noroeste* (Hermosillo, México) for useful feedback that helped to greatly improve the first version of this paper. I am also very thankful to CÉSAR CAN, SAMUEL CANUL YAH, JOSÉ CIPRIANO DZIB, LÁZARO DZUL, ALFREDO HAU, IRMA POMOL, and DALIA TUZ for their help with the elicited Yucatec data. The research reported in this paper was supported in part by *PROMEP* grant 103-5/10/4906. All remaining errors are my own.

fact introduced by a null nominal head. The data supporting these conclusions is found in two properties observed in Yucatec FRs: pied-piping with inversion and the absence of matching effects in FRs where an oblique is relativized. Section 5 concludes the paper.

2. Preliminary description

2.1. Basic syntactic considerations

Yucatec Maya is a language that displays mostly nominative-accusative syntax, but it has an ergative-absolutive cross-referencing system that is split on the basis of aspect. It is a strictly head-marking language. The verb agrees with the object through a set of pronominal suffixes (glossed ABS in what follows), whereas the transitive subject is cross-referenced by a series of proclitics (glossed ERG in what follows) that may attach prosodically to either the verb or to a number of different preverbal elements, most often auxiliary particles that precede the ergative clitic. The ergative proclitics are also used to cross-reference the possessor of the head of a noun phrase. The basic structure of the clause in Yucatec (in brackets in the example below) thus consists of the main verb, the ergative proclitic cross-referencing the subject, and an auxiliary particle that precedes it. Full argument and adjunct phrases in turn appear to either the right or the left of this basic structure, as in (1).¹

- (1) *U y-ücham_i [yaan u_i taa-s-ø_j] jun p'üt centabo_j*
 ERG.3 EP-husband COMP ERG.3 come-CAUS-ABS.3SG one bit money
 'Her husband must bring a little bit of money.'² [MDG-B: 189]³

For the most part, this basic clause structure is observed in most kinds of clauses in Yucatec, both matrix and subordinate. The one exception that is relevant for the purposes of this paper is the agent focus form of the verb. In many Mayan languages, the canonical form of the verb or the clause is altered when a transitive subject is focused, *wh*-questioned, or relativized (see STIEBELS 2006 for a recent survey). Syntactically, the agent focus form in Yucatec differs from the canonical form in (1) in that; a) no aspectual auxiliary is ever expressed, and; b) the transitive agent can no longer be realized by an ergative clitic and must be realized instead by means of a full lexical phrase or pronoun (BRICKER 1978; see also BOHNEMEYER 2002).

¹ The exact nature of the unmarked word order of Yucatec is an ongoing debate, with some works arguing that the language's unmarked word order is SVO (BRICEÑO CHEL 2002, GUTIÉRREZ-BRAVO & MONFORTE 2008, GUTIÉRREZ-BRAVO & MONFORTE 2010), and other works arguing that the language's unmarked word order is VOS (SKOPETEAS & VERHOEVEN 2005, SKOPETEAS & VERHOEVEN 2009; see also SKOPETEAS & FANSELOW 2010). This debate will not be addressed in this paper. For the sake of illustration, I assume that the language's unmarked word order is SVO, as in (1); this assumption has no effect on the analysis that follows.

² All examples are presented according to the orthographic conventions of the *Academia de la Lengua Maya de Yucatán* and so they do not necessarily reflect their phonetic form accurately. In this orthographical system, symbols have their expected values except for *ch*=[tʃ], *j*=[h], *x*=[ʃ], and '=[ʔ]. Absence of a text or corpus reference indicates an elicited example.

³ The abbreviation MDG-B refers to MONFORTE et al. (2011).

- (2) **Leti'** *kúin-s-ej-ø*.
3.SG die-CAUS-IRR-ABS.3SG
 'He killed him.' [MDG-B:29]

The occurrence of the agent focus form of the verb in Yucatec is quite systematic when a transitive subject is focused. However, this is not the case in *wh*-interrogatives and (especially) in relative clauses, where the agent focus form alternates with the canonical form (BRICKER 1978, VERHOEVEN 2007: 141–142, GUTIÉRREZ-BRAVO & MONFORTE 2009, NORCLIFFE 2009). For ease of exposition, though, whenever transitive subject FRs are illustrated, I present mostly cases where the agent focus form is observed.

2.2. Restrictive relative clauses

Having made a basic description of the clause structure of Yucatec, I now make a brief description of restrictive relative clauses in this language. This description is presented as a background for the discussion of free relative clauses. There are two structural properties that are relevant for the description of restrictive relatives that follows, but which I will just assume here, as these properties have been discussed in earlier work. First, relative clauses in Yucatec are fully clausal in nature and they are structurally embedded as part of a noun phrase (GUTIÉRREZ-BRAVO & MONFORTE 2009). They are not introduced by any complementizer or subordinator and hence they are akin to English contact relatives such as *the book I bought*. Secondly, the head of the relative clause is external to the relative clause itself, as argued in GUTIÉRREZ-BRAVO & MONFORTE (2009), and GUTIÉRREZ-BRAVO (2012).⁴ Further details about the structure of restrictive relatives in Yucatec can be found in these works.

Typologically, languages and the relative clauses they display are standardly classified according to the relativization strategies observed in them. Following the typologies developed in COMRIE (1989), COMRIE (1998), COMRIE & KUTEVA (2005), ANDREWS (2007), and numerous other works, there are four major strategies for constructing restrictive relative clauses, depending on the formal realization of the relativized constituent: (a) the non-reduction strategy, where the relativized element shows no pronominal or phonological reduction; (b) the resumptive pronoun strategy, where the relativized constituent is realized in its base position as a referential/personal pronoun; (c) the relative pronoun strategy, where the relativized element is realized as a non-referential/indefinite pronominal phrase that is preposed to the front of the relative clause, and; (d) the gap (or omission) strategy, where the relativized element has no overt reference whatsoever (i.e. the most extreme form of reduction). Relative clauses in Yucatec display two of these relativization strategies, the gap strategy and the relative pronoun strategy. In section 2.2.1, I provide a brief description of gap relatives. In section 2.2.2 I describe pronominal relatives, which are more closely related to FRs.

⁴ See TONHAUSER (2003a) for an alternative analysis.

2.2.1. Gap relative clauses

Gap relatives in Yucatec are observed for subjects, objects, datives, prepositional phrase adjuncts (where the latter two show “stranded” prepositions) temporal expressions and possessors. Examples of these kinds of gap relatives are presented below. For ease of exposition, from here on relative clauses (either restrictive or free) are enclosed in brackets. The head of the relative is further underlined for clarity and the underscore indicates the canonical position of the relativized constituent. Example (6) is from BOHNEMEYER (2002).⁵

- (3) *Jmeen, jaaj, jun túul jmeen [RC _____ ku*
 priest true one NUMC priest HAB-ERG.3
meen-t-ik-ø waajil kool].
 make-TRNS-IND-ABS.3SG cornfield.ceremony
 ‘He was a priest, it’s true, a priest that made the cornfield ceremony.’
 [MDG-B: 61]
- (4) *Mina’an-ø u chan p’óok [RC k-u p’at-ik-ø _____*
 NEX-ABS.3SG ERG.3 little hat HAB-ERG.3 leave-IND-ABS.3SG
t-u yáanal u k’áan]-o’.
 PREP-ERG.3 under ERG.3 hammock-CL
 ‘His little hat he used to leave under his hammock was not there.’ [MDG-B: 48]
- (5) *Yaan-ø kex óox túul ko’olel*
 EX-ABS.3SG even three NUMC woman
 [RC k-u ts’a-ik-ø ti’_____]-e’.
 HAB-ERG.3 give-IND-ABS.3SG PREP-CL
 ‘They were even three women that he gave it (his money) to.’ [MDG-B: 32]
- (6) *Juan-e’ le máak [RC taak in meyaj yéetel _____]-o’*.
 Juan-TOP DM person DES ERG.1SG work with-CL
 ‘Juan is the person that I want to work with.’
- (7) *Le día [RC ken-o’on k wa’alkun-t-ø _____]-o’...*
 DM day AUX-ABS.1p ERG.1p erect-TRNS-ABS.3SG-CL
 ‘The day on which we erect them (the cross bars).’ [BOHNEMEYER 2002: 258]
- (8) *Ti’ a nal [RC tun jóok’-ol u yi’ij-o’ob _____]-o’*.
 PREP ERG.2 COIN DUR+ERG.3 come.out-IND ERG.3 tip-PL-CL
 ‘To the corn whose tips are just sprouting.’ [MDG-B: 13]

Since all relative clauses are thoroughly sentential in Yucatec, the wide range of syntactic functions that are relativizable in this language confirms the tendency first observed in LEHMANN (1986), where a large number of functions available for relativization correlates with sentential (vs. nominalized) relative clauses. I now briefly describe pronominal restrictive relative clauses, which are more closely related to FRs since they are characterized by the presence of a relative pronoun.

⁵ COMRIE (1998) distinguishes two different kinds of languages that display gap relatives: those like English where the gap involves “extraction” in the sense used in formal grammar, and those like Japanese, where it does not. Determining to which of these two kinds the gap relatives of Yucatec belong is an important issue, but one that is tangential to the problem addressed in this paper.

2.2.2. *Pronominal relative clauses*

Yucatec also has pronominal relative clauses. Following the typological descriptions in COMRIE (1989), COMRIE (1998), COMRIE & KUTEVA (2005), ANDREWS (2007), I take a pronominal relative clause to be a headed, restrictive relative clause where the relativized argument is realized as a pronoun.⁶ Yucatec is typologically unusual in that it displays fully productive use of the relative pronoun strategy for relative clause formation, a strategy seldom found outside European languages (COMRIE 1998, COMRIE & KUTEVA 2005). Yucatec is further typologically unusual in that relative pronouns are for the most part identical to their interrogative counterparts (see MITHUN 2012).⁷ Pronominal relative clauses are observed for subjects, objects, oblique arguments and locations. The general structure of pronominal relatives is illustrated with the dative, oblique adjunct, and location relatives in (9), (10), and (11). In each case, the head of the relative clause is underlined for clarity.⁸

- (9) *Jach raro persona [RC máax tí' k-u si'ib-il].*
 very rare person who PREP HAB-ERG.3 grant+PASS-IND
 'He's unusual, a person to whom (this power) is granted to.' [MDG-B: 62]
- (10) *leti' le x-ch'úupal [RC máax yéetel taak in tsikbal]-o'.*
 3SG DM FEM-girl who with DES ERG.1SG chat-CL
 'That is the girl with whom I want to chat.'
- (11) *Le lu'um [RC tu'ux ken a pak'-ø xan]-o'.*
 DM soil where AUX ERG.2 sow-ABS.3SG also-CL
 'The soil where you're going to sow it too.' [MDG-B: 224]

In Yucatec, however, it is not possible to have a subject or object restrictive pronominal relative in which the head of the relative is overt (GUTIÉRREZ-BRAVO & MONFORTE 2009, GUTIÉRREZ-BRAVO 2012). Simultaneous occurrence of an overt head and a relative pronoun in subject and object pronominal relatives results in robust agrammaticality, as illustrated in (13) and (15).

⁶ It is important to note that, following this definition, the mere presence of a relative pronoun is a necessary but not a sufficient condition for classifying a given relative clause as a pronominal relative. Specifically, free relative clauses do have relative pronouns, but they are not considered to be pronominal relative clauses because: (a) they are not restrictive relatives, and; (b) they lack a referential nominal head (or any referential element external to the relative clause that can function as the head of the relative construction: see CITKO 2004 and GUTIÉRREZ-BRAVO 2012). Hence at no point should it be understood that free relatives are a kind of pronominal restrictive relative clause. Alternatively, following the terminology in LEHMANN (1986), one could use the term "pronominal relative construction" to refer to pronominal restrictive relatives; since LEHMANN's definition of relative construction (i.e. a head plus a relative clause) implies the existence of a head, free relatives do not meet this definition and thus they remain adequately classified in a different category altogether. I am thankful to an anonymous reviewer for bringing this terminological issue to my attention.

⁷ The exception is the manner relative pronoun *je'e(l)bix* 'how', whose interrogative counterpart is simply *bix* 'how'. The relative/interrogative pronouns *máax* 'who, whom' and *ba'ax* 'what, which' are in turn lexically related to *máak* 'person' and *ba'al* 'thing'.

⁸ Example (9) further illustrates an inversion in the order of the preposition and its nominal complement, a process known in the literature as pied-piping with inversion. I return to this phenomenon in section 4.1.

- (12) *T-in* *kax-t-ik-∅* *le* [*ba'ax* *k-u*
 DUR-ERG.1SG look.for-TRNS-IND-ABS.3SG DM what HAB-ERG.3
y-ok-ol *t-in* *kool*]-o'.
 EP-enter-IND PREP-ERG.1SG cornfield-CL
 'I'm looking for the (thing) which goes into my cornfield.'
- (13) **T-in* *kax-t-ik-∅* *le* *kitam* [*ba'ax* *k-u*
 DUR-ERG.1SG look.for-TRNS-IND-ABS.3SG DM boar what HAB-ERG.3
y-ok-ol *t-in* *kool*]-o'.
 EP-enter-IND PREP-ERG.1SG cornfield-CL
 ('I'm looking for the boar which goes into my cornfield.')
- (14) *T-in* *kax-t-ik-∅* *le* [*máax* *ts'-a*
 DUR-ERG.1SG look.for-TRNS-IND-ABS.3 DM who TRM-ERG.2
bi-s-ik-∅]-o'.
 go-CAUS-IND-ABS.3SG-CL
 'I'm looking for the (person) whom you have already taken.'
- (15) **T-in* *kax-t-ik-∅* *le* *ko'olel* [*máax* *ts'-a*
 DUR-ERG.1SG look.for-TRNS-IND-ABS.3SG DM woman who TRM-ERG.2
bi-s-ik-∅]-o'.
 go-CAUS-IND-ABS.3SG-CL
 ('I'm looking for the woman whom you have already taken.')

In spite of the fact that they lack an overt nominal head, the relative clauses in (12) and (14), however, should still be considered restrictive (and not free) relative clauses because; (a) they restrict the referential interpretation of the material outside the relative, and; (b) they are introduced by a referential element external to the relative clause, the demonstrative determiner *le* (see fn. 6).⁹ Having presented this basic description of the typology of restrictive relative clauses in Yucatec, I now turn to free relative clauses. In connection with the brief description just presented, the most important point to keep in mind is that the free relative constructions that I describe in this paper are similar to the pronominal restrictive relatives in (9), (10), (11), (12) and (14) except for the fact that they are not introduced by either an overt nominal head, or by a determiner or any other kind of nominal modifier.

3. Free relative clauses

In this section I provide a preliminary definition of the FRs that will be analyzed later in the paper. The following example is from (RIEMSDIJK 2006: 340), where the FR is presented in italics.

- (16) You should return *what you have finished reading* to the library.

⁹ In contrast, as we shall see in what follows, free relatives do not have a restrictive function and (pretheoretically, at least) they are not introduced by any referential constituent outside the relative clause that could function as the structural head of the relative.

What is characteristic of constructions like (16) is that the head of the relative, which can otherwise be observed in constructions like (9), (10) and (11), is now absent. The resulting relative construction can be thought of as being headless, but here an important terminological issue arises. While it is not unusual for the terms free relative and headless relative to be used interchangeably (see for instance ANDREWS 2007), in what follows I assume that they do not correspond to the exact same phenomenon. Rather I assume that free relatives are a subtype of headless relative, specifically, a headless relative with a relative pronoun. To illustrate this difference, consider the following construction from Yucatec.

- (17) *Yaan-∅* [RC—*k-u* *púut-ik-∅-o'ob* *le fibra*]-*o'*
 EX-ABS.3SG HAB-ERG.3 CARY-IND-ABS.3SG-3PL DM fiber-CL
 'There were those that carried the fiber ...' [MDG-B:101]

Both the English FR in (16) and the Yucatec relative in (17) are “headless” in that they lack an overt nominal head. However, there is an important difference between them. The relative in (16) has a relative pronoun (i.e. it is a “headless” relative with a relative pronoun), whereas the relative in (17) does not (i.e. it is a “headless” gap relative). Yucatec in fact has headless relatives with relative pronouns which are akin to the English headless relative in (16). This is illustrated by (18), which displays the agent focus form first presented in (2).

- (18) *Yaan-∅* [*máax* *k'am-ik-∅*].
 EX-ABS.3SG who receive-IND-ABS.3SG
 'There were those who received it.' [MDG-B:108]

Accordingly, I use the term free relative to refer exclusively to headless relatives with relative pronouns like (16) and (18). In contrast, I use the term headless relative exclusively for gap relatives that lack both an overt head and a relative pronoun.¹⁰ Based on this distinction it is possible to arrive at a typology where some languages have free relatives but not headless relatives (i.e. English), others which have headless relatives but not free relatives (prototypically, when a language has no relative pronouns to begin with), languages that have both free and headless relatives (i.e. Yucatec, and also Spanish) and languages that have neither headless nor free relatives.¹¹ Further developing the details of this typology, however, is beyond the scope of this paper, and so the description and analysis that follows is related exclusively to free relatives as defined above.

3.1. A description of free relatives

FRs are widely observed in Yucatec. Examples are presented below. In (19) a transitive subject is relativized, and so the agent focus form of the verb is observed. Example (20) is an object FR; the FR as a whole in turn functions as the direct object of the matrix verb *il* ‘see’. In (21) an indirect object is relativized, and (22) is an instance where an adjunct PP is relativized. In (23) an FR is presented where a locative expression is relativized.

¹⁰ For a detailed description and analysis of this kind of relative clause in Yucatec, see GUTIÉRREZ-BRAVO (2012).

¹¹ Tok Pisin, in the analysis developed in VOGEL (2001) might turn out to be a language of this kind, although clearly more research is needed to clarify this point.

- (19) *Yaan-ø* [*máax k'am-ik-ø*].
 EX-ABS.3SG who receive-IND-ABS.3SG
 'There were those who received it.' [MDG-B: 108]
- (20) *K-o'on-e'ex il-ik-ø*
 go-ABS.1PL-ABS.2PL see-IND-ABS.3SG
 [*ba'ax kan u beet-ej-ø*].
 what AUX ERG.3 do-IRR-ABS.3SG
 'Let's go see what it (the rain) is going to do.' [MDG-B: 273]
- (21) *T-in kax-t-ik-ø* [*máax ti' k-a láaj*
 DUR-ERG.1SG look.for-TRNS-IND-ABS.3SG who PREP HAB-ERG.2 all
ts'a-ik-ø a taak'in-o'],
 give-IND-ABS.3SG ERG.2 money-CL
 'I'm searching (for) whom you give all your money to.'
- (22) *Chéen* [*máax yéetel k-in t'aan-e'*] *yéetel maestra*.
 only who with HAB-ERG.1SG speak-TOP with teacher
 'The only (person) with whom I used to speak was with the teacher.' [MDG-B: 94]
- (23) *Tak* [*tu'ux jach ma'alob le lu'um-o'*]...
 even where very good DM soil-CL
 'Even where the soil is very good.' [MDG-B: 102]

There are two kinds of constructions related to the free relatives above, but which will not be analyzed in this paper. The first kind corresponds to relative clauses very much like the free relatives described above but which are further introduced by a determiner or a quantifier, as in (24). The second kind corresponds to FRs introduced by the quantifier *je'e(l)* 'any', and which correspond roughly to the FRs in English introduced by *-ever* relative pronouns (*whoever, whatever*, etc.).

- (24) *Le* [*ba'ax k-in tsikbal-t-ik-ø te'ex*]-*a'*.
 DM what HAB-ERG.1SG chat-TRNS-IND-ABS.3SG 2PL-CL
 'This (thing) which I'm telling you about.' [MDG-B: 108]
- (25) [*Je'elba'ax k-a kon-ik-ø-e'*] *yaan in*
 whatever HAB-ERG.2 sell-IND-ABS.3SG-CL COMP ERG.1SG
man-ik-ø.
 buy-IND-ABS.3SG
 'I will buy whatever you sell.'
- (26) *Je' u béeytal a t'aan yéetel* [*je'emáax-ak a*
 ASV ERG.3 be.possible ERG.2 talk with whoever-IRR ERG.2
k'áat-e'].
 want-CL
 'It will be possible for you to talk with whoever you want.' [MDG-B: 178]

Constructions like (24) are not free relatives, but rather correspond to the kind of restrictive relative illustrated in (12) and (14). This kind of relative is analyzed in GUTIÉRREZ-

BRAVO (2012), to which I refer the reader for further details.¹² Constructions like (25) and (26) are more closely related to clefts and can be considerably more complex in their structure, which can be seen in the fact that they sometimes bear irrealis mood inflection, as in (26). Hence they require a more detailed analysis than what can be undertaken here.

4. The structure of free relatives in Yucatec Maya

In this section I argue that two facts point to the conclusion that in Yucatec FRs the relative pronoun is internal to the relative clause. These two facts are inversion with pied-piping and the absence of matching effects. I argue that both phenomena are accounted for by an analysis where FRs in Yucatec are headed by a null nominal head.

4.1. Internal nature of the relative pronoun

In terms of syntactic analysis, a fundamental question that has been addressed in the formal literature on relative clauses is whether the relative pronoun in free relative constructions is internal or external to the relative clause (see RIEMSDIJK 2006 for a recent survey of this theoretical debate). In the formal literature on this topic, the analysis where the relative pronoun is internal to the relative is known as the Comp account (GROOS & RIEMSDIJK 1981; see also RIEMSDIJK 2006 and GRAČANIN-YUKSEK 2008). The free relative of (16) in this account is analyzed as follows:

(27) You should return [_{RC} *what you have finished reading*].

In contrast, the analysis where the relative pronoun is external to the relative clause is known as the head account (BRESNAN & GRIMSHAW 1978; see also CITKO (2002)). This name is due to the fact that in the head account the relative pronoun is taken to be the external nominal head of the relative, thus being structurally equivalent to *book* in a headed restrictive relative like *the book you have finished reading*.¹³ Crucially, in this analysis, the FR is actually a gap relative in which the gap is coreferential with the relative pronoun that is external to the FR.

(28) You should return [_{NP} *what_i* [_{RC} *you have finished reading* _i]].

In other words, in analyses like BRESNAN & GRIMSHAW (1978) and CITKO (2002) (i.e. the head analysis), the fact that relative pronouns are clause-internal in headed pronominal relatives like *the book which you have finished reading* is quite independent of the analysis of the position of the relative pronoun in a free relative like (28). In what follows, I argue that it is the Comp account of (27) that is correct for Yucatec. The crucial evidence is found in a phenomenon common in Yucatec and other Mayan languages known as pied-piping with inversion.

¹² Ultimately, the analysis of constructions like (24) developed in GUTIÉRREZ-BRAVO (2012) is also that these constructions are headed by a null N. Hence their analysis is entirely compatible with the analysis of Yucatec FRs that I develop later in this paper.

¹³ BRESNAN & GRIMSHAW (1978: 338) refer to their own analysis as the base hypothesis, but it is the name head analysis that is most often used to refer to it in the literature that followed their proposal.

In the formal literature, pied-piping refers to the phenomenon in which an interrogative or relative pronoun moves to the left edge of the clause, and where it further “carries along” with it a larger constituent in which the interrogative pronoun is embedded. Hence in the interrogative complement clause in (29), it is not only the interrogative pronoun *whom* that is fronted to the left edge of the embedded clause. Rather, the interrogative pronoun carries along with it the whole PP that it is originally embedded in. Observe that English also has the (more common) option of fronting the interrogative pronoun only, in which case the preposition is stranded in its canonical position,

(29) They asked [[_{PP} to whom] he was referring].

(30) They asked [who he was referring [_{PP} to ___]]. [RADFORD 2004:211]

Pied-piping is observed in Yucatec interrogative and relative clauses, but with a further word order perturbation. Concretely, Yucatec is a head-initial language, and thus it shows prepositions and not postpositions, as in (31). However, when a prepositional phrase is questioned or relativized, the order of the preposition and its nominal complement inverts, as in the interrogatives in (32) and (33). This phenomenon is known in the literature on Mayan and other Mesoamerican languages as pied-piping with inversion (SMITH-STARK 1988, AISSSEN 1996, amongst others).

(31) [_{PP} *Ti'* [_{NP} *le iik-a'*]].
 PREP DM pepper-CL
 ‘For the peppers.’ [MDG-B:13]

(32) [_{PP} *Máax ti'*] *k-u t'a'an-al?*
 who PREP HAB-ERG.3 speak+PASS-IND
 ‘To whom is this (prayer) spoken?’ [MDG-B:279]

(33) [_{PP} *Máax yéetel*] *u páajtal in w-óok'ot-e'?*
 who with ERG.3 be.possible ERG.1S EP-dance-CL
 ‘Who can I dance with?’

Now, pied-piping with inversion is also observed in relative clauses (GUTIÉRREZ-BRAVO 2012) and this includes FRs, as in (34).

(34) *Chéen* [_{FR} [_{PP} *máax yéetel*] *k-in t'aan-e'*] *yéetel maestra.*
 only who with HAB-ERG.1SG speak-TOP with teacher
 ‘The only (person) with whom I used to speak was with the teacher.’ [MDG-B:94]

The inversion of the preposition and the relative pronoun is optional in Yucatec, though (see also TONHAUSER 2003b). Hence, alongside examples displaying inversion such as (35), speakers accept elicited examples where the canonical order preposition+NP is maintained, as in (36).

(35) *Carlos-e' ma' t-u kax-t-ik-ø* [*máax yéetel*
 Carlos-TOP NEG DUR-ERG.3 find-TRNS-IND-ABS.3SG who with
 u y-óok'ot].
 ERG.3 EP-dance
 ‘Carlos can’t find whom to dance with.’

- (36) *Carlos-e' ma' t-u kax-t-ik-ø* [*yéetel máax*
 Carlos-TOP NEG DUR-ERG.3 find-TRNS-IND-ABS.3SG with who
u y-óok'ot].
 ERG.3 EP-dance
 'Carlos can't find whom to dance with.'

It is notable, however, that there are no examples of pied piping without inversion in my corpus. Given the absence of pied piping without inversion in natural corpus data, I assume that pied piping with inversion represents, at the very least, the unmarked option in Yucatec.¹⁴ Now, one of the crucial observations necessary to argue that the relative pronoun in FRs is internal to the FR itself is that pied piping with inversion is an exclusively clause-internal phenomenon (further dependent on fronting, as will also be discussed below). Hence, when a PP is an argument of the matrix verb, and the preposition of this PP takes an FR as its complement, inversion is not possible. This is because the preposition is part of the matrix clause, but the relative pronoun of the FR isn't. This is illustrated by the contrast between (37) and (38).

- (37) *T-in ts'-aj-ø in najil* [PP *ti'* [FR *máax*
 CP-ERG.1SG give-PRF-ABS.3SG ERG.1SG house PREP who
t-u taa-s-aj-ø mas ya'ab taak'in].
 CP-ERG.3 come-CAUS-PRF-ABS.3SG more many money
 'I gave my house to (the person) who brought the most money.'
- (38) **T-in ts'-aj-ø in najil máax ti' t-u*
 CP-ERG.1SG give-PRF-ABS.3SG ERG.1SG house who PREP CP-ERG.3
taa-s-aj-ø mas ya'ab taak'in.
 come-CAUS-ABS.3SG more many money
 (I gave my house to (the person) who brought the most money.)

The examples above should in turn be compared with the pair of examples in (35) and (36). The crucial difference is that in (35) and (36) the prepositional phrase as a whole is internal to the relative clause (i.e. it is an adjunct of the verb *óok'ot* 'dance'), whereas in (37) and (38) the prepositional phrase headed by *ti'* 'to', is the dative argument of the matrix verb *ts'aaj* 'give'.

The main point is that, to the extent that pied-piping with inversion is a clause-internal phenomenon, it indicates that the relative pronoun is internal to the FR. Specifically, example (38) indicates that the order relative/interrogative pronoun + preposition only takes place if both the pronoun and the preposition originate in the same clause. Hence, we can conclude that in (34) and (35), where the order relative/interrogative pronoun + preposition is indeed observed, both the pronoun and the preposition must have originated in the same clause, namely the embedded FR, and in this way we conclude the relative pronoun is internal to the FR.

Another argument in favor of the analysis in which the relative pronoun of FRs is internal to the FR has to do with the fact that Pied-piping with inversion is further dependent on a relative or interrogative pronoun being fronted to the left edge of the clause. This is most

¹⁴ It should be mentioned, though, that (in contrast with Yucatec) the absence of inversion after pied piping is robustly ungrammatical in Tzotzil (AISEN 1996) and Chol (COON 2009), the two other Mayan languages where Pied-piping with inversion has been studied in detail.

clearly observed in matrix pronominal interrogatives such as (32) and (33), where the interrogative pronoun ends up being the leftmost element of the clause. In other words, there are no instances in Yucatec where the inversion order relative/interrogative pronoun + preposition is observed in the canonical, base position of these constituents. Now, recall that in the Head Analysis of FRs there is no movement or displacement of the relative pronoun to begin with: the base position of the relative pronoun is the head of the noun phrase where the relative is embedded and it is simply coreferential with a gap inside the relative, as in (28). Consequently, free relatives displaying pied-piping with inversion, which is only observed when movement/displacement is observed, are evidence against the head analysis of Yucatec FRs. This is because in these cases the fronted relative pronoun must have moved from its base position inside the relative clause, just like the interrogative pronouns of (32) and (33) must have moved from their canonical, base position in the interrogative clause.

Lastly, FRs displaying Pied-piping with inversion provide one further argument against the Head Analysis and in favor of the analysis where the relative pronoun in Yucatec FRs is internal to the FR. Observe that in the Head Analysis in (28) the relative pronoun is the head of the NP and it is followed by a gap relative, not by a pronominal relative. Now observe that in Yucatec gap relatives where a prepositional phrase is relativized, the preposition is left “stranded” as in (5) and (6). But this is not what is observed in examples like (34) and (35) (or even (36)). In these FRs the preposition is not “stranded”, but is instead immediately adjacent to the relative pronoun. This indicates that the constituent that follows the relative pronoun is not a gap relative, as is required in the Head Analysis in (28).

On the basis of these data I conclude that the relative pronoun in Yucatec FRs is internal to the relative clause. As such, the relative pronoun itself cannot be the structural head of the FR. The question now is whether free relatives in Yucatec simply lack a structural head altogether, or whether there is some other element not considered so far that is functioning as the head of the relative. I propose that the latter is actually the case, and that FRs in Yucatec have an external null nominal head. In the following section I provide evidence in favor of this proposal. The central part of the argumentation in favor of this proposal is found in the fact that FRs where an oblique is relativized do not show the matching effects observed in the FRs of other languages such as English.

4.2. *Absence of matching effects*

The second phenomenon observed in FRs which has attracted great attention in the formal literature has to do with presence (or absence) of matching effects in FRs. The term *matching effect* refers to the requirement observed in some languages whereby the relativized element must have the same syntactic category (or morphological case) as the complement of the matrix verb. Consider what this situation is for the English FR in (16), repeated here as (39).

(39) You should return [_{FR} what you have finished reading] to the library.

Return is a verb that takes an NP complement. This is fairly clear when *return* precedes a headed restrictive relative in cases like *you should return the book which you have finished reading*. In (39) the relative pronoun *what* is an NP, by virtue of being the direct object

of the embedded verb *read*. Hence the relative pronoun of the free relatives “matches” the category requirements of both the verb inside the relative and the matrix verb.

Now, a potential conflict arises when the relativized constituent in the FR does **not** correspond to the category that the matrix verb selects as its complement. English does not tolerate this kind of mismatch (BRESNAN & GRIMSHAW 1978, VOGEL 2001), as illustrated in the examples below, adapted from RIEMSDIJK (2006: 343).

(40) *We should interview [_{FR} with whom he goes out].

(41) We should interview the woman [_{RC} with whom he goes out].

The matrix verb *interview* in (40) takes an NP complement, as is apparent in an example like (41) with a full restrictive relative. However, the embedded verb *go out* takes a PP complement, not an NP complement. This complement corresponds to the PP *with whom*, which contains the relative pronoun. As such, there is a mismatch between the requirements of the matrix verb and those of the embedded verb and the resulting construction is ungrammatical. Observe that the matching effects in (40) are syntactic category effects (i.e. NP vs. PP). In languages that further have morphological case, matching effects (or their absence) further extend to the specific case-form of the relative pronoun, that is, NOM vs. ACC vs. DAT, etc. (see VOGEL 2001 and RIEMSDIJK 2006 for surveys of this phenomenon). Since Yucatec does not have any form of morphological case, matching or mismatching effects henceforth refer to syntactic category exclusively.

Now, in contrast with what is observed in English in (40), Yucatec does allow mismatches between the syntactic category of the relativized constituent in the FR and the syntactic category that the matrix verb requires of its complement. This is illustrated in the following examples, where, just as in English (40), the FR is introduced by a PP, but where the matrix verb requires an NP and not a PP complement. Hence there is a mismatch, but in contrast with what is observed in English, the mismatch does not result in ungrammaticality.¹⁵ Observe from examples (35) and (36), repeated here as (43) and (44), that this is independent of whether pied piping with inversion takes place or not.¹⁶

(42) *Táan in kax-t-ik-∅ [FR [PP máax yéetel] in bin*
 DUR.ERG.1SG search-TRNS-IND-ABS.3SG who with ERG.1SG go
ts'oon k'áax].
 shoot+INTRNS jungle
 ‘I’m searching whom to go hunting with in the jungle.’

(43) *Carlos-e’ ma’ t-u kax-t-ik-∅ [FR [PP máax yéetel]*
 Carlos-TOP NEG DUR-ERG.3 find-TRNS-IND-ABS.3SG who with
u y-óok’ot].
 ERG.3 EP-dance
 ‘Carlos can’t find whom to dance with.’

¹⁵ The absence of matching effects in languages that have morphological case is a well-know phenomenon (see for instance VOGEL 2001 and RIEMSDIJK 2006). In contrast, matching-mismatching effects concerning syntactic category, such as those of English and Yucatec, have not received as much attention in the literature.

¹⁶ Yucatec has a single verb for both English ‘search’ and ‘find’, namely *kax*. In all instances this verb takes an NP complement exclusively.

- (44) *Carlos-e' ma' t-u kax-t-ik-ø* [FR [PP *yéetel máax*]
 Carlos-TOP NEG DUR-ERG.3 find-TRNS-IND-ABS.3SG with who
u y-óok'ot.
 ERG.3 EP-dance
 'Carlos can't find whom to dance with.'

Building on the typological observation by LEHMANN (1984, 1986) that the heads of restrictive relative clauses can be null in some languages, my proposal is that both the RC-internal nature of the relative pronoun in Yucatec and the absence of matching effects are simultaneously accounted for if we assume that the head of the noun phrase in Yucatec can be null. This has in fact been argued to be the case for other nominal constructions in Yucatec, including some restrictive relative clauses, in GUTIÉRREZ-BRAVO (2002), GUTIÉRREZ-BRAVO & MONFORTE (2009) and GUTIÉRREZ-BRAVO (2012). The most important observation here is that NPs in Yucatec (irrespective of whether or not they contain a relative of some kind) can show the exact same kind and number of modifiers irrespective of whether or not an overt nominal head for the NP is observed (GUTIÉRREZ-BRAVO 2012), as in (45) and (46). This fact is accounted for by an analysis where the NP in (46) is headed by a null N.

- (45) *Le nojoch nal-o'*.
 DM big corncob-CL
 'The/that big corncob.'
- (46) *Le nojoch-o'*.
 DM big-CL
 'The/that big (one).'

As such, the null N analysis is not specific to free relatives, but applies to different phenomena in the domain of the nominal syntax of Yucatec. Under this analysis, the structure of free relatives in this language would be as in (47) and (48):

- (47) *Yaan-ø* [NP Ø [FR *máax k'am-ik-ø*]].
 EX-ABS.3SG who receive-IND-ABS.3SG
 'There were those who received it.' [MDG-B: 108]
- (48) *K-o'on-e'ex il-ik-ø* [NP Ø [FR *ba'ax kan u beet-ej-ø*]].
 go-ABS.1PL-ABS.2PL see-IND-ABS.3SG what AUX ERG.3 do-IRR-BS.3SG
 'Let's go see what it (the rain) is going to do.' [MDG-B: 273]

It is important to observe that the null head analysis of FR maintains (as desired) an important difference between restrictive pronominal relative clauses (section 2.2.2) and FRs. Specifically, what is characteristic of all FRs in Yucatec is the presence of a null nominal head, whereas the null head requirement in restrictive pronominal relatives is observed only for subject and object relatives (i.e. (12) and (14)), but not for PP or location relatives (i.e. (9), (10) and (11)). Furthermore, subject and object restrictive pronominal relatives, just like all other headed relatives in Yucatec, can be introduced by external modifiers even if they do not have an overt nominal head, as is again illustrated in (12) and (14).

Consider now how the null head analysis of (47) and (48) accounts for the syntactic properties observed in (42–44). Predicates that take NP arguments can equally take FRs as

arguments because, in this analysis, FRs in Yucatec are embedded in an NP with a null head. As such, the selection requirements of the matrix verb are met by the null nominal head, and not by the FR as a whole. When the relativized element in the FR is an NP to begin with, as in (47) and (48), the null nominal head proposal would appear to be adding nothing necessary to the analysis. But when we turn to cases like (42–44), where a PP is relativized, the null nominal head analysis shows its advantages. Specifically, this analysis accounts for the absence of matching effects observed in Yucatec. As illustrated in (49), Yucatec FRs where a PP is relativized are still headed by a null nominal head. It is this nominal head, and not the relativized PP, that satisfies the complement requirements of the matrix verb.¹⁷ Consequently, there is no mismatch like the one observed in English (40). In other words, in Yucatec this category mismatch (i.e. NP vs. PP) in FRs is only apparent, in contrast with other true mismatches reported in the literature.

- (49) *Táan in kax-t-ik-ø* [NP \emptyset [FR [PP *máax yéetel*] in *bin*
 DUR ERG.1SG search-TRNS-IND-ABS.3SG who with ERG.1SG go
ts'oon k'áax]].
 shoot+INTRNS jungle
 'I'm searching whom to go hunting with in the jungle.'

The null N analysis of free relatives is often dismissed on the basis that it derives an incorrect result in English. This can be illustrated with examples (40) and (41), repeated here as (50) and (51). Example (50) is now analyzed as in the null N analysis I have proposed for Yucatec.

- (50) *We should interview [NP \emptyset [FR with whom he goes out]].
 (51) We should interview [NP the woman [RC with whom he goes out]].

Once the FR of (50) is analyzed in this way, then (50) and (51) are structurally identical. But clearly this is an undesirable result, since the latter is a grammatical construction but the former is not. More so, the ungrammaticality of (50) becomes a mystery. Concretely, in an analysis like (50) the selection requirements of both the matrix and the embedded verb are satisfied; the PP *with whom* satisfies the requirements of the verb *go out*, and, more importantly, the null nominal head \emptyset satisfies the requirements of the matrix verb *interview*. It is then concluded (i.e., in RIEMSDIJK 2006) that (50) cannot be a correct analysis of English FRs.

While this argument seems solid for English, there seems to be no reason to extend it to every language. In fact, English and Yucatec seem to be at opposite ends of a continuum: whereas FRs in English are always subject to the matching requirement (VOGEL 2001), FRs in Yucatec superficially appear to be able to freely violate it. In the analysis I propose here, this difference can be reduced to the typological possibility of having a null head for NP (Yucatec) vs. the absence of this possibility (English).

¹⁷ We know that some element in this construction must be meeting the selection requirements of the matrix verb because the transitivity of a verb or verbal stem is always signaled in the verbal morphology of Yucatec (as it is in many other Mayan languages). Specifically, the transitivity of the matrix verb in (42–44) (and hence the presence of a constituent that can function as the direct object that meets the selection requirements of this transitive verb) is independently confirmed by the indicative suffix *-ik*, which is only observed in transitive constructions.

5. Conclusions

In this paper I have provided a description and analysis of free relatives in Yucatec Maya. The description and analysis have focused on two structural aspects of FRs in this language; the internal or external nature of the relative pronoun that introduces FRs, and the absence of matching effects that are observed when a prepositional phrase is relativized in a context where the matrix predicate requires a nominal complement. With respect to the internal/external nature of the relative pronoun, I have concluded that relative pronouns are internal to the free relative (i.e. the Comp account). The relevant evidence comes from the phenomenon known as pied-piping with inversion, which I have argued is a strictly clause-internal phenomenon. With respect to the absence of matching effects, I have proposed that these can be understood as the result of the free relative being in fact headed by a null nominal head. This is in turn consistent with the analysis of relative pronouns in Yucatec free relatives as being clause-internal: the structure that I have proposed for free relatives in this language is that they are embedded in an NP which has a null head. I have concluded by suggesting that the presence of matching effects (English) vs. its absence (Yucatec) can be reduced in this case to the typological possibility of having a null head for NP in Yucatec, vs. the absence of this possibility in English.

Abbreviations

ABS	absolute	HAB	habitual
ASV	assurative	IND	indicative
AUX	auxiliary	INTRNS	intransitive
CAUS	causative	IRR	irrealis
CIT	reportative	NEG	negation
CL	clitic	NEX	negative existential
COMP	compulsive	NUMC	classifier
CP	completive	PASS	passive
DES	desiderative	PL	plural
DM	demonstrative	PREP	preposition
DUR	durative	PRF	perfect
EP	epenthesis	SG	singular
ERG	ergative	TOP	topic
EX	existential	TRM	terminative
FEM	feminine	TRNS	transitive

References

- AISSÉN, JUDITH (1996): Pied-piping, abstract agreement and functional projections in Tzotzil, in: *Natural Language and Linguistic Theory* 14, 447–491.
- ANDREWS, AVERY (2007): Relative clauses, in: SHOPEN, TIMOTHY (ed.) *Language typology and syntactic description, 2nd. Edition*. Cambridge: Cambridge University Press, 206–236.
- BOHNEMEYER, JÜRGEN (2002): *The grammar of time reference in Yucatec Maya*. Munich: Lincom Europa.
- BRESNAN, JOAN & GRIMSHAW, JANE (1978): The syntax of free relatives in English, in: *Linguistic Inquiry* 9, 315–391.
- BRICEÑO CHEL, FIDENCIO (2002): Topicalización, enfoque, énfasis y adelantamiento en el maya yucateco, in: TIESLER BLOS, VERA; COBOS, RAFAEL & GREENE ROBERTSON, MERLE (eds.), *La organización social entre los mayas prehispánicos, coloniales y modernos*. Mexico City/Mérida: INAH-UADY, 374–387.
- BRICKER, VICTORIA (1978): *Wh*-questions, relativization and clefting in Yucatec Maya, in: MARTIN, LAURA (ed.), *Papers in Mayan linguistics*. Columbia, Missouri: Lucas Brothers, 109–139.

- CITKO, BARBARA (2002): (Anti)reconstruction effects in free relatives: a new argument against the comp account, in: *Linguistic Inquiry* 33, 507–511.
- CITKO, BARBARA (2004): On headed, headless, and light-headed relatives, in: *Natural Language and Linguistic Theory* 22, 95–126.
- COMRIE, BERNARD (1989): *Language universals and linguistic typology*. Oxford: The University of Chicago Press.
- COMRIE, BERNARD (1998): Rethinking the typology of relative clauses, in *Language Design* 1, 59–85.
- COMRIE, BERNARD & KUTEVA, TANIA (2005): Relativization strategies, in: HASPELMATH, MARTIN; DRYER, MATTHEW; GIL, DAVID & COMRIE, BERNARD (eds.), *The world atlas of language structures*. Oxford: Oxford University Press, 494–506.
- COON, JESSICA (2009): Interrogative possessors and the problem with pied-piping in Chol, in: *Linguistic Inquiry* 40, 165–175.
- GRAČANIN-YUKSEK, MARTINA (2008): Free relatives in Croatian: an argument for the comp account, in: *Linguistic Inquiry* 39, 275–294.
- GROOS, ANNEKE & RIEMSDIJK, HENK VAN (1981): Matching effects in free relatives: a parameter of core grammar, in: BELLETTI, ADRIANA; BRANDI, LUCIANA & RIZZI, LUIGI (eds.), *Theory of markedness in generative grammar*. Pisa: Scuola Normale Superiore, 171–216.
- GUTIÉRREZ-BRAVO, RODRIGO (2002): Formas verbales incorporadas transitivas en maya yucateco, in: LEVY, PAULETTE (ed.), *Del cora al maya yucateco: Estudios lingüísticos sobre algunas lenguas indígenas mexicanas*. Mexico City: Universidad Nacional Autónoma de México, 131–178.
- GUTIÉRREZ-BRAVO, RODRIGO (2012): Relative clauses in Yucatec Maya: light heads vs. null domain, in: COMRIE, BERNARD & ESTRADA, ZARINA (eds.), *A typological overview of relative clauses in languages of the Americas*. Amsterdam/Philadelphia: John Benjamins, 253–268.
- GUTIÉRREZ-BRAVO, RODRIGO & MONFORTE, JORGE (2008): La alternancia sujeto-inicial/verbo-inicial y la Teoría de Optimidad, in: GUTIÉRREZ-BRAVO, RODRIGO & HERRERA ZENDEJAS, ESTHER (eds.), *Teoría de Optimidad: Estudios de sintaxis y fonología*. Mexico City: El Colegio de México, 61–99.
- GUTIÉRREZ-BRAVO, RODRIGO & MONFORTE, JORGE (2009): Focus, agent focus and relative clauses in Yucatec Maya, in: AVELINO, HERIBERTO; COON, JESSICA & NORCLIFFE, ELISABETH (eds.), *New perspectives in Mayan linguistics*. Cambridge, MA: MIT Working Papers in Linguistics, 83–96.
- GUTIÉRREZ-BRAVO, RODRIGO & MONFORTE, JORGE (2010): On the nature of word order in Yucatec Maya, in: CAMACHO, JOSÉ; GUTIÉRREZ-BRAVO, RODRIGO & SÁNCHEZ, LILIANA (eds.), *Information structure in languages of the Americas*. Berlin: Mouton de Gruyter, 139–170.
- LEHMANN, CHRISTIAN (1984): Progress in general comparative linguistics, in: *Studies in Language* 8, 259–286.
- LEHMANN, CHRISTIAN (1986): On the typology of relative clauses, in: *Linguistics* 24, 663–680.
- MITHUN, MARIANNE (2012): Questionable relatives, in Comrie, Bernard & Estrada, Zarina (eds.), *Relative clauses in languages of the Americas: a typological overview*. Amsterdam/Philadelphia: John Benjamins, 269–300.
- MONFORTE, JORGE; DZUL, LÁZARO & GUTIÉRREZ-BRAVO, RODRIGO (2011): *Narraciones Mayas*. Mexico City: Instituto Nacional de Lenguas Indígenas.
- NORCLIFFE, ELISABETH (2009): Revisiting agent focus in Yucatec, in: AVELINO, HERIBERTO; COON, JESSICA & NORCLIFFE, ELISABETH (eds.), *New perspectives in Mayan linguistics*. Cambridge, MA: MIT Working Papers in Linguistics, 135–156.
- RADFORD, ANDREW (2004): *Minimalist syntax*. Cambridge: Cambridge University Press.
- RIEMSDIJK, HENK VAN (2006): Free relatives, in: EVERAERT, MARTIN & RIEMSDIJK, HENK VAN (eds.), *The Blackwell companion to syntax, vol. II*. Oxford: Blackwell, 338–382.
- SKOPETEAS, STAVROS & VERHOEVEN, ELISABETH (2005): Postverbal argument order in Yucatec Maya, in: *Language Typology and Universals (STUF)* 58, 347–373.
- SKOPETEAS, STAVROS & VERHOEVEN, ELISABETH (2009): The interaction between topicalization and structural constraints: evidence from Yucatec Maya, in: *The Linguistic Review* 26, 239–259.
- SKOPETEAS, STAVROS & FANSELOW, GISBERT (2010): Effects of givenness and constraints on free word order, in: ZIMMERMAN, MALTE & FÉRY, CAROLINE (eds.), *Information structure: theoretical, typological and experimental perspectives*. New York: Oxford University Press.
- SMITH-STARK, THOMAS (1988): ‘Pied piping’ con inversión en preguntas parciales. Ms. El Colegio de México.
- STIEBELS, BARBARA (2006): Agent focus in Mayan languages, in: *Natural Language and Linguistic Theory* 24, 501–570.

- TONHAUSER, JUDITH (2003a): F-constructions in Yucatec Maya, in: ANDERSSON, JAN; MENÉNDEZ-BENITO, PAULA & WERLE, ADAM (eds.), *The proceedings of SULA 2*. Amherst: GLSA, University of Massachusetts, 203–223.
- TONHAUSER, JUDITH (2003b): On the syntax and semantics of content questions in Yucatec Maya, in: CASTILLO, J. (ed.), *Proceedings of the 6th workshop on American Indian languages (WAIL)*. Santa Barbara: Santa Barbara Papers in Linguistics, 106–121.
- VERHOEVEN, ELISABETH (2007): *Experiential constructions in Yucatec Maya*. Amsterdam/Philadelphia: John Benjamins.
- VOGEL, RALF (2001): Towards an optimal typology of the free relative construction, in: GROSU, ALEXANDER (ed.), *IATL8. Papers from the 16th annual conference and from the research workshop of the Israel Science Foundation “The syntax and semantics of relative clause constructions”*. Tel Aviv University: Israel Association For Theoretical Linguistics, 107–119.

RODRIGO GUTIÉRREZ-BRAVO
Centro de Estudios Lingüísticos y Literarios
El Colegio de México
Camino al Ajusco 20
Col. Pedregal de Santa Teresa
México D.F., CP 10740
MEXICO
rogutierrez@colmex.mx