TSELTAL CLAUSE STRUCTURE

by

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ABSTRACT

This dissertation examines the syntax of clausal structure in Tseltal (Mayan) with a particular focus on agreement phenomena. The first domain of investigation is the External Possession Construction, in which the clausal agreement is controlled by a possessor of the internal argument, rather than the internal argument itself. It is argued that clausal φ-agreement can target nominals embedded in other noun phrases if the head of the embedding phrase incorporates into the verbal complex. It is argued that this type of long-distance agreement arises when other potential agreement controllers are evacuated or otherwise made unavailable.

The second kind of long-distance φ-agreement investigated involves non-finite complement clauses. This portion of the thesis examines the relationship between case opacity, agreement, and Person Case Constraint (PCC). It is argued that an ergative language like Tseltal exhibits object-to-subject raising, the counterpart to subject-to-subject raising in languages like English. The distribution of non-third person objects in non-finite clauses is explained as a consequence of interactions between long-distance agreement and case opacity. It is argued that case opacity is subject to parametric variation, and that this variation predicts some of the ergative splits attested cross-linguistically.

The final portion of this thesis considers the nature of ellipsis and polar answers in Tseltal. It is argued that in Tseltal only focus constructions can trigger ellipsis. In focus clauses, an XP constituent or a head in the extended VP is attracted to the left periphery of the clause. It is argued that the movement to focus position is mediated by agreement relations, although in contrast to the preceding chapters, the agreement relations considered here are not long-distance, and in some cases are very local. The case of maximally local agreement is argued to differentiate between the realization of narrow focus and broad focus in Tseltal.

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Acknowledgements

Abbreviations

ABS1,ABS2,ABS3	Absolutive 1st, 2nd, and 3rd person
ACC	Accusative
ADM	Adnominal
AGR	Agreement
APPL	Applicative
ASP	Aspect
CAUS	Causative
CL	Clitic
COMP	Complementizer
DAT	Dative
DET	Determiner
DIM	Diminutive
DIST	Distal
DUB	Dubitative
EPN	Epenthetic
ERG1,ERG2,ERG3	Ergative 1st, 2nd, and 3rd person
EXCL	(1st person) exclusive
EXIST	Existential
FEM	Feminine
FOC	Focus
IMP	Imperative
IMPF	Imperfective
INCH	Inchoative
INCL	(1st person) inclusive
INT	Intensifier
IRR	Irrealis
NC	Numeral classifier
NEG	Negation
NF	Non-finite
NOM	Nominalizer
OBJ1, OBJ2, OBJ3	1st, 2nd, and 3rd person object agreement
PASS	Passive
PCHG	Possession-type change suffix
PERF	Perfective
PFV	Perfective
PL	Plural
POSS1, POSS2, POSS3	1st, 2nd, and 3rd person possessive
PREP	Preposition
PROG	Progressive
Q	Question marker
RED	Reduplication
RN	Relational noun
V	Verbalizer

Chapter One
Introduction

1.1 What this thesis is about

This dissertation is an exploration of the clausal structure of Tseltal, a Mayan language of southern Mexico. The data comprising the object of study for this thesis is from the Petalcingo variant of Tseltal, as spoken in the village of Petalcingo, *municipio* Tila, state of Chiapas, Mexico. This work focuses on agreement phenomena, and in particular on the consequences of long-distance, and short-distance agreement on argument realization and surface structure.

1.2 Overview of the dissertation

Chapter 2 serves as a brief introduction to the Tseltal language. This chapter also explores several topics in Tseltal grammar relevant to this thesis, namely agreement, argument structure, ditransitive clauses, and reflexive constructions. Readers more interested in the formal analysis may wish to skip chapter 2, referring to it only as necessary, and begin with chapter 3 instead.

In the third chapter I consider the syntax of Tseltal EXTERNAL POSSESSION CONSTRUCTIONS (EPC, also "possessor raising," "external possessor," "possessor datives"), a syntactic configuration where a possessor of an argument receives the clausal marking normally reserved for arguments. Tseltal EPC constructions obligatorily involve an applicative head, which in other constructions introduces recipient or benefactive arguments. In EPC configurations, the absolutive agreement reflects the φ-features of the possessor of the direct object instead of its head noun, the direct object. In contrast to the more well-known German possessor datives, in Tseltal EPC constructions the possessor need not be interpreted as affected.

Similar constructions in other languages have received a movement analysis (Aissen 1987, Landau 1999, Ravinski 2007, Levin 2010, Deal 2011). In Tseltal such an analysis is untenable, I argue. On the empirical side, as observed in Aissen (1987) for Tzotzil, word order evidence suggests that the possessor does not actually leave the DP where it is generated. In particular, Aissen shows that when the possessed DP is topicalized in

external possession constructions, the possessor is moved along with the rest of the DP, suggesting that in EPCs the possessor does not move out of the DP where it is merged. Similarly in possessor extraction outside of EPC constructions[1], the entire head noun is pied-piped along with the possessor wh-word. If the possessor undergoes raising out of the DO DP in EPC configurations, there would be no reason to expect the head noun DP to pied-pipe in EPC possessor wh-movement. However, in Tseltal EPC extraction, the possessum obligatorily moves along with the head noun. Additional evidence against possessor movement in EPC constructions comes from object control, secondary predicate interpretation, and number agreement.

I propose an analysis of Tseltal EPC that extends ideas in Baker (1988; 1996). Specifically, I argue that EPC constructions in Tseltal occur when the numeration includes a type of applicative head ($Appl^0$) that doesn't assign a theta role to its specifier. This head is merged low, taking the direct object DP as its complement (cf. Marantz 1993; Pylkkänen 2002) and has an EPP feature, requiring a filled specifier, like the other applicatives in the language. I assume a version of the HEAD MOVEMENT GENERALIZATION (Pesetsky&Torrego 2001) which prohibits XP-movement from complement of a head H to the specifier of the same head. Instead, in such configurations, the head X^0 undergoes head movement to adjoin to H. In our case, the D^0 head of the direct object DP adjoins to $Appl^0$. The $Appl^0$+D^0 complex is itself subject to further head adjunction. This complex head must head-adjoin at least as high as v^0, as evidenced by the fact that the verb, the applicative, and the voice morphology form a single phonological word in this language. Under the assumption that D^0 is the head of the DP (Abney 1987; Longobardi 1994) and it is DPs rather than NPs that require case-licensing and control agreement, the head movement of D^0 makes the direct object DP ineligible for agreement. At the same time, the head movement extends the phase projected by the moved head (den Dikken 2007). This makes the possessor visible for Agree from outside the DO DP and causes the agreement to target possessor *in situ*.

The fourth chapter examines the nature of non-finite complementation in Tseltal. I demonstrate that while some non-finite complements can take a full range of argument DPs, others restrict the internal argument of the embedded verb to being third person. I locate the difference between the two constructions in the properties of the embedding verbs.

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[1] Modulo specificity effects as discussed in chapter 3.

I claim that the restriction of the object to third person is an instance of the PERSON CASE CONSTRAINT (PCC) first explored in detail in Bonet (1991). My account of the PCC restriction in Tseltal non-finite complements is formulated in terms of inherent ergative case (Woolford 1997, Legate 2008, Aldridge 2007, Anand and Nevins 2006, among others) and multiple agree (Hiraiwa 2005, Anagnostopoulou 2003, Anagnostopoulou 2005, Béjar and Rezac 2003). I show that the presence of PCC effects with aspectual verbs and the absence of this restriction with transitive embedding verbs is precisely predicted by these two theories. I then extend my account of PCC in Tseltal to show that some nominal ergative splits can be accounted for using the same framework.

In the fifth and final chapter of this thesis, I explore the syntax of ellipsis and polar answers in Tseltal. Tseltal is a "verbal answer" language lacking a positive polarity particle. Positive polar responses are formed by repeating a portion of the questioned clause, as in Irish, Finnish, and other languages. I argue that polar responses in Tseltal involve either the pronunciation of the contents of the focus phrase or, alternatively, repetition of the full question clause. The two options for polar responses follow from an analysis of Tseltal where focus phrase is the only licenser of ellipsis in this language. The fact that there is only a single ellipsis site in Tseltal clauses may be obscured by pronominalization and pro-drop. The ellipsis proposal leads to a straightforward analysis of an otherwise puzzling fact about this language: while contrastive polarity VP-ellipsis is possible, non-contrastive VP-ellipsis is not licit in Tseltal. The restricted nature of ellipsis in Tseltal (in contrast to other languages) follows from the proposal that only focus can license ellipsis in this language, and the fact that Tseltal has a dedicated focus position, which is generally filled by overt movement.

1.3 Methodology and sources of data

The findings presented here are based on the Petalcingo variant of Tseltal, spoken in the *ejido* of Petalcingo, *municipio* Tila, Chiapas, Mexico (see chapter 2 for more information). The original data in this thesis come from a variety of sources: recorded and transcribed ritual as well as casual and spontaneous speech, informal conversations about language forms and their use, elicitation sessions, as well as telephone conversations, e-mails, and web surveys. In elicitation contexts,[2] many of the examples were elicited using context-based translation tasks: the consultant was presented with a context in Spanish, and then asked to translate the target sentence from Spanish into Tseltal. An example of this type of task is given in (1).

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[2] See Matthewson (2004) on the validity of direct elicitation as a tool for linguistic investigation.

(1)   INVESTIGATOR: Sí por ejemplo quiero venir a Tila a cozar animales. Me quieres decir que no seria tan divertido, porque solo hay conejos en Tila. Como se dice, en este caso, 'solo hay conejos en Tila'

(If, for example, I want to go come to Tila to hunt animals. You want to tell me that maybe it wouldn't be that much fun because there are only rabbits in Tila. How do you say, in this case, 'there are only rabbits in Tila'?)

CONSULTANT: ja'nax t'uletik ayik ta Tila

The other kind of elicitation task employed in collecting the data for this thesis was asking the consultant to judge the appropriateness of an utterance with respect to a context. In this case, while the context was presented in Spanish, the target sentence was presented in Tseltal. An example of this task is given in (2).

(2)   INVESTIGATOR: Por ejemplo, empezamos a comer en la cosina. Siento que el frijol es muy salado. Se puede decir *k'ax chi' me chenek'* en este caso?

(For example, we begin to eat in the kitchen. I sense that the beans are very salty. Can I say *k'ax chi' me chenek'* in this case?)

CONSULTANT: Si. (Yes)

The type of example shown in (2) was employed in order to probe whether a particular construction is grammatical, as well as to investigate the semantics of a number of phenomena, i.e., to establish more precisely the range of meanings of a particular structure.

The examples collected via elicitation are not marked in the text. Where possible, the grammatical examples are textual, in which case they are annotated with an abbreviation identifying the recording. Examples from other scholarly work are identified in the paragraph preceding the example.

Chapter Two
About Tseltal

2.1 Mayan and Tseltal

Tseltal is one of the 29 extant Mayan languages (Campbell & Kaufman 1985). Today, Mayan languages are spoken primarily in southern Mexico, and Guatemala. Tseltal belongs to the Greater Tseltalan branch of the Mayan family. This branch consists of the three Cholan languages (Chortí, Chontal, and Chol) and two Tseltalan languages: Tzotzil and Tseltal (Robertson 1977, Campbell & Kaufman 1985); cf. (1) on page 20 for the Mayan languages family tree.

Typologically, a number of common features can be identified in most languages of the Mayan family. These shared traits include verb-initiality, ergativity, positional stems, numeral classifiers, lack of tense marking, ejective consonants, and agent focus construction.

The Mexican census authority, INEGI, reports that as of 2010, Tseltal is spoken by around 474 thousand speakers in Mexico, 98% of whom live in Chiapas (INEGI 2012). The percentage of monolingual individuals among the Tseltal speakers is somewhat difficult to establish: INEGI data suggests that the percentage of monolinguals increased from 36.6% to 41.3% between the years 1990 and 2000 (INEGI 2009) while the 2010 census shows 27% of Tseltal speakers to be monolingual (INEGI 2012).

Tseltal is far from being a homogenous language. While traditionally, phonological and lexical criteria have been employed in establishing the number and the extent of Tseltal dialects, significant syntactic and semantic differences also exist between the languages spoken in different Tseltal-speaking communities: Polian, for example, notes a number of such differences in his 2012 study of non-finite constructions. Kaufman (1972) recognizes three dialect groups in Tseltal language: Northern (which includes Petalcingo, Yajalon, Chilon, and Bachajón, among others), Central, and Southern, where the last of these includes one of the better-studied variants spoken in Tenejapa as well as Oxchuc.

Campbell (1987) proposes to revise Kaufman's (1972) classification, in part, in order to accommodate a newly discovered variant of Tseltal, native to far southeast Mexico and extending as far as Guatemala. Campbell's (1987) classification includes five dialects, with Petalcingo, Yajalon, Chilon, and Bachajón comprising the Northern dialect. Under this classification, Tenejapa and Oxchuk fall into two different dialects, based on the realization of the proto-Tseltal /*hC/ consonant cluster.

(1)
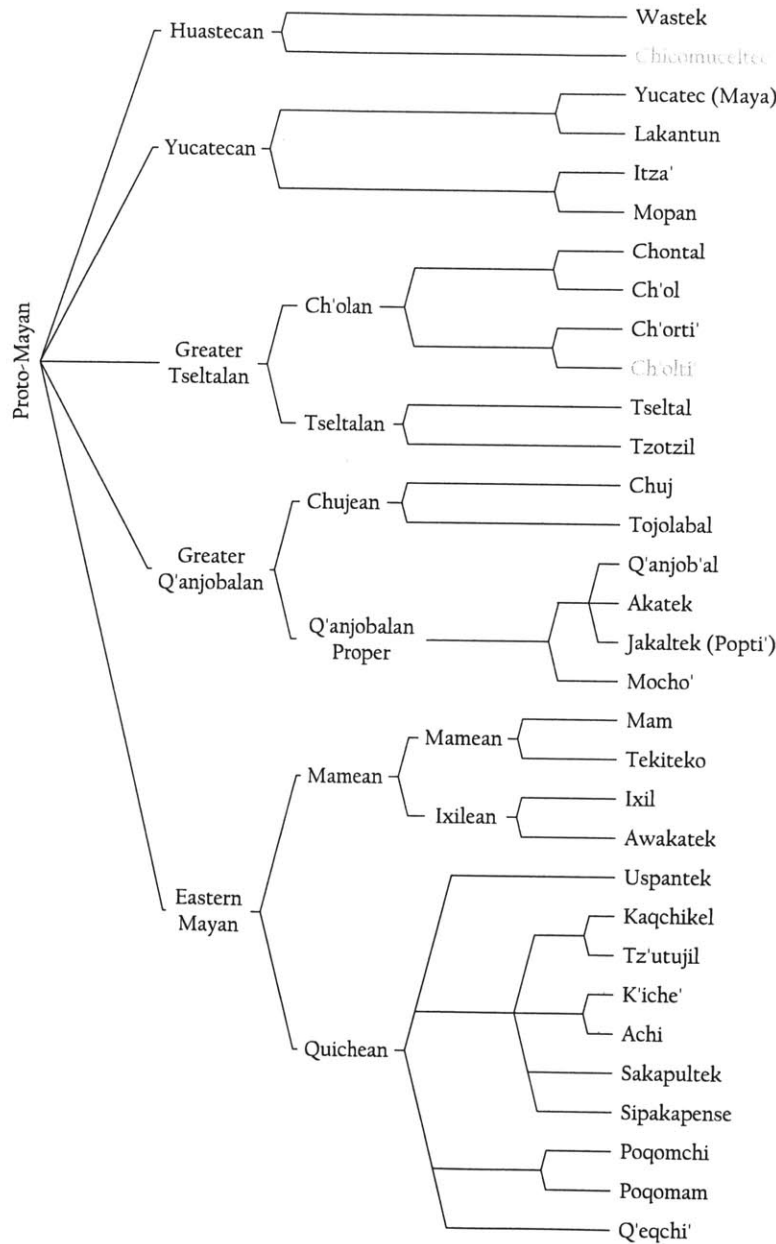
Mayan Family Tree, after Campbell & Kaufman (1985)

2.2 Language name

I use "Tseltal" (with "s" as the second letter) in referring to the language of study in this thesis. In earlier scholarship, the traditional language designation was "Tzeltal" (with a "z"): this reflects orthographic conventions both prevalent and officially accepted in Guatemala (Academia de las lenguas mayas 1988). Official government organizations in Mexico continue to employ "Tzeltal" as the language denomination. Native speakers, on the other hand, tend to use "Tseltal" as the name for this language, as the alveolar affricate in Mexican Mayan tradition is written as "ts" in contrast to Guatemalan orthography. Existing Mexican standardization projects also employ "ts" as the orthographic form (Cruz Gómez 2009; 2011). Therefore I will employ "Tseltal" as the language name.

My consultants are unable to give a translation to the word *tseltal* in their language, and as far as I know, this language designation is meaningless in Tseltal itself. One possibility (Marceal Méndez Pérez, p.c.) is that it comes from Tseltal *ts'ehel tal* ('to come sideways'), but this might be a case of folk etymology. The speakers use *bats'il k'op* ('dear word'), *toj k'op* ('right word(s),' 'correct speech') or just *k'op* ('word') when pressed for a native word for the language. In common usage, the language is simply referred to as 'Tseltal,' as are the people speakers of this language, as in (2).

(2) a. chap   a-k'op-ik   i   jo'oryotik tseltal-otik   [Errand:102]
         different ERG2-speak-PL and we.EXCL   Tseltal-1PL.EXCL
         li   ta   Petalcingo chap   j-k'op-ryotik   ejuk-a
         here PREP Petalcingo different ERG1-speak-1PL also-???
         'You guys speak differently, and we, the Tseltales of Petalcingo also talk different.'

     b. ma-x   k-il,   ta   tseltal-wan,   [N02:3043]
         NEG-IMPF ERG1-see, PREP Tseltal-DUB,
         ta   tseltal   a   och ta   k'op
         PREP Tseltal-DUB ASP begin PREP talk
         'I don't know, it was in Tseltal maybe, in Tseltal that he began to talk.'

In the community I was working with, a town named *Petalcingo*, the speakers of Tseltal often refer to themselves as *campesinos*, literally 'peasants.'

2.3 Petalcingo

The variant of Tseltal investigated in this thesis is spoken in the village of Petalcingo, municipio Tila, state of Chiapas, Mexico. According to the INEGI 1990 census, the population of Petalcingo was estimated at around five thousand inhabitants. A large portion of the population is engaged in farming, both for subsistence and for sale. Corn and beans are the chief subsistence crops, though a large number of banana species are also grown in the mountains surrounding Petalcingo. The major regional cash crop is coffee.

Petalcingo is located at the very north of the Tseltal-speaking region. The villages and towns to the north, east, and west are Chol-speaking communities: it is only to the south that other Tseltal-speaking communities are located. The administrative unit, or *municipio*, to which the community belongs, extends northward of Petalcingo; consequently, the predominant native language in the *municipio* is Chol.

Residents of Petalcingo refer to their community either as *Petalcingo* or *klumaltik* (our village, our lands), though a colloquial toponym *k'ajol* or *k'ajoj* is also used (López Gómez & Sántiz Gómez 2004), which means either 'rotten (stupid) head' or 'harvest.' López Gómez & Sántiz Gómez (2004) suggest that the first moniker (*k'ajol*, 'rotten head') might have come about as a result of an epidemic of smallpox in Petalcingo, a disease which affected the skin of the scalp for many of the sick. The less prosodic *k'ajoj* ('harvest') probably reflects the fact that in Petalcingo, as in most other Mayan communities, corn is the main subsistence crop. For the official toponym *Petalcingo*, López Gómez & Sántiz Gómez (2004) suggest several possible origins, including the names *Pedro* or *Petrona*, as well as a possibility of the name *Petalcingo* having a Nahuatl origin, noting the existence of a township named Petlalcingo in the state of Puebla.[1]

We can perhaps associate the conservative features in Petalcingo Tseltal with the community's supposed origin and its innovative properties with its geographical location. Oral tradition suggests that the founders of Petalcingo came from Bachajón, a large Tseltal-speaking town/*municipio* to the south of Petalcingo (López Gómez & Sántiz Gómez 2004). Bachajón is one of the most conservative dialects of Tseltal: for instance, the velar versus glottal fricative contrast is maintained in Bachajón Tseltal in contrast to

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[1] According to Tuggy (2008), many place names outside of Nahuatl-speaking areas were given Nahuatl names due to Nahuatl's status as the *lingua franca* of Mesoamerica and in part owing to the conquistadors employing primarily Nahuatl interpreters. In Nahuatl, the *-cingo* suffix can be decomposed into *-tzin* (honorific) and *-co* (locative).

the other Tseltal dialects, where it has been lost (Kaufman 1972). This contrast is also maintained to some degree in Petalcingo as well (though its functional load is reduced in comparison with the Bachajón dialect), and minimal pairs illustrating that this opposition is maintained exist.

At the same time, the fact that Petalcingo is located on the frontier of the Tseltal-speaking zone means that Petalcingo Tseltal was in contact with Chol since the founding of the community. This probably explains the fact that the phonological distribution of allomorphs of first-person ergative marker in Petalcingo Tseltal differs from all other Tseltal dialects, including Bachajón.

The preceding general observations apply to all speakers of Petalcingo Tseltal I know; however, there is also significant inter-speaker variation in Petalcingo as well. The existence of inter- and intra-community linguistic diversity is plausibly related to the broad lack of Tseltal broadcast, print media, and education.

Tseltal, in Petalcingo and elsewhere, like many other Mayan languages, is under pressure from the dominant language: the official language of the country is Spanish. All of the television channels accessible in Petalcingo broadcast exclusively in Spanish. There is one local amateur radio station in Petalcingo with some Tseltal programming; however, its reach is quite limited. In many cases, Spanish is used in regular daily transactions such as buying and selling food and supplies. All education is conducted in Spanish; indeed, the nature of teacher rotation practically ensures that schooling in the vernacular is impossible. This state of affairs can be illustrated by the following fact: there is indeed one "bilingual school" (escuela bilingüa) in Petalcingo. There, in addition to Spanish-language instruction, the pupils learn English as well.

In addition to the mass media and the education system, many families' homes are also turning to Spanish. Some of the older parents consciously try to speak Spanish at home, wanting to ensure that their children have a good command of Spanish, knowing that Spanish is the language of economic advancement and opportunity. At the same time, the younger speakers who are starting to have children of their own are increasingly more comfortable with speaking Spanish instead of Tseltal.

As a result of prolonged language contact, as well as increasing pressure in the educational and economic spheres, Tseltal has a large number of borrowings from Spanish, both lexical and grammatical. Some lexemes, such as alaxax 'orange,' from Spanish najanja) have evidently entered Tseltal lexicon some time ago, others like komputadora are relatively new. As other Mayan languages, Tseltal is experiencing attrition in a number of linguistic categories; where it is especially evident is with

numerals and numeral classifiers. Few people are able to count above ten using Tseltal numerals. With respect to numeral classifiers, while for the previous generation of speakers these numbered in thousands (Berlin 1968), for many younger speakers today the active classifier vocabulary has been reduced to a hundred or fewer items.

I mentioned above that local Tseltal speakers refer to themselves as *campesinos*. Rather than being an employment designation, this term was used to refer to people who consider themselves to be native to the village, are speakers of indigenous languages, and whose families have traditionally been subsistence farmers. For example, a young man who lives in a big city, has obtained his master's degree, and works in a research institution can nonetheless call himself *campecino* in Petalcingo if his father lives in the village and farms. Many persons of indigenous descent disprefer the term *persona indijena* in Spanish as a kind of pejorative expression. The term *campecino* is in opposition with Tseltal *kaxlan* (Spanish *ladino*), or a non-indigenous person. Generally, this group is taken to consist of non-farmers: store owners and various other types of businessmen or entrepreneurs. In Petalcingo, the *campesinos* and the *ladinos* traditionally have not been seeing eye to eye on many issues, and the tensions between the two groups have frequently turned into violence. These conflicts seemed to have earned Petalcingo a certain reputation in the surrounding communities: Petalcingo was nicknamed *Piedral-cingo* (Stone-cingo), a reference to the rock-throwing clashes in this town. In most of the present day political disputes, the fault lines are still between the *ladinos* and the *campesinos*, and while overt violence has been on the decline in the past decade (one exception being summer 2012), there are times when the villagers block the roads leading to Petalcingo or surround the office of *commisario ejidal* as a form of political protest.

2.4 Orthography and select phonological rules

Tseltal has a basic five vowel system with [i], [e], [a], [o], and [u] being the phonemic vowels in the language. Voiceless labial, alveolar, and velar plosives ([p], [t], and [k]) have ejective counterparts ([p'], [t'], and [k']), but not voiced correspondents. One exception to this is the phonemic voiced [b], which does contrast with voiceless bilabial stop. The two affricates [tʃ] and [ts] similarly phonemically contrast with ejective affricates [tʃ'] and [ts'], while the voiced affricates are not a part of the phonemic inventory of the language. Besides the labial and alveolar nasal phonemes ([m] and [n]) and alveolar and velar approximants ([l] and [y]), the language also has four phonemically contrastive fricatives: alveolar [s], post-alveolar [ʃ], velar [x], and glottal

[h], though the functional load carried by the opposition between [x] and [h] is minimal.[2] A glottal stop [ʔ] rounds out the phonemic inventory of Petalcingo Tseltal.

In this thesis, a practical Spanish-based orthography is employed where 'x' represents the post-alveolar fricative (IPA ʃ), 'j' is the velar fricative (IPA x), 'y' stands for the velar approximant (IPA j) and apostrophe ' is used to represent a glottal stop (IPA ʔ). All other symbols have their IPA values.

Several phonological rules in Petalcingo Tseltal have bearing on the examples transcribed in this thesis. The first of these is the degemination rule, whereby all geminates in Petalcingo Tseltal are eliminated in favor of single consonants. Vowel hiatus is also not tolerated and is resolved via epenthetic consonant insertion (where /y/ or /h/ serve as the epenthetic consonants) or vowel deletion. There is also a process of nasal assimilation, where the nasal's place of articulation becomes identical to that of the following stop. Finally, /s/ assimilates in place to the following post-alveolar fricative or affricate, yielding /x/ in these environments.

2.5 Word order

Word order in Mayan languages is taken to be V-initial (Norman & Campbell 1978, England 1991), though see Quizar (1979; 1994) and Eby Clemens (2012) for some apparent counterexamples. Since many Mayan languages allow word order variation for information structure purposes (namely topic and focus fronting), evidence for unmarked word order is generally drawn from sentences with broad (neutral focus) and without topicalized constituents (see Brody 1984 and England 1991 for a discussion of the relevant issues).

England (1991) identifies three patterns of basic word order in Mayan languages:

(3)   WORD ORDERS IN MAYAN LANGUAGES (adapted from England 1991)
   a.   VSO languages
   b.   VOS (+SVO) languages
   c.   VOS/VSO languages

The languages of the (a) type have a basic VSO order, while (b)-type languages allow both VOS and SVO. Tseltal belongs to the (c) group of languages: these, in England's

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[2] A large number of speakers in Petalcingo have a more pronounced frication in many lexemes lacking a consonant in other variants of Tseltal. One example of this is the perfective marker *lah*, which is realized as *la* in Oxchuk. Whether the glottal fricative is phonemic in such circumstances is an open question.

typology, have either VOS or VSO determined by the relative ranking of the relevant NPs on the person/animacy hierarchy.

The analysis of Tseltal as exhibiting person/animacy sensitivity has origins in Norman & Campbell (1978), who cite Smith (1975). Norman & Campbell argue that Tenejapa variant of Tseltal exhibits variable VOS and VSO order, determined by the animacy hierarchy. The same analysis is adopted in Dayley (1981). Under this view, when the subject and object have the same rank on the animacy hierarchy, the resulting word order is VSO. On the other hand, VOS word order emerges when S is ranked higher on the animacy hierarchy than O. Note that this leaves out the situation where O is ranked higher than S: this could be an artifact or the limited data available to Norman & Campbell. Alternatively, this lacuna could be due to the existence of a ban on inanimate ergatives in Mayan (cf. Craig 1977, Berinstein 1985), later analyzed as a case of obviation in Mayan in Aissen (1999) and later works.

Returning to Norman & Campbell's (1978) proposal, the authors also suggest (in reference to Mayan languages in general) that other constraints may play a role in obscuring the basic word orders. One of these is the Complex Object Constraint (credited to Maxwell 1975), whereby complex objects may not appear in postverbal positions when a subject follows. A similar constraint is invoked in Polian (2005) for Oxchuk Tseltal.

Robinson (2002) argues against a variable VSO/VOS order for Tenejapa Tseltal. Instead, on the basis of a corpus of spontaneous and narrative texts, Robinson argues in favor of fixed basic VOS order in this variant of Tseltal. It should be noted here that while England (1991) argues against frequency counts as determinants of basic word order, Robinson's conclusions are at least partly predicated on rejection of unsuitability of frequency analysis to basic word order determination. Robinson finds that of about 100 transitive clauses with two arguments, VOS and SVO orders account for 97% of the data. Under the assumption that SVO word order is derived via topicalization or focus fronting, the conclusion Robinson reaches is that VOS is the basic word order in Tenejapa.

Polian (2005) presents a more nuanced picture of word order variation in the Oxchuc variant of this language. Setting aside possible obviation environments,[3] Polian finds that

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[3] Aissen (1997; 1999) and Polian (2005) argue that Tzotzil and Tseltal syntax is sensitive to hierarchical alignment of arguments. In particular, when the object outranks subject on the

in Oxchuk the order of postverbal constituents is not universally VOS as Robinson (2002) claims for Tenejapa. Rather, Polian claims that the order is based on a scale as in Smith (1975), Norman & Campbell (1978), and Dayley (1981). In contrast with the previous works, however, for Polian the relevant scale is topicality versus focalization, or old versus new information. Polian finds that discourse-old NPs tend to be located toward the right edge of the clause, while discourse-new NPs are preferred post-verbally.[4]

We conclude that outside of discourse-marked structures, which may indeed be frequent, Tseltal is a V-initial language. There is disagreement in the literature as to the order of post-verbal argument NPs, though not all claims are made for the same variants of Tseltal. It is not improbable that different variants of Tseltal have contrasting basic word-order properties given the amount of language variation in evidence, and the fact that the proposed criteria governing word order in Tseltal are indeed subtle.

2.6 Agreement, head-marking, and pro-drop

In this section I consider Tseltal argument realization and agreement from the typological and formal standpoint.

2.6.1 Head-marking and agreement

Tseltal, like the other languages in the Mayan family, is a predominantly head-marking language. In the clausal domain, the core arguments of the verb control agreement morphemes on the verb word: ergative for the external argument and absolutive for the

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relevant hierarchy (which for Polian 2005 includes animacy, definiteness, and topicality), the clause cannot be expressed using active, and instead must employ passive voice.

[4] We might argue that some of Polian (2005) examples (e.g. 29, 30) are not ideal for determining basic word order, since they involve focalized constituents; nonetheless, the other examples adduced in Polian (2005) are sufficient to make the point.

internal argument, as shown in (4). Tseltal nominals, on the other hand, do not show any case distinctions.

(4) lah k-il-at
PFV ERG1-see-ABS2
'I saw you.'

In the nominal domain, possessors trigger agreement on the head noun. Possessor agreement in Tseltal and a number of other Mayan languages is nearly identical to ergative agreement, though some differences (see below) can be identified.

(5) k-mut
POSS1-chicken
'my chicken'

There are two invariant prepositions in Tseltal: the comitative *sok*, and a general-purpose preposition *ta*, illustrated in (6).

(6) a. COMMITATIVE *SOK*   [PMP-FS:161]
i baht sok ala wits' onkonak-e'
and go.ABS3 with DIM small frog-CL
'And off he went with the little froggie.'

     b. GENERAL-PURPOSE *TA*   [A-FS:002]
nakal   ta s-ts'ehl   s-wab
seated.ABS3 PREP POSS3-close POSS3-bed
'He was seated near the bed.'

However, many of the semantic ranges of prepositional phrases in other languages are expressed in Tseltal via relational nouns. Relational nouns are obligatorily possessed nominals and are canonically used for expressing spatial relations (7a) but have more general usages similar to PPs as in (7b).

(7) a. y-ahlanil   mexa
POSS3-below table
'below the table'

     b. mayuk   k-u'un
NEG.EXIST POSS1-RN
'I don't have any.'

We conclude therefore that in the domain of spatial relations Tseltal is also a head-marking language. As we have seen, the head-marking properties of Tseltal are evident in verbal and nominal domains as well. Dependent marking, on the other hand, is not attested in this language.

2.6.2 pro-drop

The correlation between rich agreement morphology and argument drop has been noted in the field (cf. Taraldsen 1978 and the subsequent literature) and Tseltal pattern can be seen as an instance of such a correlation. Tseltal exhibits subject, object, and possessor agreement, while licensing argument drop in the nominal as well as the verbal domain. Both subject and object arguments are frequently omitted in transitive clauses, as in (4), repeated below.

(4)   lah k-il-at

        PFV ERG1-see-ABS2

        'I saw you.'

Nominal possessors are often pro-dropped as well, as in (5).

(5)   k-mut

        POSS1-chicken

        'my chicken'

Indeed, personal pronouns only seem to appear in emphatic or contrastive function in Tseltal clauses. The Mayan literature has varying estimates of the amount of pro-drop in various types of discourse. Du Bois (1987), working with natural (though not spontaneous) Sacapultec discourse, reports that out of 433 clauses in his corpus, 211 (47.6%) had no overt arguments. This same corpus contained 179 transitive clauses; in these only 5 (2.8%) had both arguments overt. Du Bois also sites England (1986) for findings that only 1% of Mam clauses (transitive and intransitive) have two overt arguments. In Quizar's (1994) study, out of 232 active transitive clauses, both arguments were overt in only 12 (5.2%).

In contrast, studies of Tseltal report a higher proportion of transitive clauses with both arguments realized overtly. In Robinson's (2002) corpus, of the 495 active transitive clauses, 102 (20.6%) have two overt arguments. Polian's (2005) corpus of oral texts contains 221 transitive clauses; of these, 30 (13.6%) show both arguments overtly. The evidence so far, therefore, is that while the number of transitive clauses with two overt arguments in Tseltal seems to be quite low in an absolute sense, it is higher than what is reported for other Mayan languages. A possible explanation for the higher number of

overt arguments in Robinson's (2002) corpus in comparison with Polian's (2005) data may lie in genre differences: Robinson's corpus consists of folktales, which tend to have mostly third-person arguments. Third person arguments are more likely to be realized overtly, in contrast to first- and second-person pronouns, which are only overt when focused or contrastively topicalized. Polian describes his 2005 corpus as consisting of "personal reports and narratives", which I take as likely to include more first-person actors than folktales. This may account for the difference in percentages of active transitive without every argument expressed overtly between Polian (2005) and Robinson (2002).

2.6.3 Person and number agreement

Tseltal absolutive and ergative agreement paradigms are shown in the table in (8):[5]

(8)		Absolutive		Ergative	
Person	Singular	Plural		Singular	Plural
1st singular	-on	N/A		k-/j-	N/A
1st plural EXCL	N/A	-o(n)(r)yotik		N/A	k-/j-...-(r)yotik
1st plural INCL	N/A	-otik		N/A	k-...-tik
2nd	-at	-ex		a(w)-	a(w)-...-ik
3rd	-∅	-ik		s-/y-	s-/y-...-ik

Setting aside the number agreement and considering only person morphology, Tseltal absolutive agreement is suffixal while ergative agreement is prefixal. Number agreement patterns with absolutive in having suffixal realization. As reported for Tseltal and other related languages (Aissen 1996, Polian to appear), number agreement is not always obligatory. While first and second-person plural arguments always trigger number morphology, number agreement is not always realized with third-person NPs. The conditions on the appearance of number agreement with third-person arguments involve animacy in addition to other factors, but more research is necessary to understand this phenomenon.

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[5] Note that third-person absolutive agreement is null. In this thesis I will not include absolutive agreement in the glosses unless the examples or the context warrant.

As can be seen in the table in (8), while ergative plural agreement does not affect ergative person morphology, absolutive person agreement interacts with number agreement. Nonetheless, even in the ergative, the number agreement is sensitive to person and the inclusive/exclusive distinction, as can be seen from the fact that the plural agreement with external argument has four different forms.

We observe that plural agreement controlled by the ergative/external argument (EA) can co-occur with absolutive person morphology:

(9)   a.   x-'och   s-le-bon-ik   jalal   [N01:0162]
            IMPF-begin ERG3-look.for-APPL.ABS1-PL bamboo
            'They began to look for a bamboo for me.'

       b.   k'an   s-ten-on-ik   ta   transito   [N02:2468]
            going.to ERG3-push-ABS1-PL PREP transit
            'They were going to make me (take the) transit.'

With respect to co-occurrence of absolutive and plural, the situation is somewhat more complicated. Some forms, such as the second-person absolutive plural, never co-occur with other plural forms:

(10)   * lah s-mahli-y-ex-ik
            PFV ERG3-wait-EPN-ABS2.PL-PL
            'They waited for you(plural).'

Polian (to appear) reports that in Oxchuk, first-person absolutive plural morphology rarely appears together with ergative plural morphology:

(11)   [Oxchuk Tseltal, adapted from Polian to appear]
            La   a-ta-otik-ik.
            PFV ERG2-meet-ABS1PL-PL
            'You(plural) met us.'

I do not have any such examples in my texts, and my consultants do not produce such forms, though they do sometimes accept combinations of plural markings.

2.6.4 Possessive and ergative agreement

In Tseltal, and in other Mayan languages, ergative morphology closely resembles possessive agreement. Accordingly, in the traditional Mayanist literature, both ergative and possessive morphemes are glossed as SET A. This contrasts with SET B, the label used for absolutive agreeing morphology. The parallels between ergative and possessive morphology across Mayan (as well in other languages) have been stressed and play an important role in proposals by Johns (1992) and Coon (2010; 2012). What I would like to note here is that in Petalcingo Tseltal, ergative and possessive inflections, while nearly indistinguishable, cannot be said to be identical. Ergative agreeing morphemes have different exponents in perfective and imperfective clauses. Perfective ergative markers are identical to possessive agreement, while imperfective ergative morphemes are not.

(12)

Person	Perfective		Imperfective	
	Pre-C	Pre-V	Pre-C	Pre-V
First	k-/j-	k-	k-/j-	k-
Second	a-	aw-	ka-	kaw-
Third	s-	y-	s-	ky-

The difference between imperfective and perfective ergative morphology is the presence of the initial /k/ in the former in contrast to its absence in the latter. This /k/ likely originates from the imperfective marker *yak*, which now appears only in emphatic contexts (see chapter 5 for an analysis). The imperfective forms could be derived by assuming that transitive imperfective aspect is always realized in one of two ways: either as a full, emphatic form (see chapter 5 for details), or as a reduced form *k-*. The latter realization is deleted in phonology via CCC cluster simplification (third-person and first-person *j-*) or degemination (first-person *k-*). These phonological rules are independently necessary in Petalcingo Tseltal, lending plausibility to this hypothesis. Such a proposal would argue that ergative and possessive agreement share an underlying form, even though they are not always realized identically on the surface.

2.6.5 Agreement versus pronominal clitics

Turning to the analysis of agreeing morphemes, we note that in a language where heads show morphology that reflects φ-features of their arguments, a question arises whether such morphemes are spellouts of the arguments themselves or are non-interpreted copies of argumental φ-features.[6] This is the question of the distinction between agreement and pronominal clitics. This distinction turns out to be less sharp given a syntactic landscape where some clitics are analyzed as generated in the extended DP layer and whose realization is contingent on Agree (cf. Borer 1984, Torrego 1992, Uriagereka 1995, Belletti 1999, Cecchetto 2000, Bejar & Rezac 2003, Nevins 2007; 2011 and Preminger 2009; 2011) among many others. See also Kramer 2011 for a useful discussion of the issues). In Tseltal, the evidence relevant to these questions is not conclusive; nonetheless, in the remainder of the section I will review some of the considerations that bear on this issue.

There are two pieces of evidence may seem like unambiguous arguments in favor of the agreement treatment of absolutive morphemes, but these turn out to be less than decisive. The first of these is the fact that in applicative constructions, the indirect object argument controls the absolutive agreeing morphology, which normally targets the direct object (see below and chapter 3 for details). We might view the fact that the same agreement morphology reflects the φ-features of the closest nominal (IO when present, DO otherwise) as a motivation for agreement analysis; after all, Agree is generally taken to target the closest relevant goal (Rizzi 1990, Chomsky 2000). However, in a Big-DP treatment of clitic doubling (see especially Nevins 2011), this datum can be accounted for under the clitic analysis.

The second potential argument for the agreement analysis of absolutive and plural markers is the fact that in non-finite constructions, regular absolutive and number agreement is unavailable (see chapter 4 for details). The connection between absence of clausal agreement and non-finiteness, while not exceptionless, is well-grounded empirically. At the same time no such correlation obtains between finiteness and clitics. If, however, clitic doubling is itself conditioned by Agree (cf. Bejar & Rezac 2003 and Preminger 2009;2011), the connection between finiteness and absolutive realization does not force one to adopt the agreement view of absolutive markers. Nonetheless, both the indirect object agreement in applicative constructions, as well as the finiteness facts, provide evidence that agreement is involved in licensing of absolutive and plural

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[6] I am setting aside "contentful agreement" approaches such as in Alexiadou & Anagnostopoulou (1998).

markers, even if neither of these considerations provide a decisive argument in favor of agreement-only analysis.

Turning to morphological diagnostics of clitic- versus affixhood (Zwicky & Pullum 1983), it must be noted that such criteria are only applicable to the agreement/pronominal clitic distinction on the assumption that elements that are pronominal clitics syntactically are necessarily clitics morphologically.[7] Here, we note that certain Tseltal stems exhibit allomorphy conditioned by the absolutive suffixes as shown in (13):[8]

(13)			Absolutive	'go' + ABS	
	1st person	-on		bohon	('I went')
	2nd person	-at		bahat	('You went')
	3rd person	-∅		baht	('He went')

In contrast to affix-like behavior of absolutive morphology (at least according to the Zwicky & Pullum criteria), we note that ergative agreeing morphemes never condition

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[7] This assumption, as well as the associated criteria, have been challenged in Nevins (2011), who argues that morphological properties should not be taken as a diagnostic of clitics versus agreement. I am setting aside Nevins' objections since his arguments concern mainly the criteria of context-sensitive allomorphy of clitics and local morphological idiosyncrasies. In contrast, here I consider allomorphy of stems and attachment to non-stems. With respect to Nevins' argument that morphological criteria are not appropriate in distinguishing clitic-doubling versus agreement, I consider it to be an open question. Nevins (2011) reviews a number of cases in the literature that demonstrate that certain of Zwicky & Pullum's criteria (such as "no allomorphy"), when taken as an absolute, do not correctly distinguish clitics. However, the criteria Zwicky & Pullum do propose are inherently relational: it isn't that clitics never condition allomorphy, but rather that clitics are less likely to condition allomorphy than affixes. Whether diagnosing agreement versus pronominal clitic via morphological behavior is a useful enterprise is an open question.

[8] Similar vowel conditioning (or "vowel harmony") also occurs in pronouns (Polian, to appear). Not wishing to commit to an analysis of overt pronouns as containing absolutive inflection, I do not adduce this as a data point.

stem alternations. At the same time, ergative markers allow a limited number of short adverbials to appear between the ergative agreement and the verb word, as in (14).

(14) a. ja'   yakal k-cha'-jal-bel   nax ta   k-nah-e'   [N02:2021]
          FOC PROG ERG1-two-say-NF only PREP POSS1-house-CL
          'This is what I was saying in my house.'

      b. a   s-tojo-wen-jal   ants-atik-e'   [Sobre:0957]
          ASP ERG3-stupid-INT-say woman-PL-CL
          'The women say it.'

One alternative analysis of the forms in (14) would consider the material intervening between the ergative and the stem to be derivational prefixes. We observe, however, that all other Tseltal derivational affixes are suffixal.[9] Therefore, the morphological criteria reviewed motivate an agreement analysis of absolutive and clitic analysis of the ergative markers.

In the realm of morphosyntactic exponence, Preminger (2011), building on Bejar & Rezac (2003), suggests a new diagnostic for clitichood: FEATURAL COARSENESS. The idea that Preminger develops is that clitics, in contrast to agreement, realize all φ-features of the argument at once. From this perspective, consider again the Tseltal person and number agreement paradigm repeated from (8).

(8)

	Absolutive		Ergative	
Person	Singular	Plural	Singular	Plural
1st singular	-on	N/A	k-/j-	N/A
1st plural EXCL	N/A	-o(n)(r)yotik	N/A	k-/j-...-(r)yotik
1st plural INCL	N/A	-otik	N/A	k-...-tik
2nd	-at	-ex	a(w)-	a(w)-...-ik
3rd	-∅	-ik	s-/y-	s-/y-...-ik

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[9] Compounding might appear to be another alternative analysis. However, this is at odds with the fact that most compounds are left-headed:

(i) a. to-mut
         rock-chicken
         'egg'

     b. tultux-tak'in
         dragonfly-metal
         'helicopter'

We observe that with one exception, the plural marking always involves the string -*ik*. Assuming that -*ik* is the default realization of [PLURAL] feature, and non -*ik* plural suffixes are contextual allomorphs, we would conclude that number agreement is realized independently from either ergative or absolutive person agreement. Accordingly, if we follow the logic of Preminger's (2011) argument that clitics spell out all φ-features in the φ-set of their NP associate, then the number morphology cannot be analyzed as a pronominal clitic. Instead, on this view, it is a spellout of an Agree operation which probes only for number features. Furthermore, once number morphology is factored out as agreement, featural coarseness would also dictate that absolutive and ergative must be agreement morphemes as well, since these now realize only person features (but not number features) of the argument.[10]

The criteria reviewed here thus converge on the agreement analysis of both absolutive and number morphology, even though the evidence is not as strong as would be desired. Conversely, with ergative agreement, the diagnostic results are mixed. In the rest of this thesis I will assume that both absolutive morphology and plural morphology are direct reflexes of Agree operations, rather than pronominal clitics. These assumptions are not inconsequential for the analyses I present in chapters 3 and 4, although it seems possible that the proposals in this thesis can be recast in the "clitic licensing by agreement" framework that Preminger (2011) adopts for Basque.

2.7 Tense, aspect and auxiliaries

Tseltal, like most other Mayan languages, does not grammatically mark tense, at least not in the usual case. In Petalcingo, the distal clitic -*a* can be used to mark tense with stative predicates as shown in (15).

(15)   winik-on-a
          man-ABS1-DIST
          'I was a man (before).'

The temporal use of distal in past tense predicates is not a robust phenomenon: marking such as in (15) is never obligatory; therefore I will treat Tseltal as having no tense marking.

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[10] Preminger (2011) argues for separation of person and number agreement realization in Tzotzil. Given this much, featural coarseness then dictates that neither person nor number realization is a clitic. The case for separating absolutive and number agreement in Tzotzil is stronger than in Tseltal: in Tzotzil the absolutive agreement in completive, neutral, or incompletive aspect is prefixal while the number agreement is always suffixal Aissen (1987).

In contrast to tense, Tseltal does overtly mark viewpoint aspect. The most salient aspectual opposition is between perfective and imperfective. In intransitive clauses perfective aspect is not overtly realized, while in monotransitive clauses (clauses with subject and direct object) it is imperfective aspect that usually receives zero realization. The basic aspect marking is laid out in (16).[11]

(16)		Perfective	Imperfective[12]
	Transitive	*lah*	(*yak*)
	Intransitive	∅	(*yak*) *x-*
	Stative		no marking / ∅

The aspectual marking can be seen in the following examples:

(17) a. jul-on
arrive-ABS1
'I arrived (perfective).'

b. x-jul-on
IMPF-arrive-ABS1
'I arrive (imperfective).'

(18) a. lah aw-il-on
PFV ERG2-see-ABS1
'You saw me (perfective).'

b. (ya) aw-il-on
(IMPF) ERG2-see-ABS1
'You see me (imperfective).'

Although aspect marking is not tense dependent in that both perfective and imperfective can occur with past and non-past interpretations, nonetheless, in the absence of a richer context, the consultants usually offer past tense translations for sentences with

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[11] There may be an additional aspectual element not listed in (16). Polian (to appear) argues that the element *a* in pre-verbal position should be analyzed as completive (=perfective) aspect with intransitive predicates:

(ii) a. yakal-on ta chamel pero (a) x-boh-on ta k'altik
PROG-ABS1 PREP illness but (ASP) IMPF.go-ABS1 PREP field
'I am sick but I am going to work.'

b. yakal-on ta chamel pero (*a) boh-on ta k'altik
PROG-ABS1 PREP illness but (ASP) go-ABS1 PREP field
'I was sick but I am going to work.'

The examples in (ii) are in accord with Polian's description of pre-verbal *a* as an imperfective marker appearing with intransitive predicates; however, other examples in this thesis show preverbal *a* with transitive predicates and in clauses receiving perfective interpretation. I will continue to gloss the preverbal *a* as aspect; however, further study of this morpheme is necessary.

[12] The imperfective *yak* marker also has a realization where the final consonant is absent.

perfective aspect and non-past translations for imperfective constructions. This
tendency will be reflected in the glosses in this thesis.

In addition to perfective and imperfective, a progressive aspect can be distinguished.[13]
This aspect employs the progressive auxiliary *yakal* in combination with one of two
types of non-finite clause complement, which differ in argument marking and agreement
properties, as shown in (19).

(19)   a.   PROGRESSIVE WITH -*EL* COMPLEMENT

            yakal-on   ta   nux-el
            PROG-ABS1 PREP   swim-NF
            'I am swimming.'

       b.   PROGRESSIVE WITH -*BEL* COMPLEMENT

            yakal k-mahli-bel-at
            PROG   ERG1-swim-NF-ABS2
            'I am waiting for you.'

The construction in (19a) is the subject of chapter 4. I set aside the (19b)-type non-finite
clauses in the rest of this thesis.

Besides the progressive *yakal,* other auxiliaries can be identified in Petalcingo Tseltal.
Based on their distributional properties, we might class Tseltal auxiliaries into two
categories, as in (20).

(20)   AUXILIARIES IN PETALCINGO TSELTAL
              STATIVE
       a.   Progressive (*yakal*)
              VERBAL
       b.   Motion (*tal* 'come', *lok'* 'leave', etc)
       c.   Aspectual (*och* 'begin', *lah* 'finish')
       d.   Modal (*k'an* 'was.going.to')
       e.   Passive (*ich*)
       f.   General-purpose (*a'i*)

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[13] The imperfective aspect has a broader range of use than the progressive: habitual or future
clauses cannot be rendered in the progressive in contrast to the imperfective.

In translation tasks, native speakers offer imperfective constructions when translating non-past
sentences.

The forms are listed as auxiliaries in (20) on the basis of the fact that they appear in constructions with other verbs (either with or without non-finite morphology) without necessarily taking full clausal complements.[14] The auxiliaries in the "verbal" category in (20), differ from *yakal* (and the existential *ay*) in that the former directly take aspectual morphology (though *k'an* may be an exception to this). In contrast to Tseltal verbs, Tseltal stative predicates never show overt aspectual marking.

2.8 Applicative constructions

In Tseltal, the applicative morpheme *-be* appears in all ditransitive constructions. Verbs admitting possession-transfer in Tseltal allow addition of the applicative with a concomitant introduction of a recipient argument.[15]

(21) a. lah y-ak'   me mut-e'   ta   y-util   nah
          PFV ERG3-put   DET chicken-CL PREP POSS3-inside house
          'She put the chicken in the house.'

      b. lah y-a'-be   me mut-e'
          PFV ERG3-give/put-APPL.ABS3 DET chicken-CL
          'She gave him a chicken.'

(22) a. lah x-chon   me may-e'
          PFV ERG3-sell DET tobacco-CL
          'He sold the tobacco.'

      b. lah x-chom-be   me may-e'
          PFV ERG3-sell-APPL.ABS3 DET tobacco-CL
          'He sold her the tobacco.'

I will argue below that in ditransitive constructions, the indirect object (goal) occupies a structurally higher position than the direct object (theme). This, I contend, is true in all applicative constructions. Even though outside the ditransitive construction, the term "indirect object" (IO) may be less appropriate, I will continue to use it to refer to the internal argument that is not the direct object (theme) in ditransitive and benefactive constructions.

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[14] The existential *ay* is not an auxiliary according to this criteria since it never appears with other verbs. If we treat it as an auxiliary it would fall into the stative category.

[15] Below, I will gloss the *'a'* verb as "give" in applicative contexts.

In applicativized/ditransitive constructions, the absolutive agreement tracks the IO NP, while the theme does not control any agreement, as is shown in (23) (I am referring to absolutive person agreement):

(23)   lah y-a'-bon   me   mis-e'
         PFV ERG3-give-APPL.ABS1   DET cat-CL
         'She gave me the cat.'

As discussed in detail in chapter 4, Tseltal ditransitives exhibit the PERSON CASE CONSTRAINT (PCC): the direct object argument must be third person in ditransitive constructions.

Intransitive verbs, whether unaccusative or unergative, cannot be applicativized in Tseltal: only transitive verbs take applicative morphology. Applicativized construction can be passivized, where the IO, or the higher internal argument, becomes the subject, and continues to control absolutive agreement. The theme can neither become the subject nor control agreement in passivized applicativized constructions.

(24)   'a'-bot-on   me   mis-e'
         give-APPL.PASS-ABS1 DET cat-CL
         'I was given the cat.'

Outside of the external possession structures, the addition of applicative morphology to a transitive verb introduces an additional argument, either recipient (physical or metaphorical), or a benefactive/malefactive argument. Example (25) illustrates a physical recipient and (26) a kind of metaphorical recipient. The example in (27) illustrates the benefactive/malefactive use of the applicative.

(25) a. lah s-tikun   jun
          PFV ERG3-send.ABS3   paper
          'She sent a postcard.'

      b. lah s-tikun-be   jun
          PFV ERG3-send-APPL.ABS3   paper
          'She sent him a postcard.'

(26) a. lah s-jok'o
          PFV ERG3-ask.ABS3
          'She asked it.'

    b.   lah s-jok'o-be
        PFV ERG3-ask-APPL.ABS3
        'She asked him it.'

(27) a.   lah s-mak   ti'nah-e'
        PFV ERG3-close.ABS3   door-CL
        'She closed the door.'

    b.   lah s-mak   ti'nah-e'
        PFV ERG3-close.ABS3   door-CL
        'She closed the door on/for him.'

Brown (2007) takes the benefactive to be the primary meaning of this construction, though Polian (2009) provides arguments to the contrary. Part of the issue may be dialectal and even idiolectal differences: some of the native speakers of Petalcingo Tseltal I consulted have a very restricted use of the benefactive meaning of applicatives. This fact in itself may be another argument against treating benefactive as the primary meaning of the applicativized transitives.

2.9 Binding in Tseltal

Reflexive constructions in Tseltal employ a dedicated anaphoric NP, as shown in (28).

(28)   lah k-nak'   k-bah   / lah s-nak'   s-bah
        PFV ERG1-hide POSS1-self / PFV ERG3-hide POSS3-self
        'I hid myself.' / 'She hid herself.'

The anaphor in Tseltal reflexive constructions is an obligatorily possessed body part, meaning, roughly, 'top,' and can be used outside of reflexive contexts as a locative relational noun.

In Tseltal only transitive (monotransitive and ditransitives) verbs can be reflexivized; intransitive cannot undergo reflexivization as shown in (29)

(29)   * (k-)nux/yahl(-on)   k-bah
        (ERG1-)swim/fall(-ABS1) POSS1-self
        'I fell/swam.'

Even though reflexive constructions do not show overt absolutive agreement, it would be inappropriate to conclude that detransitivization is involved in reflexive constructions in Tseltal. Several types of evidence (besides the fact that no detransitivizing morphology is in evidence) are available in support of this hypothesis. First, we observe that reflexive predicates take transitive rather than intransitive

aspectual marking. For example, reflexives obligatorily take the transitive perfective marker *lah* in the perfective aspect, and are interpreted as imperfective when unmarked, in contrast to intransitive verbs. We also note that intransitive verbs in Tseltal cannot take ergative morphology, whereas transitives (reflexivized or not) obligatorily do so. This demonstrates that transitive reflexives remain transitive even while lacking absolutive agreement.

The absence of absolutive agreement, I argue, is a consequence of the fact that anaphors in Tseltal are third-person nominals. I claim that Tseltal anaphoric NPs are similar to other body-part anaphora as described for Greek (Iatridou 1988), Georgian (Bonet 1991), Selayarese (Woolford 1999) and Kutchi Gujarati (Patel 2010). I follow the analysis in Iatridou (1988) in arguing that while the possessor inside the anaphoric NP bears person features of the binder NP, the whole NP itself is formally third person, as it does in the other languages above mentioned.

The first argument for the fact that anaphoric NPs have third-person φ-features comes from the absolutive agreement facts. In Tseltal reflexive constructions (like that in 30) there is no overt absolutive agreement.

(30)   lah   k-il-∅   k-bah
         PFV ERG1-see-ABS3 POSS1-self
         'I saw myself.'

There are two ways of accounting for this fact: one hypothesis is that even though reflexive constructions are fully transitive, the absolutive agreement is absent for some unexplained reason. The second hypothesis would be that absolutive agreement in reflexive constructions is present, but is third person. Given the fact that third-person absolutive agreement is null, the consequence of the third-person anaphor analysis will be the absence of visible agreement morphology. I submit that the second hypothesis, which, as I show below is supported by other facts of the language, is to be preferred on conceptual grounds *a priori*. A possible counterargument might come from the ANAPHOR AGREEMENT EFFECT (AAE, Rizzi 1990; Woolford 1999), a prohibition on anaphors controlling agreement. The absolutive agreement might be absent in Tseltal to satisfy the AAE. However, Woolford (1999) shows that it is precisely with possessed body-part anaphors that anaphor agreement effect appears to be contravened. Woolford argues that the AAE violation is only apparent since the agreement does not bear person

features of the binder. This would be true according to the present hypothesis: while the binder in (30) is first person, the anaphor, I argue, has third-person φ-features. Consequently, I claim that AAE facts lend support to the hypothesis being advanced here.

The second argument for third-person external syntax of Tseltal anaphors comes from certain types of non-finite constructions. In Tseltal, non-finite complements to intransitive embedding verbs do not admit first- or second-person arguments (31a), a kind of PCC effect, as I discuss in chapter 4 in detail. With this in mind, we observe that anaphoric NPs are licit in such constructions, as shown in (31b).

(31)   a. * yakal-on   ta   s-pet-el   ja'at-e'
               PROG-ABS1 PREP ERG3-hug-NF you-CL
               'I am hugging you.'

         b. yakal-on   ta   s-pet-el   k-bah
               PROG-ABS1 PREP ERG3-hug-NF POSS1-self
               'I am hugging myself.'

If only third-person arguments are admitted in constructions like (31), then it follows that if an anaphor can appear in such clauses as well, it too is third-person.

The third argument comes from purpose constructions: another type of non-finite construction that lies outside the scope of the present work. This construction is usually interpreted as a purpose (or rationale) clause, and features accusative rather than ergative pattern of agreement: the verbal prefix that in transitive clauses shows agreement with external argument is controlled by the internal argument in such purpose/rationale clauses:

(32)   a. k-tikun-at   ta   s-maj-el   winik
               ERG1-send-ABS2 PREP OBJ3-beat-NF man
               'I sent you to beat up a man.'

         b. s-tikun-on   ta   aw-il-el
               ERG3-send-ABS1 PREP OBJ2-see-NF
               'He sends me to see you.'

What is crucial for the present purposes is that when an anaphor appears as an internal argument in such rationale clauses, the object agreement prefix is third person as well:

(33)   k-tikun-at   ta   s-nak'-el   a-bah
          ERG1-send-ABS2   PREP   OBJ3-hide-NF   POSS2-self
          'I sent you to hide yourself.'

We conclude therefore that Tseltal anaphoric DPs have third-person φ-features, at least externally. The φ-features that are shared between the binder (the external argument) and the anaphor are those of the possessor of the anaphor, as in Greek, Selayarese, Kutchi Gujarati, and similar languages.

Chapter Three
External Possession

3.1 Introduction

This chapter is concerned with the difference between constructions (1a) and (1b):

(1)   a.   REGULAR TRANSITIVE

        lah a-we'   k-waj

        PFV ERG2-eat.ABS3 POSS1-tortilla

        'You ate my tortilla.'

    b.   EXTERNAL POSSESSION (EPC)

        lah a-we'-bon   k-waj

        PFV ERG2-eat-APPL.ABS1 POSS1-tortilla

        'You ate my tortilla.'

In (1a), a regular transitive construction, the direct object ('my tortilla') controls the absolutive agreement. By contrast, (1b) is an instance of what I will call the EXTERNAL POSSESSION CONSTRUCTION (EPC). In Tseltal EPCs the absolutive morphology reflects φ-features of the possessor of the direct object, rather than the direct object itself as in (1a). The analysis I will pursue here is that in external possession constructions, the clausal agreement targets nominals normally "out of reach" of φ-probes in the matrix clause, namely possessors of internal argument DPs. This, I argue, accounts for the properties of Tseltal external possession constructions, including the semantic effects concomitant with external possession.

This chapter is organized as follows: the first section introduces external possession in Tseltal, and contrasts Tseltal EPC with that attested in other languages. After a brief discussion of consequences of EPC syntax for binding in Tseltal clauses, I develop my proposal and introduce additional syntactic facts in support of my hypothesis. The last section concludes this chapter.

3.2 External possession

EXTERNAL POSSESSION CONSTRUCTIONS (EPC, also POSSESSOR RAISING, POSSESSOR ASCENSION, OR POSSESSOR DATIVE CONSTRUCTION) is a term given to a phenomenon whereby a possessor of some argumental NP is morphosyntactically marked as a core verbal argument. External possession is found in many languages (cf. Payne & Barshi 1999), though the divergence of properties across EPC constructions in the world's languages may argue against a unified treatment of external possession.

In this section I discuss the main properties of external possession constructions in Tseltal and how it differs from other languages. While Tseltal external possession differs from EPCs in many other languages, EPCs in Tseltal are remarkably similar to Tzotzil, as described in detail in Aissen (1979; 1987).

3.2.1 Overview of external possession in Tseltal

The external possession construction in Tseltal is licensed by the applicative morphology: this is the first salient property of external possession in Tseltal. In the absence of applicative morphology external possession does not obtain:

(2)   * lah a-we'-on   k-waj
        PFV ERG2-eat-ABS1 POSS1-tortilla
        'You ate my tortilla.'

The second crucial property of external possession constructions involves agreement. In regular transitive clauses the absolutive agreement is controlled by the direct object, hence in (1a) the absolutive agreement is third-person. In external possession constructions, the raised possessor controls absolutive agreement: in (1b) the possessor's φ-features are reflected on the verbal absolutive morphology. In external possession construction agreement with the direct object is impossible.

(3)   * lah a-we'-be   k-waj
        PFV ERG2-eat-APPL.ABS3 POSS1-tortilla
        'You ate my tortilla.'

Note that the fact that the possessor controls absolutive agreement does not obviate possessor agreement within the DP. This is the third important property of external possession constructions: the possessor controls both the possessor agreement within

the DP as well as the clausal absolutive agreement morphologically realized on the main verb.

(4)   * lah a-we'-be   waj
            PFV ERG2-eat-APPL.ABS3 tortilla
            'You ate my tortilla.'

To summarize, the applicative morphology is a crucial ingredient of external possession. In Tseltal EPCs, the possessor of the direct object, rather than the direct object itself, controls the clause-level absolutive morphology. At the same time, the internal argument continues to bear possessive agreement reflecting the possessor's φ-features; that is, in external possession, the possessor controls two different agreement types.

3.2.2 External possession is an applicative construction

Some of the syntactic properties of Tseltal external possession constructions, I argue, can be related to the fact that applicative morphology is a necessary ingredient of EPCs. Given the fact that EPCs do differ from the "canonical" use of the applicative (possession-transfer and benefactive constructions), one might legitimately wonder in what sense is the applicative in EPCs and in canonical applicative constructions the same. I address this issue toward the end of the present chapter, only noting here that a number of properties of EPCs can be accounted for immediately if we assume that the applicative morpheme -be which obligatorily appears in external possession constructions shares most of its syntactic properties with morphologically identical morpheme used in possession-transfer and benefactive structures.

The first of the properties of EPCs that the presence of applicative morphology helps explain is the fact that external possession only obtains with monotransitive verbs; arguments of intransitive verbs do not participate in EPCs, as shown in (5).

(5)   a. * nux-bon   k-nich'an
           swim-APPL.ABS1 POSS1-child
           'My child swam.'

     b. * yahl-bat   a-nah
           fall-APPL.ABS1 POSS2-house
           'Your house fell.'

Since applicative morphology cannot appear with intransitive stems, this fact follows from the fact that EPCs are licensed by the presence of the applicative.[1]

Secondly, parallel to the fact that ditransitive and applicativized constructions can be passivized, external possession is also possible with passivized verbs:

(6)   mil-bot-on   k-nich'an
         kill-APPL.PASS-ABS1 POSS1-child
         'My child was killed.'

Finally, note that possessors in ditransitive constructions cannot be externalized:

(7)   a.   REGULAR DITRANSITIVE WITH POSSESSED OBJECT
           lah aw-a'-be-y-on   s-waj
           PFV ERG2-give-APPL-EPN-ABS1 POSS3-tortilla
           'You gave me her tortilla.'

      b.   EXTERNAL POSSESSOR OF THE RECIPIENT ARGUMENT
         * lah y-a'-be-y-on   k-wix   me waj-e'
           PFV ERG3-give-APPL-EPN-ABS1 POSS1-sister DET tortilla-CL
           'He gave my sister a tortilla.'

This property of external possession also falls out from the fact that external possession is an applicativized construction. We observe that double applicatives are

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[1] I do not have a detailed account of this restriction. In chapter 4, I hypothesize that the applicative head in Tseltal requires a transitive v^0; this is not a principled explanation, however. Note that Pylkkänen (2002), who does offer a number of principled explanations for the distribution of various types of applicatives, does not address a similar issue that arises with English. While many English transitive verbs can take an applied argument (*I baked a cake/I baked him a cake*), if we set aside the single unaccusative double-object verb *to get* (Pesetsky 1995), intransitive unaccusative verbs generally do not take applied arguments: *I arrived him*. Pylkkänen's proposal does predict that low applicatives (such as those found in English double-object constructions, she argues) cannot appear with unergative verbs. This is because the low applicative relates a source/goal to a theme; with an internal argument being absent in unergatives, the argument structure of the applicative is not satisfied in such structures. Unaccusative verbs, however, should be able to combine with a low applicative, owing to the fact that such verbs do project a theme argument.

ungrammatical; for instance, it is not possible to add a benefactive to a possession-transfer construction, as shown in (8).

(8)   * lah y-a'-be-y-on-(at)   waj
          PFV ERG3-give-APPL-EPN-ABS1-(ABS2) tortilla
          'He gave me a tortilla for your benefit.' (so you wouldn't have to give me one)

Consequently, if externalizing a possessor involves adding an applicative, as I argue here, the ban on external possession in ditransitive follows.

3.2.3 External possession is athematic

The external possession literature on non-Mayan languages often notes that raised possessors are subject to an "affectedness" condition: they are interpreted usually as negatively affected entities (rarely as beneficiaries) of the action (cf. Hole 2005 for German, Yoon 1989; 1990, Vermeulen 2005 for Korean, Bolkestein 2001 for Classical Latin among others). In structural terms, this is usually taken as an indication that the possessor receives a theta role from the verb (cf. Hole 2005, though see Landau 1999 for a different view). Tseltal external possession, on the other hand, does not have any obvious semantic effects. For example, external possession is possible with "non-affecting" predicates like "see":

(9)   a.   lah k-il   s-nah   Pedro
           PFV ERG1-see POSS3-house Pedro
           'I saw Pedro's house.'

      b.   lah k-il-be   s-nah   Pedro
           PFV ERG1-see-APPL.ABS3 POSS3-house Pedro
           'I saw Pedro's house.'

External possession also obtains when the possessor is inanimate, as in (10). This contrasts with German (Hole 2005) and Russian, where raised possessors must be animate, and usually human.

(10)   INANIMATE EXTERNAL POSSESSOR IS POSSIBLE IN TSELTAL

    a.   lah   j-k'as   y-ok   mexa
        PFV   ERG1-break   POSS3-leg   table
        'I broke the table's leg.'

    b.   lah   j-k'as-be   y-ok   mexa
        PFV   ERG1-break-APPL.ABS3   POSS3-leg   table
        'I broke the table's leg.'

(11)   INANIMATE EXTERNAL POSSESSOR NOT POSSIBLE IN RUSSIAN

    a.   Vanya   mne   razbil   kameru
        Vanya   me.DAT   break   camera.ACC
        'Vanya broke my camera.'

    b. #Vanya   noutu   razbil   kameru
        Vanya   laptop.DAT   break   camera.ACC
        'Vanya broke the laptop's camera.'

The restriction to animate entities parallels a restriction in English where recipients in double-object constructions must be animate:

(12)   We sent the boarders/*borders a package   (attributed to Bresnan)

More examples of lack of affectedness appear below in (15) and (16). Such lack of semantic effects is relatively rare cross-linguistically. It has been observed in Nuu-chah-nulth (Ravinski 2007), Nez Perce (Deal 2011), and Korean subject (but not object) external possession (see Vermeulen 2005 who credits Yoon 1989; 1990[2]).

3.2.4 Kinds of possessors in external possession

Many languages restrict external possession constructions to particular types of possession. Tseltal (and Tzotzil, cf. Aissen 1987) external possession, on the other hand, seems to show none of the restrictions on external possession that I am aware of. For example, external possession in languages such as Korean and Japanese is often claimed to be limited to body-part or part-whole possession (Maling & Kim 1992, Ura 1996

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[2] Ko (2005) provides independent evidence that possessors associated with subject positions in Korean form an underlying constituent with the possessum. On the other hand external possession from the object position does not entail an underlying constituency of possessor and possessum. This provides support for the idea that possessors externalizing from object (but not subject) positions undergo external merge to a theta role-assigning head, which accounts for the affectedness reading in object, but not subject possessor raising.

among many others, though see Vermeulen 2005 for an different view on Korean). Fábregas (2011) argues that only Spanish argumental possessors can raise out of the PP within the head DP. In Tseltal, the possessor need not be in an inalienable relationship with the possessor for external possession to obtain. The external possession is shown to obtain with body-part possession in (13a), kin in (13b), regular alienable possession in (13c) and (13d).

(13)   EXTERNAL POSSESSION: KINDS OF POSSESSORS
       a.   lah k-top'-bat   a-k'ab   (body part)
            PFV ERG1-break-APPL.ABS2 POSS2-arm
            'I broke your arm.'

       b.   lah s-mil-bon   k-nich'an   (kin)
            PFV ERG3-kill-APPL.ABS1 POSS1-child
            'He killed my child.'

       c.   lah k-il-be   s-nah   Pedro   (alienable)
            PFV ERG1-see-APPL.ABS3 POSS3-house Pedro
            'I saw Pedro's house.'

       d.   lah k-mil-be   s-ts'i'   Pedro   (alienable)
            PFV ERG1-kill-APPL.ABS3 POSS3-dog Pedro
            'I killed Pedro's dog.'

Landau (1999), who credits Kempchinsky (1992) with the observation for Spanish, shows that in Hebrew, agent subjects of process nominals are unable to participate in external possession. While I am unable to verify that the Tseltal nouns in the examples below are process nominals according to Grimshaw's (1990) criteria, the examples below suggest that it may be possible for agent subjects of process nominals to participate in external possession as well, as shown in (14).

(14) a. lah k-ai-bat   a-k'ayoj
          PFV ERG1-hear-APPL.ABS2 POSS2-song
          'I heard your song.'
          Possible interpretation: 'I heard your singing.'

      b. lah k-ai-bat   aw-ik'aw
          PFV ERG1-hear-APPL.ABS2 POSS2-call
          'I heard your call.'
          Possible interpretation: 'I heard someone calling you.'

      c. lah k-il-bat   a-tsal-tamba
          PFV ERG1-see-APPL.ABS2   POSS2-fight-NOM
          'I saw your fight.'

As pointed out in Aissen (1992), a particularly compelling case for demonstrating the fact that any type of possessor is eligible to participate in external possession comes from what Aissen calls "inanimate possession": this possessive construction expresses almost any kind of circumstantial relationship between the possessor and the possessum. The possessor arguments in circumstantial possession can be externally possessed as well:

(15) INANIMATE POSSESSION
      a. mayuk   s-kuchara   (ja'   me   ich-e')
          NEG.EXIST   POSS3-spoon (FOC   DET pepper-CL)
          'There is no spoon for the peppers (to serve them).'
          (literally: 'There isn't the peppers' spoon.')

      b. ay   x-chay-il   te   ja'-e'
          EXIST POSS3-fish-PCHG DET   water-CL
          'There are fish in the river.' (literally: 'There is the river's fish.')

(16) EXTERNAL POSSESSION OF INANIMATE POSSESSORS
      a. ma lah k-il-be   me s-kuchara   me   ich-e'
          NEG PFV ERG1-see-APPL.ABS3   DET POSS3-spoon DET pepper-CL
          'I haven't seen the spoon for the peppers.'

      b. lah s-we'-be   x-chay-il   te   ja'-e'
          PFV ERG3-eat-APPL.ABS3   POSS3-fish-PCHG DET water-CL
          'I ate the fish from the river.'

We conclude from this that any type of possessor in Tseltal is eligible to participate in EPCs. This seems to run contrary to traditional wisdom on external possession. For example, Tomioka & Sim (2007) claim that one of the "robust cross-linguistic

generalizations about the external possession structure" is that "if a language has both options such as internal and external possession structures, the external possession structure is reserved for special possession relations, such as IAP (inalienable possession) and kinship relations."

3.2.5 EPC and predicate classes

The lack of connection between affectedness interpretation and external possession in Tseltal has been discussed in the previous section. Some researchers (e.g. Herslund & Baron 2001, Bolkestein 2001) have proposed that such connection is not necessarily direct; rather, that for some reason external possession is only available for dynamic verbs. It has been argued that part of the lexical semantics of dynamic verbs is the object affectedness, or at least that there is such a statistical tendency. This, in combination with the fact external possessors as, in effect, internal arguments of the verb, can serve to explain the perception of affectedness interpretation for raised possessors.

Landau (1999) shows that in Hebrew, French, and Spanish, external possession is possible with statives, contra previous research:

(17) a. ha-rahitim   tafsu le-Rina sney xadarim.   [Hebrew, Landau 1999]
          the-furniture catch to-Rina two rooms
          'The furniture took up two of Rina's rooms.'

     b. Les boites lui   prenaient trois armoires.   [French, Landau 1999]
          the boxes to-him took   three closets
          'The boxes took-up three of his closets.'

     c. Las cajas le   llenaron tres   closets.   [Spanish, Landau 1999]
          the boxes to-him filled   three closets
          'The boxes filled three of his closets.'

We have seen above that Tseltal possessors are not interpreted as affected in external possession constructions. This does not address the question of whether this construction is licit with stative verbs, however. The data is difficult to obtain owing to the fact that most transitive verbs in Tseltal are dynamic. The following example suggests, however, that external possession does not require the predicate to be dynamic:

(18)   max   a-na'-be   s-bihil?
          NEG.IMPF ERG2-know-APPL.ABS3   POSS3-name
          'You don't know her name?'

3.2.6 Local summary

In this section we identified the following properties of Tseltal external possession constructions:

- ❏ Possessor controls both verbal absolutive agreement and nominal possessor agreement

- ❏ EPCs are licensed by applicative morphology, hence

    - ▪ ...external possession construction is unavailable with intransitive verbs

    - ▪ ...external possession construction is unavailable in ditransitive constructions

- ❏ External possession does not have interpretive consequences

- ❏ External possession does not require a particular type of possession

- ❏ External possession is not sensitive to predicate class

Before turning to my analysis of EPCs, I briefly examine binding consequences of EPC constructions.

3.3 Tseltal external possession and binding

Similarly to what Aissen (1999) reports for Tzotzil, in Tseltal, while in most cases external possession does not have interpretive effects, in 3-on-3 contexts (third-person subject and third-person possessor), EPC has binding consequences (see also Deal 2011 for similar facts for Nez Perce). In particular, when external possession construction is not used, the arguments are interpreted coreferentially (19a). On the other hand, in EPC configurations, when the EA and the possessor are both third person, only a disjoint reading arises (19b). Aissen (1999) calls construction such as (19a) "extended reflexives."

(19) a. 3-3: WITHOUT EPC ⇒ COREFERENTIAL READING
          Pedro lah s-bon   s-nah
          Pedro PFV ERG3-paint.ABS3   POSS3-house
          'Pedro$_i$ painted his$_{i/*j}$ house.'

      b. 3-3: EPC ⇒ DISJOINT READING
          Pedro lah s-bom-be   s-nah
          Pedro PFV ERG3-paint-APPL.ABS3   POSS3-house
          'Pedro$_i$ painted his$_{*i/j}$ house.'

3.4 Argument structure and person agreement in Tseltal

Before offering my analysis of Tseltal EPC constructions, it is necessary to consider the structural properties of Tseltal clauses both in the presence and in the absence of the applicative suffix. This is the task of the next two subsections.

3.4.1 Argument structure in transitive clauses

In this section I set out some preliminaries about the structure of Tseltal clauses. I assume that the external argument is base-generated in [Spec, vP] (Kratzer 1996) and that in transitive clauses it C-commands the internal argument. I take the external argument to control ergative agreement, and the internal argument to control absolutive agreement in Tseltal. The fact that the C-command relations are EA>DO is confirmed by the fact that in reflexive constructions, the direct object argument is the anaphoric DP:

> (20)   lah k-nak'   k-bah
>   PFV ERG1-hide.ABS3 POSS1-self
>   'I hid myself.'

If the C-command relations were reversed we would expect that the external argument would be able to be an anaphor bound by the internal argument, contrary to fact:

> (21)   * lah s-nak'-on   k-bah
>   PFV ERG3-hide-ABS1 POSS1-self
>   'I hid myself.'

Number agreement asymmetries also provide evidence for EA>DO C-command relations. While the data is a bit involved, the gist of the argument is as follows: in transitive clauses, some structural configurations allow non-agreement with plural DPs while others do not. Given certain plausible assumptions, EA>DO clause structure allows a straightforward account of the relevant restriction. On the other hand, if the C-command relations were DO>EA, the relevant restriction would remain unaccounted for.

3.4.2 Argument structure and the applicative

It has been argued for a number of languages that the goal/beneficiary argument, when not a prepositional phrase, C-commands the theme argument (Barss & Lasnik 1986; Holmberg & Platzack 1995; Marantz 1993; Pylkkänen 2002; Anagnostopoulou 2003, though see Anagnostopoulou (2003) and references therein for arguments that German goals are lower than themes). I will assume that the applicative head introduces the goal/beneficiary argument in ditransitive constructions (Marantz 1993), an attractive

hypothesis given the fact that unlike many languages where the applicative head is postulated, the applicative morphology in Tseltal is overt. Furthermore, I assume that the applicative head is present in all constructions featuring applicative morphology, and that applicative morphology is the morphological realization of the applicative head.

The idea that goal/beneficiary argument C-commands the theme in applicativized constructions receives support from PCC, agreement, and passivization facts. Tseltal ditransitives exhibit PCC effects, whereby the theme argument is restricted to being third-person. While several types of syntactic proposals for accounting for PCC effects have been offered in the literature, all of them rely or defend the idea that the argument exhibiting PCC effects is the lowest relevant argument in the structure.

Absolutive and number agreement also converge on the fact that C-command relations are goal>theme: any reasonable assumption about the locus of absolutive agreement would have both goal and theme in the scope (C-command domain) of the absolutive agreement head. The fact that the goal and not the theme controls absolutive agreement shows that the goal is the higher argument. The same obtains with number agreement, though the situation is complicated by the fact that number agreement can realize the plural features of EA as well. Nonetheless, of the two internal arguments, only the goal can control number agreement.

I conclude that the fact that the goal and not the theme continues to be agreed with, and becomes the subject in the passive construction demonstrates that the theme argument is structurally lower than the goal argument.

3.5 Account of external possession in Tseltal

In this section I provide an analysis of external possession construction in Tseltal. I will argue that in external possession constructions an agreement relation obtains between INFL and the internal argument of the verb. What enables such agreement, I argue, is that the head of the internal argument, the D^0, head-adjoins to the applicative, which makes the possessor inside the internal argument an eligible target for absolutive agreement. This account draws heavily on the ideas in Baker (1988; 1996), see also Maling & Kim (1992) and Baker, Aranovich & Golluscio (2005).

3.5.1 Locality conditions

The data detailed in the preceding sections already suggest an agreement-based account of Tseltal external possession. In particular, the fact that the possessor does not receive an additional theta role (as evidenced by the fact that it is interpreted as an affected

entity and can be inanimate or dead) is an argument against an analysis positing that the possessor is merged in two different theta positions such as control-type analysis. The facts demonstrating non-thematicity of EPCS argue against either type of control analysis: either control-as-PRO, as in Chomsky (1981), Landau (2000) or control-as-movement (Hornstein 1999). Similar facts in other languages have also led other researchers (e.g. Aissen 1987 for Tzotzil, Deal 2011 for Nez Perce) to pursue non-control accounts.

Having ruled out Control, we are left with an Agree-based analysis, with or without concomitant movement, as the sole remaining option. An agree-type analysis is also implicated by the fact that external possession is subject to locality conditions. To see this, we first observe that possessors of internal arguments participate in EPC, while possessors of possessors do not.

(22) a. ABSOLUTIVE AGREEMENT WITH POSSESSOR

lah k-il-be   [$_{\pi:3}$ s-nah   [$_{\pi:3}$ a$_{\pi:2}$-bankil   ]]
PFV ERG1-see-APPL.ABS3 [POSS3-house [POSS2-brother]]
'I saw your brother's house.'

b. NO ABSOLUTIVE AGREEMENT WITH POSSESSOR'S POSSESSOR

* lah k-il-bat   [$_{\pi:3}$ s-nah   [$_{\pi:3}$ a$_{\pi:2}$-bankil   ]]
PFV ERG1-see-APPL.ABS2 [POSS3-house [POSS2-brother]]
'I saw your brother's house.'

Secondly, we observe that EPC cannot take place across finite clause boundaries:

(23) a. COMPLEMENT CLAUSE

lah k-il   [te   yahl   a-bankil-e'   ]
PFV ERG1-see.ABS3 [COMP fall.ABS3 POSS2-brother-CL]
'I saw that your brother fell.'

b. NO EPC WITH POSSESSORS IN COMPLEMENT CLAUSES

* lah k-il-bat   [te   yahl   a-bankil-e'   ]
PFV ERG1-see-APPL.ABS2 [COMP fall.ABS3 POSS2-brother-CL]
'I saw that your brother fell.'

Possessors inside adjunct PPs are also unable to participate in external possession constructions:

(24) a. ADJUNCT PP
          lah k-mil   ch'oh ta   a-nah
          PFV ERG1-kill.ABS3   mouse PREP POSS2-house
          'I killed a mouse in your house.'

      b. NO EPC OUT OF ADJUNCT PP
        * lah k-mil-bat   ch'oh ta   a-nah
          PFV ERG1-kill-APPL.ABS2 mouse PREP POSS2-house
          'I killed a mouse in your house.'

Another relevant property of EPCs is the fact that possessors of external arguments cannot be externalized, as shown in (25):

(25)   * lah y-il-bon   k-bankil
          PFV ERG3-see-APPL.ABS1 POSS1-brother
          'My brother saw it.'
          (OK as 'He$_i$ saw my brother$_j$')

One interpretation of this data is that the clause in (25) does not meet structural conditions on external possession construction, one of these being that the applicative must C-command the DP whose possessor is to be externalized. This structural relation between the applicative and the possessive nominal does not obtain in (25), leading to the impossibility of external possession, and hence ungrammaticality.

We conclude that external possession constructions involve agreement relation where the target of agreement is the possessor of the internal argument. This raises the question of whether the movement of the possessor out of the internal argument obtains, or whether the possessor remains *in situ*. The following section argues for the latter conclusion.

3.5.2 Possessor DP and the head DP

Several arguments are available to demonstrate that possessor NP remains inside the head noun phrase. I begin with an argument from Aissen (1987), where it is suggested

that the examples like (26) show that the possessor can remain inside the internal argument NP.

(26)　　[Tzotzil, adapted from Aissen 1987]
　　　　7a　li　s-tot　　　li　Xun-e,　7i-j-k'opon-be
　　　　topic the POSS3-father the Xun-CL, CP-ERG1-speak-APPL
　　　　'I spoke to Xun's father.'

Aissen argues that (26) demonstrates that the possessor in external possession construction remains in its host NP: (26) is an external possession construction where the internal argument is topicalized, yet the possessor remains a part of the topicalized constituent. This argument seems to be predicated on the movement analysis of topicalization. Aissen (1992) argues that external topics in Tzotzil are base-generated outside the clause, while the argument position associated with such topics is filled by a null pronoun. This would suggest that the structure of (26) is as in (27).

(27)　　7a　[NP-TOP li　s-tot　　　li　Xun-e　]ᵢ, 7i-j-k'opon-be　　　proᵢ
　　　　topic [NP-TOP the POSS3-father the Xun-CL]ᵢ, CP-ERG1-speak-APPL proᵢ
　　　　'I spoke to Xun's father.'

This analysis undermines the argument for the possessor remaining inside the NP projected by the head noun: while the topical NP does include a possessor, the argument NP in the clause where EPC takes place is a pronoun and not a trace (lower copy) of the topicalized constituent. This means that the possessor in (26) is not an external possessor in the first place.

At the same time, the fact that the verb bears an applicative suffix shows that the main clause is an external possession construction. This, in turn, means that possessors inside pronominalized NPs are accessible for externalization. Such constructions are also possible in Tseltal, as shown in (28).

(28)　　CONTEXT: Pedro asks *lahbal awil me kmute'*? ('Have you seen my chicken?')
　　　　Marta responds:
　　　　lah　k-mil-bat　　　　i　　lah　k-we'-bat
　　　　PFV ERG1-kill-APPL.ABS2 and PFV ERG1-eat-APPL.ABS2
　　　　'I killed it and ate it.'

On the assumption that (28) can be an external possession construction, the second-person absolutive agreement is controlled by a possessor inside a pronominal theme argument, contrary to the usual assumption that pronominal forms lack internal structure. I will not address this issue here, though in chapter 5, I will adopt the

proposals in Elbourne (2008), Baltin & van Craenenbroeck (2008), and Baltin (2012), whereby pro-forms do have an internal syntactic structure.

Returning to the issue of the position of possessors in EPC constructions, we observe that other evidence is available to show that in external possession constructions the possessor remains *in situ*, that is, inside the DP projected by the head noun where the possessor is base-generated. The first argument that the possessor remains a part of the DP where it is base-generated comes from possessive agreement facts: the possessive agreement is maintained even in external possession constructions:

(29)   lah a-we'-bon   k-waj
          PFV ERG2-eat-APPL.ABS1   POSS1-tortilla
          'You ate my tortilla.'

Further evidence comes from possessor extraction. Aissen (1996) shows that when Tzotzil possessors are questioned, two distinct options are available: the STRANDING strategy, where the head noun remains *in situ*, and the PIED-PIPING strategy, where the head noun moves along with the wh-possessor to the left periphery:

(30) a. Buch'u x-ch'amal   i-cham?   [Tzotzil, adapted from Aissen 1996]
          who   POSS3-child CP-died
          'Whose child died?'

      b. Buch'u i-cham x-cha'amal?
          who   CP-die POSS3-child
          'Whose child died?'

Similar facts have been observed in the Oxchuk variant of Tseltal (Polian to appear), as well as other Mayan languages such as Chol (Coon 2009) and Kaqchikel (Imanishi to appear). For Oxchuk Tseltal, Polian (to appear) argues that the specificity of the possessed NP determines the choice between the stranding or the pied-piping strategy: when the possessed NP is specific the entire containing NP extracts (pied-piping strategy). On the other hand, when the head noun is non-specific, only the possessor extracts. Polian adduces the examples shown in (31)

(31)   [Oxchuk Tseltal, Polian to appear]

    a.   SPECIFIC HEAD NOUN: FULL NP EXTRACTION

        Mach'a   x-nich'an   bejk'aj?

        who   POSS3-child.of.man born[COM;ABS3]

        'Whose child is the one that was born?'

    b.   NON-SPECIFIC HEAD NOUN: POSSESSOR-ONLY EXTRACTION

        Mach'a bejk'aj   x-nich'an?

        who   born[COM;ABS3] POSS3-child.of.man

        'Who had a child?'

If the possessor raised out of its host DP in external possession constructions, we would expect that stranding constructions, such as (31a), would always be available in EPCs. The logic of the argument is as follows: once the possessor DP vacates its host DP, the head noun and the possessor are no longer a constituent. The possessor wh-phrase, could then move to [Spec, CP] without having to pied-pipe the head noun along. Furthermore, if we assume that the agreement facts drive the syntax of external possession (observing the fact that in EPC, the absolutive agreement must target the possessor), then the only possible landing site of the possessor would be in the vicinity of the agreeing head. Under the assumptions about agreement adopted here, this would be INFL. In this case, the possessor and the head noun would not be a constituent.

In Petalcingo, it appears that the default type of possessor extraction is pied-piping: there are no examples in my data where pied-piping was judged ungrammatical, in contrast to the stranding strategy. The factors governing whether stranding strategy is available seem to involve specificity as Polian (to appear) argues, as well as animacy. I set aside the details here to focus on the core prediction of the movement account: we would expect that stranding would always be possible when external possession is involved. What we observe first in the following examples is that in external possession constructions, the head noun pied-pipes along with the possessor. This is evidence that the head noun and the possessor form a constituent. The second observation is that EPC constructions pattern with minimally different constructions with regularly possessed internal arguments with respect to stranding.

(32)   QUESTIONED POSSESSOR - REGULAR POSSESSION

a.   mach'a s-mut   lah   aw-il?
     who   POSS3-chicken PFV   ERG2-see.ABS3
     'Whose chicken did you see?'

b. *?mach'a   lah   aw-il   s-mut?
     who   PFV   ERG2-see.ABS3   POSS3-chicken
     'Whose chicken did you see?'

(33)   QUESTIONED POSSESSOR - EXTERNAL POSSESSION

a.   mach'a s-mut   lah   aw-il-be?
     who   POSS3-chicken PFV   ERG2-see-APPL.ABS3
     'Whose chicken did you see?'

b. *?mach'a   lah   aw-il-be   s-mut?
     who   PFV   ERG2-see-APPL.ABS3 POSS3-chicken
     'Whose chicken did you see?'

One might suppose that the ungrammaticality of (33b) is due to difficulties in extracting indirect objects. The logic of this argument would be as follows: suppose that external possession constructions involved optional movement of the possessor to the indirect object argument position. This would entail that EPC clauses had three core arguments: the external argument, indirect object (external possessor), and the direct object, i.e., the NP where the external possessor was base-generated. If it were the case that, in general, Tseltal indirect objects could not be wh-extracted, then the ungrammaticality of (33b) would follow. However, as (34) shows, indirect objects extract freely in Tseltal.

(34)   mach'a lah   aw-a'-be   (a-)chok'ow?
           who   PFV   ERG2-give-APPL.ABS3 (POSS2-)ring
           'To whom did you give your/a ring?'

Another argument showing that the possessor does not vacate the DP projected by the possessum comes from binding facts in Tseltal. We first observe that indirect object arguments (those in [Spec, ApplP]) can be anaphors bound by the subject, as shown in (35).

(35) a. lah k-a'-be   k-bah
          PFV ERG1-give-APPL.ABS3 POSS1-self
          'I gave it to myself.'

      b. lah a-mak-be   a-bah
          PFV ERG2-close-APPL.ABS3 POSS2-self
          'You covered it for yourself.'

If the possessor in EPC construction had the option of raising to the indirect object position, we would expect the possessor to be able to be bound by the external argument. Aissen (1987) makes the same observation for Tzotzil. In contrast, Polian (2009) argues that reflexivization of external possessor is possible in the Oxchuk variant, albeit only with inanimate possessums:

(36)   [Oxchuk Tseltal, Polian 2009]
      a. jo'on=nax la j-net'-bey   j-ba   j-ni'
          I=EMF   CP ERG1-flatten-APPL.ABS3 POSS1-self POSS1-nose
          'I myself flattened my nose.'

      b. * jo'on=nax la j-net'-bey   j-ba   j-ts'i'
          I=EMF   CP ERG1-flatten-APPL.ABS3 POSS1-self POSS1-dog
          'I myself flattened my dog.'

My Petalcingo consultants reject similar examples regardless of the animacy of the possessum:

(37)   * (jo'on-nax) lah k-net'-be   k-bah   k-ni'
          I-only   PFV ERG1-flatten-APPL.ABS3 POSS1-self POSS1-nose
          'I (myself) flattened me the nose.'

(38) a. lah a-lajim-bon   k-ok
          PFV ERG2-injure-APPL.ABS1 POSS1-foot
          'You injured me the foot.'

      b. lah k-lajin   k-ok
          PFV ERG1-injure.ABS3   POSS1-foot
          'I injured my foot.'

      c. * (jo'on-nax) lah k-lajim-be   k-bah   k-ok
          (I-only)   PFV ERG1-injure-APPL.ABS3 POSS1-self POSS1-foot
          'I myself injured me the foot.'

Even internal to Oxchuk, it is not perfectly clear that (36) indeed should receive an external possession parse. One potential confound in investigating external possession in Tseltal is the fact that external possession and benefactive/malefactive (or even possession-transfer) constructions can look quite similar, or be string-identical. What makes (36) appear like a malefactive construction is the fact that in (36), the anaphor (*jba*) seems to control first-person possessive agreement inside the direct object DP. As argued in chapter 2, anaphoric DPs have third-person φ-features and control third-person agreement in Tseltal. If the anaphor was a possessor of the direct object, we would expect the direct object to feature third-person possessive agreement, rather than first-person. We know independently that constructions similar to (36), with reflexive direct objects/beneficiaries, are indeed possible:

(39)   a.   yak a-wa'-be   a-bah   jun chok'ow
             IMPF ERG2-give-APPL.ABS3 POSS3-self one ring
             'You are going to give yourself a ring.'

       b.   lah k-mak-be   k-bah
             PFV ERG1-close-APPL.ABS3 POSS1-self
             'I closed it for myself.'

What I would like to suggest is that constructions in (36) should be analyzed on par with (39a) with one difference: the theme argument is possessed. This would explain the animacy restriction in such constructions without having to claim that external possession construction is sensitive to animacy, in contrast to other data showing otherwise.

I also take the existence of coreference effects (obligatory coreference and disjoint reference interpretation) in external possession constructions, and the fact that such coreference effects appear only in EPCs as an indication that even if anaphoric possessors in EPC constructions are possible, they are marginal at best: if it was otherwise, the extended reflexive would be expected to be replaced by overt reflexivization construction of the sort found to be ungrammatical in (37) and (38c). I conclude therefore that in the Petalcingo variant, the external possessor may not be an anaphor bound by the external argument. This in turn means that raised possessors do not have the status of indirect objects, which can be anaphoric. This provides evidence that the possessor argument remains inside the DP projected by its head noun.

The final piece of evidence for lack of possessor movement in EPCs is similar to the one from Aissen (1987), introduced at the beginning of the current section. In contrast to Aissen's argument, here I draw on evidence from focalization rather than topicalization

of internal argument DP. Aissen (1992; 1996) argues that focalization in Tzotzil is a movement phenomenon, and exhibits properties similar to other A-bar movement. If the possessor vacated the DP_{IA} in EPCs then we would expect the head noun or the possessor to be able to focalize independently of the head NP. That this is not possible is shown in (40):

(40) a. te   Pedro-he' lah s-kuch'-be   y-ala'al   x-Marta
         DET Pedro-CL   PFV ERG3-carry-APPL.ABS3 POSS3-baby FEM-Marta
         'Pedro hugged Marta's baby.'

   b. * te   Pedro-he' x-Marta   lah s-kuch'-be   y-ala'al
         DET Pedro-CL   FEM-Marta PFV ERG3-carry-APPL.ABS3 POSS3-baby
         'It was Marta's that Pedro hugged baby.'

I conclude therefore that the possessor in external possession constructions remains in the DP where it is base-generated.

3.5.3 Agreement *in situ*

Given our conclusion that external possession in Tseltal involves agreement with the possessor, but that the possessor remains inside the DP projected by the head noun, a question arises as to how such agreement is possible. Indeed there are two different challenges to this account:

❑ Why does agreement not target the head noun itself?

❑ How can agreement target the possessor?

The former question is faced not only by the current approach, but by other movement approaches to external possession, such as Deal (2011). One possible answer is that the possessor moves out of the head noun DP to a higher position, where it is a closer agreement target. However, this analysis is in conflict with the earlier conclusion that the possessor remains internal to the DP projected by the head noun. The proposal I will pursue here will entail that the DP where the possessor is generated becomes transparent for the purposes of clausal agreement. This in turn, makes it possible (indeed, necessary) for the agreement to target the possessor inside the DP projected by the head noun.

I assume that possessor-raising construction involves the applicative suffix as well; in this, I depart from Deal (2011), where it is implied that the homophony between the applicative morphology and morphology in external possession construction is purely accidental. The homophony between the suffix that licenses external possession and the

applicative goes beyond the fact that the two suffixes have identical exponence in the presence of null third-person absolutive (*-be*), which I take to be the underlying form of the applicative suffix. They also share phonological forms, including strategies for vowel hiatus resolution, when combining with other suffixes that follow:

(41)		Composition	UR	Surface
	a.	APPL, ABS3.SG	*-be+Ø*	*-be*
	b.	APPL, ABS1.SG	*-be+on*	*-bon*
	c.	APPL, ABS2.SG	*-be+at*	*-bat*
	d.	APPL, ABS2.PL	*-be+ex*	*-beyex*
	e.	APPL, ABS3.PL	*-be+ik*	*-beyik*
	f.	APPL, PASS	*-be+ot*	*-bot*

This is one piece of evidence that the suffix in external possession constructions that looks like an applicative is indeed a phonological realization of the applicative head. The other evidence for this comes from the fact that all applicative constructions (i.e., ditransitives, benefactives, and EPCs) are restricted to transitive clauses. On the account pursued here this restriction is rooted in the properties of the applicative affix itself.

Having identified the head licensing EPC as an applicative, we observe that outside of EPCs, Tseltal applicative introduces a benefactive or a goal argument in its specifier (Marantz 1993; Pylkkänen 2002). By hypothesis, this specifier is a theta position, where a GOAL or BENEFACTEE/MALEFACTEE theta role is assigned. I propose that in addition to the two types of applicatives that assign a theta role to an argument in their specifier, a third type exists in Tseltal, one that does not assign any theta role. This is the applicative present in EPCs.

(42)	Construction	Theta role assigned
	Ditransitive	GOAL
	Benefactive	BENEFACTEE
	EPC	—

Another property of Tseltal applicatives is the fact that this head has a filled specifier. In ditransitive and benefactive constructions, [SpecApplP] is filled via external merge: a DP argument merged in [Spec, ApplP] is assigned one of the theta roles in (42). I propose that the applicative in EPC constructions (Appl$_{EPC}$) also requires a filled specifier, except that in this case this restriction cannot be satisfied via external merge since Appl$_{EPC}$ does not assign a theta role. Rather, the specifier of Appl$_{EPC}$ must be filled by internal merge, under the assumption that external merge of arguments only takes place in theta positions (Chomsky 1981; Chomsky 2000).

On the assumption that the applicative directly merges with the theme internal argument (Pylkkänen 2002; Nevins 2011), when the specifier of Appl$_{EPC}$ is filled, the only possible target is the theme argument itself (cf. 43).

(43)
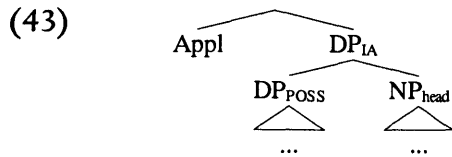
I assume along the lines of Pesetsky & Torrego (2001) and Matushansky (2006) that head and phrasal movement are different instantiations of the same phenomenon, and in particular, that movement of a complement of some head to the specifier of the same head is realized as head movement. According to this principle (the HEAD MOVEMENT GENERALIZATION, Pesetsky & Torrego 2001), what happens after Appl$_{EPC}$ is merged in (43) is that instead of DP$_{IA}$ moving to [Spec, ApplP], the head of the DP$_{IA}$ adjoins to Appl^0. I take the relevant head to be D^0 as in Abney (1987). The resulting structure is shown in (44), where the word order is abstracted over.

(44)
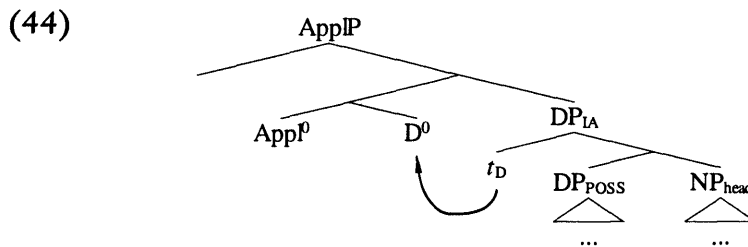
On the assumption that the D^0 head is the locus of φ-features and structural Case (see Abney 1987 for the idea that determiners are heads of NPs, and Longobardi 1994 on the role of D^0 in argument nominals), the incorporation of D^0 head into Appl^0 makes the possessor inside the DP$_{IA}$ accessible to absolutive agreement. This could be thought of in two ways: in the phasal view of this process, the possessor DP is normally not eligible for agreement due to PHASE IMPENETRABILITY CONDITION (PIC, Chomsky 2000). den Dikken (2007) argues that when an X^0 category undergoes head movement, the phase coextensive with the maximal projection of X^0 is not completed until the next phase containing X^0 is built. In this way the phase projected by D$^0_{IA}$ is extended until at least ApplP. The alternative conceptualization as to why absolutive agreement cannot target possessors of arguments outside of EPC is based on Relativized Minimality (Rizzi 1990): between the two possible goals for the absolutive probe, the DP$_{IA}$ itself, and the possessor contained in DP$_{IA}$, the former is closer to any probe C-commanding DP$_{IA}$. As such only DP$_{IA}$ can be targeted by any C-commanding probe, and the possessor inside

DP$_{IA}$ will remain inaccessible. I will not choose among these two alternatives, other than to say that I do not have available the kind of data generally used as an argument for or against phase-hood of some projection (cf. Chomsky 2001, Legate 2003, den Dikken 2006a, Ko 2005, den Dikken 2006b) and that regardless of whether the DP in Tseltal is phasal or not, relativized minimality is an empirically well-grounded phenomenon cross-linguistically.

After D^0 has adjoined to Appl^0 (I am assuming that this adjunction Case-licenses the internal argument DP, along the lines of Baker 1988), the absolutive agreement targets the possessor inside the DP$_{IA}$. I follow Bejar & Massam (1999) and Merchant (2009), among others (see also Richards 2007), in assuming that DPs can receive multiple morphological and structural cases. I take it that DPs with inherent case (such as dative and genitive) vary parametrically as to whether they can be targeted by Agree relations). I assume that Tseltal genitive DPs can be agreed with by C-commanding absolutive probes, if the locality conditions on Match are met.

(45)
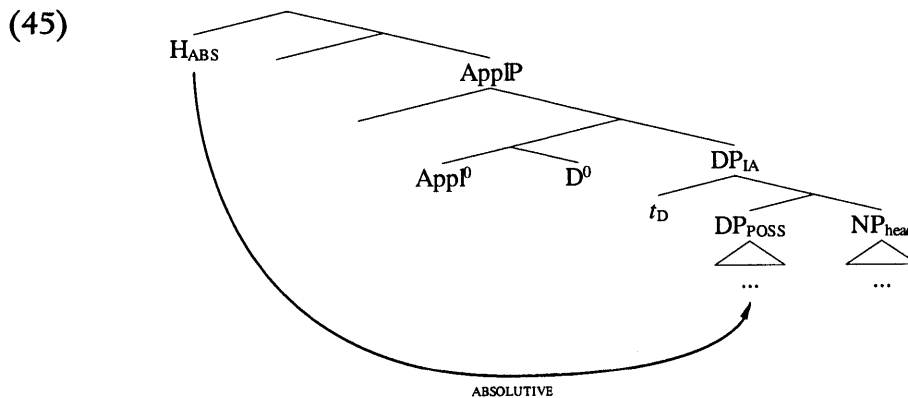
This derives the empirical facts of the Tseltal external possession construction, and in particular, the relationship between appearance of applicative morphology and the possibility of agreement with the possessor inside the DP$_{IA}$.

I take arguments with ergative case to be invisible to φ-probes searching for person features: this is an instance of CASE OPACITY, explored in more detail in chapter 4. The consequence of this is that passivization in Tseltal-type languages, unlike that of accusative languages, does not change any Case/agreement relations outside of the ergative argument projection itself (see chapter 4 for full discussion of case opacity and its effects on passivization): on the assumption that INFL and v^0 are the two potential probing/case-assigning heads in a clause, and further assuming that only v^0's Case-assigning and probing are affected by passivization, it follows that in Tseltal-type ergative language passivization does not affect Case and agreement relations beyond v^0

and the external argument: in the passive, INFL continues to target the internal argument(s) for agree. Consequently we would predict then that external possession construction is unaffected by passivization, as shown in (46).

(46)   il-bot   s-nah   Mariya
        see-APPL.PASS.ABS3 POSS3-house   Maria
        'Maria's house was seen.'

3.5.4 Binding effects

Recall that external possession constructions have consequences for binding in third-person agent and possessor contexts: the absence of EPC gives rise to a coreferential reading, while EPC constructions show disjoint reference effects:

(47) a.   3-3: WITHOUT EPC ⇒ COREFERENTIAL READING
           Pedro lah s-bon   s-nah
           Pedro PFV ERG3-paint.ABS3 POSS3-house
           'Pedro$_i$ painted his$_{i/*j}$ house.'

      b.   3-3: EPC ⇒ DISJOINT READING
           Pedro lah s-bom-be   s-nah
           Pedro PFV ERG3-paint-APPL.ABS3 POSS3-house
           'Pedro$_i$ painted his$_{*i/j}$ house.'

I follow Deal (2011) and Coon & Henderson (2011) in treating the disjoint reference effects as a Condition B violation. In particular, we observe that in Tseltal transitive sentences, Condition B is indeed active: when the external argument is coreferent with the internal argument, a (null) *pro* internal argument is unavailable, and only an anaphor makes the sentence grammatical:

(48) a. * lah k-il-on
           PFV ERG1-see-ABS1
           'I saw myself.'

      b.   lah k-il   k-bah
           PFV ERG1-see.ABS3 POSS1-self
           'I saw myself.'

I will argue that EPC constructions also constitute a single binding domain, i.e., that all pronouns in such constructions must be free. This will account for disjoint reference effects in EPCs as a grammatical constraint. For the coreference effects in non-externalized possessors of direct objects, I will demonstrate that these are not absolute,

and suggest that these arise as a general tendency in response to the fact that there is a dedicated construction for expressing disjoint reference, namely the EPC. As a preliminary consideration, in the next section I consider the anaphors in ditransitive constructions.

3.5.4.1 Anaphora in external possession constructions and beyond

Recall that while Oxchuk Tseltal allows anaphoric possessors in external possession constructions, such sentences are unavailable in Petalcingo:

(49)   * (jo'on-nax) lah k-net'-be   k-bah   k-ni'
        I-only   PFV ERG1-flatten-APPL.ABS3 POSS1-self POSS1-nose
        'I (myself) flattened me the nose.'

Likewise unavailable are constructions where the internal argument itself is an anaphor:

(50)   * lah k-il-be   k-bah
        PFV ERG1-see-APPL.ABS3 POSS1-self
        'I saw myself.'

The fact that (50) is ungrammatical need not be surprising: even though Tseltal anaphors are formally possessed body parts, they are not regular nouns. Tseltal reflexives are subject to different binding conditions than R-expressions, and have different distributional properties. Moreover, on the proposal being explored here, EPC requires the internal argument to have a D^0 head which can incorporate into the applicative. One set of proposals in the literature (cf. Partee 1987, Chierchia 1998, among others) argues that determiners take type <e,t> (predicate) nominal complements and yield type <e> (an individual). Anaphors lack independent reference and do not predicate, therefore, the D^0 heads in reflexive nominals, if they exist independently of the anaphor itself, must have properties different from the regular determiners in a given language. I conjecture that this precludes D^0 incorporation, and consequently makes external possession impossible with anaphoric internal arguments.

On the other hand, the unavailability of anaphoric possessors is more surprising given my account of Tseltal external possession. If the entire clause is a binding domain, why is it that the possessor which can be agreed with cannot be anaphoric? The answer, I argue, lies with the nature of Tseltal anaphors and the interaction of this with external possession constructions.

As argued in chapter 2, Tseltal anaphors are body-part reflexives, and behave similarly to Greek (Iatridou 1988), Selayarese (Woolford 1999), and Kutchi Gujarati (Patel 2010) anaphors in that the anaphoric DP itself does not show φ-features of its binder. Instead,

it is the possessor that matches the φ-features of the C-commanding co-indexed DP. There is evidence in Tseltal (see chapter 2) that Tseltal anaphors are formally third-person DPs:

(51)   lah $k_{\varphi:1}$-il-$\varnothing_{\varphi:3}$ [$_{\varphi:3}$ $k_{\varphi:1}$-bah$_{\varphi:3}$]
        PFV ERG1-see-ABS3 [POSS1-self]
        'I saw myself.'

Iatridou (1988) proposes that the co-indexation in such construction should be construed as follows:

(52)   lah k_k-il-$\varnothing_i$ [$_i$ k_k-bah$_i$]
        PFV ERG1-see-ABS3 [POSS1-self]
        'I saw myself.'

The internal argument, the NP projected by the reflexive body part *bah*, is co-indexed with its head, and in case of Tseltal with third-person absolutive agreement. The possessive agreement inside the anaphoric NP is co-indexed with the external argument: both are first person in this case.

Anagnostopoulou & Everaert (1999), building on the work of Reinhart & Reuland (1993) propose a theory of Greek-type anaphors whereby they are both reflexivizing on their predicate (+SELF) and referential (+R). Anagnostopoulou & Everaert argue that such NPs would seem to be subject to conflicting requirements in Reinhart & Reuland's system: on one hand the [+SELF] specification of the body-part anaphors would mark the predicate of which it is an argument as reflexive, forcing its two arguments to be co-indexed. On the other hand, the anaphor being co-indexed with another DP would violate Chain Condition, which requires that only one element in a chain have [+R] specification. Anagnostopoulou & Everaert propose that in [+SELF, +R] anaphors, the anaphoric NP undergoes incorporation into the verbal complex. This way, the anaphor becomes an argument of the verb, while the whole anaphoric NP now inherits the index of the possessor, which is co-indexed with the external argument. Indeed, Anagnostopoulou & Everaert draw a parallel with external possession construction, analyzed in terms very similar to the account proposed here to demonstrate that when a head-noun incorporates into the verbal complex, the possessor becomes an argument of the verb.

Under this account of possessed body-part anaphors we can provide a locality-based account of unavailability of possessor anaphors in external possession constructions. We

begin with an observation that direct object anaphors are blocked in ditransitive constructions:

(53)   * lah k-a'-bat   k-bah
           PFV ERG1-give-APPL.ABS2 POSS1-self
           'I gave myself to you.'

The reason is not due to Person Case Constraint (see chapter 4), since as we have seen already, Tseltal anaphoric expressions are formally third person, and therefore do not contravene the PCC. Furthermore if we look at other constructions that exhibit the PCC effect, we find that anaphors are indeed licit in those cases. The reason for ungrammaticality of (53) has to do with locality of the anaphor, I suggest: incorporation is generally a very local relation Baker (1988), hence incorporation of external arguments is cross-linguistically rare. If the anaphor (*bah*) must incorporate into the verb, as Anagnostopoulou & Everaert suggest, and it must do so directly, then the presence of the applicative in (53) will block such incorporation because movement of the anaphor into the V^0 will violate the head movement constraint (Travis 1984).

(54)
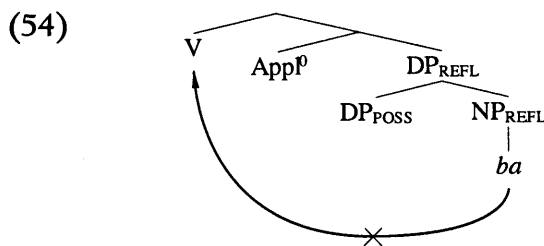
A goal or a benefactive indirect argument, on the other hand, can incorporate into the V^0 from the [Spec, ApplP] position where it is introduced. This derives the restriction on anaphoric themes in the presence of the indirect objects.

The same account also derives unavailability of possessor anaphors in external possession constructions: the applicative head will also block the incorporation of the anaphor from possessor DP.

3.5.4.2 Disjoint reference effects versus coreference

Returning to pronominal possessors in EPCs, our earlier assumption that the clause is a single domain for the purposes of binding theory predicts that pronouns will not receive coreferential interpretation in external possession constructions. The relevant data is repeated in (55).

(55) Pedro lah s-bom-be   s-nah
      Pedro PFV ERG3-paint-APPL.ABS3 POSS3-house
      'Pedro$_i$ painted his$_{*i/j}$ house.'

Turning to the coreferential reading effect, recall that in the absence of external possession when the possessor and the external argument are both third-person nominals, a coreferential reading obtains:

(56) Pedro lah s-bon   s-nah
      Pedro PFV ERG3-paint.ABS3 POSS3-house
      'Pedro$_i$ painted his$_{i/*j}$ house.'

In (56), the determiner of the internal argument NP has not head-adjoined to the applicative head. I take that to mean that the internal argument constitutes its own binding domain, separate from the rest of the clause. Evidence for this comes from the fact that anaphoric possessors are ungrammatical in regular transitive clauses as well. The fact that the possessor pronominals can be bound does not entail that they must be bound, however. I build on the ideas in Deal (2011), and suggest that bound interpretations of pronominal possessors in 3-on-3 possessed contexts arise as a Gricean effect of sorts: since the external possession construction only admits disjoint interpretation (a Principle B effect), the corresponding non-EPC construction is therefore interpreted as coreferential. This predicts that the disjoint reference effects should be more robust than the coreference effects, a prediction that is borne out by the data. Given a context that only allows a disjoint interpretation, sentences that are usually interpreted coreferentially do allow disjoint readings. Similar data has already been noted in Aissen (1987) for Tzotzil.

(57)   CONTEXT. Pedro is an only child, and Marta has a little sister.
           Speaker A: "Marta has really chewed out Pedro"
           Speaker B: "how come?"
           Speaker A responds:

           ✓lah y-uhts'i-∅   y-ihts'in
           PFV ERG3-kiss-ABS3 POSS3-little.sister
           'He$_i$ kissed her$_j$ little sister.'

On the other hand, no amount of context manipulation allows coreference between third-person external argument and third-person possessor in external possession constructions: the disjoint reference effect is not defeasible, as we would expect if it was a true grammatical constraint.

Our proposal also predicts that outside of 3-on-3 contexts, the coreference and disjoint reference would have different status. Since disjoint reference effects arise as a violation of Principle B, we would expect that regardless of the φ-features of the nominals involved, disjoint reference would hold.

(58)   * lah k-bom-bon   k-nah
           PFV ERG1-paint-ABS1 POSS1-house
           'I painted my house.'

Coreference between pronominals not having the same φ-features is not possible. On the other hand, non-third-person DPs refer to unique individuals, given a particular context, and therefore must corefer. Consequently, coreference and disjoint reference outside of EPCs also has a categorical status outside of 3-on-3 contexts:

(59)   lah k-uhts'i-∅   y-ihts'in
           PFV ERG1-kiss-ABS3 POSS3-little.sister
           'I$_i$ kissed her$_j$/*my$_i$ little sister.'

3.6 Conclusion

In this chapter I have argued that external possession constructions (EPCs) in Tseltal involve the kind of long-distance agreement where the possessor inside the direct object DP is targeted by core clausal person agreement probe. Initial evidence for this analysis came from the fact that external possession constructions do not involve semantics of affectedness of the possessor argument. This, it was claimed, is evidence against the idea that the possessor receives a theta role outside the DP where it is generated. Similarly, the fact that any type of possessor was eligible to participate in EPCs is likewise

evidence for agreement analysis. Finally, the fact that the possessor argument did not vacate the DP projected by the head noun, and move overtly into the matrix clause also argues for the long-distance agreement analysis, one where the possessor remains *in situ*. Overall, such long-distance agreement between probes in one domain (clause) and goals in another domain (inside a DP) are predicted under the traditional accounts of agreement (cf. Chomsky 2000), where the locality of Agree arises from two factors: cyclicity and intervention. Cyclicity imposes one kind of limit on the possible distance between probe and goal: on the Chomsky (2001) conceptualization of PHASE IMPENETRABILITY CONDITION, a probe outside a (strong) phase cannot target a goal inside another (strong) phase. The second condition yielding local agreement relations is the non-intervention condition: a probe obligatorily targets the closest active goal within its search domain. If no possible targets intervene between a probe and some goal, and no strong phase boundaries separate the two, the agreement is predicted to take place over arbitrarily long distances. The external possession constructions examined here are argued to be such a case.

The ultimate section of this chapter was devoted to the coreference and disjoint reference effects that obtain between third-person subject, and third-person possessor of the direct object in regular and EPC clauses. It was found that while disjoint reference effects in 3-3 EPC environments cannot be suppressed, in 3-3 regular clauses, in some contexts, coreference effects are not obligatory. This led to the dual account of coreference/disjoint reference effects: while the latter are the result of the application of Principle B of binding theory, the former, it was claimed, is a type of Gricean effect: since the external possession construction yielded disjoint coreference, in the absence of EPC, the preferred interpretation involved coreference. However, since the Gricean principles are not a part of the core grammar (i.e. syntax), the coreference effects do not arise obligatorily, in contrast to disjoint reference effects.

Chapter Four
Person Case Constraint

4.1 Introduction

This chapter is devoted to an analysis of the Person Case Constraint (PCC). PCC, a prohibition against first- and second-person direct objects in ditransitive constructions, has been identified in many languages (Bonet 1991, Haspelmath 2004). I show that in Tseltal, a PCC restriction is attested not only in ditransitive clauses, but also in a class of non-finite complements lacking an indirect object. What makes PCC in Tseltal non-finite constructions particularly interesting is the fact that the presence and absence of PCC effects is tied to whether the matrix clause has an ergative argument: in the presence of the ergative subject, PCC effects are not attested.

Following Anagnostopoulou (2003; 2005) and Bejar & Rezac (2003), my account is formulated in terms of multiple agree (Hiraiwa 2001; 2005), and crucially relies on analysis of ergative as inherent case (Woolford 1997, Alexiadou 2001, Legate 2008, Aldridge 2007, Anand & Nevins 2006, among others). I claim that PCC effects arise as a result of failure of case licensing (or more broadly, PERSON LICENSING CONDITION from Bejar & Rezac 2003): when two arguments check case (or person features) against one head, the lower argument is restricted to having third-person features and second- or first-person features are ruled out. The ameliorating effect of ergative subjects, I suggest, comes from the fact that ergative arguments do not require Agree-type licensing. This allows lower arguments needing Case and person licensing to be targeted for Agree by the higher head directly, without PCC-inducing intervention of another argument.

The analysis proposed here has consequences for our understanding of the agreement operation. In English, non-local (intra-clausal) agreement is attested in subject-to-subject raising: matrix T^0 can agree with the embedded subject just in case there is no available matrix agreement target and only when the embedded subject fails to get case from its clausemate T. I claim that what we see in some Tseltal non-finite constructions

is an instantiation of the same pattern in an ergative language, i.e., a language where ergative argument cannot control agreement. In such a language, when the matrix agreement can reach into the lower clause, it is the internal argument that is targeted by Agree, resulting in object-to-object raising. Under the assumption that ergative arguments are not possible targets for φ-probes, this is exactly what we would expect in ergative languages.

The idea that certain kinds of arguments are invisible to φ-probes (CASE OPACITY, Rezac 2008a) invites us to consider a typology of interactions between higher and lower arguments where some NPs, but not others, cannot be φ-agree targets. In the last section of the present chapter I investigate such a typology and speculate that it may account for some of the nominal splits in split-ergative languages.

This chapter is organized as follows: in the next section I introduce the core dataset of this chapter, namely the PCC effects in ditransitive and non-finite configurations. Section 3 presents the analysis of PCC effects in Tseltal ditransitives, while section 4 addresses the same in non-finite complement clauses. Extensions of the theories adopted here and conclusions comprise section 5.

4.2 An overview of PCC effects in Tseltal

In this section I present Tseltal PCC effects in ditransitive and non-finite complementation configurations. The Person Case Constraint (PCC) is a syntactic effect that rules out first- or second-person direct objects in ditransitive configurations. As discussed in Bonet (1991), PCC is a cross-linguistic phenomenon, attested in French, Spanish, Catalan, Greek, Basque, and Arabic among other languages (see Bonet 1991, Haspelmath 2004, Rezac 2011). Example in (1) demonstrates PCC effects in French:

(1)　　　[French, Anagnostopoulou 2005:203]
　　　　　* Paul me　　lui　　présentera
　　　　　Paul 1SG-ACC 3SG-DAT will.instroduce.3SG
　　　　　'Paul will introduce me to him.'

Tseltal shows PCC effects in at least two separate domains: a) ditransitive/applicative constructions, and b) certain cases of non-finite complements embedded under intransitive, but crucially not ergative-assigning (transitive) verbs.

Traditionally PCC effects are classified as either strong or weak (Bonet 1991). Strong PCC rules out any first- or second-person direct objects in a ditransitive configuration, while weak PCC prohibits first- or second-person direct object when the indirect object is third person. The difference between strong and weak PCC is whether a speech-act

participant (first- or second-person) Goal with first- or second-person Theme is permitted: strong PCC prohibits such configurations while weak PCC admits them. Tseltal exhibits only strong PCC effects, which will be the focus of this paper.

4.2.1 Ditransitives

As discussed in chapters 2 and 3, in Tseltal ditransitive constructions the goal argument controls absolutive agreement, whereas in transitive constructions the absolutive agreement tracks the theme argument. This makes Tseltal a "primary object language" in the terminology of Dryer (1986). All Tseltal ditransitives are applicative constructions; verbs such as 'give' feature an overt applicative marker -be. Ditransitive/applicativized constructions show no additional agreement beyond the two arguments marked in monotransitive clauses; in ditransitive clauses the ergative marker cross-references the person of the agent argument, while the agreement is controlled by the indirect object. The direct object is not agreed with:[1]

> (2)   a.   lah y-a'-be
>   PFV ERG3-give-APPL.ABS3
>   'She gave it to her.'
>
>   b.   lah x-chom-bat
>   PFV ERG3-sell-APPL.ABS2
>   'She sold it to you.'

This type of ditransitive construction is reported in many Mayan languages (see Aissen 1987 for Tzotzil and Coon 2010 for Chol, among others) and is similar to the syntax of ditransitives in Mohawk (Baker 1996), Kiowa (Adger & Harbour 2007; though Kiowa does not have overt applicative morphology), and many others (see Haspelmath 2005 and Malchukov, Haspelmath & Comrie 2010 for an overview).

Only transitive stems (both in the active and in the passive) appear with applicative morphology in Tseltal[2]:

> (3)   a. * yahl/nux-bon
>   fall/swim-APPL.ABS1
>   'She fell/swam for/to me.', 'I fell/swam for/to her.'

---

[1] The applicative marker -be loses its vowel when followed by absolutive suffix in most cases.

[2] I propose a way of capturing this restriction below; however, I do not offer a principled explanation. See chapter 3, fn. 1

    b. 'a'-bot-on   me mut-e'
        give-APPL.PASS-ABS1 DET chicken-CL
        'I was given a chicken.'

The relational noun *-u'un* can introduce benefactive indirect object arguments in intransitive constructions:

(4)   yahl-on ta   aw-u'un
           fall-ABS1 PREP POSS2-RN
           'I fell for you.'

In a passivized ditransitive, it is the indirect object that is promoted to subject rather than the direct object, as (3b) demonstrates. The direct object cannot become subject in a passivized applicative construction:

(5)   * 'a'-bot   me mut-e'
           give-APPL.PASS.ABS3 DET chicken-CL
           Intended reading: 'The chicken was given (to her).'

This property, in combination with the agreement properties makes Tseltal applicative a kind of asymmetric applicative (Bresnan & Moshi 1990). This contrasts with the symmetric applicatives of languages where either the goal or the theme can be agreed with and/or become the subject in a passivized construction.

4.2.2 PCC in Tseltal ditransitives

I begin by demonstrating Tseltal PCC effects with the ditransitive/applicative constructions, where they have been identified in other languages, including closely related Tzotzil (Aissen 1987). In Tseltal applicative constructions, the absolutive agreement morphology can only be controlled by the applied argument (indirect object):

(6)   lah y-a'-bat
           PFV ERG3-give-APPL.ABS2
           OK: 'She gave it to you.'
           * 'She gave you to her / She gave me to you.'

Applicative constructions in Tseltal exhibit PCC effects: first- or second-person direct objects cannot appear in ditransitive/applicative constructions, as shown in (7)[3].

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[3] Here and in what follows, the unavailable readings are highlighted by inclusion of a personal pronoun even though pronouns are not very common in discourse. Examples like (7) are grammatical if an object pronoun is not included on an irrelevant non-PCC reading. Besides overt

(7)   lah y-a'-bat   me mut-e'   / * jo'on-e'
           PFV ERG3-give-APPL.ABS2 DET chicken-CL / * I-CL
           'She gave you a chicken/*me.'

Some reasons to think that this is a syntactic effect and not just an artifact of agreement
will be given in the following section. The meanings ruled out by PCC can be expressed
via constructions where indirect objects are expressed inside prepositional phrases or as
complements to relational nouns (a type of inherently relational two-place predicate
with syntactic properties of a noun). Example (8) shows one such construction:

(8)   a.   ya k-ak'   k-bah   ta   a-tojol
             IMPF ERG1-put.ABS3 POSS1-self PREP POSS2-power
             'I give myself to your power.' = 'I give myself to you.'

       b.   lah y-ak'-on   ta   a-tojol
             PFV ERG3-put-ABS1 PREP POSS2-power
             'She gave me to your power.'

4.2.3 PCC in non-finite complements

In addition to finite complement clauses, Tseltal features a class of non-finite
complements characterized by -el morphology on the embedded (non-finite) verb and
restricted absolutive agreement. I defer a fuller discussion of the syntax of non-finite
complements until a later section, only observing here that in complement positions,
non-finite clauses appear in at least two environments: under aspectual auxiliary *yakal*
and as complements to ergative assigning verbs. The main puzzle I seek to address in this
chapter is the PCC asymmetries between these two environments: while the former
induces PCC effects on the object argument, the latter features no such restriction. This

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pronouns, the ungrammaticality of PCC-violating constructions can be established via secondary
predicates, which in many cases agree with NPs they modify.

The presence of an overt pronoun in a clause does not affect agreement, even though
morphologically, Tseltal pronouns might be analyzed as a focus marker with absolutive
agreement morphology. Unlike Greek, French and many other languages (Bonet 1991;
Anagnostopoulou 2005; Rezac 2011 among others), Tseltal "strong" pronouns do not repair PCC
violations (cf. Aissen 1987 for similar facts in Tzotzil). The only PCC repairs available in Tseltal
are periphrastic, and they differ from the kinds of PCC repairs described in Rezac (2011) in that
the "repair" constructions are available independently of PCC. As Rezac (2011) points out, the
unavailability of repair via strong pronouns argues against "spell out the lower copy of the chain"
morphological theory of PCC repair (Bonet 1991).

is illustrated in (9) and (10). Example (9) demonstrates the fact that under an aspectual auxiliary only third-person NPs may function as objects of the embedded verb.[4]

(9)   a.   yakal-on   ta   s-pet-el   te   alal-e'
            PROG-ABS1 PREP ERG3-hug-NF DET baby-CL
            'I am hugging the baby.'

       b. * yakal-on   ta   s-pet-el   ja'at(-e')
              PROG-ABS1 PREP ERG3-hug-NF you(-CL)
              'I am hugging you.'

I will argue in section 4 that contrary to initial appearances, the third-person agreement on the embedded verb glossed as ergative in the above examples is not object agreement.

Returning to the PCC restriction, (9b) demonstrates that non-third-person internal arguments are ruled out in non-finite complements to *yakal*. In contrast, the PCC restriction does not hold for non-finite complements embedded under transitive (ergative-assigning) verbs, as (10) shows; first- and second-person objects are licit in these constructions.

(10)   j-k'an-at   s-pet-el   (ja'at-e')
          ERG1-want-ABS2 ERG3-hug-NF (you-CL)
          'I want to hug you.'

In the next section I offer my account of the PCC restriction in Tseltal ditransitive constructions.

4.3 The account of PCC effects in Tseltal ditransitives

I begin my analysis of PCC effects in Tseltal by detailing some of the assumptions I make about case and agreement in this language. I then present the multiple-agree theory of PCC, and show how these assumptions derive the PCC effects in Tseltal.

4.3.1 Ergative case and opacity

It has been proposed that arguments receiving inherent case (i.e. case concomitant with theta role assignment) cannot value φ-probes (McGinnis 1998, Chomsky 2000; see also Rezac 2008a). Conversely, arguments that come to bear structural case enter the derivation caseless and receive structural case from C-commanding probes via φ-agree (Chomsky 2000). I am assuming, following Woolford (1997), Alexiadou (2001), Legate

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[4] I use NP as a cover term for "maximal nominal projection." Whether the relevant projections are NPs or DPs is not crucial for present purposes.

(2008), and Aldridge (2007), among others that ergative case is an inherent case rather than structural (see Marantz 2000 and Bobaljik 2008 for an alternative view of case assignment and agreement). Under the inherent ergative view, ergative case is assigned to agents by transitive v^0, the head responsible for introduction of external arguments (Kratzer 1996). According to this theory, ergative case is theta-related: it is assigned to an argument in conjunction with theta-marking, in a manner similar to dative case. In ergative languages then, the v^0 head projects the external argument (EA) in its specifier and assigns this argument both the agent theta role and ergative case:

(11)

INFL vP

   EA

         v VP

      ERG
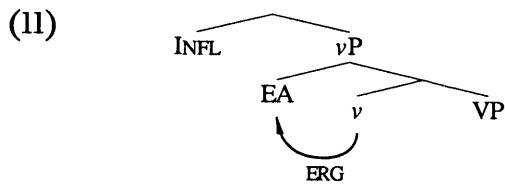
The absolutive markers, on the other hand, I claim are a reflex of true φ-agreement from the finite INFL with internal arguments (IA) as in (12).

(12)

INFL vP

   EA

        v VP

    ERG   V   IA

Agree, ABS
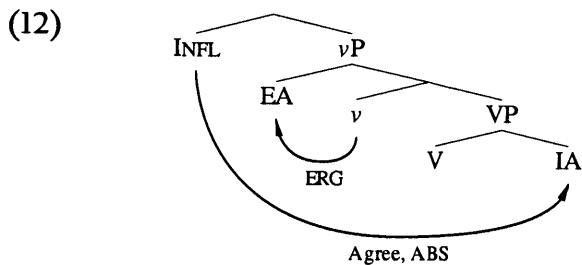
The inherent ergative proposal for case assignment raises the question of how φ-agree could be possible from a higher head (INFL) to a lower argument (direct object) across an intervening argument, the EA, under the assumption that defective intervention constraint (DIC, Chomsky 2000) is a part of universal grammar (though see Richards 2008 for arguments against defective intervention). Traditionally, the answer to the issue of defective intervention in ergative syntax has been to assume that INFL targets the external argument for EPP agreement, moving the EA out of the way (Legate 2008, Anand & Nevins 2006). This allows INFL to agree with the IA inside the VP without the external argument intervening, as shown in (13):

(13)

```
          EA
             INFL        vP
                  t_EA
                      v        VP
                           V        IA

                    Agree, ABS
```
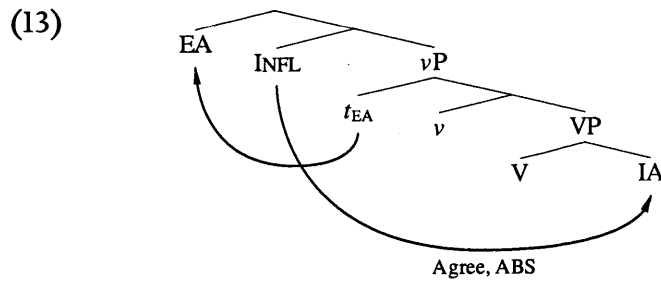
An alternative approach to lack of ergative intervention effects is proposed in Alexiadou & Anagnostopoulou (2006). In developing an analysis similar to the present one, these authors, following an argument in Bobaljik (2008), suggest that the absence of ergative intervention effects can be reduced to the fact that defective intervention is not attested in mono-clausal environments generally.

Though I assume a type of EPP-based evacuation of absolutive arguments in a limited range of cases in chapter 5, I will argue here that the issue of ergative intervention does not arise due to effects of case opacity. Specifically, I claim that Tseltal ergative arguments are neither visible for agreement nor possible interveners for agree relations with lower arguments, even though ergative NPs may be targeted for EPP satisfaction. This means that EPP is not parasitic on φ-agree and that heads can target phrases for EPP satisfaction without entering φ-agree relations with such phrases (cf. Ura 1996, Anagnostopoulou 2003). One reason to consider the opacity approach to ergative syntax in Tseltal is the fact that while ergative arguments do not control person agreement, they can be targeted by number agreement. The syntax of number agreement is discussed later in the chapter. The opacity approach also makes correct predictions with respect to intervention in control environments. In addition, this treatment of non-intervention will permit consideration of ergative splits from the perspective of opacity to φ-agree.

In my account of case opacity of ergative arguments I adopt Rezac's (2008a) theory of NP's inability to value φ-probes when the NP bears theta-related case. For Rezac, some NPs with theta-related case are invisible to φ-probes: they cannot value a φ-probe yet do not intervene in agree relations between higher probes and lower goals. An example of a construction illustrating this property in English is in (14) (adapted from Rezac 2008a):

(14)   There seem$_i$ to him to be some books$_i$ on the shelf

In (14) the agreement in the matrix clause tracks the φ-features of NP *some books*, even though the experiencer *him* is structurally closer to the φ-probe on the matrix T. The fact that *him* cannot value a φ-probe on T follows if we assume that arguments with theta-related case cannot be targets for Agree.

I take Tseltal ergative arguments to bear theta-related case. Consequently, according to the framework adopted here, this makes ergative arguments opaque to φ-probes much in the same way as the experiencer argument in (14). This is codified in the following lemma, similar to Anand & Nevins (2006) VIVA parameter:

(15) ERGATIVE ARGUMENT INVISIBILITY HYPOTHESIS (EAIH) (to be revised)
An argument receiving ergative case is invisible to φ-probes

(15) stipulates that arguments with ergative case (external arguments of active transitive verbs) cannot serve as goals for φ-agree, and also do not act as interveners for φ-agree relations between C-commanding φ-probes and lower goals.

It follows from (15) that when the φ-probe on INFL searches its C-command domain for an agreement target, the first and only NP visible for φ-agree is the internal argument inside the VP:

(16)
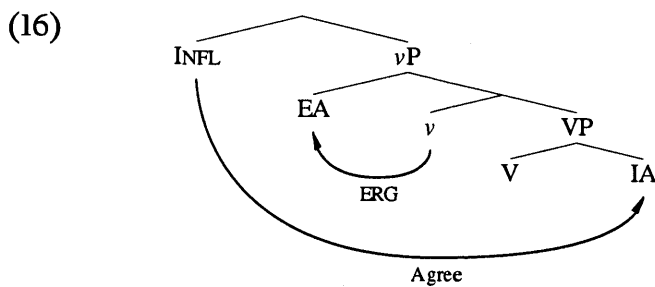
The consequence of this is that while v^0 assigns ergative to the external argument, the internal argument enters an agree relation with INFL. What this means is that IA receives absolutive case from INFL, even though the ergative EA is closer to INFL than IA.

In intransitive clauses there is no ergative case assigned by v^0 head to any argument either because v^0 is not present, or because the kind of v^0 that occurs in intransitive clauses does not assign case. The INFL targets for φ-agreement the sole argument projected, the intransitive subject:[5]

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[5] I set aside the issue of unergative verbs in ergative languages. One proposal explored in Coon (2010) is that some fully ergative languages lack unergative verbs as such. An alternative proposal in Anand & Nevins (2006) and Deal (2010) is that agreement with the internal argument is a precondition to assigning ergative case to the specifier of vP. To adopt this for Tseltal we would have to assume that agreement with the internal argument from v^0 has no morphological or syntactic consequences, since I derive PCC effects from the hypothesis that INFL and not v^0 is the source of absolutive agreement in Tseltal.

(17)
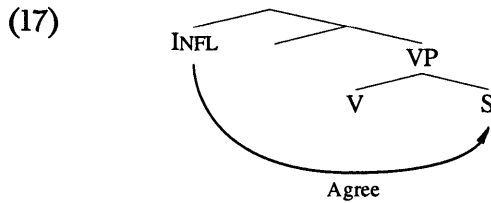
This single argument in an intransitive clause receives absolutive case from INFL.

Under this account, the absolutive case in ergative languages is the counterpart of nominative case in accusative languages in that it is assigned by the head of the finite clause: in the typology of Legate (2008), what we are considering is an ABS=NOM language. What makes absolutive case different from nominative is that it is not always the highest argument in the clause that receives this structural case.

4.3.2 Multiple agree account of PCC

Perlmutter (1970b) and Kayne (1975) show that identical strings differ with respect to their PCC status depending on the syntactic structures involved, as shown in (18). This property of PCC makes it difficult to formulate a pure morphological analysis to account for this phenomenon.

(18)   [French, Kayne 1975]

       a. * Paul vous lui presentera

       b.   Vous lui presenterez Paul

In the same vein, the fact that dative+accusative clitic sequences cause ungrammaticality when the dative clitic is a goal of a ditransitive, but not when the dative clitic is an ethical dative in languages like Catalan, also presents difficulties for morphological accounts (see Bonet 1991, Albizu 1997, Rezac 2011 and references therein for more on non-argument clitics).

The foregoing does not mean that morphological accounts of PCC have not been proposed, particularly for clitic languages (see, for example, Miller & Sag 1997 and Walcow 2010, though see Anagnostopoulou 2008 for an argument against purely morphological account of PCC in Swiss German clitics). For agreement languages a purely morphological account is more difficult to maintain. As Baker (1996) points out, agreement languages with strong PCC restriction and zero agreement morphology provide an argument against a morphological account of PCC. Taking Tseltal ditransitives as an example, we observe in (19) that the PCC restriction persists even when the indirect object is third person.

(19) a. * lah y-a'-bat   b. * lah y-a'-be
         PFV ERG3-give-APPL.ABS2   PFV ERG3-give-APPL.ABS3
         'She gave you to her.'   'She gave you to her.'
         (OK as 'She gave it to you.')   (OK as 'She gave it to her.')

If the PCC restriction arose solely as a consequence of impossibility of accommodating agreement morphemes for all the arguments of a tri-valent predicate, then we would expect (19) to be grammatical: the indirect object is third person and therefore controls null agreement, making it possible, in theory, for the direct object to be agreed with as well. The fact that agreement with direct object is possible in principle does not save (19), on the relevant reading. This suggests that PCC is syntactic, rather than morphological in nature.

The Basque data in Albizu (1997) and Rezac (2008b) provide an additional argument in favor of a syntactic approach to PCC. Basque features two classes of unaccusative verbs taking an absolutive and a dative argument: with one class, the absolutive argument C-commands the dative, while with the other class the opposite C-command relations obtain. This difference correlates with the presence of PCC effects, as shown in (20):

(20)   [Basque Rezac 2008b:63]

      a.   Haieki   Itxaso-rij   gustatzen zai-zkii-oj
           they.ABS   Itxaso-DAT   liking   √D-PL-3
           Itxaso likes them.

      b. * Nii   Itxaso-rij   gustatzen ni-a-tzai-oj.
           I.ABS   Itxaso-DAT   liking   1-TM-√D-3
           Itxaso likes me.

      c. * Nii   Itxaso-rij   etortzen ni-a-tzai-oj.
           I.ABS   Itxaso-DAT   coming   1-TM-√D-3
           I am coming to Itxaso.

Such examples further demonstrate that PCC is a syntactic restriction. Therefore, I adopt a syntactic account of PCC proposed in Anagnostopoulou (2003; 2005) and Bejar & Rezac (2003). These proposals derive PCC from failure to license a nominal's [PERSON] features in multiple-agree[6] configurations (see Boeckx 2000, Nevins 2007; Nevins 2011, Adger & Harbour 2007 for similar approaches); though see Ormazabal & Juan Romero (2007) for an alternative approach.

Along with the above-mentioned authors, I follow Pylkkänen (2002) in claiming that indirect object arguments are introduced by the dedicated applicative head which merges with the direct object (DO):[7]

(21)

$$
\begin{array}{c}
\text{VP} \\
\diagup\diagdown \\
\text{V} \quad \diagup\diagdown \\
\text{IO} \quad \diagup\diagdown \\
\text{Appl}^0 \quad \text{DO}
\end{array}
$$
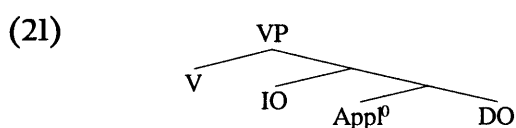
The fact that it is the IO, rather than DO, that controls the absolutive agreement provides support for the hypothesis that IO C-commands the DO. The same also applies to the fact that in passivized ditransitives it is the IO that becomes the subject and not the DO. Furthermore, the nature of PCC restriction in Tseltal provides additional support for the idea that C-command relations are IO>DO and not vice-versa: if PCC is an intervention-type effect then the fact that PCC restriction affects the DO argument suggests that it is lower in the structure than the IO.

I take the Tseltal applicative morphology (-be) to be the phonological realization of the Appl[0] head. I assume that in Tseltal the applicative head projects the indirect object argument, but does not itself probe (Bejar & Rezac 2003, Anagnostopoulou 2005).

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[6] Properly speaking, MULTIPLE Φ-AGREEMENT should be distinguished from SPLIT Φ-AGREEMENT, as discussed at the end of the paper. Here, I continue employing MULTIPLE (Φ-)AGREEMENT as a cover term for both operations, until the last section, where I argue that the operation relevant to Tseltal is multiple agree and not split φ-agreement.

[7] Pylkkänen (2002) makes a distinction between low, possession-transfer applicative and a high benefactive applicative. In chapter 3 I adopt the view that Tseltal has a low applicative. I abstract away from this difference here.

The multiple agree accounts of PCC rest on two central assumptions, in addition to the structural relations discussed so far:

❑ The [PERSON] features of an NP must be licensed via agree (PERSON LICENSING CONDITION [PLC], Bejar & Rezac 2003). First- and second-person NPs have [PERSON] features, and thus require licensing, while third-person NPs lack [PERSON] features.[8]

❑ A single head can enter into φ-agree relations with multiple NPs, as either MULTIPLE AGREE (Hiraiwa 2001; 2005), or SPLIT Φ-AGREE (Bejar & Rezac 2003, Anagnostopoulou 2005). Only the higher NP's [PERSON] features can be licensed in multiple agree configurations.

PCC effects occur in cases where a single functional head (v^0, in the case of PCC effects in ditransitive constructions in accusative languages) first agrees with the structurally higher indirect object. It then enters into a φ-agree relation with the lower direct object:[9]

(22)

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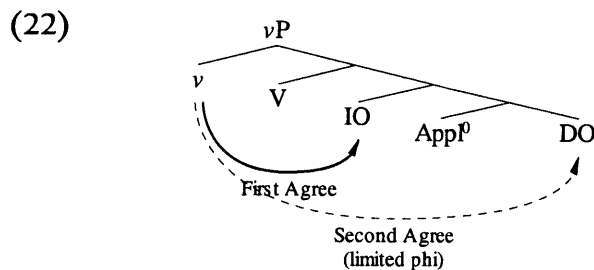
[8] Anagnostopoulou (2005) follows the proposal in Adger & Harbour (2007) in suggesting that unlike direct objects, dative arguments are always specified for the [PERSON] feature: [-PERSON] when third person and [+PERSON] when first or second person. Third person direct objects lack a [PERSON] specification entirely, which makes these arguments licit in PCC configurations. Adger & Harbour (2007) root the distinction between third person DO and third person IO in animacy feature: it could be argued that the applicative head only selects animate arguments in its specifier.

[9] On Hiraiwa's (2001; 2005) view of MULTIPLE AGREE, this operation is simultaneous agree with more than one goal. On the other hand, SPLIT Φ-AGREEMENT (Anagnostopoulou 2005 and Bejar & Rezac 2003) is generally taken to be a sequential operation. The sequential terms employed here (*first agree, second agree*) are meant for expository purposes only. Nevins (2007), who argues for a multiple-agree account of PCC, explicitly argues in favor of simultaneous multiple agree and against sequential multiple agree in the context of PCC effects.

The second agreement cannot license [PERSON] features of the direct object, resulting in the Person Case Constraint restriction: direct object must be third person.[10]

4.3.3 PCC in Tseltal ditransitive clauses

An example of the PCC restriction in Tseltal ditransitive clause is repeated below:

(7)   lah   y-a'-bat   me mut-e'   / * jo'on-e'
        PFV ERG3-give-APPL.ABS2 DET chicken-CL / * I-CL
        'She gave you a chicken/*me.'

Consider the possible φ-agreement targets in (7): the Ergative Argument Invisibility Hypothesis (15) stipulates that ergative arguments cannot serve as goals for agree and are not defective interveners. I assume that in Tseltal, the IO-introducing applicative head does not itself probe.[11] The fact that absolutive agreement is controlled by the indirect object shows that unlike ergative, the IO is fully visible to agreement probes. This could be either because Tseltal $Appl^0$ does not assign dative to the IO, or because the kind of dative available in Tseltal is fully visible for φ-agree (I will return to the issue of transparency of indirect object for φ-agree in the last section of the paper). The consequence of the fact that the goal can be a target for φ-agree is that in a ditransitive construction, when INFL probes for a nominal to agree with, the closes agreement target is the indirect object. The consequence of this agreement is the fact that absolutive morphology reflects the [PERSON] features of the indirect (applied) object.

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[10] For Anagnostopoulou (2005) the ungrammaticality of PCC-violating constructions comes about as a result of a failure to assign case to the direct object. If case-assignment can take place only when NP's full set of φ-features is checked and [PERSON] is a φ-feature, the PCC effect follows. In Anagnostopoulou's (2005) account, the reason why the relevant head (v^0 in accusative languages) cannot check person features of the direct object is because it has already checked person features of the dative argument, which, by assumption, always bears a person feature specification.

[11] An alternative I will not explore here is the idea (in Adger & Harbour 2007) that in ditransitive constructions the applicative head probes and case-licenses the direct object but is unable to license [+person] arguments. Under the assumption that all NPs require case, it is not clear how to extend this proposal to structures with non-finite complementation in Tseltal discussed below, since in non-finite complementation environments the applicative is not present. However, see fn. 18 for evidence that in certain cases v^0 in combination with the applicative head is able to probe/agree.

After the first φ-agree, INFL continues to probe and finds the direct object. The agree that takes place when φ-probe on INFL finds the direct object is of limited nature and cannot license [PERSON] features of the direct object:

(23)
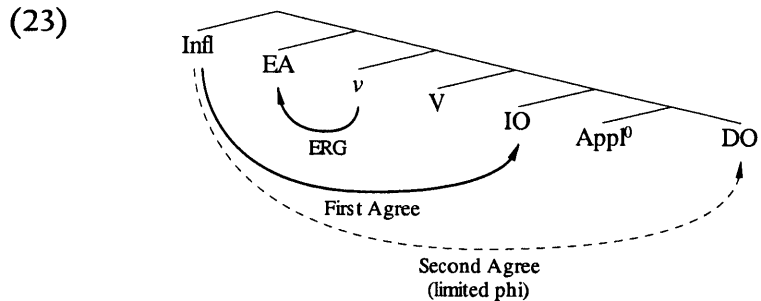
In this case, if the direct object is a third-person nominal, the derivation converges, as third-person NPs have no [PERSON] features that require licensing. On the other hand, if the direct object is first or second person, its' [PERSON] features remain unlicensed, causing the derivation to crash.

Note that the external argument is not an intervener for the φ-probe on INFL precisely because it bears the kind of theta-related case that makes it invisible to φ-probes (cf. 15). The indirect object, on the other hand, is visible for φ-agree and therefore is a target for agreement from INFL.

This theory accounts for the fact that in ditransitive constructions, it is the indirect object's person features that are reflected by absolutive morphology. This also predicts that PCC effects will persist regardless of whether the ditransitive is active or passive. In accusative languages, the role of v^0 as argument introducer and case-licenser is split between external and internal arguments. Under the assumption that v^0 is the locus of voice alternations and fails to introduce EA or assign case in the passive, it follows that in passive constructions in accusative languages, the EA will be absent,[12] while the IA will need to get Case from another source. In ergative languages, in contrast, v^0 assigns Case to the argument it introduces, the EA. Consequently, in passive constructions, the Case relations involving other nominals remain as they are in active clauses: since the IA never got Case from v^0 in active clauses, the Case relations involving the internal argument do not change in the passive, as shown in (24).

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[12] I am setting aside the issue of implicit arguments in passives.

(24) a. TRANSITIVE ACTIVE CLAUSE   b. PASSIVIZED TRANSITIVE CLAUSE
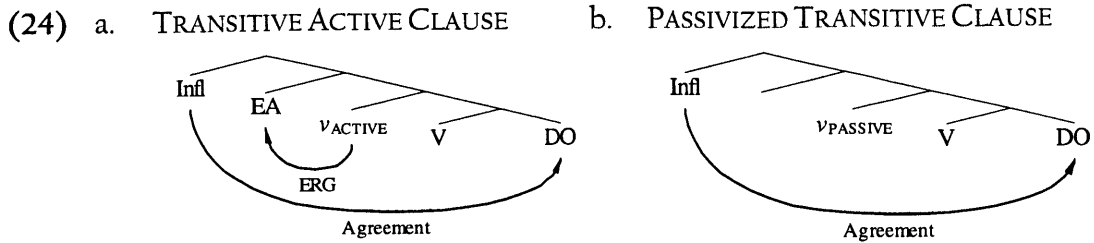
Due to case opacity of EA in Tseltal (15), the v^0 and EA are not pertinent to the Agree relations relevant in the Person Case Constraint. Note that the case opacity of EA may not be universal: the last section of the present chapter explores the possible consequences of variation in EA case opacity in ergative languages.

Returning to Tseltal, the preservation of case relations under passive persists in PCC configurations: under the assumption that INFL is the head relevant for Case assignment/agreement relations crucial to the PCC, we would expect the PCC restriction to be unaffected by passivization, as shown in (25):

(25) a. PCC IN ACTIVE CLAUSE   b. PCC IN PASSIVE CLAUSE
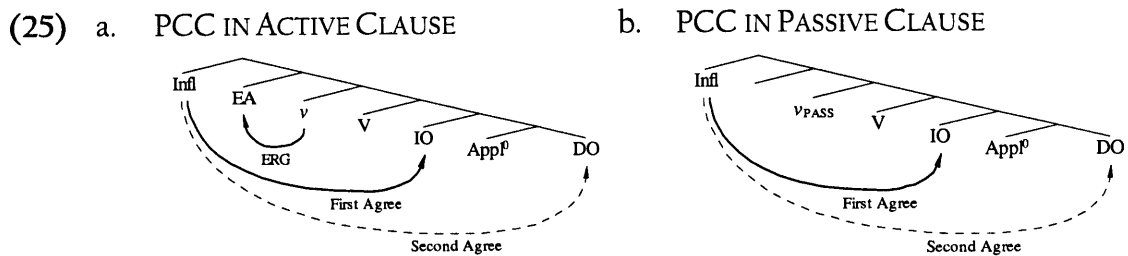
Therefore, we predict that PCC effects in Tseltal should be unaffected by passivization; in other words, we expect PCC restriction not only in active clauses but also in the passive, as in (26):

(26) a. 'a'-bot-on   me   mut-e'
          give-APPL.PASS-ABS1 DET chicken-CL
          'I was given a chicken.'

      b. * 'a'-bot-on   (me) ja'at(-e')
          give-APPL.PASS-ABS1 (DET) you(-CL)
          'I was given you.'

What (26) shows is that in Tseltal, PCC effects are not only induced by IO on the DO argument (IO>DO) but also by the subject on the object (Subj>Obj) in passivized ditransitive. The Subj>Obj type of PCC restriction is more rare than the ditransitive PCC, though it is still attested cross-linguistically (see Nevins 2011 and Rezac 2011).

In contrast to ergative languages, in nominative/accusative languages the v^0 is involved in case-licensing both IO and the DO, as proposed in Anagnostopoulou (2003; 2005) and Bejar & Rezac (2003). Under the assumption that v^0 is not a φ-probe in passive constructions, a different head, such as T^0, must be involved in case-licensing IO and DO in ditransitive passives:

(27) a. ACTIVE   b. PASSIVE
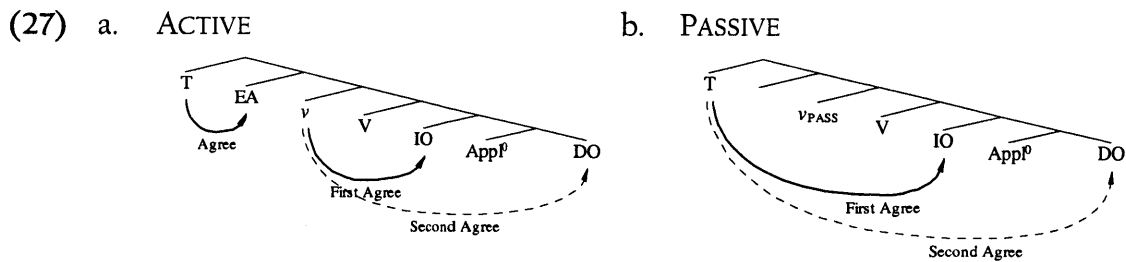
If different heads exhibit different agreement and licensing properties, we might expect in nominative/accusative languages the possibility of PCC differences in active versus passivized ditransitives. This is what we find in Icelandic, where active ditransitives show no PCC-like effects, while passive ditransitives restrict the nominative object to being third person (see Anagnostopoulou 2005 for an analysis of PCC in Icelandic ditransitive passive).

(28)   [Icelandic, Thrainsson p.c. to Schütze 1997:117]
   a.   Ég   gaf   honum   þig   í   jólagjöf.
        I.NOM gave   him.DAT you.ACC as   Xmas-gift
        'I gave him you as a Christmas present.'

   b. * Honum   var/varst   gefinn   þú.
        him.DAT   was.3SG/was.2SG   given   you.NOM
        Assumed gloss: 'you were given to him.'

The prediction of the present account is that nominative/accusative languages may vary in PCC properties between active and passivized ditransitives, while ergative languages of the Tseltal type (where INFL assigns absolutive case and ergative is opaque to φ-agree) should not exhibit such a difference.

In the next section I turn to my account of PCC in Tseltal non-finite complements.

4.4 PCC effects in Tseltal non-finite complements

4.4.1 Tseltal non-finite complementation

Tseltal exhibits both finite and non-finite clausal complementation. Finite complements are introduced either by a null complementizer, like that in the main clauses, or by complementizers *te* or *me*, which are homophonous with pre-nominal determiners in this language.[13, 14] Finite complement clauses feature the same agreement and aspect marking as main clauses:

(29)   lah k-il   [me   lah s-maj
         PFV ERG1-see [COMP PFV ERG3-beat.ABS3

         te   s-ts'i'-e'   te Pedro-he'   ]
         DET POSS3-dog-CL DET Pedro-CL   ]

         'I saw that Pedro hit his dog.'

Besides finite complement clauses, Tseltal features several types of non-finite complements, characterized by the *-el* morphology on the verb. One type of non-finite complement is shown in (30):

(30)   j-k'an   s-pet-el   te alal-e'
         ERG1-want ERG3-hug-NF DET baby-CL

         'I want to hug the baby.'

Previous work on this type of non-finite complement clause has identified them with nouns (Shklovsky 2005 for Tseltal, Coon 2010 for Chol), or constructions that can be verbal nouns or infinitives depending on the context (Polian 2012). Here I will set aside the question of the correct labeling of these constructions, concentrating on their internal and external syntax. I will develop an account of non-finite complement clauses that appear with aspectual auxiliary *yakal* and ergative-assigning (transitive) embedding verbs, setting aside other non-finite clauses in Tseltal (see Polian 2012 for a detailed description of non-finite clauses in Tseltal dialects, and Aissen 1994 for a theory of similar constructions in Tzotzil, a closely-related Mayan language).

I begin the discussion of non-finite complement clauses with an overview of two types of embedding verbs that license them. The first of these, the progressive auxiliary *yakal*,

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[13] A particle *a*, whose syntax is obscure to me also has some complementizer-like properties. Its analysis as an aspect marker is discussed in chapter 1. I set this morpheme it aside here.

[14] Polian (to appear) argues that complement clauses introduced by overt complementizers have different properties than those introduced by null Cs. I abstract from these differences here.

takes a subject (often realized as absolutive agreement only) and a prepositional phrase, where the element inside the PP is a nominal or a non-finite clause:[15]

(31) a. *YAKAL* NP [pp P NP]

    yakal-on   ta   ixta   / ta   ixim / ta   machit
    PROG-ABS1   PREP game   / PREP corn / PREP   machete
    'I am playing / eating corn / working with a machete.'

b. *YAKAL* NP P + NON-FINITE CLAUSE

    yakal-on   ta   s-pet-el   te   alal-e'
    PROG-ABS1   PREP ERG3-hug-NF   DET   baby-CL
    'I am hugging the baby.'

In addition to progressive auxiliary *yakal*, the *-el* non-finite clause appears with certain transitive verbs: *k'an* ('want'), *mulan* ('like'), *nak* ('despise'), and *na'* ('to know [how to do something]'). Transitive embedding verbs also take either a NP or a non-finite complement. The complement-taking properties of transitive embedding verbs are similar to that of *yakal* with the difference being that the arguments to *yakal* are embedded inside a prepositional phrase, as shown in (32) and (33).

---

[15] The progressive *yakal* can also appear with a single DP complement:

(i)   yakal-∅   me   rebolusion-e'
        PROG-ABS3   DET   revolution-CL
        'The revolution was going on.'

In addition, *yakal* appears with another type of non-finite complement bearing *-el* morphology. In this construction the embedded verb bears both ergative and absolutive inflection, while *yakal* features no agreement and the preposition is absent:

(ii)   yakal k-il-bel-at
        PROG   ERG1-see-APPL.NF-ABS2
        'I am watching you.'

Here, I set aside the non-finite construction of the type shown in (ii), though see fn. 18 on the applicative morpheme in non-finite clauses. It is worth noting that construction such as (ii) are the more common way of expressing progressive meanings, and also since they do not exhibit PCC effects on the internal argument, they can be considered the preferred repair strategy for the PCC effects in the *yakal ta* 3-TV-*el* construction.

(32) a. k-mulan-at   b. te ts'i'-e' ya   s-mulan-∅   ti'bal-e'
          ERG1-like-ABS2   DET dog-CL IMPF   ERG3-like-ABS3   meat-CL
          'I like you.'   'The dog likes meat.'

(33)   k-mulan s-pet-el   te alal-e'
          ERG1-like ERG3-hug-NF DET baby-CL
          'I like hugging the baby.'

Within the class of non-finite complement clauses that appear with both *yakal* (progressive) and transitive embedding verbs, several types of non-finite clause can be identified based on argument structure.[16] When the non-finite embedded verb is intransitive, the thematic subject of the lower predicate is identified by absolutive agreement on *yakal* and by ergative morphology on ergative-assigning verbs:

(34)   IV-EL NON-FINITE COMPLEMENT
      a. yakal-on ta   yahl-el   b. j-k'an   yahl-el
          PROG-ABS1 PREP fall-NF   ERG1-want   fall-NF
          'I am falling.'   'I want to fall.'

When the non-finite complement is headed by a transitive stem, two types of argument structure are available: active-like and passive-like. This variation corresponds to the presence and absence of ergative marking on the embedded verb. Where the embedded transitive verb takes only the non-finite -*el* suffix and no ergative marking, the thematic internal argument of the embedded verb controls the matrix absolutive agreement. In this construction, the thematic agent is not expressed and is understood as being unspecified or impersonal:

(35)   TV-EL NON-FINITE COMPLEMENT (passive meaning)
      a. yakal-on   ta   pet-el   b. j-k'an   pet-el
          PROG-ABS1 PREP   hug-NF   ERG1-want   hug-NF
          'I am being hugged.'   'I want to be hugged.'

---

[16] Other transitive and intransitive verbs appear with complement and adjunct non-finite clauses. For example, the inceptive *och* ('begin' as auxiliary and 'enter' as a main verb), and terminative *lah* ('finish', also homophonous with the transitive perfective aspect marker) as well as stative stems formed from positional roots also take non-finite complement clauses headed by a preposition. These share the syntax of *yakal* with non-finite clauses, including the PCC restriction. There are some unexplored differences between these constructions, and therefore, I limit my discussion to non-finite complements with *yakal* auxiliary and *k'an*-class transitive verbs.

The thematic agent of the embedded verb can sometimes be expressed as an oblique, similar to an agent of a passivized finite transitive verb. A passive finite clause with an overt agent is shown for comparison in (36b).

(36) a. PASSIVE-LIKE NF CONSTRUCTION WITH AN OVERT AGENT

      ? yakal-on ta   maj-el   (y-u'un j-tuhl winik)
      PROG-ABS1 PREP beat-NF (POSS3-RN one-NC man)
      'I am being beaten (by a man).'

    b. PASSIVE FINITE CLAUSE WITH AN OVERT AGENT

      ti'-ot-on   (y-u'un   ts'i')
      bite-PASS-ABS1 (POSS3-RN dog)
      'I was bitten (by a dog).'

Note that non-finite verbs resist affixation of regular (finite) passive suffix -*ot*, as shown in (37):

(37)   * yakal-on ta   'il-ot-el
      PROG-ABS1 PREP see-PASS-NF
      'I am being watched.'

The other argument structure option for transitive non-finite verbs corresponds to an argument structure of an active finite clause. In the active-like non-finite construction, the embedded non-finite transitive verb takes a third-person ergative marker as in (38).

(38)   ERG3-TV-*EL* NON-FINITE COMPLEMENT (active meaning)

    a. yakal-on ta   s-pet-el   te   alal-e'
      PROG-ABS1 PREP ERG3-hug-NF DET baby-CL
      'I am hugging the baby.'

    b. j-k'an   s-pet-el   te   alal-e'
      ERG1-want ERG3-hug-NF DET baby-CL
      'I want to hug the baby.'

The ergative marker in the "active" non-finite complement can only be third person: (39) shows that non-third-person ergative in this case is ungrammatical.

(39)   * yakal-∅   ta   k-/a-pet-el
      PROG-ABS3 PREP ERG1/ERG2-hug-NF
      'She is hugging me/you.'

I argue that this ergative marker does not reference any NP overtly present in the derivation. Example (40) shows that even in constructions where only first- and second-person arguments are present, the third-person ergative nonetheless appears:

(40)   k-mulan-at   y-il-el
         ERG1-like-ABS2   ERG3-see-NF
         'I like seeing you.'

I offer an analysis of the ergative marker in non-finite clauses in section 4.4. Returning to the two types of argument structure for transitive non-finite verbs, we note that the syntax of transitive passive-like non-finite construction (shown in 41a) is identical to the syntax of intransitive non-finite complement (as in 41b).

(41)   a.   PASSIVE-LIKE TRANSITIVE NF CLAUSE
            yakal-on   ta   pet-el
            PROG-ABS1 PREP hug-NF
            'I am being hugged.'

       b.   INTRANSITIVE NF CLAUSE
            yakal-on   ta   way-el
            PROG-ABS1 PREP sleep-NF
            'I am sleeping.'

In contrast, the syntax of active-type transitive non-finite complement (40), distinguished by invariant third-person agreement on the non-finite verb, is impossible with intransitive non-finite complements:

(42)   a. * yakal-on   ta   s-way-el   b. * j-k'an   s-way-el
            PROG-ABS1   PREP   ERG3-sleep-NF   ERG1-want   ERG3-sleep-NF
            'I am sleeping.'   'I want to be sleeping.'

In section 4.4, I propose an analysis of the differences in syntax between the types of non-finite -el clauses demonstrated here. For the study of PCC effects in non-finite clauses, only active transitive complements will be relevant. Before embarking on investigation of PCC in Tseltal non-finite clauses, I undertake a brief exploration of the syntactic properties of non-finite complements. This is the task of the next section.

4.4.2 Non-finite clause syntax

There are several differences between finite and non-finite complements in Tseltal. Morphologically, all non-finite complements feature an -*el* morpheme on the verb, whereas (main) verbs in finite clauses do not show this morphology. The non-finite complement clauses of all three types discussed so far also differ from finite complement clauses in their complementizer properties. Whereas finite complement clauses can be headed by complementizers *te* or *me*, these are ungrammatical with non-finite (NF) complements:

(43) a. FINITE COMPLEMENT CLAUSE

lah k-il   te/me lah a-pet   te   alal-e'
PFV ERG1-see COMP PFV ERG2-hug.ABS3 DET baby-CL
'I saw that you hugged the baby.'

b. NON-FINITE COMPLEMENT

* j-k'an   te/me s-pet-el   te   alal-e'
ERG1-want COMP ERG3-hug-NF DET baby-CL
'I want to hug the baby.'

Note that under my analysis, the preposition *ta* which appears with non-finite complements to the progressive auxiliary *yakal* is not a complementizer; rather, it is analogous to the preposition that appears when *yakal*, a morphosyntactically intransitive verb, takes two NP arguments as in (31a, repeated below as 44). In this, I depart from Polian (2012), who suggests that the preposition is equivalent to a complementizer in cases of non-finite complementation.

(44)   yakal-on ta   ixta / ta   ixim / ta   machit
PROG-ABS1 PREP game / PREP corn / PREP machete
'I am playing / eating corn / working with a machete.'

Another difference between finite and non-finite clauses is the possibility of overt aspect marking: whereas finite clauses can, and in some case, must, have overt aspectual morphology (see chapter 2 for details), as (45) demonstrates, non-finite clauses obligatorily lack aspect marking.

(45) a. FINITE COMPLEMENT CLAUSE
          lah k-il   te/me lah a-pet   te   alal-e'
          PFV ERG1-see COMP   PFV ERG2-hug   DET baby-CL
          'I saw that you hugged the baby.'

      b. NON-FINITE COMPLEMENT
        * j-k'an   lah s-pet-el   te   alal-e'
          ERG1-want PFV ERG3-hug-NF   DET baby-CL
          'I want to have seen the baby.'[17]

Finally, non-finite complement clauses feature restricted agreement in contrast to finite
CPs. Specifically, overt (first- and second-person) absolutive agreement is not possible
on the embedded non-finite verb.[18] In finite embedded clauses, on the other hand, overt

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[17] This sentence is grammatical (though pragmatically strange) on an irrelevant evidential
reading of *lah*.

[18] There is an exception to the data generalization that absolutive agreement is not licit in non-
finite clauses: in non-finite complements to *yakal* and transitive verbs, applicative morphology on
the embedded verb sometimes allows embedded absolutive agreement which is otherwise
ungrammatical:

   (iii)   yakal-on   ta   x-chom-be-y-el-at   te   mut-e'
             PROG-ABS1   PREP   ERG3-sell-APPL-EPN-NF-ABS2   DET   chicken-CL
             'I am selling you the chicken.'

These constructions appear to be marginal in Petalcingo Tseltal (though see fn. 15 for a
productive similar construction), and their analysis lies outside the scope of the present work,
however, it should be noted that the most promising analysis involves a merger of the applicative
head and a transitive active v^0 head (perhaps in a manner similar to case assignment by amalgam
of v-V_{mid}-V in Ura 1996) creating conditions for the transitive v^0 to license absolutive and ergative
case, along the lines of Legate (2008). The fact that active v^0 is involved is clear from the fact that
absolutive agreement in embedded non-finite clauses is not possible in the passive-like non-finite
clauses:

   (iv)   * yakal-on   ta   chom-be-y-el-at
             PROG-ABS1   PREP   sell-APPL-EPN-NF-ABS2
             '(impersonal agent) is selling me you.'

The fact that absolutive agreement in non-finite complement clauses is not possible in the
absence of active transitive v^0 and applicative morphology suggests that in the absence of these
heads non-finite INFL is unable to assign absolutive case or φ-agree.

absolutive agreement is obligatory for non-third-person arguments, as shown in examples in (46).

(46) a. FINITE COMPLEMENT CLAUSE
          k-na'   te   lah aw-il-on
          ERG1-know COMP PFV ERG2-see-ABS1
          'I know that you saw me.'

      b. NON-FINITE COMPLEMENT
        * j-k'an   s-pet-el-at
          ERG1-want ERG3-hug-NF-ABS2
          'I want to hug you.'

Under the hypothesis that absolutive morphology is a reflex of finite INFL agreement in Tseltal, the absence of absolutive agreement is expected in non-finite environments. I am assuming that in non-finite complement clauses Infl^0 is either missing or is inactive as a φ-probe. Furthermore, given the correlation between finiteness and aspectual realization, I suggest, following Aissen (1996), that INFL should be identified with Aspect, in the spirit of Ritter & Wiltschko (2009); cf. also Adger & Harbour (2007). This would account for the aspect marking requirement in finite clauses and lack of aspectual morphology in non-finite environments.

Recall that the type of non-finite complement I discuss here comes in one of three varieties: intransitive, transitive passive, and transitive active:

(47) a. INTRANSITIVE
          yakal-on   ta   yahl-el
          PROG-ABS1 PREP fall-NF
          'I am falling.'

      b. TRANSITIVE PASSIVE
          yakal-on   ta   pet-el
          PROG-ABS1   PREP hug-NF
          'I am being hugged.'

      c. TRANSITIVE ACTIVE
          yakal-on   ta   s-pet-el   te   alal-e'
          PROG-ABS1   PREP ERG3-hug-NF   DET baby-CL
          'I am hugging the baby.'

I suggest that in all the above cases the non-finite complement clause is a control infinitive having a PRO subject. The structures for non-finite clauses under the progressive auxiliary (48a) and an ergative-assigning verb (48b) are schematized in (49), where "NFP" is the label of the non-finite clause projection.

(48) a. yakal-on ta s-pet-el   te alal-e'
          PROG-ABS1 PREP ERG3-hug-NF DET baby-CL
          'I am hugging the baby.'

      b. j-k'an   s-pet-el   te alal-e'
          ERG1-want   ERG3-hug-NF DET baby-CL
          'I want to hug the baby.'

(49) a.

      b.
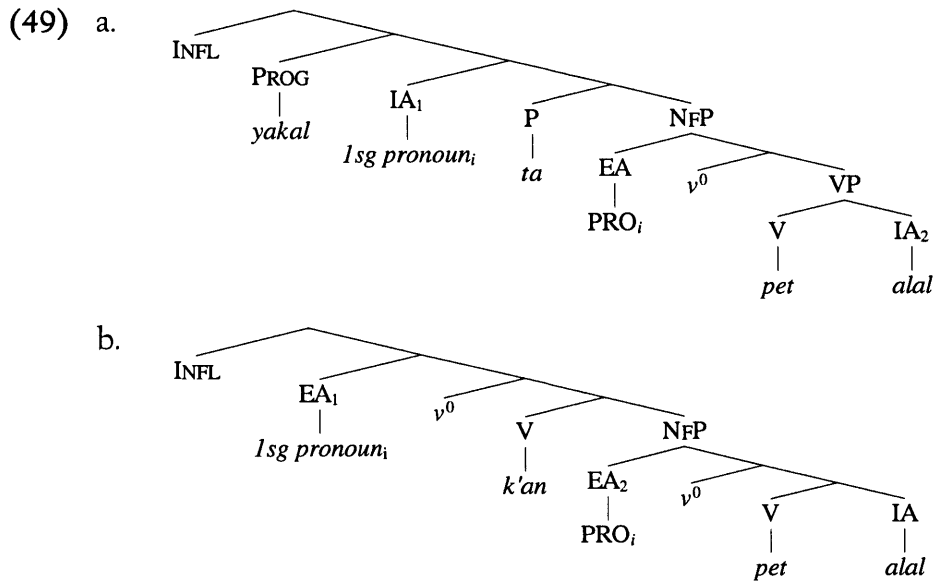
With respect to (49a), the agreement facts suggest that the subject of the progressive construction is projected as an internal argument of *yakal*. For concreteness, I assume the Pesetsky (1995)/Harley (2002)-style projection of two internal arguments in (49a).

The suggestion that *yakal* is a control verb may seem odd: cross-linguistically, aspectual verbs are frequently raising verbs, and we do not expect them to assign a theta role. At the same time, Perlmutter (1970a) argued that aspectual verbs like *begin* are ambiguous in the sense that they appear in both control and raising structures. I take this to mean that aspectual verbs can in principle embed control infinitives. With respect to Tseltal *yakal*, this verb takes NP (and PP) arguments as was seen in (31a), repeated below as (50a).

(50) a. yakal-on ta ixta / ta ixim / ta machit
 PROG-ABS1 PREP game / PREP corn / PREP machete
 'I am playing / eating corn / working with a machete.'

b. yakal-∅ me rebolusion-e' / asamblea
 PROG-ABS3 DET revolution-CL / assemby
 'The revolution/assembly was/is going on.'

The examples in (50) suggest that *yakal* is able to assign a theta role to an argument in the matrix clause. This in turn provides support for the assertion that *yakal* theta-marks the argument controlling the absolutive agreement when *yakal* takes a non-finite complement.

A possible counter-argument comes from the imperative formation facts. As the following example shows, *yakal* does not form imperatives:

(51) a. * yak(a)l-an ta s-pet-el (te alal-e')
 PROG-IMP PREP ERG3-hug-NF (DET baby)
 'Be hugging the baby!'

b. * yak(a)l-an ta way-el
 PROG-IMP PREP sleep-NF
 'Be sleeping!'

Perlmutter (1970a) argues that inability to form imperatives is a diagnostic for raising. However, other factors might cause ungrammaticality of imperatives in this case: it may be the case that *yakal* is not agentive enough to form imperatives, possibly due to being a stative construction as argued for in Coon (2010) for Chol (a related Mayan language). Coon (2010) also proposes that aspectual auxiliaries assign theta roles to the arguments controlling absolutive morphology in constructions where the lexical verb appears in a prepositional phrase, though her analysis differs from the one presented here.

Therefore I will assume a control analysis of *yakal* complementation in what follows. I do not propose a particular syntax of where the non-finite complement clause merges with respect to the progressive auxiliary and its arguments, and simply assume that the non-finite complement merges somewhere inside the VP headed by *yakal*.

So far, I have claimed that non-finite clausal complements are control infinitives without addressing the issue of their size. I will continue to remain agnostic on this issue other than to argue that Tseltal non-finite clausal complements must contain a v^0 head, and hence be as large as a vP. The evidence for the non-finite complement being at least as large as a vP comes in part from the fact that non-finite complement clauses show active/passive alternation, as shown in (47). If v^0 is the locus of such alternations then it must be a part of the non-finite complement. The availability of applicative morphology in Tseltal non-finite constructions likewise suggests that v^0 is present. Tseltal applicatives can only appear with transitive stems, i.e., stems that in active matrix clauses assign ergative to the agent argument and take a direct object, as shown in (52). In contrast, intransitive stems are ungrammatical with applicatives (53).

(52) a. TRANSITIVE ROOT
        x-chom-be
        ERG3-sell-APPL.ABS3
        'She sells it to her.'

        b. DERIVED TRANSITIVE STEM
          suj-tes-be
          ERG3.return-CAUS-APPL.ABS3
          'She returns it to her.'

      c. APPLICATIVE + PASSIVE
        chom-bot   te   mut-e'
        sell-APPL.PASS.ABS3 DET chicken-CL
        'She was sold the chicken.'

(53) a. INTRANSITIVE ROOT
        * yahl/nux-bat
        fall/swim-APPL.ABS2
        'She fell/swam for you.',
        or 'You fell/swam for her.'

        b. PASSIVE + APPLICATIVE
          * (s)-maj-ot-bat
          (ERG3)-beat-PASS-APPL.ABS2
          'She beat it for you.'
          or 'She beat you for her.'

Because Tseltal applicative requires the presence of a transitive v^0 head, applicative morphology can serve as a diagnostic of the presence of v^0 projection. We now observe that Tseltal non-finite complements with embedded transitive verbs admit the applicative suffix:

> (54)   yakal-on   ta   x-chom-be-y-el   te   mut-e'
>   PROG-ABS1 PREP ERG3-sell-APPL-EPN-NF DET chicken-CL
>   'I am selling the chicken to her.'

Note that the presence of the applicative in the embedded clause in (54) cannot be related to the matrix predicate, since the embedding verb in (54) is intransitive. I conclude, therefore, that non-finite complements project a v^0 head, and consequently a vP layer of structure.

4.4.3 Account of PCC effects in non-finite complement clauses

Having proposed a general structure for non-finite clauses in Tseltal in the previous section, here I further flesh out the syntax of arguments and agreement in Tseltal non-finite clauses. This will derive the PCC restriction in non-finite clauses embedded under aspectual auxiliary using the same assumptions necessary to derive PCC in Tseltal ditransitives. First, I consider the non-finite clauses embedded under *yakal*, i.e., environments that show PCC restriction. Thereafter I propose an analysis of non-finite complements embedded under ergative-assigning (transitive) verbs, where PCC does not hold.

4.4.3.1 Non-finite clauses with aspectual auxiliary

Consider again an active transitive non-finite complement with *yakal* auxiliary:

> (55)   yakal-on   ta   s-pet-el   (te   alal-e')
>   PROG-ABS1 PREP ERG3-hug-NF (DET baby-CL)
>   'I am hugging it/the baby.'

In the previous sections I have identified absolutive morphology as a reflex of INFL φ-agreement. From the observation that only one instance of absolutive morphology can be present in (55) it follows that there is only one probing/agreeing INFL head in these constructions. Given the fact that constructions like that in (55) are PCC environments,

it might be possible to suppose that there is absolutive agreement in the lower domain but it is invisible due to the fact that third-person absolutive agreement exponent is $-\emptyset$. This, however, would rob us of an account of PCC in these constructions. Furthermore, we have seen in (40) above (repeated below) that non-finite complements do not show absolutive agreement even when the internal argument is non-third person:

(40)   k-mulan-at   y-il-el
         ERG1-like-ABS2   ERG3-see-NF
         'I like seeing you.'

The fact that absolutive agreement occurs in the matrix clause suggests that the sole agreeing head is part of the matrix, rather than the embedded clause. As is the case with the mono-clausal constructions, the internal argument in (55) receives case from the finite INFL, as shown in (56).

(56)
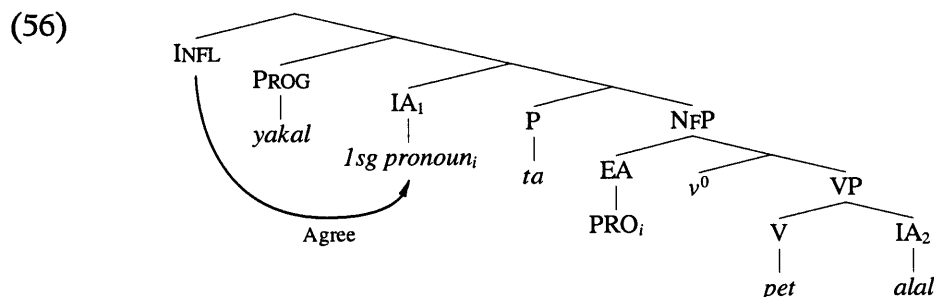
The subject of the matrix clause is co-indexed with the PRO subject in the embedded non-finite clause.[19] If the derivation ended here, however, the internal argument of the embedded verb would be left caseless since embedded clause lacks a structural case licenser. I will claim that the matrix INFL agrees and case-licenses the embedded object via second agree.

Now I turn to the issues raised by the presence of the embedded PRO subject in the non-finite clause. While the GB account of PRO, Chomsky (1981) held that PRO is obligatorily caseless, arguments that PRO does bear structural or inherent case have

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[19] As far as I know, under progressive auxiliary and transitive embedding verbs the subject of the embedded clause is obligatorily interpreted as co-referential with matrix argument, as in obligatory control. I am assuming that unavailability of non-obligatory control (NOC) and arbitrary PRO in the embedded clause is derived in the manner outlined in Landau (2000; 2001) where non-obligatory control obtains in adjunct or extraposed complement clauses. Since the non-finite clauses described here are complement clauses, and there is no evidence of extraposition we would expect obligatory control in the Landau framework.

been presented for many languages including Icelandic (Sigurðsson 1991), Russian (Moore & Perlmutter 2000, among many others), and Hungarian (Tóth 2000); see (Landau 2006) and (Bobaljik & Landau 2009) for an overview. Therefore, I assume that in Tseltal, PRO can likewise bear case, though, crucially, not that PRO requires case. Returning to the structure in (56), we observe that PRO is merged in an external argument position in the specifier of vP, where overt NPs receive ergative case. If PRO can bear case as well, we would expect PRO to receive ergative in this configuration. The fact that the clause where PRO is projected is not finite does not affect the assignment of ergative case, if ergative case is inherent (theta-related) as I claim. Therefore, given the mechanics of case assignment in general and the fact that PRO can be a case-bearing nominal, we would expect PRO to bear ergative in clauses like (55).

If PRO is ergative, then by the ergative argument invisibility hypothesis (15), PRO will not be visible for φ-agree. Consequently, when the matrix INFL continues to probe after agreeing with the matrix subject NP, the next argument it will target for φ-agreement is the internal argument of the embedded verb:

(57) a. * yakal-on   ta   s-pet-el   ja'at(-e')
         PROG-ABS1 PREP ERG3-hug-NF you(-CL)
         'I am hugging you.'

b.
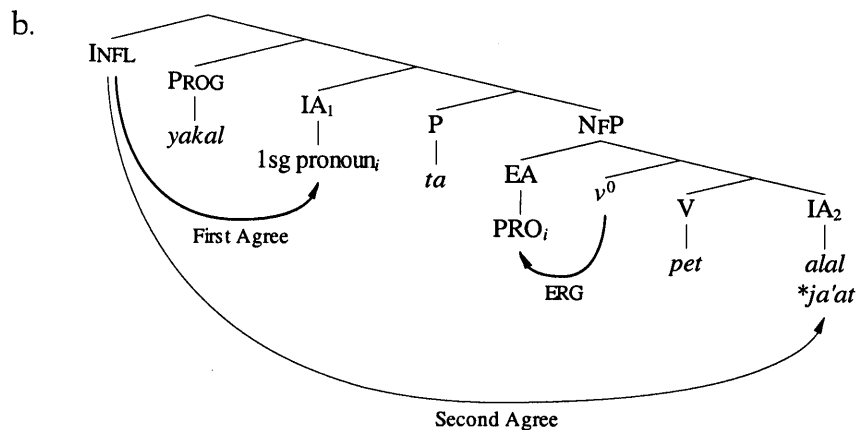
This agree operation is the second agreement matrix INFL enters into. Therefore INFL is unable to license [PERSON] features on the embedded object, resulting in a PCC restriction. What we see in clauses like (55) and (57), I argue, is that while PRO does not intervene for agree relations between the matrix INFL and the embedded internal

argument, a full φ-agreement is precluded by the intervening matrix subject, which induces PCC effects on the lower argument. This contrasts with the situation in Icelandic, where PRO subjects induce PCC violations on the lower argument:

(58)   [Icelandic, Thráinsson, p.c. to Bobaljik 2008, fn. 27]
         Við   vonumst til [að leiðast hún   / *þið   ekki]
         we.NOM hope.PL   for [to bore.INF she.NOM / you.PL.NOM not]
         'We hope not to be bored with her / *you.'

I argue that this contrast between Tseltal and Icelandic is entirely expected given the view of case opacity adopted here. What is crucial about the Icelandic data is that for the purposes of PCC violations, Icelandic PRO behaves just like an overt NP in the same environment. The embedded clause in (58) is a dative subject construction; in other words the PRO argument in (58) is dative. As (59) demonstrates, in Icelandic dative subject constructions with overt subject the lower nominative object is likewise restricted to being third person.

(59) a.   henni   leiddust   þeir   [Icelandic, Taraldsen 1995]
           she.DAT was.bored.by-3PL they.NOM
           'She was bored by them.'

     b. *?henni   leiddumst   við   [Icelandic, Taraldsen 1995]
           she.DAT was.bored.by-1PL us.NOM
           'She was bored by us.'

From this perspective, Tseltal and Icelandic PRO are exactly alike: they behave identically to their overt subject counterparts for the purpose of PCC effects. Icelandic dative subjects (whether overt NPs or PROs) induce PCC on the lower nominative objects, while Tseltal ergative subjects, PRO or otherwise, do not cause PCC violations in the absolutive NPs they C-command. In Tseltal, I claim that this is due to ergative argument invisibility (EAIH, 20). For Icelandic, it would appear that existing accounts of PCC effects (Anagnostopoulou 2005, Richards 2008, among others) could be extended to include the data in (59), assuming we accept Schütze's (1997) and Sigurðsson's (1991) arguments that Icelandic non-finite T is a structural case assigner.[20]

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[20] The account herein could be assimilated to Landau's (2000; 2004) account of the calculus of control if we assume (as Landau 2004 does) that PRO agreement is distinct from φ-agreement. In other words, while ergative arguments, both overt and PRO, are not visible for φ-agree, both EPP and Control-type agreement (for [±R] feature, in Landau's framework) can target NPs regardless

In the next section I propose an account for the absence of PCC effects when ergative-assigning verbs take non-finite clausal complements.

4.4.3.2 Non-finite complements under ergative-assigning verbs

Recall that in constructions where ergative-assigning verbs embed non-finite complements, no PCC effects are found:

(60) a. j-k'an   s-pet-el   te alal-e'
        ERG1-want ERG3-hug-NF DET baby-CL
        'I want to hug the baby.'

    b. j-k'an-at   s-pet-el
        ERG1-want-ABS2 ERG3-hug-NF
        'I want to hug you.'

As before, I argue that in constructions such as (60), there is a single agreeing head: the matrix INFL. The embedded INFL is not a structural case assigner either because it is absent or because non-finite INFL is not a φ-probe in Tseltal. Transitive (ergative-assigning) verbs project an external NP argument but not an internal argument NP: I assume that with transitive embedding verbs the non-finite clause is merged in the complement position of the matrix verb. There are two external arguments in this construction therefore: an NP in the higher domain and a PRO in the lower domain. Both receive inherent ergative from the v^0 heads that introduce them. This makes both external arguments invisible to the φ-probe in the matrix INFL by Ergative Argument Invisibility, (15). Therefore, when the φ-probe on the matrix INFL searches for a possible target, the first argument it finds is the embedded object.

(61)
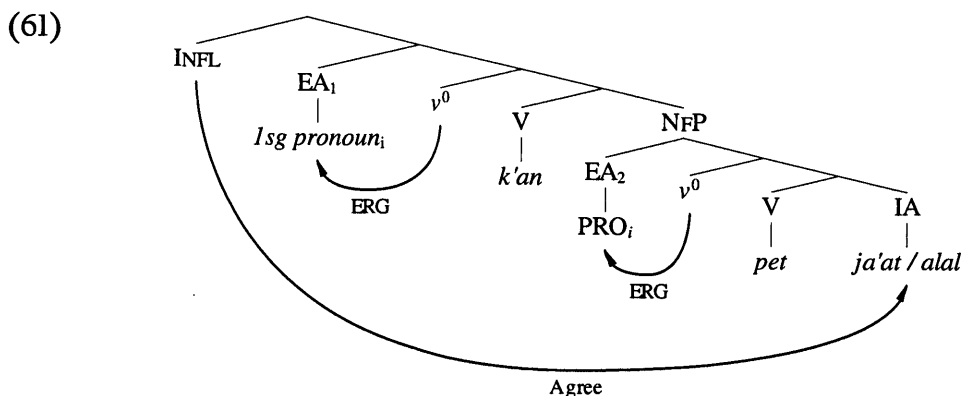
of their case. A similar proposal seems to be necessary for Hebrew where dative arguments are invisible to φ-agree, yet nonetheless can control (Landau 1999).

Given that the embedded direct object is the first and only Agree target for the matrix
INFL, full φ-agreement is available, and the PCC restriction is not in evidence. This
accounts for the fact that agreement with the embedded object appears in the matrix
clause: in the structure in (61) it is the matrix INFL that agrees with the embedded direct
object:

(62)   j-k'an-at   s-pet-el
        ERG1-want-ABS2 ERG3-hug-NF
        'I want to hug you.'

This account derives the absence of PCC effects on the internal argument in transitive
embedding verbs from the fact that all other NPs in the clause receive case without agree
from the matrix INFL. This makes a prediction that given a matrix verb where INFL does
not agree with its subject and non-finite complements are licit, PCC effects should not
be attested.

Besides transitive embedding verbs, there is another configuration in Tseltal where the
subject fails to control absolutive agreement. The verb *hu* (='to be able to') is exceptional
in that its sole argument is realized as an oblique:

(63)   xu   k-u'un s-lo'-el   manko
        IMPF.able POSS1-RN ERG3-eat-NF mango
        'I can eat a mango.'

The subject in (63) is projected as a complement to a relational noun. These
constructions present another instance of NPs with theta-related case, similar to
ergative. We predict, therefore, that with these type of verb, the matrix INFL does not
target the matrix subject for agree, just as it doesn't with transitive embedding verbs.
This is due to the matrix subject's theta-related case though in (63) it is realized via a
relational noun rather than the ergative found with transitive embedding verbs. In such
configurations the first NP a probe on INFL would find is the embedded object, and PCC
effects should not occur. This prediction is borne out as is shown in (64), where
absolutive agreement appears in the matrix clause, as expected.

(64)   xu   k-u'un-at   s-maj-el
        IMPF.able POSS1-RN-ABS2 ERG3-beat-NF
        'I can beat you up.'

Under the account of clausal agreement proposed here, the internal arguments of
transitive verbs in non-finite complement clauses receive structural case from the matrix
INFL. With intransitive verbs (those that do not assign ergative), this was the second φ-

agreement for the matrix INFL, whereas under transitive (ergative-assigning) verbs, INFL only enters into one φ-agree relation. This latter case makes Tseltal non-finite complementation look similar to restructuring environments discussed in Wurmbrand (2001). Specifically, in both the German restructuring environments and in Tseltal non-finite complementation the embedded internal argument cannot receive case in the usual manner. From the case-assignment perspective, the crucial difference between restructuring environments in German and non-finite complementation in Tseltal is the fact that in German main clauses there are two structural case assigners, whereas in Tseltal monoclausal environments only one structural case is available.

Consider what happens in such constructions when the matrix verb is passivized. In restructuring configurations in German and other languages, passivization of the matrix verb creates what is called the *long passive*. In environments where the accusative case for the embedded internal argument is assigned by the matrix v^0, when the matrix verb is passivized the internal argument of the lower verb receives nominative from the matrix INFL:

(65) [German, Wurmbrand 2001]

  a. ACTIVE RESTRUCTURING VERB[21]

   dass Hans den Traktor versucht hat zu reparieren
   that Hans the tractor.ACC tried has to repair
   '...that Hans has tried to repair the tractor.'

  b. PASSIVIZED RESTRUCTURING VERB

   dass der Traktor zu reparieren versucht wurde
   that the tractor.NOM to repair tried was.PASS
   '... that they tried to repair the tractor.'

In passivized restructuring configurations, the embedded object cannot receive accusative case from matrix v^0 under the assumption that passive v^0 is not a structural case assigner. In contrast, the matrix INFL can (and does) assign nominative to the embedded object when the matrix verb is passivized as in (65b). Therefore, the passivization of the matrix verb is reflected in the morphological case of the internal argument of the lower verb.

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[21] This example also involves scrambling which does not affect the relevant case assignment properties.

In Tseltal, passivization does not affect how the direct object receives case. Passivization affects projection and case-assigning properties of v^0; however, v^0 is not involved in assigning case to the internal argument. Instead, the case for the direct object is assigned by INFL both in active and passive clauses. Therefore, in mono-clausal environments, internal arguments in both active and passive clauses are assigned the same case, i.e., absolutive. In embedded non-finite clauses, the internal argument receives case from the matrix INFL, either as a result of first and only φ-agreement (under transitive verbs) or, in the case of intransitive verbs, as a result of a second Agree operation. Tseltal does not have impersonal passives, i.e., intransitive verbs do not passivize in Tseltal. With transitive verbs taking non-finite complements, on the other hand, we would expect passivization to only affect the syntax of the external argument: it should become implicit. We would not expect the passivization of the matrix verb to affect case and φ-agreement with the embedded object, since passivization usually does not affect INFL properties, and it is INFL that case-licenses the internal argument in these constructions, as was proposed above. Limited data is available to verify this prediction; however, preliminary indications suggest that this analysis is on the right track:

(66)   ? mulan-ot-on   y-il-el
             like-PASS-ABS1   ERG3-see-NF
             '(Impersonal they) like to see/watch me; I am liked to be watched.'

Since v^0 only participates in case-assigning relations with the matrix agent argument, the relationship between the matrix INFL and the internal argument of the embedded verb is not disrupted in (66). Matrix INFL continues to agree with the embedded direct object as in active transitive embedding environments. The implicit argument of the matrix verb does not require case marking, but is syntactically active in that it controls the PRO argument in the embedded clause (see Bhatt & Pancheva 2007, Landau 2010 on implicit arguments and control).

(67)
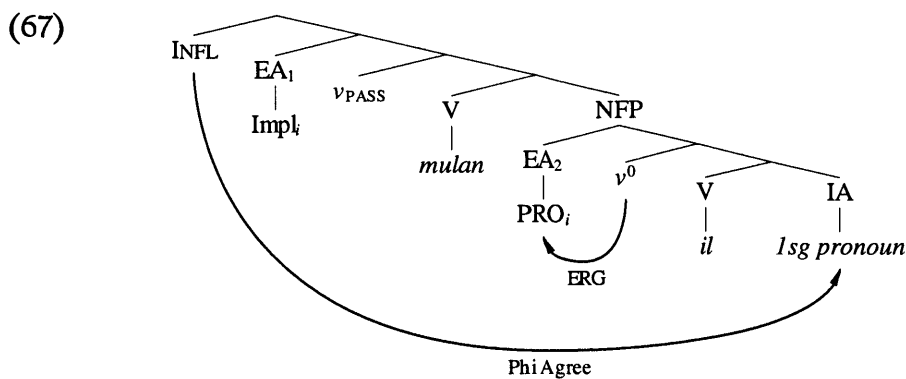
The account proposed here reduces the difference between PCC and non-PCC environments to the case requirements of the NP in the matrix clause. Where an argument in the higher clause requires case from INFL, the internal argument in the embedded clause will exhibit PCC effects. If, on the other hand, the matrix argumental NP does not require structural case, the embedded direct object will be the first φ-agreement target for the matrix INFL and the embedded direct object will not be subject to PCC restrictions.

In the next section I examine the syntax of other types of non-finite complement clause and the nature of third-person ergative morphology in non-finite clauses.

4.4.4 Types of non-finite complements and the third-person ergative

Recall that in addition to the active transitive non-finite complements, two other types of non-finite complement clauses were introduced previously: intransitive and passive-like transitive non-finite complements (47, repeated below):

(47) a. INTRANSITIVE
          yakal-on ta   yahl-el
          PROG-ABS1 PREP fall-NF
          'I am falling.'

      b. TRANSITIVE PASSIVE
          yakal-on   ta   pet-el
          PROG-ABS1   PREP hug-NF
          'I am being hugged.'

      c. TRANSITIVE ACTIVE
          yakal-on   ta   s-pet-el   te   alal-e'
          PROG-ABS1   PREP ERG3-hug-NF   DET   baby-CL
          'I am hugging the baby.'

All three types of non-finite clauses can receive the same analysis under my proposal. I maintain that the embedded subject in these cases is PRO. In active transitive non-finite complements the subject is generated in [Spec, v^0], and receives ergative case from v^0. In passive and intransitive non-finite complements the embedded PRO subject is generated in the specifier of a non-case-assigning v^0 or inside the VP. In each case, PRO is controlled by an argument of the matrix predicate.

Proceeding to the analysis of third-person ergative marking in active transitive non-finite complements (like 48c), recall that in this case, the ergative morpheme does not cross-reference any (overt) argument as shown in (10) and repeated below.

(10)   j-k'an-at   s-pet-el   (ja'at-e')
         ERG1-want-ABS2 ERG3-hug-NF (you-CL)
         'I want to hug you.'

Of the three types of non-finite complements in (47), the embedded third-person ergative marker only appears when PRO is generated in the specifier of ergative-assigning verb. In other words, when v^0 would be expected to assign ergative case to PRO, the ergative morphology is realized as third person. I suggest that this is exactly what takes place in non-finite active transitive embedded clauses: the third-person ergative marker cross-references the external φ-features of the PRO argument in specifier of vP. The reason why the ergative morphology does not co-vary with φ-features of the controller of PRO is related to the referential properties of PRO and the nature of anaphors in Tseltal.

The idea that obligatory control (OC) PRO is anaphoric is not new, and has been expressed explicitly in Fodor (1975) and Lasnik (1992), among others. Although attempts to account for distribution of PRO via binding theory were mostly abandoned some time ago, the idea that PRO is an anaphoric element has not disappeared (cf. Landau 2006). If PRO is a species of anaphor, it might not be wholly surprising if PRO and anaphors had similar morphosyntactic characteristics. Recall that the idea under consideration is that regardless of the φ-features of its controller, Tseltal PRO always controls third-person agreement morphology, at least when it is generated in the specifier of vP. I argued in chapters 2 and 3 that Tseltal anaphors have the external syntax of third-person NPs with the embedded possessor bearing the person features of the binder as in (68).

(68)   lah k-nak'   k-bah
         PFV ERG1-hide.ABS3 POSS1-self
         'I hid myself.'

What I would like to propose here is that Tseltal obligatorily controlled (OC) PRO is likewise a third-person NP, at least in its external syntax, and I argue that this is the case because OC PRO is anaphoric. This accounts for the distribution of invariant third-person ergative marking in Tseltal non-finite embedded clauses: when embedded v^0 projects a PRO external argument and assigns it ergative case, third-person agreement

morphology is present, because, externally, PRO is third person in Tseltal. When the PRO argument in a non-finite complement is not generated and case-marked in [Spec, vP], invariant third-person agreement is absent. In these cases the embedded v^0 does not assign case and ergative marking is lacking.[22]

4.5 Conclusion

In this chapter I have presented an account of Tseltal PCC effects in ditransitive and non-finite complementation environments. According to this proposal, the PCC effects in Tseltal come about when a derivation contains more arguments that require structural case licensing than the number of structural case assigners present. In these situations, a single head case-licenses two NPs, with the consequence that the lower argument's person features are not licensed. In the domain of ditransitives, the indirect and the direct objects receive structural case from INFL, with the result that the direct object is restricted to being third person. In non-finite complements, the appearance of a PCC restriction on the lower internal argument was correlated with the presence of higher argument receiving structural (absolutive) case. It was proposed that there is only one source of structural case in non-finite complementation environments, and therefore,

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[22] Another case of obligatory coreference involving third-person arguments was examined in chapter 3, where the obligatorily bound argument was a third-person possessor of an internal argument in a transitive construction, as in (v).

(v)   Pedro lah s-bom-be   s-nah
         Pedro PFV ERG3-paint-APPL.ABS3 POSS3-house
         'Pedro$_i$ painted his$_{*i/j}$ house.'

Nominal possessors and ergative agents are marked by nearly-identical morphology (see chapter 2), something that Coon (2010) argues is not accidental in Mayan. Given this, it may be tempting to try to provide a unified account of the two phenomena. What distinguishes the extended reflexive constructions discussed in chapter 2 and the non-finite constructions addressed here is the availability of non-third-person arguments: in (i), in the absence of the applicative morpheme, the possessor argument can be first or second person; and if the EA does not match in person features, the coreference reading does not obtain. In contrast, in transitive active -el non-finite complements, the ergative morphology on the non-finite verb can only be third person. Another difference concerns the availability of non-coreferential reading: as discussed in chapter 2, the expected coreferential reading in extended reflexives need not always obtain. I do not believe this to be true of transitive active -el non-finite complements. From this I conclude that the two instances of obligatory coreference should receive different accounts, as they do in this work.

when an argument in the matrix clause receives absolutive case, the embedded direct object is case-licensed as a lower argument in a multiple agree configuration, resulting in a PCC restriction. On the other hand, when the argument in the matrix clause receives inherent case, the embedded internal argument is the sole agreement target for the matrix INFL, and a PCC restriction is not attested. In the process two hypotheses have been motivated: a) that it is INFL and not v^0 that is the source of structural case in Tseltal, and b) that ergative case in Tseltal is inherent. The first of these claims accounts for the lack of absolutive agreement in non-finite environments where an agent argument is projected. Likewise a) helps to explain the fact that in non-finite complements to transitive verbs, the lower internal argument controls the matrix absolutive agreement. The latter hypothesis is necessary for accounting for PCC effects in this language: while EPP may be sufficient to account for the non-intervention of ergative arguments in simplex transitive clauses, the ergative opacity hypothesis is necessary to account for non-intervention of PRO with respect to PCC effects and agreement.

In the following sections I offer some hypothesis on the nature of multiple-agree and case opacity.

4.5.1 Number agreement

Above, I have assumed that ergative arguments are invisible to φ-probes without offering an account of this restriction. For a theory of case opacity I follow Rezac (2008a), where it is proposed that NPs with theta-related case are projected as a PP:

(69)   NP   PP
                    with theta-related case   P   NP
                                              =

The opacity to φ-probes comes about due to the fact that prepositions heading such PPs are (strong) phase heads, and therefore are spellout domains (Chomsky 2000; 2004). The NPs inside such PPs are not syntactically active in virtue of the phase impenetrability condition (PIC, Chomsky 2000). Under Rezac's (2008a) theory, case opacity allows for variation: some NPs with theta-related case are wholly syntactically inactive, while others may serve as agreement targets for some or all of a probe's φ-features. The availability of NP's φ-features outside the PP is mediated by the P head of the PP projection containing such an NP: the P head may itself be a φ-probe. If P probes for φ-features, it agrees with its NP complement. Following such agreement, φ-features are available on the P head (and its maximal projection), and the PP itself is visible to a higher φ-probe. On the other hand, if the P head does not probe for any φ-features, the NP with theta-related case will be invisible to a φ-probe:

(70) OPAQUE (INVISIBLE) NP   VISIBLE NP

$$
\begin{array}{cc}
\text{PP} & \text{PP}_\varphi \\
\overbrace{\text{P}_{\text{NO PROBE}} \quad \text{NP}_\varphi} & \overbrace{\text{P}_{\text{PROBE}} \quad \text{NP}_\varphi}
\end{array}
$$
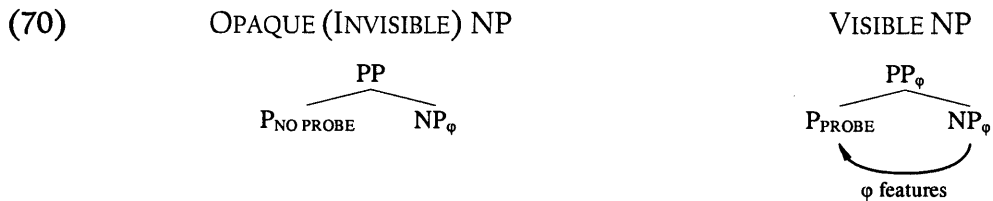
φ features

Availability of some but not all NP's φ-features outside the PP occurs when the relevant P probes for a subset of φ-features. Rezac (2008a) accounts for the differences among Basque dialects by exploiting the possibility of cross-linguistic variation in the kinds of φ-features P heads may probe for.

Such parametric φ-agree "permeability" is relevant to Tseltal number agreement. Tseltal plural agreement is suffixal and number agreement co-occurs with absolutive person agreement:

(71) a. y-ik'-on-ik
          ERG3-call-ABS1-PL
          'They called me.'

      b. ma-x   aw-ak'-on-ik   ta   k'op
          NEG-IMPF ERG2-put-ABS1-PL   PREP word
          'You (plural) are not allowing me to speak.'

The full agreement paradigm is presented in (72)

(72)

| | Absolutive | | Ergative | |
Person	Singular	Plural	Singular	Plural
1ˢᵗ singular	-on	N/A	k-/j-	N/A
1ˢᵗ plural EXCL	N/A	-o(n)(r)yotik	N/A	k-/j-...-(r)yotik
1ˢᵗ plural INCL	N/A	-otik	N/A	k-...-tik
2ⁿᵈ	-at	-ex	a(w)-	a(w)-...-ik
3ʳᵈ	-∅	-ik	s-/y-	s-/y-...-ik

I will restrict the following discussion to third-person arguments as the interaction of plural morphology with first- and second-person agreement is somewhat obscure to me. When the two core clausal arguments are third person, either or both may control number agreement, but double exponence of plural agreement is ungrammatical:

(73)   lah y-il-ik-(*ik)
         PFV ERG3-see-ABS3-PL-PL
         Ambiguous between 'they saw her,' 'She saw them,' and 'they saw them.'

For third-person arguments, plural agreement is not required, even when a normally agreed-with argument would be expected to be syntactically plural (cf. Aissen 1987 for Tzotzil). This agreement appears to be a species of OMNIVOROUS AGREEMENT, (Nevins 2011), where a single probe targets whichever argument bears the relevant feature, in this case [PLURAL]. Recall, however, that it was proposed in (15) that ergative arguments are entirely opaque to φ-agreement. Under the assumption that plural morphology in Tseltal is a reflex of true φ-agreement, the number agreement facts necessitate a revision of the initial assumption that ergative arguments are wholly invisible to φ-probes. The opacity (invisibility) of Tseltal ergative arguments to φ-agreement appears to hold for person, but not for number agreement features, as in (74):

(74)   ERGATIVE ARGUMENT INVISIBILITY HYPOTHESIS (EAIH) (final)
         An argument receiving ergative case is invisible to a person-probe

Keeping to third-person arguments, we observe that absolutive agreement is distinct from number agreement.[23] This suggests that in Tseltal, person and number probes are distinct. Given the absolutive-plural morpheme order the null hypothesis (in keeping with the Mirror Principle of Baker 1985) is either that the locus of number agreement is some head merged after INFL, or that INFL probes first for person and then for number, as argued for in (Bejar & Rezac 2003 and Anagnostopoulou 2005).[24] The number probe agrees with any plural core argument present, agent or patient.

There is some evidence that Tseltal number agreement does not play a licensing function for PCC NPs, in contrast to previous accounts. There are two types of multiple-agree accounts of PCC in the literature: in Bejar & Rezac (2003) and Anagnostopoulou (2005), strong PCC is argued to be a result of split φ-agreement. Given a probing head that probes for a full complement of φ-features, the person agreement targets the higher argument while the number agreement is valued by the lower argument. In contrast, Nevins (2007; 2011) proposes an account of strong PCC where a single probe agrees with multiple arguments in a sense of Hiraiwa (2005). While proposing split φ-agreement for strong PCC, Anagnostopoulou (2005) suggests a multiple-agree (in the Hiraiwa 2005 sense) account of the weak PCC restriction.

The evidence for split φ-agreement approach comes from languages like Icelandic, where in PCC configurations, the lower nominative argument controls number agreement, while the person agreement remains third person. The third-person agreement arguably

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[23] For first-person absolutive plural agreement it may not be unreasonable to suggest that both the inclusive -onyotik and the exclusive -otik can be decomposed into absolutive and plural exponents. This leaves second-person plural -ex as a sole portmanteau absolutive+number morpheme. If number agreement and person agreement in Tseltal were completely separate probes, as I have suggested, we would not expect plural morphology to co-occur. My data is conflicting on this point. It may be the case that in some circumstances, absolutive agreement may realize number agreement as well, as in the case of second-person plural -ex. More research is necessary.

[24] Note that the opposite conclusion is reached by Sigurðsson & Holmberg (2008) for Icelandic where the authors argue for separate heads realizing number, and person probes and that the person probe is above the number probe.

comes about as a result of defective agreement with the intervening dative (cf. Taraldsen 1994, Sigurðsson 1996 and Sigurðsson & Holmberg 2008). However, Tseltal presents a different case in PCC configurations: the argument that is restricted to third person in PCC configurations cannot be agreed with for number as in (75b). The example in (76) demonstrate that number agreement with *yakal* is possible in principle.

(75) a. lah k-a'-be   te mut-etik-e'
          PFV ERG1-give-APPL.ABS3   DET chicken-PL-CL
          'I gave her the chickens.'

      b. yakal-on(*-ik)   ta   s-pet-el   te alal-etik-e'
          PROG-ABS1(*-PL) PREP ERG3-hug-NF DET baby-PL-CL
          'I am hugging the babies.'

(76)   yakal-ik   ta   s-pet-el   te winik-e'
          PROG.ABS3-PL   PREP ERG3-hug-NF DET man-CL
          'They are hugging the man.'

I do not have an account for the number agreement restriction in (75b), though given the fact that ergative arguments are not exempt from number agreement, the number probe would have to look past two NPs in order to reach the plural feature on the embedded internal argument in (75b). Aissen (1987) and Polian (to appear) report that direct objects of ditransitives can never control number agreement, which looks to be a species of the same kind of number agreement failure shown in (75b). This suggests that either number agreement is contingent on person agreement, or that there is a limit to the number of arguments that can be targeted for Agree by a single head. I leave this issue for future research.

From the above examples we can conclude that single-probe/multiple-goals configurations are possible even in the absence of split agreement, as argued in Nevins (2007; 2011). The fact that it is possible for ergative arguments to control number agreement may suggest that the lack of ergative intervention comes about through case opacity rather than EPP movement, if the number agreement probe can be shown to be on INFL.[25] I take up the issue of ergative case opacity in the next section.

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[25] See Sigurðsson & Holmberg (2008) for an argument for a displacement of an intervening argument to a specifier between person and number probes.

4.5.2 Arguments bearing theta-related case

Above, I assumed that ergative arguments do not intervene for phi (person) agreement in virtue of the theta-related case they bear. An alternative proposal for lack of ergative intervention in terms of EPP is suggested in Legate (2008) and Anand & Nevins (2006), among others. In this section, I explore the consequences of the case opacity account for the lack of ergative intervention, arguing that it makes correct predictions with respect to the typology of split ergativity.

Like the ergative, the indirect object argument in Tseltal applicative/ditransitive constructions is projected in a position associated with theta-related case, namely dative. If the association of dative case with an argument introduced by $Appl^0$ is universal, this means that the two different theta-related cases in Tseltal exhibit different behavior in terms of ability to be targeted by φ-probes:

(77)   Case   Visibility to φ-probes
      a.   Ergative   invisible
      b.   Dative   visible

Abstracting away from the fine structure of φ-features and probes, for the purposes of the present discussion, I will assume a simplistic position that there are two possibilities for each kind of theta-related case in a given language: either the NP is visible to a C-commanding φ-probe or it is not. Tseltal ergatives are NPs with inherent case of the latter kind, while Tseltal datives are the former.[26] This is not the only possible state of affairs, and the two relevant arguments in combination with a φ-visibility parameter yield a typology of languages presented in (78).

(78)   Ergative   Dative
      a.   Non-target   Possible target
      b.   Non-target   Non-target
      c.   Possible target   Non-target
      d.   Possible target   Possible target

Language type (a) is Tseltal: ergative arguments are invisible (opaque) to φ-probes while dative is not. Recall how this derives PCC effects in ditransitive clauses in (23), repeated below: the single φ-probe (INFL) targets both IO and DO resulting in the direct object being limited to third-person arguments.

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[26] I am setting aside the possibility that goal argument in Tseltal simply do not receive case from the applicative head. For the purposes of present discussion fully-transparent dative and absence of dative case assignment are equivalent.

(23)
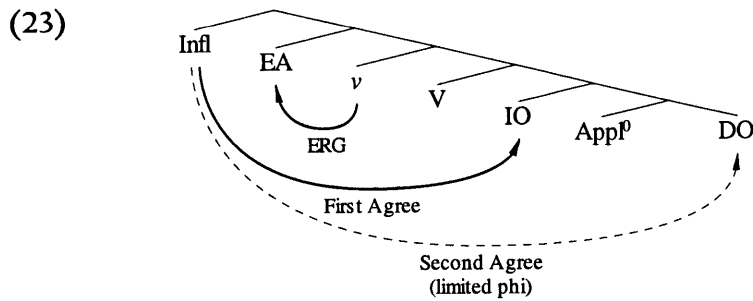
In language type (b), the indirect object is opaque to INFL probe as well, just like the ergative argument in Tseltal. Therefore the ditransitive construction in such a language would look as follows:

(79)
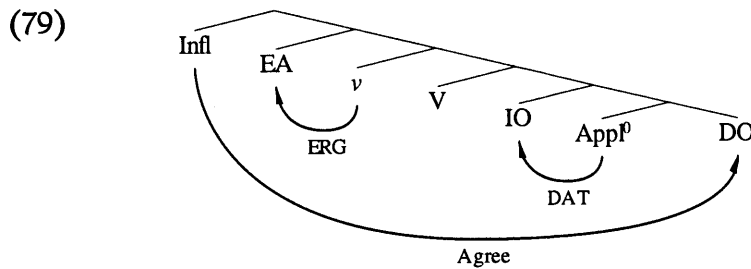
In a type (b) language, the dative argument is not predicted to control absolutive agreement, and since the first agreement from INFL involves the direct object, no PCC effects should be in evidence. Adyghe and Kabardian, two ergative Caucasian languages appear to provide examples of a type (b) language:

(80)   a.   ADYGHE (Kumakhov, Vamling & Kumakhova 1996)
            w-je-s-tE-S't
            OBJ2SG-IO3SG-SUBJ1SG-give-FUT
            'I will give you to him'

       b.   KABARDIAN (Kumakhov & Vamling 1995)
            w-je-s-te-n-s'
            2SG.THEME-3SG.RECEPEINT-1SG.AGENT-give-FUT-ASSRT
            'I will give you to him.'

Here the indirect object and direct object are cross-referenced by distinct morphemes on the verb word, as predicted for language type (b). The difference between datives that are visible to φ-agree and those that are not also extends to nominative/accusative languages, though I set aside this issue here.

Languages of type (c) and (d) are predicted to exhibit PCC effects not just with ditransitives, but also with mono-transitive clauses. To see this consider the following structure:

(81)
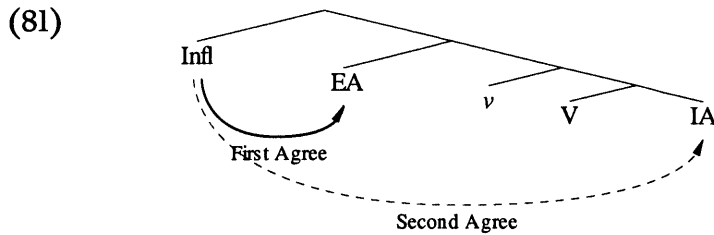
In a regular transitive clause, in (c)/(d) type language, the matrix INFL first agrees with the ergative argument, since it is visible to the φ-probe on INFL. The subsequent (second) agreement with the direct object results in a third person restriction on the object: first- or second-person internal arguments in a transitive clause would be ruled out. If an alternative alignment of arguments were available to express the meaning that would otherwise result in a PCC restriction, we might expect that type (c) and (d) languages would resort to alternative constructions in cases where PCC violations would result. Suppose the nature of v^0 case assignment is specified by a simple binary parameter: given one setting v^0 probes in its complement domain and assigns accusative to the internal argument while given the other setting v^0 assigns (inherent) case to the external argument in its specifier (for concrete proposals of this type see Müller 2004 and Alexiadou & Anagnostopoulou 2006). If a (c/d)-type language featured both types of v^0 in its lexical inventory, we would expect nominative/accusative syntax to emerge precisely in contexts where first- and second-person arguments were transitive subjects. The reason for this is that with accusative syntax, both finite INFL and v^0 are φ-probes, and each argument would be agreed with separately. At the same time ergative derivations in first- and second-person transitive subject contexts would crash due to PCC violations.

The nature of pronominal-based ergativity splits suggests that this idea might be on the right track (though see Legate 2008 for an alternative proposal formulated partly in morphological terms). In nominality-based split ergative languages, first- and second-person pronouns are more likely to exhibit nominative/accusative syntax than third-person pronouns (Dixon 1994). This is what we would expect if the first- and second-person pronouns had special licensing requirements that are not satisfied when they are the lower argument in an ergative clause. If, on the other hand, first- and second-person nominals conditioned the appearance of nominative/accusative v^0, the licensing needs of

all DPs in the clause would be satisfied. Moreover we would predict that if a (d)-type language were found, that is, a language with ergative and dative arguments that are visible to φ-probes, the switch to nominative/accusative syntax would also be triggered by first- or second-person dative argument. In such a language, a locution *I-ERG gave you-DAT the ball-ABS* is predicted to violate PCC with respect to the indirect object. Therefore whether a different clausal syntax is available or not, such a sentence is predicted to be ungrammatical with ergative syntax. I leave this topic to further research, noting that besides having initial plausibility, this account makes falsifiable predictions what should be possible to test empirically.

Chapter Five
Tseltal Ellipsis and Answers

5.1 Introduction

This chapter is devoted to an investigation of ellipsis and focus through the examination of Tseltal answers to polar questions. In the study of ellipsis, the nature of ellipsis licensing has occupied researchers for nearly twenty years. The earliest approaches (Fiengo & May 1994, Rooth 1992b) proposed syntactic isomorphism conditions on ellipsis: glossing over many details, the idea is that the elided constituent must be structurally identical to some already pronounced antecedent. More recently, Merchant (2001) proposes a semantic identity condition on the elided constituent, as well as additional a syntactic requirement: the elided constituent must be a complement to a head bearing an ellipsis ([E]) feature. The syntactic condition is necessary because, as Johnson (2001) and Aelbrecht (2010) point out, semantic antecedence is not sufficient to rule out all ungrammatical instances of possible ellipsis (examples from Aelbrecht 2010):

(1)   a. * Ed doesn't like cats and dogs, but Chris likes ~~cats and dogs~~.

        b. * I hadn't been thinking about it, but I recall Morgan having been ~~thinking about it~~.

Tseltal, in contrast to English, does not show asymmetries between different auxiliaries in terms of ellipsis licensing. Unlike English, however, ellipsis in Tseltal is sensitive to polarity:

(2)   a.   Mariya ma   lah   s-we'   sats', axan jo'on-e' lah
              Maria   NEG PFV ERG3-eat sats', but   I-CL   PFV
              'Maria didn't eat sats' but I did.'

        b. * te   Pedro-he' lah s-mil   chitam i   jo'on'-e' (lah) (ejuk)
              DET Pedro-CL PFV ERG3-kill pig   and I-CL   (PFV) (also)
              'Pedro killed a pig and I did too.'

In this chapter, I propose a restrictive theory of ellipsis licensing in Tseltal. I propose that only one head in this language can trigger ellipsis, and this head is FOCUS. The focus head has been implicated in ellipsis in languages like English (Merchant 2005) and Hungarian (Griffiths & Lipták 2012) therefore, it isn't surprising to see this head function as the locus of ellipsis licensing in Tseltal. As I demonstrate below, this analysis makes correct empirical predictions for the Tseltal data.

The tool employed for investigations of focus in this chapter is Tseltal answers. The bulk of this chapter will be concerned with polar answers, though answers to wh-questions will be considered as well. Tseltal is a language lacking an affirmative polarity particle, like the English *yes*. Consequently, affirmative responses in this language involve repeating some portion of the predicate under question:

(3)   a.   Q: lah-bal   aw-il-on?   A: lah
             PFV-Q   ERG2-see-ABS1   PFV
             'Did you see me?'   'Yes.'

      b.   Q: ja'-nax-bal   ts'i'   lah   s-ti'-on?   A: ja'-nax   ts'i'
             FOC-only-Q   dog   PFV   ERG3-bite-ABS1   FOC-only   dog
             'Was it only a dog that bit me?'   'Yes.'

In affirmative answers to broad focus verbal polar questions in Tseltal, a head in the verbal domain serves as the affirmative answer, as in (3a). In contrast, in predicate nominals the entire nominal is repeated as an affirmative response:

(4)   a.   Q: sakil   winik-at-bal?   A: sakil winik-on
             white   man-ABS2-Q   white man-ABS1
             'Are you a white man?'   'Yes.'

In the course of this chapter, I derive a uniform account of Tseltal answers: positive and negative polar responses to verbal and nominal predicates, as well as fragment answers and answers to narrow-focus polar questions. The mechanism underlying all these cases, I contend, is focus-ellipsis: movement of some X^0 or XP to the focus head, followed by ellipsis of the complement of focus. I will argue against VP ellipsis (VPE) theories of verbal responses (Santos 2009), and indeed I will claim the Tseltal lack true VPE.

This chapter is organized as follows: The syntax of topic and focus in Tseltal is discussed in the section following this one. The section after that sets out some desiderata of a unified theory of ellipsis and considers the nature of focus in more detail. The fourth section develops an account for fragment answers and narrow focus polar responses, while the succeeding two sections extend this account to broad focus polar responses

and negative answers. Section 7 considers the nature of X^0 versus XP responses, while in section 8 I turn to VP-ellipsis-like phenomena and offer an account in which they actually instantiate focus ellipsis. Section 8 concludes.

5.2 Topic and focus in Tseltal

Like most Mayan languages, (Norman & Campbell 1978, England 1991, Aissen 1992) Tseltal is a V-initial language (Kaufman 1971; Robinson 2002; Polian 2005; Polian to appear). Two types of arguments can precede the predicate, however: topic and focus (Aissen 1992, Polian to appear). I discuss these in the following two subsections.

5.2.1 Topic

Both Aissen (1992) for Tzotzil and Polian (to appear) for Oxchuk Tseltal argue that while topics are peripheral to the clause, focalized arguments are integrated into the main clause structure. Aissen (1992) proposes that Tzotzil topics are adjoined at the tree root, somewhere above the CP. For Aissen, this position is not filled by movement; this property makes such topics "hanging topics" (a term attributed to A. Grosu in Cinque 1977): they are base-generated outside the CP, and as such are not arguments of the main CP-internal predicate. In some Mayan languages topics can (Aissen 1992 on Jacaltec) or must (Schüle 2000 on Akatec) be resumed by a pronoun.

Internal to Tseltal, Polian (to appear) observes that topics are usually preceded by the determiner *te* (also *me* in Petalcingo) and followed by determiner-enclitic *-e'*:

(5)   [TOPIC te   winik-e'] lah k-il
        [TOPIC DET man-CL] PFV ERG1-see.ABS3
        'The man, I saw him.'

Polian notes that topics, but not focalized constituents, can be followed by a pause, and that foci, but not topics, are included in the domain of second-position clitic placement. Both of these facts support the idea that topics are more peripheral constituents. In Petalcingo Tseltal, we can also observe that topics obligatorily bear an intonation-level boundary tone, something not possible for focused constituents. Declarative utterances and wh-questions in Petalcingo end on a high tone (Shklovsky 2011), and topics do so as well. Petalcingo topics bear the H% boundary tone even when the CP with which they are interpreted itself is associated with a low boundary tone (L%), such as with intonational polar interrogatives. This also suggests that topics are not well-integrated into the main clause structure of Tseltal utterances. From this, as Polian (to appear) observes, it also follows that when topic and focus co-occur in a Tseltal sentence, topic necessarily precedes focus. This parallels similar facts in English (Culicover 1991).

5.2.2 Focus

Tseltal exhibits two types of focus marking (Polian to appear): focus marking with fronting of the focus constituent (*EX SITU* FOCUS), and focus marking in which the focused constituent remains in its base position (*IN SITU* FOCUS). These are illustrated in the following examples:

(6)   a.   *Ex Situ* Focus

      (ja')   alaxax   lah   s-lo'

      (FOC)   orange   PFV   ERG3-eat

      'It was an orange that she ate.'

   b.   *In Situ* Focus

      ja'   lah   s-lo'   alaxax

      FOC   PFV   ERG3-eat   orange

      'She ate an ORANGE.'

The *ex situ* focus construction involves movement of the focused constituent to the left periphery of the clause, where the focused constituent is optionally preceded by the focus marker *ja'*, which is discussed in more detail below.

In contrast to the *ex situ* focus, the focus marker is obligatory in the *in situ* focus construction. Here the focus marker appears at the left periphery as in the *ex situ* focus, but the focused constituent remains in its base position. Polian (to appear) argues that this creates a focus ambiguity when two postverbal DPs are present in the clause. I will set aside the *in situ* focus constructions in what follows.

5.2.3 Focus and pronouns

The morpheme I have been glossing as the focus particle (*ja'*) is also a part of the pronominal paradigm. Tseltal personal pronouns are generally unpronounced except when focused or otherwise contrastive. As Polian (to appear) points out, most of the pronominal forms have the morphological shape of a combination of focus marker and absolutive inflection, as shown in (7).

(7)

Person	Singular		Plural	
	Abs	Pronoun	Absolutive	Pronoun
1st person excl.	-on	jo'on	-on(r)yotik	jo'oryotik
2nd person	-at	ja'at	-ex	ja'ex
3rd person	-∅	ja'	-ik	ja'ik

Polian argues that pronouns should be analyzed along the lines suggested by their morphology: as a focus marker plus absolutive inflection. The one pronominal form that is not immediately amendable to this analysis is the first-person pronoun, which has a back mid (rounded) vowel instead of the low vowel in the focus marker. Polian suggests that this is a case of backward-spreading vowel harmony, even though such a process cannot be a general phonological rule in Tseltal. We also observe that the proposed harmony would have to spread across intervening vowels, as in (8).

(8)   jo'-uk-on   ma'yuk   k-joy-e'   [Sobre:529]
           FOC-IRR-ABS1 NEG.EXIST POSS1-friend-CL
           'I don't have friends.'

Note that it cannot be said that it is the irrealis (*-uk*) suffix that triggers the realization of the vowel in *ja'* as [o], since the same result does not obtain with second person focused pronoun:

(9)   i   ma'   ja'-uk-at   ka-na'   ejuk   [N02:1182]
           and NEG   FOC-IRR-ABS2 ICMP.ERG2-know also
           'And you don't know it either.'

This suggests that the $a \rightarrow o$ process in (8) is triggered by the 1st person absolutive suffix. Consequently, even though the form of the pronoun in (8) makes the vowel harmony rule seem less plausible, the fact that the irrealis suffix can intervene between the two parts of the pronominal lends support to Polian's analysis of Tseltal pronouns as compositional.

In the rest of this chapter, I will continue glossing *ja'* as a focus marker, unless clear evidence is available for its pronominal status. The focus marker/pronominal ambiguity will be important to my analysis of focused polar responses.

5.2.4 Focus and clefting

A question that arises with respect to *ex situ* focus is whether these constructions should be analyzed as cleft-type constructions, where this term is understood to imply a bi-clausal structure. Clefting analysis of focus may seem like an attractive option for a focus-fronting language because obligatory focus-fronting immediately follows from a cleft analysis. At the same time, the existence of focus-fronting languages (such as Hungarian) that are not amendable to cleft-type analysis shows that not all focus fronting can be analyzed in this way.

Tseltal is a null copula language. Consequently, the case for a cleft account for Tseltal *ex situ* focus must be made on the basis of other evidence. Setting aside Aissen's (1992) arguments treating *ex situ* focus as derived via A'-movement,[1] there are two considerations that suggest a cleft analysis: the relation between pronouns and absolutive agreement and the properties of multiple negative markers. Regarding the first, the previous section demonstrated that overt pronouns in Tseltal could be analyzed as morphologically composed of the focus morpheme plus morphology identical to absolutive agreement and number agreement (cf. Polian to appear). One plausible account of these structures would be to assert that the absolutive and number agreement portions of personal pronouns do indeed constitute the same agreement morphology we see at the clausal level, generated in the clefted part of the *ex situ* focus construction. This necessitates a biclausal structure and dovetails with Polian's (to appear) argument that *ex situ* focused XPs involve an additional predication domain.

The second reason for considering clefting account for Tseltal *ex situ* focus comes from distribution of negation morphology. Regular Tseltal clauses only allow a single negation marker. By contrast, *ex situ* focus constructions license two negations, as shown in (10):

(10)   ma ja'-uk   xan jun plato ma lah s-pok'
          NEG FOC-IRR only one plate NEG PFV ERG3-wash
          'It wasn't just one plate that he didn't wash.'

If focus constructions were biclausal, the possibility of two negations would be relatively unsurprising; otherwise, the fact that two negative morphemes are licit only in focus constructions is more difficult to explain.

Clefting analyses of focus constructions have indeed been proposed for at least two Mayan languages: Yucatec Maya (Tonhauser 2003) and K'ich'ee (Velleman 2011). A clefting analysis has also been assumed in other Mayan literature (Bricker 1979, Brody 1984, Schüle 2000, Kügler & Skopeteas 2006, Kügler, Skopeteas & Verhoeven 2007, Norcliffe 2009, among others), though here it is not clear that bi-clausal structure is necessarily implicated. Petalcingo Tseltal does provide an argument from the syntax of relative clauses against the obligatory clefting analysis of *ex situ* focus constructions. If we assume that biclausal clefting constructions involve some kind of relative clause (cf.

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[1] Aissen shows that *ex situ* focus is unbounded and island-sensitive. The latter property can be accounted for under the cleft analysis if the post-focal constituent is a relative clause involving obligatorily involves operator movement.

Akmajian 1979, Declerck 1988, Percus 1997, among many others[2]) we would be forced to analyze the post-focal material as a relative clause, such as a free relative. The problem with this analysis is that while null-headed relatives without overt relative operators are possible in Petalcingo Tseltal, relative clauses with no marking (no overt operator, head, or determiner/complementizer) do not appear to be licit:

(11)   * lah k-chon   lah aw-a'-bon
           PFV ERG1-sell.ABS3 PFV ERG2-give-APPL.ABS1
           'I sold what you gave me.'

The absence of such "naked" relative clauses poses problems for obligatory clefting analysis of Tseltal *ex situ* constructions, since focused structures usually involve post-focal material lacking any marking of relative clauses. I conclude from this that the issue of *ex situ* focus and clefting is an open one, and will continue to assume the movement analysis of focus in what follows.

5.3 Ellipsis and focus: a prolegomena

One of the main goals of this chapter is to derive uniform conditions on ellipsis in Tseltal. I argue that only focus can license ellipsis in this language, in contrast to what has been proposed in other languages. While I postpone the discussion of the ellipsis licensing literature until a later section, here I want to take stock of the task at hand, and define the notion of focus to be employed in this chapter.

Besides pronominalization (an operation in many ways like ellipsis, I will argue) there are four types of ellipsis in Tseltal, as shown in (12).

(12)   TSELTAL ELLIPSIS
    a.   Fragment answers
    b.   Focused polar answers
    c.   Broad-focus polar answers
    d.   Contrastive pseudo VPE (PVPE) construction

I use the term PSEUDO VPE CONSTRUCTION (PVPE) to refer to a type of clause which would be rendered by VP ellipsis (VPE) in English. Clearly, in proposing that focus is the only ellipsis licenser in Tseltal, one would have to argue against the idea that true VP-ellipsis exists in this language. This argument is deferred until the penultimate section.

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[2] Here I am considering only approaches that involve biclausal analysis of clefting structures where two CPs are involved. In using the term CLEFT-TYPE STRUCTURE or CLEFTING STRUCTURE, I am attempting to abstract from the difference between *it*-clefts and pseudoclefts.

In addition to the above four types of ellipsis, consideration should be afforded to non-contrastive PVPE, where ellipsis might be expected, but is not found. The difference between contrastive and non-contrastive PVPE is reproduced below:

(13)   a.   Mariya ma lah s-we'   sats' axan jo'on-e' lah
              Maria NEG PFV ERG3-eat sats' but I-CL   PFV
              'Maria didn't eat sats' but I did.'

        b. * te   Pedro-he' lah s-mil   chitam i   jo'on'-e' (lah) (ejuk)
              DET Pedro-CL PFV ERG3-kill pig   and I-CL   (PFV) (also)
              'Pedro killed a pig and I did too.'

If the theory that focus is the sole licenser of ellipsis is to have any teeth, even when applied to a single language, it must make the right cut between the constructions that license ellipsis (i.e., those in 12) and those that do not, such as that in 13b. For an example of what is at stake, consider the sentences in (14).

(14)   John saw the cat, and Mary did too.

Under a conception of focus such as that articulated in Schwarzschild (1999) and Rooth (1992b), the NP *Mary* in (14) is focused. This treatment of focus is incompatible with the hypothesis considered here, namely that focus always licenses ellipsis in Tseltal. If remnant subjects are focused and focus licenses ellipsis, we would expect (13b) to be grammatical, contrary to fact. This is one reason to consider the notion of focus with some care. Moreover, given a conception of focus that does make the right distinction (i.e., correctly picks out all and only ellipsis-licensing constructions in Tseltal), it is also necessary that it is the right conception of focus of the sort that Tseltal possesses.

Below I turn to what I take to be the notion of focus relevant to Tseltal. A terminological note is in order, however. The next section considers different semantic notions of focus in the process of exploring which of these semantic views aligns best with a syntactic construction I have been calling *ex situ* focus. In most cases, the distinction between syntax and semantics should be clear, though it bears mentioning that the term *ex situ* focus is meant to refer to a syntactic, rather than a semantic, notion.

5.3.1 On the notion of focus

In this section, I briefly review some of the issues connected with adopting a definition of focus; in particular, as it applies to Tseltal *ex situ* focus constructions. The goal is two-fold: on one hand, we would like to be able to characterize the semantic range of Tseltal *ex situ* focus construction. At the same time, if the proposal being considered here (that only focus licenses ellipsis) is to have any empirical consequences, the notion of focus must be tightly defined, such that given a construction with particular ellipsis licensing properties, a determination can be made whether it involves focus in the relevant sense. I will argue that É. Kiss' (1998) notion of "identificational focus" is the appropriate characterization of Tseltal *ex situ* focus, and that this notion of focus also makes the right cut between those constructions that license ellipsis and those that fail to do so.

In the focus literature, earlier research (e.g. Bolinger 1958, Gussenhoven 1983, Schwarzschild 1999) suggests a unified account of focus; under such accounts, distinctions between focus types are treated as superfluous. Later scholarship (e.g. Chafe 1976, Rochemont 1986, É. Kiss 1998, Drubig 2003, Winkler 2005, among many others) have demonstrated that at least two types of focus need to be distinguished; the two types being CONTRASTIVE versus PRESENTATIONAL focus (see Selkirk 2008 for a review of the issues). This is the view I will adopt here.

I will take it as granted that CORRECTIVE FOCUS is a kind of contrastive focus (Büring 2011, see also Dik et al. 1981). With this in mind, observe that Tseltal *ex situ* focus construction is used to express corrective focus:

(15)   A: lah s-man   ixim me mamal-e'
            PFV ERG3-buy corn DET old.man-CL
            'The old man bought corn.'

       B: ma'-a. |may| lah s-man   me mamal-e'
            NEG-A tobacco PFV ERG3-buy DET old.man-CL
            'No. It was tobacco that the old man bought.'

In B's response in (15), the correctively focused constituent (*may* 'tobacco') is in the *ex situ* focus position. As far as I know all corrective focus is expressed via *ex situ* focus in Tseltal. This is not unexpected: Skopeteas & Fanselow (2010) observe that *ex situ* focus is generally contrastive or exhaustive, in contrast to the *in situ* focus which is normally presentational.

If *ex situ* focus constructions are used to express corrective focus, and corrective focus is a type of contrastive focus, we might consider the hypothesis that we can identify Tseltal

ex situ focus as contrastive. I argue that the notion of contrastive focus, if defined with any precision, turns out to be too restrictive for Tseltal *ex situ* focus constructions. However, defining contrast in the first place turns out to be not a trivial task (see Molnár 2002 and Umbach 2004 for a consideration of the issues). As an example of some of the difficulties faced in adopting a definition for focus phenomena, consider the notion of contrastive focus. Selkirk (2008), for instance, defines the sentence with contrastive focus as "including a specification that there exist alternatives to the proposition expressed by the sentence" derivable by the usual mechanics of focus alternatives (Rooth 1992a). On the other hand, for Büring (2011), contrastive focus is focus that marks a constituent that distinguishes a sentence from a previously uttered one. Büring's definition is stronger than Selkirk's: under Büring's definition a focused sentence requires an overt linguistic antecedent and a match (save for the focused constituent) between the antecedent and the focused sentence. Selkirk's criteria, on the other hand, place no such requirements on focused utterances. As an illustration, consider (16):

(16)   A: What happened in class today?
       B: JOHN spilled milk on the table

It is possible to consider focus marking in B's response in (16) as contrastive, under the Selkirk's (2008) definition, but not under the one proposed in Büring (2011), as none of the focus alternatives to B's utterance are to be found in previous discourse. There are also intermediate positions (e.g. Chafe 1976), where contrastive focus may have a non-linguistic antecedent. For Chafe, however, it is critical that the alternatives to the contrastively focused constituent are limited. Titov (2010) offers a nicely circumscribed definition of contrast, whereby the contrastive constituent activates pragmatically relevant alternatives precisely when the contrastive constituent is uttered. This, correctly in my opinion, rules out contrastive focus in response to alternative questions (cf. Biezma 2011, Biezma & Rawlins 2010). It turns out, however, that relative to the more restrictive notions of contrast, Tseltal *ex situ* focus has a greater semantic/pragmatic range. Consider the discourse fragment in (17), where an older gentleman tells a younger man about preparations for *pachunajel* or a kind of holiday with exchange of food.[3] In this part of the story, the narrator is explaining about making thread from agave plants.

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[3] Strictly speaking, *pachunajel* is a name of a special tortilla exchanged in such festivities. The exchange itself and the associated holiday have acquired the name from the foodstuff present at the occasion.

(17)   a.   jo'otik-nix a   k-juch'-tik   [TellMe:248]
            we-same   ASP ERG1-grind-PL
            'We grind it ourselves.'

       b.   k-al-e'   ja'   me... |ja'   me   jun   tabla| kaw-ak'
            ERG1-say-CL FOC DET... FOC DET one table ICMP.ERG2-put
            'I'm saying... On a table is where you put it...'

       c.   jich banti ka-juch',   ka-juch',   ka-juch'
            so   there ICMP.ERG2-grind, ICMP.ERG2-grind, ICMP.ERG2-grind
            'And there you grind, grind, grind.'

The focused constituent in (17b) does not distinguish the clause in (17b) from an already uttered one, since (17b) lacks a discourse antecedent. This would contravene Büring's (2011) notion of contrast. Indeed, I would like to suggest that any notion of contrastive focus that involves a non-vacuous definition of the set of relevant alternatives will be too strict to capture the kind of focus we see in (17b). Consequently, I turn to a different notion of focus.

É. Kiss (1998) abandons the notion of "contrastive" and "presentational" focus, in favor of "identificational" and "informational" focus. For É. Kiss, identificational is similar to the kind of focus other researchers have termed "contrastive", while informational focus loosely corresponds to presentational focus in others' work. Crucially for our purposes, É. Kiss argues that identificational focus is not necessarily contrastive. É. Kiss demonstrates that identificational focus can be distinguished from information focus via a number of syntactic and semantic criteria, obligatorily exhaustive meaning being chief among them. For E. Kiss, therefore (also Drubig 2003), the notion of contrast is less relevant: Hungarian identificational focus is always exhaustive, and usually, though not always, contrastive (see Kenesei 2006, Horvath 2010, Repp 2010, among others for a discussion of the issues). We have seen in (17) that Tseltal focus *ex situ* focus construction does not necessarily produce a contrastive meaning. Now we observe that Tseltal pre-verbal focus is interpreted exhaustively:[4]

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[4] The exhaustivity of pre-verbal focus is less strong than of 'only'-phrases: whereas 'only'-phrases cannot be felicitously followed with clauses that specify further variables that satisfy the presupposition (i), focused clauses can be (ii). I set aside this issue here.

(i)   #ja'-nax   x-Maria   ya   j-k'an.   ya   j-k'an   te   Marta ejuk-e'
         FOC-only FEM-Maria IMPF E1-want IMPF E1-want DET Marta also-CL
         'I like Maria. I like Marta too.'

(18)   te   Ami-he' ja'   alaxax   a   s-we'
           DET Ami-CL FOC   orange   ASP ERG3-eat
           'Ami, it's oranges that she eats.'

           ~ 'Ami doesn't eat anything else'

Since contrastive characterization of Tseltal *ex situ* focus did not fit the Tseltal data (cf. 17b), I will adopt É. Kiss' (1998) proposal for Tseltal. I assume that focus is represented in syntax, and specifically that constituents that come to be focused *ex situ* are assigned a [iFoc] feature in syntax. Semantically, that entails that these constituents are interpreted exhaustively. Syntactically, [iFoc] XPs will be move to the left periphery of the clause, as I discuss in more detail below.

In what follows, we will see that this conceptualization of focus makes the correct predictions with respect to the availability of ellipsis in Tseltal. In the next section, I turn to two constructions involving ellipsis.

5.4 Fragment answers and focused polar answers

In this section I consider the syntax of Tseltal fragment answers and affirmative answers to focused polar questions. I begin with these two types of answers because the analysis I would like to propose naturally extends over to broad-focus affirmative answers.

The first subsection of this part of the chapter introduces the syntax of polar and wh-questions in Tseltal. In the second part I consider affirmative responses to focused polar questions, while the ultimate subsection in this part of the chapter extends my proposal to fragment answers. The proposal to be defended for both focused polar answers and fragment answers should be relatively uncontroversial: a constituent moves to the focus projection, followed by ellipsis of the complement of FocusP.

(ii)   te   k-mama-he'   ja'   lah   ch'il chenek'. (ja')   lah   ch'il ja'as   ejuk.
           DET El-mother-CL FOC   PFV   fry   beans.   (FOC)   PFV   fry   banana   also.
           'My mother fried beans. She fried banana(s) too.'

5.4.1 Tseltal questions

Wh-questions in Petalcingo are signaled via the presence of one of the wh-words at the left edge of the clause. Such questions do not receive special phonological or morphological marking. In particular, in contrast to intonational polar questions, wh-questions are always marked with the same boundary tone (H%) as declaratives (Shklovsky 2011):

(19)   mach'a lah   aw-il?
          who   PFV   ERG2-see
          'Who did you see?'

On the other hand, polar questions in Petalcingo Tseltal are morphosyntactically distinguished from declaratives in one of two ways: via the question particle -bal or via a low boundary tone:

(20) a.   MORPHOLOGICALLY MARKED POLAR QUESTION
           lok'-at-bal?
           leave-ABS2-Q
           'Did you leave?'

      b.   INTONATIONALLY MARKED POLAR QUESTION
           lok'-at?   [L%]
           leave-ABS2
           'Did you leave?'

These strategies are distinct in that the low boundary tone cannot be combined with the question particle -bal, as shown in (21).

(21)   * lok'-at-bal?   [L%]
           leave-ABS2-Q
           'Did you leave?'

Oxchuk Tseltal (Polian to appear) employs the same strategies for marking polar interrogatives and wh-questions as Petalcingo.[5]

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[5] Brown (2010) and p.c. suggests that Tenejapa Tseltal has different prosodic properties.

5.4.2 Affirmative responses to focused polar interrogatives

Focused polar interrogatives may not seem like the ideal place to begin investigation of polar responses, however, given that I claim that all ellipsis in Tseltal involves focus, looking at focused polar responses, I contend, affords a convenient introduction to focus ellipsis in Tseltal.

The polar interrogative constructions, described in the previous section, can be combined with one of the focusing strategies considered earlier. As Aissen (1992) argues, Tzotzil declarative focused constructions have an interpretation similar to English clefts, in that they carry a presupposition with a variable, and assert that the focused constituent supplies the value for that variable.

(22)   Pero chobtik tztz'un   un.   [Tzotzil, Aissen 1992:(8b)]
         but   corn   he.plants ENC
         'But it was corn he was planting.'

On Aissen's analysis, (22) presupposes that the man (the referent of 'he') was planting something and asserts that what the man was planting was corn. An example of a focused polar question in Petalcingo Tseltal is shown in (23).

(23)   ja'-bal Pedro lah s-we'   me waj-e'?
         FOC-Q Pedro PFV ERG3-eat DET tortilla-CL
         'Was it Pedro that ate the tortilla?'

The interpretation of such questions is a combination of the semantics of focus and the semantics of questions; (23) asks whether Pedro ate the tortilla while presupposing that someone ate the tortilla. In general, for a proposition φ with a focused subject α, the presupposition will be $\exists x.\varphi(x)$, and the assertion $\varphi(\alpha)$.

For focused polar questions, we can derive the right semantics if we assume that the question operator scopes over the focus operator. Assuming a simplified Hamblin's (1973) semantics of questions and ignoring polar question bias, the denotation of a polar question is a two-membered set of propositions with opposite polarities, i.e., for a question "φ?" the denotation is a Hamblin set $\{\varphi, \neg\varphi\}$. Thus for a focused polar question with a subject α, the denotation of the question will be the Hamblin set $\{\varphi(\alpha), \neg\varphi(\alpha)\}$, and the presupposition will be as in the corresponding declarative proposition, i.e., $\exists x.\varphi(x)$ (cf. Guerzoni 2003, Littell, Matthewson & Peterson 2010).

Affirmative answers to polar questions with *ex situ* focus, like other affirmative answers in this language, involve repetition of a portion of the proposition in the question clause. In the case of *ex situ* focus questions, the answer is generally formed via the focus marker, as shown in (24).

(24)   ja'-bal me ich   a   s-woh   me a-mama-he'?   —ja'
          FOC-Q DET chile ASP ERG3-fry DET POSS2-mother-CL   —FOC
          'Is it a chili pepper that your mother will fry?'   —'Yes.'

The focus marker *ja'* appears in the *ex situ* focus question in (24) This is not a necessary condition on *ex situ* focus questions: in the *ex situ* focus construction, the focus marker is optional, and the same is true of focused polar questions, as shown in (25).

(25)   te   kerem-e'   mut-bal   lah s-we'?   —ja'
          DET boy-CL   chicken-Q PFV ERG3-eat   —FOC
          'The boy, was it a chicken that he ate?'   —'Yes.'

In affirmative polar answers to *ex situ* focus questions, the focus marker can appear together with the portion of the focused NP:

(26)   te   ants'-e'   s-bankil   Pedro-bal lah y-il?
          DET woman-CL POSS3-brother Pedro-Q   PFV ERG3-see
          'The woman, was it Pedro's brother that she saw?'

          —ja'   s-bankil
          —FOC POSS3-brother
          —'Yes.'

In my account of Tseltal affirmative focused polar answers, I assume that the Tseltal clause has a dedicated focus projection (Rizzi 1997), somewhere in the IP domain or above. In this I depart from (Aissen 1992), who treats focus as a feature on INFL. With Aissen (1992), I assume that the focus position in *ex situ* focus constructions is filled by movement: focused constituents move to the specifier of FOCUSP from their base, vP-internal position. In the model of syntax assumed here (cf. Chomsky 2000), movement is triggered by agreement, and agreement is mediated by formal syntactic features. I will assume that focused constituents bear an interpretable [iFoc] feature, and that the FOCUS head bears a corresponding uninterpretable feature [uFoc].[6] The focus head

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[6] The precise featural content suggested here is open to debate. In contrast to the Chomskyan analysis where features are either interpretable or uninterpretable, Pesetsky & Torrego (2007) propose that features may vary along interpretable/uninterpretable as well as valued/unvalued

probes its complement domain for a constituent bearing an interpretable focus [iFoc]. If a match is found, agreement takes place triggering movement of the focused constituent to the specifier of the focus projection.

The analysis I would like to propose follows closely Merchant's (2005) analysis of fragment answers (see also Griffiths & Lipták 2012). Merchant (2005) argues that fragment answers in natural languages are derived via movement of the fragment constituent to a focus position, followed by ellipsis of the complement of FocusP:

> (27)   a.   Who did she see?   —John$_i$ ~~she saw t_i~~

There is some debate in the literature with respect to the position to which the remnant moves. Merchant (2005) proposes that focus movement targets a position above the CP. For Griffiths & Lipták (2012), the focus position where an ellipsis fragment appears need not be external to the CP.[7] Most of Griffiths & Lipták's examples come from Hungarian, where the focus position has been argued to be CP-internal. In Tseltal, the focus position appears to be clause-internal as well: focus may be preceded by negation, which in turn is preceded by overt complementizers. Consequently, I take the complement of FocusP in Tseltal to be a TP/IP.

Since *ex situ* focus constructions involve focus movement by definition, the kind of approach proposed in Merchant (2005) and Griffiths & Lipták (2012) for fragment answers can straightforwardly be adopted for Tseltal affirmative focused polar answers. The focused constituent moves to the specifier of FOCUS^0, followed by the ellipsis of the complement of the FOCUS head. The theory of ellipsis I am assuming is that of Merchant (2001): certain heads may optionally bear an ellipsis [E] feature, though I will argue that Tseltal has only one such head: FOCUS^0. The effect of the [E] feature is to ensure that at PF the complement of the head bearing such feature is not pronounced.

This theory has two important consequences. First, under such proposal, elided constituents are fully present in syntax (rather than being pro-forms, cf. Lobeck 1995),

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dimension. Depending on one's view of the semantics of exhaustive focus, it may be attractive to treat the feature on the FOCUS^0 head as interpretable. I leave this matter open.

[7] Merchant (2005) needs the CP-external focus-position to account for what he takes to be lack of island-amelioration in fragments in contrast to sluicing-type ellipsis. Griffiths & Lipták (2012), on the other hand, argue that island repair does obtain in some fragment answers, and indeed correlates to contrastive vs. non-contrastive focus. Griffiths & Lipták's theory of island repair is based on the scopal Parallelism account Chung, Ladusaw & McCloskey (1995), and especially Fox & Lasnik (2003).

though I will revisit the ellipsis/pro-form dichotomy in light of Elbourne (2008), Baltin & van Craenenbroeck (2008), and Baltin (2012). The fact that the elided constituent is syntactically active in Tseltal polar answers is more apparent in broad focus polar answers, so I will return to this in a latter section.

The second consequence of Merchant's theory, as stressed by Johnson (2004), is a prediction that only phrases can elide. In particular, the ellipsis of a head and its complement, with the specifier remaining overt is predicted to be unattested. This prediction also seems to be true in Tseltal, though the free pro-drop in this language makes it more difficult to test this hypothesis. Nonetheless some weak evidence for this is provided by unavailability of adnominal fragment answers, as shown later in this section.

The structure proposed for focused affirmative polar answers is shown in (28).

(28)
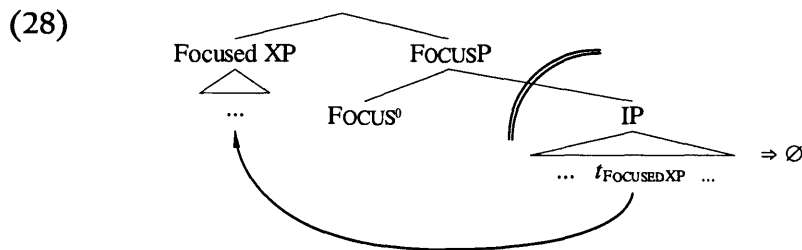
Focused XP moves to [Spec, FOCUSP], followed by ellipsis of the complement of the FOCUS projection. This proposal allows us to derive various types of attested affirmative answers to focused polar questions. One response to focused polar question already discussed is the focus marker *ja'*:

(29) ja'-bal me ich a s-goh me a-mama-he'? —ja'
      FOC-Q DET chile ASP ERG3-fry DET POSS2-mother-CL —FOC
      'Is it a chili pepper that your mother will fry?' —'Yes.'

Here, I would like to argue that contrary to initial appearances, the marker *ja'* in the question and the polar response should receive different analyses. Specifically, I contend that while *ja'* is a focus marker in the question, in the affirmative answer it is a pro-form,

whose reference is the focused constituent in the question. We have seen earlier that the emphatic third-person pronoun is homophonous with the focus marker. The evidence for the fact that in focused answers *ja'* functions as a pro-form comes from comparing focused nominals with focused PPs in polar questions. Polar questions with focused NP constituents can be answered affirmatively with *ja'*, in contrast to focused prepositional phrases, where *ja'* answer is ungrammatical.[8]

> (30)   ta   Petalcingo-bal ayin-at?   —tey   /*ja'
>   PREP Petalcingo-Q   be.born-ABS2   —there /*FOC
>   'Is it in Petalcingo that you were born?'   —'Yes.'

As (30) shows, focused prepositional phrases are answered with *tey*, a locative pro-form meaning 'there.' The behavior of PPs and NPs in focused questions contrasts with adverbs, which cannot be pronominalized and must be repeated in the answer:[9]

> (31)   tulan-bal a   yahl-at?   —*tey   /*ja'   /✓tulan
>   hard-Q   ASP fall-ABS2 —there /*FOC   /✓hard
>   'Did you fall hard?'   —'Yes.'

These facts also hold if the focused constituent appears after the answer marker in the non-minimal response. Nominal focused constituents are answered with *ja'* + NP, whereas focused PPs receive *tey* + PP answer.

> (32)   NP FOCUS
>   te   ants'-e'   s-bankil-bal   Pedro lah y-il?
>   DET   woman-CL   POSS3-brother-Q   Pedro PFV ERG3-see
>   'The woman, is it Pedro's brother that she saw?'
>
>   —ja'/*tey   s-bankil   Pedro
>   —FOC/there   POSS3-brother   Pedro
>   —'Yes.'

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[8] One exception to this generalization is PPs describing manner of motion, such as 'on foot' or 'by car.' I have no explanation for this.

[9] The reader may be wondering about responses to other types of focused constituents. Tseltal predicate adjectives pattern with nouns including in terms of minimal focused polar responses, while adnominal adjectives cannot be focused separately.

(33)   PP FOCUS
        banti   ayin-at?
        where   born-ABS2
        'Where were you born?'

        —tey   ayin-on   ta   k'ajol[10]
        —there born-ABS1 PREP rotten.head
        —'I was born there, in Petalcingo.'

I take the constructions in (32-33) to be appositives, with the overt NP modifying clause-initial pronominal in the answer. The fact that the form of the minimal answer in Tseltal (29-30) varies depending on the syntactic type of the focused constituent suggests that such answers are pronominalizations, and the appositive answers in (32) also fall under this generalization. At the same time, regardless of the nature of the focused constituent, the focus marker is *ja'* in all cases:

(34)   ja'   ta   s-nah   Maria baht   me   Pedro-he'
        FOC   PREP POSS3-house Maria go.ABS3 DET Pedro-CL
        'It was to Maria's house that Pedro went.'

We see in (34) a combination of focused PP with *ja'* focus marker. If the appositive treatment of *tey* + PP answers is correct we would also expect constructions like (34) to be possible with *tey* instead of *ja'* for PP focus. This is indeed the case:

(35)   tey   ta   k'ajol   ay-otik
        there PREP rotten.head EXIST-ABS1PL
        'Here in Petalcingo is where we are.'

However, what is crucial for the present purposes is that *ja'* focus marker is possible with PP focus (34) but not as a minimal answer to a PP focused question (30). This suggests that, as a minimal answer, *ja'* is not a focus marker, but rather a pronominal constituent. There is an additional theory-internal argument in favor of this hypothesis: if *ja'* as a complete answer was a focus marker, this would mean that the constituent focused in the question was completely elided in the answer. Given that under this hypothesis, *ja'* marks focus in the answer, the answer itself would be a focused structure. This, in turn, would mean that the focused constituent is either elided or pro-dropped, contra the usual assumption that focused constituents do not elide (see Heim 1997, Schwarzschild 1999, and Merchant 2001, among others).

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[10] *k'ajol* ('rotten head') is a colloquial name for Petalcingo.

I suggest that *ja'* (for NPs) and *tey* (for locational and some manner PPs) as minimal answers to focused polar questions are derived by pronominalizing the focused constituent, retaining the focus structure of the question, and then eliding the complement of the focus projection, similar to the focused affirmative answers. The other answer option is an appositive structure as in (32) where the pronominal combines with an overt XP. However, these two answer types do not exhaust all answer possibilities for focused polar questions. Consider the following two possible answers to the same question:

(36)   te   ants'-e'   s-bankil-bal   Pedro lah y-il?
         DET woman-CL POSS3-brother-Q   Pedro PFV ERG3-see
         'The woman, is it Pedro's brother that she saw?'

    a.   —ja'   s-bankil   Pedro
         —FOC POSS3-brother Pedro
         —'Yes.'

    b.   —ja'   s-bankil
         —FOC POSS3-brother
         —'Yes.'

We can derive (36a), as before, via pronominalization followed by focus ellipsis. The example in (36b), on the other hand, requires something else to be said. The relevant process in this case is pro-drop: Tseltal allows pro-drop of salient possessors in regular (non-answer) declaratives, and there is no reason to suppose that this regular language trait would be suspended in polar answer context.

Having provided an account of affirmative responses to narrow focus polar questions via focus movement and ellipsis, in the next section I extend this account to Tseltal fragment answers.

5.4.3 Fragment answers

Wh- (or 'content') questions in Tseltal, as in other languages, can be answered either with fragment answers or complete clauses, although the two may look similar due to the pro-drop properties of the language. For example, both (37b) and (38b) are complete

clauses in that they do not involve ellipsis. These answers are derived via pro-drop. The evidence for this is the fact that (37b) and (38b) are grammatical as non-answer clauses in Tseltal.

(37) a. banti yan   a-joy-e'?   [Store:002]
        where another POSS2-companion-CL
        'Where is your other friend?'

    b. —baht-ix   s-tukel
       —go.ABS3-already POSS3-alone
       —'He left already.'

(38) a. banti a   baht?   [Store:006]
        where ASP go.ABS3
        'Where did he go/is he going?'

    b. —baht   ta   a'tel ta   Yajalon.
       —go.ABS3 PREP work PREP Yajalon
       —'He went to work in Yajalon.'

Nonetheless, fragment answers that cannot be derived merely via pro-drop are also attested. The answers in (39) and (40) are not possible out-of-the-blue declaratives, in contrast to those in (37) and (38)

(39) a. Binti yakal y-a'-be-y-el?   [Store:078]
        what PROG ERG3-give-APPL-EPN-NF
        'What is she studying?' (literally: 'What are they giving her?')

    b. —Sekundariya
       —Secundary
       —'Secondary (school).'

(40) a. Mero banti a-lum-al?   [Store:018]
        really where POSS2-land-PCHG
        'Where exactly are you from?'

    b. Ta   Yajalon, ta   barrio
       PREP Yajalon, PREP neighbourhood
       'From Yajalon, from a neighborhood there...'

Fragment answers can receive the same account as answers to focused polar questions under the theory proposed here.

(41)   Bin   a-bijil?   —Mario$_i$ ~~k-bihil~~ t_i
          what   POSS2-name   —Mario   POSS1-name
          'What is your name?'   —'My name is Mario.'

If the XP in the answer clause corresponding to the wh-constituent in the question is focused, as is commonly assumed, it would stand to reason to suppose that it moves to the focus position in the left periphery in Tseltal. Thereupon, the FOCUS^0 head can trigger ellipsis of its complement, with the result that only the fragment answer, the focused XP, survives.

We observe that according to the present proposal, only XPs are predicted to be possible fragment answers. The exact nature of the pronounced constituent can be obscured by pro-drop, however, if pro-drop can be eliminated as an option, this prediction can be tested. With this in mind, consider the behavior of adjectives in fragment answers. In predicate positions, adjectives appear in their root CV(h)C form, as in (42a). By contrast, when modifying NPs, adjectival roots obligatorily take the adnominal-forming -Vl suffix, as shown in (42b).

(42) a.   sak-(*il)   te   mut-e'
            white-ADM   DET   chicken-CL
            'The chicken is white.'

      b.   cham   me   sak-*(il)   mut
            die   DET white-ADM   chicken
            'The white chicken died.'

We observe that as fragment answers, adnominal adjectives without a head noun are ungrammatical.

(43)   bin   y-il-el   me   a-nah-e'?
          what   ERG3-see-NF   DET   POSS2-house-CL
          'What does your house look like?

      a.   —ihk'   b. * —ihk'-al   c.   —ihk'-al   (k)-nah
            —black   —black-ADM   —black-ADM   POSS1-house
            —'(It is) black.'   —'(It is) black.'   —'(It is) a black house.'

The adjective-only answer in (43b) is ungrammatical because it cannot be derived either via ellipsis, pro-drop, or by a combination of the two. Tseltal allows only full DP pro-drop: NPs, or N' cannot be pro-dropped independently. This rules out the pro-drop-only derivation of (43b). The derivation involving ellipsis is illicit for the following reasons: the adnominal form *ihk'al* requires a host DP: it can neither be a predicate nor an argument by itself. This means that the adnominal adjective must be projected as a part of the DP *ihk'al nah* (black-ADM house).[11] It isn't possible to pro-drop just the NP head of the DP *ihk'al nah* because only full DPs can pronominalize. The only alternative then is for the adnominal adjective *ihk'al* to focus-move to [Spec, FocusP], followed by ellipsis of the complement of $Focus^0$, as in (44):

(44)
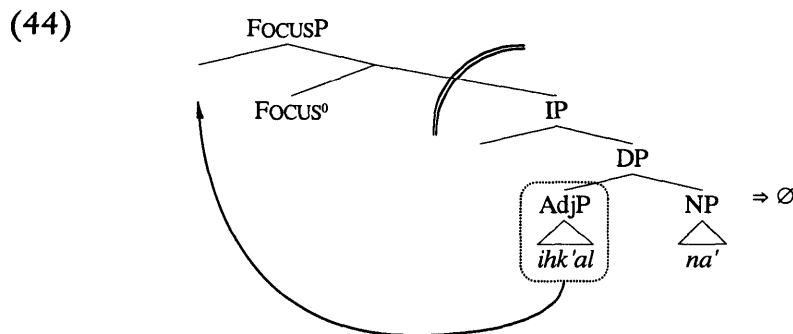
For whatever reason, however, adnominal adjectives cannot move to focus position outside of their DP hosts:

(45)   * (ja')   sak-il   lah k-il   mut
          (FOC) white-ADM PFV ERG1-see chicken
          'It was white that I saw the chicken.'

The combination of unavailability of NP pro-drop (only full DPs are pronominalized) and the fact that focus movement out of a DP is ungrammatical rule out the adjective-only answer in (43b). This demonstrates that when pro-drop is not a possibility, the only remaining option for deriving non-overt structures is focus ellipsis. In such cases, constituents that cannot undergo focus movement cannot be remnants of ellipsis, unless they are generated higher than FocusP.

In the next section, I will generalize the account proposed for focused polar answers and fragment answers to answers to broad focus polar questions.

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[11] Here, I am abstracting away from whatever possessive agreement the entire nominal may bear and the corresponding possessor argument. The answer in (43a) suggests that possessive agreement is not required in this case, though the reasons for this are not entirely clear.

5.5 Broad-focus affirmative polar answers

Affirmative polar answers in Tseltal repeat a portion of the predicate phrase: these are sometimes called "verbal responses," or "verbal replies". Verbal responses have been reported in Irish (McCloskey 1991), Finnish (Holmberg 2001), Russian (King 1994), European Portuguese (Santos 2009), and Czech (Gruet-Skrabalova 2012), among others. In contrast to other languages with verbal responses, Tseltal patterns with Irish in lacking an affirmative polarity particle altogether, making verbal answers the only possible affirmative response in this language. The repetition of a portion of the preceding utterance is not just a feature of Tseltal answer system, but plays a larger role in the language: as Brown (2008) reports, polite Tseltal conversation involves successive repetition of a portion of the previous turn by each conversation participant. This can create repetition loops involving 4, 5, 6 or more ever smaller repetitions.

Minimal affirmative answers to broad focus questions in Tseltal are conditioned by predicate class and aspect of the proposition in the question. Tseltal aspectual system is illustrated in the following table:

(46)

	Perfective	Imperfective[12]
Transitive	*lah*	(*yak*)
Intransitive	∅	(*yak*) *x-*
Stative	no marking / ∅	

The class of stative stems includes predicate nominals and adjectives, verbal stems with some kinds of perfect morphology, and stative stems derived from positional roots. As (46) shows, imperfective aspectual marker *yak* is optional. We will see below, however, that optional aspect morphology crucially differs from the null (or absent) aspectual marking in perfective intransitives and stative stems.

The minimal polar answers for different stem/aspect classes are illustrated in (47)-(49).

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[12] The imperfective *yak* marker also has a realization where the final consonant is absent.

(47) TRANSITIVE

    a. PERFECTIVE

        lah-bal a-pet?   —lah

        PFV-Q   ERG2-hug   —PFV

        'Did you hug him?'   —'Yes.'

    b. IMPERFECTIVE

        —ya-bal   ka-pet?   —yak   —ka-pet-bal?   —yak

        —IMPF-Q ICMP.ERG2-hug —IMPF   —ICMP.ERG2-hug-Q   —IMPF

        —'Will you hug him?' —'Yes.'   —'Will you hug him?'   —

                                                      'Yes.'

(48) INTRANSITIVE

    a. IMPERFECTIVE

        (ya)   x-lok'-at-bal?   —yak

        (IMPF) IMPF-leave-ABS2-Q —IMPF

        'Will you go out?'   —'Yes.'

    b. PERFECTIVE

        lok'-at-bal?   —lok'

        leave-ABS2-Q   —leave

        'Did you go out?'   —'Yes.'

(49) STATIVE

        nakal-at-bal?   —nakal

        seated-ABS2-Q   —seated

        'Are you seated?'   —'Yes.'

        sakil winik-at-bal?   —sakil   winik-on

        white man-ABS2-Q   —white   man-ABS1

        'Are a white man?'   —'Yes.'

The data for verbal predicates can be summarized as follows:

(50)

	Perfective	Imperfective
Transitive	*lah*	*yak*
Intransitive	Predicate stem	*yak*
Stative	Predicate stem	

What we see in (50) is that there are three kinds of minimal polar answers in Tseltal:

(51)   TSELTAL MINIMAL POLAR ANSWER REALIZATION (first version)

   a.   For predicate/aspect combinations where (possibly optional) non-null aspect marking exists, the aspect marker constitutes the minimal polar answer.

   b.   For verbal predicates lacking overt aspect marking, the predicate stem is the minimal polar answer.

   c.   For predicate nominals, the entire NP is the minimal answer.

Setting aside the predicate nominals, on the assumption that aspectual morphology is realized on a higher head than the predicate itself, the generalization in (51) can be stated non-disjunctively in structural terms as follows:

(52)   TSELTAL MINIMAL POLAR ANSWER REALIZATION (second version)
        The highest overt head in the clausal spine serves as the minimal polar answer.

The generalization in (52) extends to cases involving auxiliary verbs in Tseltal: in constructions with auxiliaries, it is the auxiliary that serves as the minimal polar answer. This is illustrated with motion-cum-purpose construction (Aissen 1994) and 'going to' auxiliary in (53).

(53) a.   tal-bal   aw-il-on?   —tal
           come-Q ERG2-see-ABS1   —come
           'Did you come to see me?'   —'Yes.'

      b.   k'an-bal   way-uk-at?   —k'an
           going.to-Q sleep-IRR-ABS2   —going.to
           'Were you going to sleep?'   —'Yes.'

Having concluded an overview of broad polar answer construction, in the next section I consider the notion of polarity focus in the previous literature before offering my account of polar answers.

5.5.1 Polarity focus

In his important work on English and Finnish polar answers, (Holmberg 2001; 2007) invokes the notion of POLARITY FOCUS as a kind of construction where the clause polarity itself is focalized. According to Holmberg, from the semantic standpoint, polarity focus functions like English *it*-clefts: the clause is partitioned into a presupposition containing a variable, and an assertion supplying the value for that variable.[13] For Holmberg, the polarity value can be negative, affirmative, or open, i.e., lacking a specification. The polarity focus construction is instantiated via a Σ head/operator (Laka 1990). Polarity focus, therefore, is a construction where the polarity of the clause itself is focused, regardless of its value. On my reading of Holmberg, polarity focus may (but need not) be contrastive.

Another construction involving focusing of polarity is VERUM FOCUS (Höhle 1992). Many, but not all researchers, treat verum focus as explicit focus of the affirmative polarity (see Féry 2007 and Han & Romero 2001 on two different views on this subject), although for some (e.g. Romero & Han 2002) the presence of verum focus may co-occur with negation. In English, verum focus may be signaled by auxiliary stress:

(54)   I DID cook the beans.

A negative version of verum focus, the FALSUM FOCUS has also been proposed (Gyuris 2009).[14]

With respect to verum focus, Romero & Han (2002) have argued that verum focus can only be exhaustive, and never contrastive. They adduce sentences like (55) and (56) as an illustration:

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[13] I am not entirely certain what is presupposed by a proposition with open polarity, beyond the existence of existentially closed arguments, but this is not crucial to the issues discussed here.

[14] Another type of polarity focusing construction, the DICTUM FOCUS, is proposed in Creswell (2000). This type of polarity focus, similar to Verum Focus, but found only in wh-questions will not be directly relevant to the study of Tseltal polar questions:

    (iii)   Why DID the chicken cross the road?

Creswell argues that dictum focus is used to mark the propositional content (i.e., the question itself) as 'old,' such as the case of returning to an unaddressed question raised earlier in a conversation. Creswell shows that like dictum focus, verum focus can also occur in wh-questions, but that the two should be distinguished on the basis of distributional evidence.

(55) A: I wonder whether he is writing a book.
      B: He IS writing a book.

(56) Q: Is he writing a book?
      A: No, he's NOT (writing a book).

However, it seems clear that similar auxiliary stress can be used contrastively:

(57) A: He is writing a book.
      B: No, he's NOT.
      A: Yes, he IS.
      B: No, he's NOT.

      ...

I assume, therefore, that verum focus is not limited to non-contrastive focus. This means that the notion of "polarity focus" and "verum focus" overlap significantly, at least in the affirmative, unless we take a notion of epistemic commitment as the distinguishing feature of verum focus. With respect to Tseltal phenomena, I will use the term "polarity focus" to refer to the notion of the polarity of the proposition as a focused constituent, since I have no information with respect to the epistemic commitment present in the constructions in question.

The next question I would like to address is how polarity focus differs from broad focus (all-focus, or THETIC sentences). If we follow Kratzer (1989) and treat negation as a focus-sensitive operator, a prediction emerges: on the assumption that presentational (new information) focus involves less marking than contrastive focus, we might expect that regular negative declaratives and negative answers to polar questions need not differ morphologically, while affirmative answers and declaratives maintain morphosyntactic differences. The reason for this is as follows: in polar responses, the negation will be focused due to the requirement that the constituent corresponding to the answer to the question must be focused. In regular declaratives, the negation will also be focused in virtue of being a focus-sensitive operator. In affirmative sentences, however, differences would emerge. Regular affirmative declaratives need not contain any focus-sensitive operators, unlike negated sentences. Affirmative answers to polar questions, on the other hand, will obligatorily exhibit affirmative polarity focus.

Indeed, we find that in English, negative polar answers and negative declaratives can have similar prominence profiles.

(58) QUESTION/ANSWER PAIR

    A: Did John win the game?

    B: He did not (win the game)

(59) AFFIRMATIVE DECLARATIVE

    A: John did not win the game.

Affirmative polar answers, on the other hand, differ from regular declaratives that the former are do-support environments:[15]

(60) QUESTION/ANSWER PAIR

    A: Did John win the game?

    B: He did (win the game)

(61) NEGATIVE DECLARATIVE

    A: John won the game.

A potential challenge to this view is the possibility of echo-type answer, where the response does not morphosyntactically differ from an affirmative non-answer declarative, as in (62).

(62) "ECHO" POLAR ANSWER

    A: Did John win the game?

    B: ? John/he won the game.

    B': Yes, John/he won the game.

The morphosyntax of the answer (B) in (62) is identical to a regular declarative, and I would argue that this construction does not have the expected syntax of an answer. Instead it has a structure of an "all new" declarative: it does not so much answer the question posed, as treat the question as a request for information and supply that information without answering. The non-answer feel of the (B) answer in (62) follows from a theory of answers and polarity focus. Assuming that the constituent specifying the asked-for value in the answer must be focused, then answers to polar questions require polarity focus (Holmberg 2001; 2007). What goes wrong with the answer (B) is that it lacks polarity focus, and consequently doesn't have the expected syntax of a polar

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[15] The account here does not account for all instances of do-support, and in particular of VP do support in VP-topicalization (*He said he would win the race, and win the race he did*).

response. In contrast, (B') contains a polarity focus particle (Holmberg 2001; 2007, Kramer & Rawlins 2009), instantiating polarity focus. This makes (B') perfectly congruent as a polar answer in contrast to (B).

In the following sections I will argue that in Tseltal, much like in English, the positive polarity focus is morphosyntactically distinguished from regular declaratives, whereas negative polarity focus appears to share morphosyntax with broad-focus negated declaratives.

The next subsection offers an account of affirmative answers to polar questions involving perfective predicates.

5.5.2 Transitive perfective affirmative answers

The form of the minimal affirmative answer in Tseltal depends on the predicate class and aspect of the predicate affirmed: in cases where an overt aspectual marker is possible, the aspectual marker serves as the minimal affirmative answer; where no overt aspect marker exists, the minimal answer consists of the predicate stem (*pace* complex NP predicates). The Tseltal aspectual paradigm is reproduced below.

(46)

	Perfective	Imperfective
Transitive	*lah*	(*yak*)
Intransitive	∅	(*yak*) *x-*
Stative	no marking / ∅	

I propose to treat the transitive perfective marker (*lah*) not as a spellout of the aspect projection, but rather as a spellout of a dedicated aspectual auxiliary head ASPAUX. Aspectual auxiliaries take finite IPs as complements, but can only combine with IPs having certain aspectual features: this is how *lah* only combines with perfective clauses. I assume that ASPAUXP is a complement of Focus. This clause structure is shown in (63):

(63)

Focus
  ASPAUX⁰
    INFL   VP
            ...
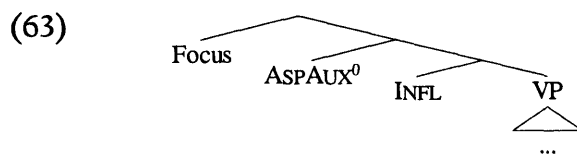
Following Aissen (1996), I assume that in Tseltal the INFL node is the locus of clause finiteness as well as aspectual realization (Adger & Harbour 2007 make the same

assumption for Kiowa; see Ritter & Wiltschko 2009 on theory of varieties of INFL). For transitive perfective constructions, the minimal affirmative answer is the aspectual auxiliary, *lah*, as shown in (64)

(64)   lah-bal a-pet?   —lah
        PFV-Q   ERG2-hug   —PFV
        'Did you hug him?'   —'Yes.'

I assume, following Aissen (1996), that the Tseltal verb head-moves to INFL in all circumstances, picking up aspectual morphology (if any) and absolutive inflection, as in (65):

(65)
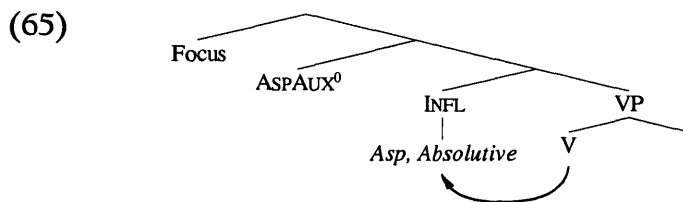
In (64), the overt realization of aspect head is $\varnothing$: *lah* is the spellout of ASPAUX^0. At this point, I simply stipulate that in broad affirmative polarity focus constructions, the contents of ASPAUX^0 head-adjoin to FOCUS^0, an issue I will return to below. After the head adjunction of ASPAUX to FOCUS, ASPAUXP is optionally elided. The result is aspectual auxiliary polar answer, as in (66).

(66)
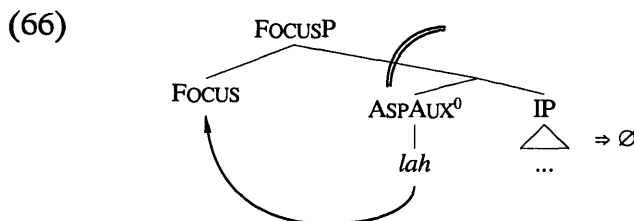
On the surface, (64) might look like run-of-the-mill VP ellipsis (VPE); however, in the sections below I will demonstrate that true VPE does not exist in Tseltal. One type of evidence for this claim is the fact that in negative polar answers, eliding post-auxiliary structure is ungrammatical:

(67)   lah-bal aw-il-on?   *—ma'   lah   ~~k-il-at~~
        PFV-Q   ERG2-see-ABS1   *—NEG   PFV   ~~ERG1-see-ABS2~~
        'Did you see me?'   —'No.'

To preview the analysis of (67) below, I will argue that polarity focus in such constructions is realized via the negative marker *ma'*. When the polarity focus is realized via the polarity particle, the movement of the aspectual auxiliary to FOCUS^0 is blocked.

This means that *lah* remains within the domain of ellipsis as (67) shows, and consequently *lah* is elided together with the rest of the clause when FOCUS⁰ elides its complement.

Indeed, the example in (67) is part of a broader generalization: outside of the cases that can be accounted for via pro-drop, there is only one ellipsis site in Tseltal polar answers. This means that a non-minimal polar answer requires pronunciation of the entire clause, *pace* pro-drop. This is exactly the prediction of an account that posits only one ellipsis-licensing head. Another example of this also comes from the contrast of positive and negative polarity, this time with intransitive verbs:

(68)   atin-at-bal?   —atin(-on)   —ma'   atin-*(on)
        bathe-ABS2-Q   —bathe(-ABS1)   —NEG   bathe-*(ABS1)
        'Did you bathe?'   —'Yes.'   —'No.'

In the affirmative answer in (68), the absolutive inflection can be omitted, i.e., elided under the present analysis. In the negative answer, however, the absolutive inflection may not be elided separately from the verb. The contrast between transitive and intransitive verbs is also instructive: while absolutive inflection can be elided with perfective intransitives (68), it cannot be in perfective transitives as in (69).

(69)   lah-bal aw-il-on?   *—lah   k-il-~~at~~
        PFV-Q   ERG2-see-ABS1 *—PFV   ERG1-see-~~ABS2~~
        'Did you see me?'   —'Yes.'

If the highest verbal head moves to FOCUS⁰ to realize polarity focus, and FOCUS⁰ is the only trigger of ellipsis, the contrast between transitive and intransitive perfectives follows: in transitive perfectives (69), the aspectual auxiliary (*lah*) moves to FOCUS⁰ to realize polarity focus. This means that linearly, the only ellipsis site in transitive perfective polar answers is between the aspectual auxiliary and the verb. Consequently, the absolutive inflection cannot be elided if the verb is overt. In contrast, intransitive perfectives lack an overt aspectual auxiliary. In this case, as I will argue below, the V⁰ head moves to FOCUS⁰ for polarity focus realization, stranding the absolutive inflection inside the elided constituent. This allows the verb to appear without absolutive agreement markers, in contrast to transitive perfectives.

At the same time, transitive perfective verbs can appear in polar answers without direct objects, as shown in (70):

(70)   lah-bal aw-il   me   mut-e'?   —lah   (k-il)
           PFV-Q   ERG2-see   DET   chicken-CL   —PFV   (ERG1-see.ABS3)
           'Did you see the chicken?'   —'Yes.'

The fact that either *lah* or *lah kil* can be used to answer affirmatively would seem to contradict the "only focus elides" or any "one ellipsis trigger" theory. I argue that what we see in (70), however, is not two but rather one possible ellipsis site. The variation observed in (70) is due to the difference between elided AspAuxP (the *lah* answer) and a maximal (i.e., unelided) clause with a pro-dropped internal argument (the *lah kil* answer). In other words, I claim that the direct object in (70) is not elided but pro-dropped. The evidence for this comes from reflexive constructions, as in (71):

(71)   lah-bal a-maj   a-bah?
           PFV-Q   ERG2-hit   POSS2-self
           'Did you hit yourself?'

    a.   —lah   (k-maj   k-bah)
          —PFV   (ERG1-hit POSS1-self)
          —'Yes.'

    b. * —lah   k-maj
          —PFV   ERG1-hit
          —'Yes.'

(71a) demonstrates that either the aspectual auxiliary answer (AspAuxP elided) or full clause (non-elliptical) answer is possible. What (71b) shows is that eliding only the internal argument, when the internal argument is an anaphor, results in ungrammaticality. Reflexives are the one kind of NP that cannot be pro-dropped in Tseltal: presumably Tseltal only has null arguments that are subject to binding theory Condition B, but not Condition A (Chomsky 1981), as shown in (72).

(72) a.   REFLEXIVE CONSTRUCTION   b.   NO NULL PRO IN REFLEXIVE CLAUSES
           lah   y-il   s-bah   * lah   y-il
           PFV   ERG1-see.ABS3 POSS1-self   PFV   ERG1-see.ABS3
           'She saw herself.'   'She saw herself.'
                                               (ok as 'She$_i$ saw her$_k$.')

Therefore, a null pronoun in (71b) would violate Condition B and hence is ungrammatical. I conclude from this that object ellipsis (or verb-stranding VP ellipsis, Goldberg 2005) is impossible in Tseltal. This yields further support to the idea that only one ellipsis licensor is present in this language.

The next section considers affirmative answers in imperfective aspect.

5.5.3 Imperfective affirmative answers

Imperfective polar answers to broad-focus questions in Tseltal employ the particle *yak*, which is usually taken to be an imperfective aspect marker.

(73)   x-tal-at-bal?   —yak
        IMPF-come-ABS2-Q   —IMPF
        'Will you come?'   —'Yes.'

Unlike the transitive perfective *lah*, the imperfective *yak* is optional in regular declarative utterances. The distribution of Tseltal aspectual markers is reproduced below.

(46)   Perfective   Imperfective
        Transitive   *lah*   (*yak*)
        Intransitive $\varnothing$ (*yak*) *x-*
        Stative   no marking / $\varnothing$

I would like to account for the difference between perfective *lah* and imperfective *yak* by proposing that unlike *lah*, *yak* is not an aspect marker, but rather a realization of affirmative polarity focus marker. This marker is generated in FOCUS^0 and takes an imperfective complement. This proposal accounts for the "optionality" of this marker, and its distributional properties with respect to negation.

With respect to the former property, we observe that the difference between imperfective sentences with *yak* and those without is the emphatic strength of the utterance, as demonstrated in examples (74) and (75).

(74) a. me   Pedro-he' x-baht   ta   wayel
          DET Pedro-CL IMPF-go DET sleep-NF
          'Pedro will go to bed.'

      b. me   Pedro-he' yak   x-baht   ta   wayel
          DET Pedro-CL IMPF IMPF-go DET sleep-NF
          'Pedro will go to bed.'
          Consultant comment: the second one is more affirmative. The second one
          is more appropriate when you are disagreeing.

(75) a. pajel   k-man   me   mut-etik-e'
          tomorrow ERG1-buy DET chicken-PL-CL
          'Tomorrow I will buy the chickens.'

      b. pajel   ya   k-man   me   mut-etik-e'
          tomorrow IMPF ERG1-buy DET chicken-PL-CL
          'Tomorrow I will buy the chickens.'
          Consultant comment: the first one sounds like you are a bit insecure.

If we treat *yak* as a marker of affirmative polarity focus (or verum focus), then the fact
that it appears in emphatic sentences, but not otherwise, follows directly.

The second reason to consider *yak* an affirmative polarity focus marker is that unlike
other aspectual markers, it does not co-occur with negation:

(76) a. x-jil-at-bal?   —ma' (*yak)   x-jil-on
          IMPF-say-ABS2-Q   —NEG (IMPF)   IMPF-stay-ABS1
          'Will you stay?'   —'No.'

      b. lah-bal aw-il-on?   —ma   *(lah)   k-il-at
          PFV-Q ERG2-see-ABS1 —NEG PFV   ERG1-see-ABS2
          'Did you see me?'   —'No.'

This co-occurrence restriction requires a discrete stipulation under the hypothesis that
yak is an aspect marker but follows straightforwardly if it is a marker of affirmative
polarity focus.

The derivation of minimal polar answers with *yak* parallels that of the perfective auxiliary with one difference being that *yak* does not need to move to get to the focus projection having originated in FOCUS^0. The complement of focus is (optionally) elided, leaving *yak* as the remnant.

(77)
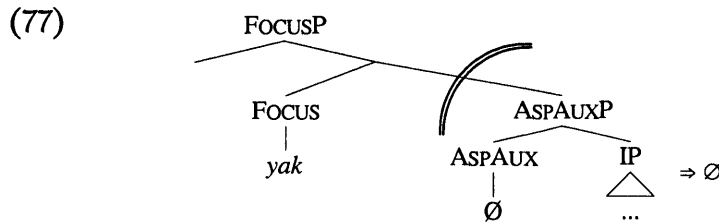
Thus, even though I argue the syntax and semantics of *yak* differs from that of the perfective *lah*, both serve as the minimal polar answers. In the next section I discuss perfective intransitives and stative predicates, where the predicate itself serves as the affirmative polar response.

5.5.4 Predicate answers

Minimal affirmative answers to predicates lacking overt aspect realization (or specialized polarity focus markers like *yak*) are instantiated by the predicate word itself. The traditional aspectual paradigm in Tseltal is recapitulated again below. I have argued above for treatment of *yak* not as an aspect marker but as a polarity focus marker (or as a marker of verum focus); however, I refrain from expunging it from the aspectual paradigm table for expository purposes.[16]

(46)

	Perfective	Imperfective
Transitive	*lah*	(*yak*)
Intransitive	∅	(*yak*) *x-*
Stative	no marking / ∅	

In the table in (46), two types of predicates systematically lack overt morphological realization dependent on aspect: perfective intransitives, and all stative predicates. In Mayan literature, "stative" is a term reserved for predicate nominals and adjectives,

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[16] Incidentally, while treating *yak* as a polarity focus marker has theoretical and empirical advantages, I argue, at the same time, were one to assume an aspectual auxiliary analysis of *yak*, it would not fundamentally affect the analysis of polar answers I advocate.

certain types of perfect constructions, and stative stems formed from positional roots.[17] Examples of polar questions involving all four types of stative predicates follow.

(78) a. PREDICATE NOMINAL

   kerem-at-bal?   —kerem(-on)
   boy-ABS2-Q   —boy(-ABS1)
   'Are you a boy?'   —'Yes.'

   b. PREDICATE ADJECTIVE

   chi'-bal?   —chi'
   sweet.ABS3-Q   —sweet.ABS3
   'Is it sweet?'   —'Yes.'

   c. INTRANSIVE PERFECT[18]

   way-em-at-bal?   —way-em(-on)
   slee-PERF-ABS2-Q   —sleep-PERF(-ABS1)
   'Have you slept?'   —'Yes.'

   d. POSITIONAL STATIVE

   nakal-at-bal?   —nakal(-on)
   seated-ABS2-Q   —seated(-ABS1)
   'Are you seated?'   —'Yes.'

Intransitive perfective predicates pattern similarly to stative stems in terms of possible minimal polar answers.

(79)   INTRANSITIVE PERFECTIVE

   atin-at-bal?   —atin(-on)
   bathe-ABS2-Q   —bathe(-ABS1)
   'Did you bathe?'   —'Yes.'

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[17] Positionals is a large open class of lexemes, present in every Mayan language (Kaufman 1977), usually distinguishable morphosyntactically by the fact that they require derivational morphology in order to form inflectable stems.

[18] Not to be confused with intransitive perfect. Tseltal features three perfect constructions: agent-oriented transitive perfect, patient-oriented transitive perfect, and intransitive perfect. Only the latter is considered here, though I will address the issue of agent-oriented perfect later.

As can be seen from the examples in (78) and (79), minimal answers to stative questions differ in two respects from the kinds that we have seen before: first, it is the semantically main predicate stem, rather than some other head, that serves as the minimal answer. Secondly, the issue of interaction of polar answers and absolutive agreement becomes relevant. In general, in Tseltal, the predicate hosts absolutive agreement. In the other kinds of polar answers we have seen before, the minimal answer did not involve the predicate head; therefore, when the complement of FOCUSP was elided, the absolutive agreement was elided as well. With stative predicates, the minimal affirmative polar answer is the predicate itself, which also hosts the absolutive agreement morphology. As the examples in (78) show, absolutive morphology need not appear in the affirmative answers to stative predicates: it can be omitted from the response.[19]

Given the fact that the predicates presented so far consist of a single phonological word, we might wonder whether the conditions on minimal polar answers make reference to phonology rather than syntax, i.e., whether the absolutive deletion rule takes place in phonology. Nominal predicates modified by adjectives show that the rules for polar answer formation are syntactic in nature:

(80)   bohl-il   kerem-at-bal?
         evil-ADN boy-ABS2-Q
         'Are you a nasty boy?'

    a.   —bohl-il   kerem-on
         —evil-ADN boy-ABS1
         —'Yes.'

    b. * —bohl-il   c. * —kerem
         —evil   —boy
         —'Yes.'   —'Yes.'

Note that in example (80), a parse where the adjective *bohl* is predicative is unavailable, since in Tseltal, predicate adjectives (in contrast to adnominal adjectives) do not bear adnominal modificational affixes (the *-il* morpheme in 80). If the polar response rule were something like "pronounce the first phonological word in the full (unelided) answer clause," we would expect the example in (80b) to be grammatical. The fact that

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[19] While all my examples of elided absolutive feature first-person morphology, such ellipsis is not limited to first-person forms: second person forms behave identically to first-person forms. I am not certain of the data with respect to number agreement in polar answers, so I will set aside the issues of number agreement here.

it is not suggests that it is syntactic and not the phonological structure that serves as the input to the polar answer-formation process, including the deletion of absolutive morphology.

The second observation important to make here concerns the nature of elision of the absolutive morphology: we might consider an analysis where the absence of absolutive morphology does not come about via a process of ellipsis, i.e., a non-pronunciation of a phrase. Instead we could entertain a hypothesis whereby the absolutive morpheme is somehow deleted in phonology or in syntax without affecting a larger phrase. The data in (81) show that this latter hypothesis is not correct.

(81) chom-bot-at-bal   mut?
      sell-APPL.PASS-ABS2-Q chicken
      'Were you sold a chicken?'

  a. —chom-bot(-on)
      —sell-APPL.PASS-ABS1
      —'Yes.'

  b. —chom-bot-on   mut
      —sell-APPL.PASS-ABS1   chicken
      —'Yes.'

  c. * —chom-bot   mut
      —sell-APPL.PASS chicken
      —'Yes.'

(81a) shows that passivized applicativized transitive verb behaves, as passivized verbs generally do, as an intransitive predicate. In this case, this means that the minimal polar answer consists of the predicate word, and that the absolutive morphology can be either present or absent in the affirmative polar response. The next example, (81b), shows that the theme argument can be part of the answer as well. The question we are interested in is whether the presence or absence of absolutive is necessarily concomitant with the presence/absence of the VP. If ellipsis of absolutive necessarily coincides with ellipsis of the VP, then we have an argument for absolutive deletion as an ellipsis-type process. (81c) provides such an argument: when absolutive inflection is not part of the answer,

the theme argument cannot appear in the answer, showing that the missing absolutive inflection is part of ellipsis of a larger constituent. Similar evidence is provided by interaction of prepositional VP-adverbials and absolutive agreement in (82).

(82)   ay-at   ta   k'altik wohe?
            EXIST-ABS2 PREP field   yesterday
            'Were you in the fields yesterday?'

    a.   —at(-on)   b.   —ay-on   ta   k'altik
       —EXIST-ABS1   —EXIST-ABS1 PREP field
       —'Yes.'   —'Yes.'

    c. * —ay   ta   k'altik
       —EXIST PREP field
       —'Yes.'

Such examples argue against the hypothesis where absolutive deletion is a narrow rule that simply removes only the absolutive morphology either in syntax or at PF. They also support the thesis being advanced here: there is only one ellipsis licensing head in Tseltal, namely the $FOCUS^0$. If another licenser of ellipsis existed, we might have expected ellipsis of smaller constituent than AspAuxP to be possible. The fact that it is not can be seen as evidence for the "one ellipsis trigger" theory.

5.5.5 Perfective intransitives

In this section I consider the derivation of affirmative responses to polar questions with intransitive perfective predicates. I argued above that in such answers, the verb raises to v^0 and Aspect as usual, and then continues to on to AspAux. From there, the verb head-adjoins to $FOCUS^0$ as a realization of polarity focus, to be addressed in more detail below. The question I now turn to is how to derive the possible absence of the absolutive inflection. Given the framework assumed here, we would expect that when passing

through INFL, the verb would obligatorily pick up absolutive inflection. However, absolutive morphology is not necessarily a part of the intransitive perfective polar answers; the question like (83a) can have two answers: (83b) or (83c).

(83) a.   atin-at-bal?
           bathe-ABS2-Q
           'Did you bathe?'

      b.   —atin-on   c.   —atin
           —bathe-ABS1   —bathe
           —'Yes.'   —'Yes.'

I propose that the reason absolutive is not necessarily present in intransitive perfective polar responses is due to "salvation by deletion" properties of ellipsis. Island repair properties of ellipsis have been argued for previously (cf. Ross 1969, Lasnik 2001, Merchant 2001, van Craenenbroeck 2004, Griffiths & Lipták 2012, among others). How this works in polar responses to intransitive perfective questions is detailed in what follows.

The INFL head is normally thought of as being involved in two types of relation: one is the Agree relation, which copies φ-features from some non-adjacent nominal to satisfy uninterruptible φ-features on INFL. The second is the EPP relationship, which also takes place with a nominal, at least in the common case. With respect to the order of these two operations, Legate (2008) and Anand & Nevins (2006) suggest that EPP takes place first: this accounts for the non-intervention effect of ergative DPs in transitive clauses. In chapter 4, I proposed a different account for the absence of ergative intervention; nonetheless let us assume with Legate and Anand & Nevins that EPP>Agree order of operations is at least possible. I assume that while failure to Agree itself does not cause non-convergence (Preminger 2009; 2011), it does have consequences for structural Case assignment. Structural Case, at least in the early literature, has been taken to cause a PF crash if it remains unchecked (Chomsky 1981, Vergnaud 2006). Now, consider what happens in broad focus intransitive perfective answers when INFL enters an EPP relationship with the subject NP before φ-agree is triggered. In this case, the subject NP is displaced to the specifier of INFL, and is no longer in the C-command domain of INFL. Now, φ-agree proceeds, and fails, something which according to Preminger (2009; 2011) results in default agreement morphology, but crucially, not a syntactic crash. On the assumption that the default agreement morphology in Tseltal is third-person singular, lack of agreement will be indistinguishable from default agreement, since third-person absolutive agreement is null. After Agree has taken place, graciously failed, and yielded
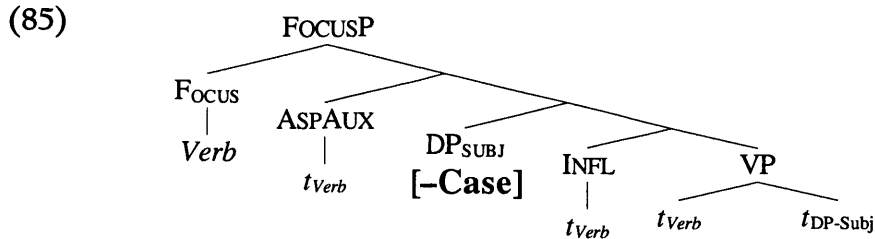
null absolutive agreement morphology, the V^0 continues to head-adjoin to INFL on it's way to FOCUS^0, as in (84)

(84)
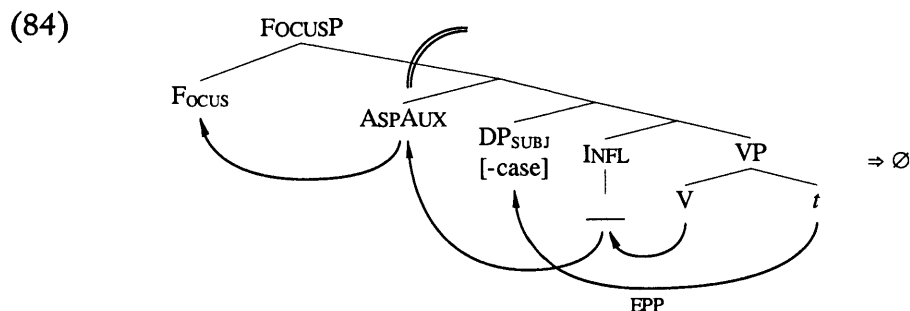
In adjoining to INFL, the verb normally merges with the absolutive affix in morphology. In this case, instead of the expected absolutive person morphology, the output of INFL agreement is the default third person morphology, or $\emptyset$. As a result the verb now lacks overt absolutive agreement. It now head-adjoins to FOCUS^0 as usual. At this point the derivation can proceed in two ways: FOCUS^0 elides its complement (the ellipsis scenario), or spells it out fully (full clause scenario). In both cases the subject is lacking structural Case. In the ellipsis scenario, the subject is inside the ellipsis site, meaning that the offending Case-less nominal never reaches PF. The result is a convergent derivation. The output is the verb which lacks absolutive agreement, i.e., the answer in (83c).

In the full clause scenario, on the other hand, no ellipsis takes place. In this case the subject lacking structural case reaches the PF: recall the subject NP moved out from the complement domain of INFL due to EPP movement, and never got structural Case as a result. Consequently, the case-less subject causes a crash at PF, as in (85). This means that if EPP operation precedes φ-agree in this type of perfective intransitive affirmative answers, an ellipsis must be triggered, otherwise the derivation will not converge at PF.

This is how we derive affirmative polar answers lacking absolutive agreement like (83c): ellipsis licenses failed agreement in Tseltal intransitive perfective polar responses.[20]

(85)

```
                        FOCUSP
              ┌───────────┴──────────┐
           FOCUS              ┌───────┴──────┐
            │              ASPAUX      ┌──────┴──────┐
          Verb               │      DPSUBJ     ┌──────┴──────┐
                           tVerb    [–Case]  INFL          VP
                                             │        ┌──────┴──────┐
                                           tVerb   tVerb        tDP-Subj
```

I have proposed, following Legate (2008) and Anand & Nevins (2006) that EPP can precede φ-agreement. To derive affirmative answers with overt absolutive agreement (such as 83b), as well as regular Tseltal clauses, which bear absolutive agreement obligatorily, we can stipulate that EPP>Agree order is blocked when no head in the numeration bears an ellipsis ([E]) feature. This would block derivations lacking absolutive agreement but having Case-less nominals as a result. Such a stipulation trades a form of look-ahead for a more crash-proof derivation (Frampton & Gutmann 2002). Alternatively, we can allow EPP>Agree regardless, letting the Case filter (Vergnaud 2006; Chomsky 1981) or Full Interpretation (Chomsky 1986) filter out derivations with Case-less subjects. I leave this matter open.

Either way, absolutive agreement is only predicted to be absent in ellipsis contexts, and only those involving perfective intransitive predicates. The conditions under which absolutive can be missing simply do not arise with other kinds of verbal predicates. I have argued above that in imperfective verbal predicates the particle *yak* is generated in FOCUS^0. Consequently, no verb movement to FOCUS^0 is triggered and in the ellipsis cases, the verb remains in the elided portion of the clause. When ellipsis does not obtain, absolutive agreement is required. This is a consequence of the fact that absence of absolutive agreement is only licensed by ellipsis, which prevents a Case-less NP from reaching the PF and causing a crash at the interface. The facts with transitive perfective aspectual auxiliary *lah* are parallel to imperfective *yak* in all relevant respects.

The next section treats the syntax of stative predicates, including predicate nominals. These differ from other types of predicates in Tseltal in that affirmative polar answers involving these types of predicates are XPs rather than X^0 categories.

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[20] I suggested that EPP might precede φ-agree in polar constructions like (83), and subsequently explored the consequence of EPP>Agree order or operations. The reverse order will yield full absolutive agreement.

5.5.6 Stative predicates

In this part of the chapter I consider the syntax of stative predicate polar answers, and in particular polar answers to predicate nominal polar questions. Above, I have proposed V^0 head movement as a mechanism for deriving affirmative polar answers in broad focus perfective transitives, as well as imperfective clauses and transitive perfective constructions. Predicate nominal answers, however, do not involve head movement as can be seen from example (80), reproduced below.

(80)   bohl-il   kerem-at-bal?
          evil-ADN boy-ABS2-Q
          'Are you a nasty boy?'

    a.   —bohl-il   kerem-on
        —evil-ADN boy-ABS1
        —'Yes.'

    b. * —bohl-il   c. * —kerem
        —evil   —boy
        —'Yes.'   —'Yes.'

On the pure head movement approach we would expect *kerem* (the noun that heads the NP predicate) to be a possible answer. The fact that it is not suggests that what is involved in predicate nominal answers (and I assume other statives) is XP, rather than X^0 movement. Within the proposal for polarity focus realization adopted so far (and repeated below) we are unable, at this point, to derive XP answers. I lay out my proposal in the next section.

5.6 Polarity focus and predicate types

To review, there are three types of affirmative polar responses in Tseltal, as shown in (86).

(86)   Construction   Min. Affirmative Response
    a.   Narrow focus polar question   Focused XP/pronoun
    b.   Broad focus verbal polar question   Aux/V^0
   c.   Broad focus non-verbal polar question   NP/pronoun

I have argued that the first of these (86a) is derived via focus movement of the focused XP followed by the ellipsis of the complement of the focus projection. I also presented evidence that in broad focus verbal questions (86b), in minimal polar responses the highest overt element in the verbal domain moves to the focus projection and the

complement of the focus projection is elided, much as in (86c). In non-verbal predicates, however, the entire XP predicate moves to the focus position.

What we see in Tseltal polar answers, therefore, is the fact that nominal predicates trigger XP movement, whereas verbal predicates condition X^0 movement. Carnie (1995; 2000) addresses similar issues in Irish. In Irish (a verb-initial language, like Tseltal) verbs are taken to move to INFL in regular inflected clauses

(87) [Irish, Carnie 2000]
Leanann   an t-ainmní   an briathar i   nGaeilge.
follow-PRES the subject   the verb   in Irish
'The subject follows the verb in Irish.'

The analysis adopted in McCloskey (1983) and Carnie (1995; 2000) is one where V^0 head-moves to INFL as in (88):

(88)
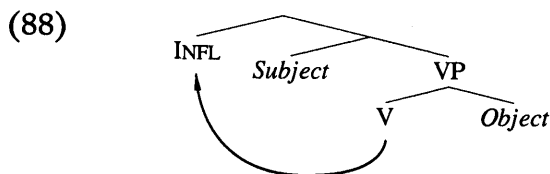
In Irish predicate nominals,[21] Carnie argues, the same movement takes place with NP as the predicator as in (89). Crucially, the NP predicate can be complex as in (90).

(89)   Is   teangeolaí (í)   Máire.   [Irish, Carnie 2000]
        COMP linguist   (AGR) Mary
        'Mary is a linguist.'

(90) a. Is   [dochtúir capall]   é.   [Irish, Carnie 2000]
         COMP doctor   horses-GEN him
         'He is a doctor of horses.'

     b. Is   [amhrán aL   bhuailfidh an píobaire] "Yellow Submarine."
         COMP song   COMP play-FUT   the bagpiper   "Yellow Submarine."
         ' "Yellow Submarine" is a song which the bagpiper is going to play.'

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[21] Carnie (1995; 2000) addresses two types of nominal predicates in Irish, only one of which I reproduce here. The second type involves definite nominals in predicative-like position: these appear to be specificational or equative constructions. These do not concern us. I will reserve the term "predicate nominals" for predicational copular constructions with nominal predicates.

Carnie argues that the NP predicate moves to $INFL^0$ in a manner similar to V^0 movement in (88). This movement is argued to take place even when the NP predicate is complex, as it is in the examples in (90).

(91)
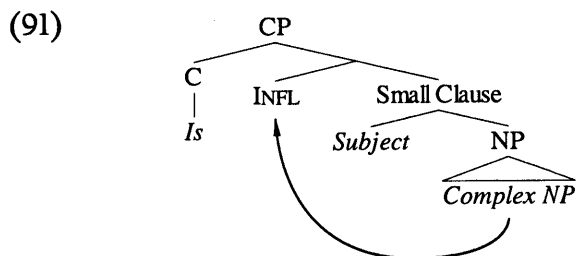
Carnie uses the fact that the NP predicate moves to a head position ($INFL^0$) as evidence for bare phrase structure architecture of grammar (Chomsky 1995b): if the distinction between heads and phrases is only illusory, then there is no reason to deny the possibility of complex syntactic objects moving to terminal positions.[22] Carnie does not address the question of why only the head of the verbal predicate (V^0) moves to INFL, while the entire nominal predicate moves to INFL in predicate nominal constructions.

The same question arises in Tseltal polarity focus constructions. What I propose, in a nutshell, is that polarity focus is a kind of default focus realization. Whereas in narrow focus constructions the $FOCUS^0$ head probes for [iFoc] feature assigned to focused XPs in syntax, in polarity focus constructions, the $FOCUS^0$ head has a kind of EPP-type feature which simply requires that the focus projection not be empty. I will annotate the EPP-type focus feature found in polarity focus constructions as [FP]. The typology of feature combinations on $FOCUS^0$ is as shown in (92).[23]

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[22] The effect of Carnie's proposal is to deny the Chain Uniformity Condition (Chomsky 1995a). For other proposals suggesting the same see Vicente (2007; 2009), and Trinh (2009; 2011).

[23] The necessity of [FP] feature is contingent on two factors: presence of FOCUSP in non-focused constructions, and whether polarity focus must be identified at LF. Since all the requirements of [FP] feature are satisfied when [uFoc] feature is present on $FOCUS^0$, a possible analysis is one where the $FOCUS^0$ head, when present in the derivation, inherently requires non-empty content. On this view, when no focus obtains, as in (92d), the FOCUSP projection is absent altogether. In this analysis, with respect to focus, (92a) and (92b) would be indistinguishable in syntax or semantics. Syntactically, narrow focus realization in questions seems to "trump" polarity focus realization, and this also seems to be the case for either syntactic or prosodic focus realization in Russian (King 1994, Meyer & Mleinek 2006), therefore from the syntax of questions, a syntactic distinction between (92a) and (92b) may not be necessary. The question of whether a syntactic difference between the scenarios (92a) and (92b) is necessary seems to me to rest on the

(92)   Features   Description
    a.   [uFoc]   Narrow focus only (declaratives)
    b.   [uFoc][FP]   Narrow focus and polarity focus (polar questions/answers)
    c.   [FP]   Polarity focus only
    d.   —   Nothing focused

When Focus^0 bears the [uFoc] feature (92a), the result is a narrow focus construction. The Focus^0 probes for and attracts a focused XP, resulting in *ex situ* syntax. Syntactically, nothing changes in (92b) when the Focus^0 has both [uFoc] and [FP]: the narrow focus features causes the focused XP to displace to the specifier of Focus^0, and as a result the needs of [FP] are satisfied as well. When the Focus^0 bears no focus features (92d), it does not probe, trigger any movement, or place requirements on the derivation.

The (broad) polarity focus is (92c). Here, because the [uFoc] feature is absent, the Focus^0 does not probe for a node bearing [iFoc] feature. Instead, the FocusP remains unfilled in the presence of a feature [FP] that requires the FocusP projection to have content. This causes Focus^0 to attract a phrase marker of any category. Let us consider what happens in the VP and NP predicate scenarios in this case. Recall that these display the properties of X^0 and XP respectively: with verbal predicates, the highest head (Aux or V^0) serves as the minimal answer (93a), whereas the entire NP is the minimal polar response in predicate nominal polar questions, as in (93b).

(93)   a.   VP PREDICATE
      Q: lah-bal   aw-il-on?   A: lah   (k-il-at)
           PFV-Q   ERG2-see-ABS1   PFV   (ERG1-see-ABS2)
           'Did you see me?'   'Yes.'

     b.   NP PREDICATE
      Q: sak-il   winik-at-bal?   A: *(sakil)   winik(-on)
           white-ADM   man-ABS2-Q   white-ADM   man(-ABS1)
           'Are you a white man?'   'Yes.'

When the IP contains a verbal predicate, at the time when Focus^0 is merged, the head of its complement contains either the aspectual auxiliary or V^0 that moved to AspAux^0. Consequently, when Focus^0 probes to satisfy the requirements of [FP], the closest target is its complement. I assume that the Head Movement Generalization (Pesetsky &

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question of whether focused answers to polar questions have different syntax from plain XP-focus declaratives, modulo pragmatic differences. I leave this question open, but will retain the [FP] feature in what follows.

Torrego 2001, Matushansky 2006) prohibits phrasal complement-to-specifier movement in such cases, and as a result, the contents of the head of ASPAUX head-adjoin to FOCUS^0.

(94)

FocusP

Focus

ASPAUX $\quad$ INFL $\quad$ V $\qquad$ ⇒ ∅

Aux/V
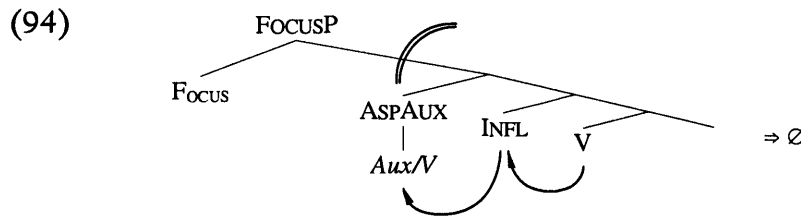
In contrast, in NP predicates the head NP does not raise to INFL. That means that FOCUS^0 attracts the entire NP predicate to its specifier as in (95)

(95)

FocusP

FOCUS [FP] $\quad$ ASPAUX $\quad$ INFL $\quad$ NP

...
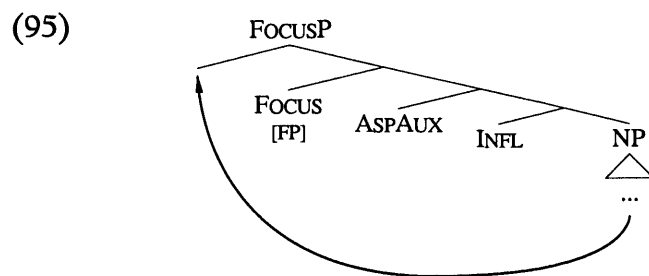
A question arises as to why FOCUS^0 does not attract ASPAUX and as a consequence its null head, as in the verbal case. I propose, following Sigurðsson (2010) and Bjorkman (2011), that given the fact that stative (including nominal) predicates never show aspect marking, the ASPAUX head is not active in the way that makes it eligible for agreement with higher probes. Even though Sigurðsson's Head Unification and Bjorkman's markedness proposals differ in the details of implementation, they both achieve the same result: heads that are not syntactically active do not play a role in the derivation. Consequently I claim that ASPAUXP is not an eligible target for FOCUS^0.

The theory outlined here derives broad focus and narrow focus polar answers via a single mechanism: movement to FOCUS^0. Consequently, this analysis predicts complementarity between polarity focus realization and narrow focus. In particular, the logic of the present proposal is such that narrow XP focus trumps polarity focus: when both could be realized, only narrow XP focus obtains (cf. fn 23). In Tseltal this prediction can be verified by considering the syntax of focused polar answers. Recall that in broad focus questions, aspectual auxiliary serves as the minimal polar answer as in (96a). This was derived via ASPAUX to FOCUS movement. In contrast, in narrow focus polar questions,

the XP with [iFoc] feature is attracted to FOCUSP. The prediction of the analysis proposed here is that narrow focus movement obviates broad focus (polarity focus) movement. This prediction is verified in (96b).

(96) a. lah-bal y-il   s-bankil   Pedro?   —lah
          PFV-Q ERG3-see POSS3-brother Pedro   —PFV
          'Did she see Pedro's brother?'   —'Yes.'

      b. te   ants'-e'   s-bankil   Pedro-bal lah y-il?
          DET woman-CL POSS3-brother Pedro-Q   PFV ERG3-see
          'The woman, did she see Pedro's brother?'

          ja' s-bankil   / * ja' sbankil   lah
          FOC POSS3-brother /   FOC POSS3-brother PFV
          'Yes.'

When an NP *sbankil* (*Pedro*) undergoes focus movement, the polarity focus movement of *lah* to FOCUS⁰ is no longer possible, as shown by the ungrammaticality of *ja' sbankil lah* answer in (96b). This is exactly the prediction of the present theory, where one head triggers either narrow XP focus movement or polarity focus movement but not both. Similar facts obtain in other languages, such as Russian, where V⁰ movement to the left periphery only takes place if no narrow-focused XP undergoes focus movement (King 1994), or even Russian intonational focus, where either V⁰ or a focused XP are prosodically prominent, but never both at the same time (Meyer & Mleinek 2006).

5.7 Negative answers

Tseltal negative answers differ from affirmative answers in that there is an overt negative marker. The minimal negative polar answer in Tseltal is *ma'a*, which involves the negation *ma(')* plus additional morpheme *-a'*:

(97)   lok'-at-bal?   —ma'-a
         leave-ABS2-Q   —NEG-A
         'Did you go out?'   —'No.'

Minimal negative answers fall within the scope of the descriptive generalization "pronounce the highest head" (51), under the assumption that negation is a head. I proposed above that in answers not involving XP focus, the polarity focus is realized via head movement. Therefore, within the theory that is proposed here, the fact that it is negation, rather than the verb that serves as the polar answer can be seen as evidence that negation is indeed a head in Tseltal: the negation blocks head movement of the

predicate. Besides affecting other head movement, (cf. Pollock 1989, Chomsky 1991, Zanuttini 1996, Zanuttini 2001, and the related literature), one other test has been proposed for X° versus XP status of negation, namely the *why not* test (Merchant 2006). Merchant suggests that if sentential negation can occur in the collocation *why not*, then the sentential negation is an XP-type element and not a head. This test rests on the idea that in the *why not* collocation, the negation is adjoined to *why*, which is an XP. Since it is assumed that phrases are possible adjuncts while heads are not, it follows that *why not* construction that employs sentential negation marker shows the sentential negation to be an XP rather than an X°.

Unfortunately, in Tseltal this diagnostic does not yield usable results. The problem lies with the way the wh-word 'why' is expressed in this language: it is a complex form, based on a relational noun -*u'un*, which is a generic means of introducing additional arguments (among the meanings of -*u'un* is 'cause of', 'reason for', 'by', as well as expression of possession and ownership):

> (98)   wen way-al-ik   sak-ub   y-u'un   lub-el   [N:0844]
>   INT sleep-NF-PL white-INCH POSS3-RN tired-NOM
>   'They were very much asleep at dawn, because of fatigue.'

In the Tseltal 'why,' the possessor of -*u'un* is questioned, which involves the inversion of the usual HEADNOUN-POSSESSOR order (cf. Aissen 1996, Coon 2009, Imanishi to appear), and the entire DP is obligatorily fronted:

> (99)   bin   y-u'un   ya   x-bah-at-e'?
>   what POSS3-RN already IMPF-go-ABS2-CL
>   'Why are you going already?'

The structure of the two movements in 'why' is schematized in (100):

> (100)   [WHY *bin y-u'un t*_{bin}]   [VP ... *t*_{why}]

What this entails is that with a locution like "why not?", we must necessarily posit a larger structure, one where 'why' is base-generated in a lower position, and then A'-moves to the left periphery of the clause. If such structure allows ellipsis, as it surely must, then both phrasal and X° negation can be accommodated, the latter on the assumption that the complement of the negation is elided:

(101)
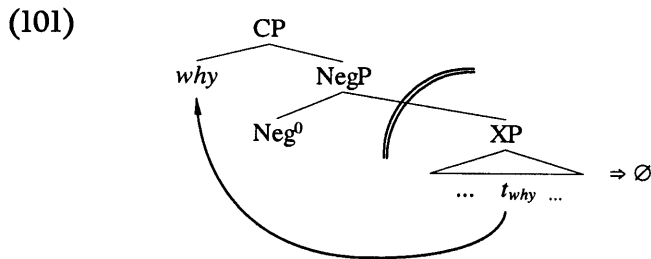
The 'why not' locution in Tseltal looks like the minimal polar answer form, i.e., involves the sentential negator *ma'* with the addition of the *-a'* morphology, besides the *y-u'un*:

(102)   bin   yu'un   ma'-a?
          what   POSS3-RN NEG-A
          'Why not?'

The 'why not' test having not settled the matter of the nature of Tseltal negation, I provisionally assume that Tseltal negation is a head. The rest of this section develops an analysis of the *-a* morphology that appears on the minimal polar answers.

While the negation appears without the extra vowel in full clauses (103), in negative polar answers it is obligatorily present (104):

(103)   ma' lah k-il-at
          NEG PFV ERG1-see-ABS2
          'I didn't see you.'

(104)   lah-bal aw-il-on?   *—ma
          PFV-Q   ERG2-see-ABS1   *—NEG
          'Did you see me?'   —'No.'

One possible explanation for the extra vowel in minimal negative polar answers is based in phonological minimality: a minimal word or a minimal utterance constraint that disallows *ma* answer because it is too short. The negative marker is variously realized as *ma* or *ma'*, (with or without the final glottal stop), and we might assume that the glottal-stop final form does not satisfy word- (or utterance-) minimality requirements in a language where most lexical roots are CVC. However, the fact that *ja'* is a possible

answer to focused questions shows that this proposal is not on the right track: if a form such as /CV?/ (or, more precisely /Ca?/) did not satisfy word or utterance minimality requirements, we would expect the answer to focused polar questions, the focus/pronoun answer *ja'*, to appear with the extra vowel (*ja'a*).
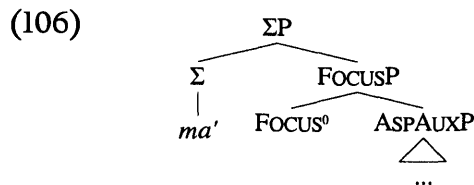
To account for the extra morphology present in negative answers, we have to consider the nature of Tseltal negation and the structure of polar answers. It has been argued (Aissen 1992; Polian to appear) that in languages like Tseltal and closely-related Tzotzil, negation precedes any focused constituents:

(105) a. ma ja'-uk-nax   k-mama   lah s-pas
           NEG FOR-IRR-only POSS1-mother PFV E3-do
           'It wasn't just my mom that did it (wash the dishes).'

      b. ma' tey-uk   a   jil-a   [N02:1113]
           NEG there-IRR ASP remain.ABS3-DIST
   'It wasn't there that they stayed.'

I assume, therefore, that the projection hosting the negation (hereafter, Σ, after Laka 1990) is above the FocusP. With Holmberg (2001) I take Σ to be a type of focus position.[24] As a consequence of the fact that Σ is focus-related, I suggest that a non-empty Σ satisfies the FOCUS projection's [FP] feature: if Σ is filled, then FOCUS^0 will not attract a phrase marker to satisfy its polarity focus feature. Formally, this is to be implemented by selectional features of Σ: an active Σ will select a non-probing FOCUS. This is meant to account for the fact that overt polarity particles (English *yes*, and Tseltal *ma*) are adequate realizations of polarity focus and obviate V^0 movement/focus. Conversely, languages lacking polarity particles employ verbal answers.

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[24] We might suppose that everything in the CP domain above the FOCUS projection is obligatorily focused. This would entail that any XPs in focus position are focused and that negation is focused as well, since negation precedes focus. This would also mean that left-peripheral topics are not focused, as desired. One consequence of this view, however, is that wh-constituents would be predicted to be focused as well, contra Erteschik-Shir (1986). On the other hand, É. Kiss (1998) reports that in Hungarian all wh-phrases with the exception of 'why' appear in the preverbal focus position. I leave this matter for future research.

The proposal being defended in this chapter is that only FOCUS licenses ellipsis. ΣP is focus-related, but is not FOCUS, and consequently does not trigger ellipsis. The trigger for ellipsis in Tseltal negative polar answers, as in all other cases, is FOCUS. This means that in minimal negative answers there is an extra head between the lowest head with overt material, Σ, and the head that triggers ellipsis, FOCUS^0.

(106)

```
           ΣP
        ┌───┴────┐
        Σ      FocusP
        │     ┌───┴────┐
       ma'  Focus⁰   AspAuxP
                       △
                       ...
```

Polian (p.c.) suggests that a can be a pronominal form referring to propositions. I would like to claim that in minimal negative answer, -a is this propositional pro-form. One possible implementation of this would be to assume that FocusP is not projected in negative polarity focus constructions, or indeed when no constituent or head moves to FOCUSP. Under this view, the -a in minimal negative answers is a really a FOCUSP pro-form. This pro-form is the only way for negation to trigger "ellipsis," since Σ in Tseltal is unable to trigger ellipsis on its own.

(107)

```
           ΣP
        ┌───┴────┐
        Σ      FocusP
        │        △
       ma'      -a'
```
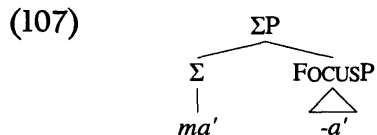
Accordingly, negative answers to focused polar questions come in two types: the ma'a answer that is licit elsewhere, or negation plus an overt focused constituent.[25] We see these two types of answer in (108).

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[25] It appears that there is a difference between *in situ* and *ex situ* construction in terms of acceptability of ma'a response: for both the most preferred response is ma'ja'uk (in the case of NP focused constituent): this is the one that consultants volunteer when asked how to respond to a focused polar question with a nominal focus. Consultants readily accept ma'a answers for *ex situ* focus, but for *in situ* focus constructions, the ma'a answer is not always accepted. I do not have an account of this difference.

(108)   ja'-nax-bal a-mama   lah s-pas?
         FOC-only-Q POSS2-mother PFV ERG3-do
         'Was it only your mom that did it (wash the dishes)?'

   a.   —ma'-a
        —NEG-A
        —'No.'

   b.   —ma ja'-uk
        —NEG FOC-IRR
        —'No.'

If the extra morphology (-a) in minimal negative answers is a FOCUSP pro-form, we would not expect it to co-occur with elements that move to FOCUSP, as in (108b). Similar facts obtain when aspectual markers function as minimal polar answers, as in (109):

(109) a.   lah-bal aw-il-on?   *—lah-a
           PFV-Q   ERG2-see-ABS1   *—PFV-A
           'Did you see me?'   —'Yes.'

      b.   x-tal-at-bal?   *—yak-a
           IMPF-come-ABS2-Q   *—IMPF-A
           'Will you come?'   —'Yes.'

It bears repeating that the idea that focus and no other projection triggers ellipsis in Tseltal is supported by the fact that auxiliary-stranding ellipsis is not possible when negation is present:

(110)   lah-bal aw-il-on?   *—ma   lah
         PFV-Q   ERG2-see-ABS1   *—NEG PFV
         'Did you see me?'   —'No.'

Under my analysis, the perfective auxiliary *lah* moves to FOCUS^0 to support positive polarity focus. For negative polarity focus, the negative marker *ma'* supports polarity focus by itself, in its base position in Σ^0. The movement of *lah* to FOCUS^0 is unnecessary and therefore banned. This means that in the presence of negation, aspectual auxiliaries are in their base position, that is, in ASPAUXP: this explains why they cannot appear in constructions like (110): in the presence of negation, the only way for the auxiliary to be overt is for ellipsis not to take place at all. In such cases, the verb would not be elided either. Since the verb is missing from the answer in (110), such responses are ungrammatical.

Further support for the proposal that only focus triggers ellipsis in Tseltal polar answer constructions, as well as more broadly, can be seen in the fact that in all Tseltal ellipsis constructions where no XP receives narrow focus, the negation always appears with the -*a* morpheme:

(111) a. lah s-mil   mut   te   kerem-e', pe' me mamal-e'   ma'-a
         PFV ERG3-kill chicken DET boy-CL   but DET old.man-CL NEG-A
         'The boy killed the chicken, but the old man didn't.'

      b. yakal ta   a'tel te   winik-etik-e', pe ay   macha-tik ma'a
         PROG PREP work   DET man-PL-CL   but EXIST   who-PL   NEG-A
         'The men are working, but there are some who are not.'

Moreover, as we would expect under the "only focus elides" hypothesis, the same morpheme appears in sluicing:

(112)   ay   binti lah k-il... ma   k-na'   bin-a'
        EXIST what PFV ERG1-see NEG ERG1-know   what-A'
        'I saw something, but I don't know what.'

If wh-phrases are located in [Spec, CP], above the negation and focus projections, while C^0, like Σ, were unable to trigger ellipsis, we would expect the -*a'* pro-form to appear. At the same time, the last example also provides a potential challenge for the theory presented here: if -*a'* is a FOCUSP pro-form, we wouldn't expect wh-phrases to be able to extract from it. For the explanation of this phenomenon, I follow Elbourne (2008), Baltin & van Craenenbroeck (2008), and Baltin (2012) in treating ellipsis and pronominalization on par.[26] As an initial piece of evidence, we have already seen in

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[26] What Baltin & van Craenenbroeck (2008) and Baltin (2012) propose is that pro-forms like elided constituents have internal structure. Furthermore, these authors argue that the process of pronominalization is identical to ellipsis in that both processes involve by heads triggering non-spellout of their complements. The differences between pro-forms and elided constituents in terms of transparency to syntactic processes (cf. Hankamer & Sag 1976) are a consequence of phase impenetrability condition (Chomsky 2000), it is claimed. I will adopt the leading idea of Baltin & van Craenenbroeck's (2008) and Baltin's (2012) proposals without committing to the details of implementation. The reason for this is both technical and conceptual: until more is known about the difference between "spell out the head ellipsis" (pronominalization) and "silent head ellipsis" (traditional ellipsis), it would make sense to assume that ellipsis and pronominalization should be in contrastive distribution. In other words, given a head which triggers non-pronunciation of its complement, the null hypothesis should be that either the head

chapter 3 that external possession can apply to pro-dropped NPs. These examples are repeated in (113).

(113)   SPEAKER A: lah-bal   aw-il   me   k-mut-e'?
                       PFV-Q   ERG2-see.ABS3 DET   POSS1-chicken-CL
                       'Have you seen my chicken?'

         SPEAKER B: lah   k-we'-bat
                       PFV   ERG1-eat-APPL.ABS2
                       'I ate it.'

In Speaker B's response in (113), the second person absolutive agreement is controlled by the possessor of the direct object, which is not overtly present in the clause. On the assumption that the object in the response in (113) is pro-dropped, this example demonstrates that at least some pronouns in Tseltal are syntactically transparent to syntactic processes.

I propose that the same process takes place in (112): the FOCUSP, pronominalized as -a, is syntactically transparent to A'-extraction.[27] Indeed, a very similar phenomenon is found in Japanese (Nakao & Yoshida 2005):

(114)   John-ga   dareka-ni   at-ta   ga,   watasi-wa |sore|-ga dare-ni
         John-NOM   someone-DAT meet-past but   I-TOP   it-NOM   who-DAT
         (da) ka   sira-nai.
         (be) Q   know-not
         'John met someone, but I don't know who (it is).'

The form *sore(-ga)* stands for the elided constituent, i.e., is a pro-form, yet the wh-phrase *date(-ni)* can be extracted from the constituent that *sore(-ga)* pronominalizes. Note the fact that *dare* ('who') in (114), being dative, precludes a predicational analysis of the

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itself always has phonological output (pronominalization) or not (traditional ellipsis). The account of FOCUSP ellipsis and FOCUSP pronominalization offered in the succeeding pages does not have this property.

[27] There is a residue of phonological conditioning on the appearance of post-negation -a': with certain clitics, the appearance of -a' with negation is ungrammatical:

(iv)   ma(*-a)-to(*-a)
        NEG-A-still-A
        'Not yet.'

Alternatively, it may be possible to analyze such clitics as being focused themselves. I leave this matter open.

second conjunct. This is identical to the Tseltal sluicing construction in (112), with the main difference between Japanese and Tseltal being that in Tseltal the relevant pronoun, I argue, is more widely distributed.

Another case of movement out of a pro-form is presented in Hardt, Mikkelsen & Ørsnes (2011). Here, the Danish VP-proform *det* allows A- (though not A-bar) movement of a VP-internal argument, as shown in (115).

(115)   [Danish, Hardt, Mikkelsen & Ørsnes 2011]
Bare toget   ville   [bryde sammen lige   nu]!
just train.DEF would break   together right now
Men det gjorde det selvfølgelig ikke!
but *det* did   it   of.course   not
'If only the train would break down right now! But of course it didn't!.'

The VP pro-form *det* is anteceded by the bracketed VP in the first clause. The verb being unaccusative, we expect the subject to originate as a complement of the verb. Given this, the pronominal subject in the second clause had to have moved out of the pro-form *det*.

I conclude from the Danish and Japanese data that there is a case to be made for syntactic transparency of pro-forms and I argue that possessor raising out of a null pro (113) as well as Tseltal sluicing constructions (112) are an instance of this phenomenon.

5.8 Pseudo VPE and ellipsis licensing in Tseltal

We observed earlier that Tseltal exhibits a contrast in VP-ellipsis like structures, where contrastive coordination licenses ellipsis, but non-contrastive coordination does not. In this section I develop an analysis of this contrast based on the idea that only the FOCUS^0 head is a trigger for ellipsis in Tseltal. The next section reviews the ellipsis licensing environments as well as the pseudo VPE contrast.

5.8.1 Ellipsis and focus

Returning to the contrast in ellipsis licensing in Tseltal, we have observed that ellipsis of what looks to be a VP in the absence of polarity contrast is ungrammatical, while contrasting polarity licenses ellipsis, as in (116):

(116) a.   Mariya ma lah s-we'   sats' axan jo'on-e' lah
             Maria NEG PFV ERG3-eat.ABS3 sats' but I-CL   PFV
             'Maria didn't eat sats' but I did.'

       b. * te   Pedro-he' lah s-mil   chitam i   jo'on'-e' (lah) (ejuk)
             DET Pedro-CL PFV ERG3-kill.ABS3 pig   and I-CL   (PFV) (also)
             'Pedro killed a pig and I did too.'

It is not the case (as 116a might suggest) that only clauses with positive polarity can elide the verbal projection.

(117)   Pedro baht   ta   nux-el   axan Maria ma'a
             Pedro go.ABS3 PREP swim-NF but Maria NEG-A
             'Pedro went swimming, but Maria didn't.'

I will argue below that (116a) and (117) is not VP-ellipsis. Consequently, I will continue to refer to constructions in (116) and (117) as pseudo VP Ellipsis (PVPE). Broadening the range of elliptical constructions, outside of PVPE, we have observed that sluicing is possible in Tseltal. Clearly, such constructions do not require polarity contrast. The sluicing example is reproduced below.

(112)   ay   binti lah k-il...   ma k-na'   bin-a'
             EXIST what PFV ERG1-see NEG ERG1-know what-A'
             'I saw something, but I don't know what.'

We have also seen that fragment answers license ellipsis of the sort licensed by focus ellipsis. It seems that the polarity contrast is not relevant in these constructions either.

Finally, the bulk of this chapter was concerned with answers to polar questions, with both narrow (XP) focus and broad focus. The analysis of both was assimilated to the analysis of fragment answers; however, here I will consider these constructions separately. We have also observed that the presence or absence of polarity contrast is relevant to licensing of ellipsis, as (116) illustrates. But contrasting polarity is not a necessary condition for ellipsis in Tseltal, as polar answers illustrate. The data is summarized in (118).

(118)

	Construction	Polarity Contrast	Grammatical
a.	Narrow focus polar answers	not required	✓
b.	Broad focus polar answers	not required	✓
c.	Fragment answers	not required	✓
d.	Sluicing	not required	✓
e.	VPE-like (contrastive)	required	✓
f.	VPE-like (non-contrastive)	N/A	✗

I propose that we can account for the attested and unattested types of ellipsis in Tseltal if we assume that only (exhaustive) focus triggers ellipsis. I adopt the Merchant's (2001) view of the syntactic side of the ellipsis licensing, where the head licensing ellipsis bears an ellipsis ([E]) feature (see Thoms 2010; 2012 and Aelbrecht 2010 for alternative views of syntactic licensing of ellipsis). Under Merchant's theory of ellipsis licensing the focus ellipsis proposal entails that only the FOCUS^0 head can bear the [E] feature and trigger non-pronunciation of its complement.

Returning to the range of data to be considered, we have seen in the foregoing that focus ellipsis can account for (118a, b, and c); however, it is important to review the analysis in light of the analysis of focus adopted here.

5.8.1.1 Narrow-focus polar answers

For affirmative narrow-focus polar answers (118a) it was argued that FOCUS^0 attracts the an XP bearing [iFoc] feature, and then triggers ellipsis the complement of FOCUSP. Within the theory of focus adopted here, the focus feature, [iFoc], is assumed to associate with É. Kiss's (1998) notion of informational focus which is necessarily exhaustive. If *ex situ* focus constructions have semantics of English clefts, as Aissen (1992) argues, then this is the desired result.

In negative narrow-focus polar responses, two types of negative responses are attested, as shown in (119):

(119)   te   kerem-e' ox-pis-bal manko lah s-lo'?
          DET boy-CL   three-NC-Q mango PFV ERG3-eat
          'They boy, was it three mangos that he ate?'

   a.   —ma'a
        —NEG-A
        —'No.'

   b.   —ma ja'-uk
        —NEG FOC-IRR
        —'No.'

In Tseltal, negation precedes and C-commands FOCUSP, but is unable to trigger ellipsis. It was argued that in minimal negative answers such as (119a), -a' is a pro-form in FOCUSP, the consequence of the fact that Tseltal negation does not license ellipsis. From this standpoint, when a constituent appears in focus position as in (119b), the pronominal -a' is ungrammatical:

   c. * —ma-a   ja'-uk
        —NEG-A FOC-IRR
        —'No.'

In contrast to (119a), where the FOCUSP is pronominalized (as -a), the FOCUS head in (119b) triggers ellipsis of its complement.

5.8.1.2 Broad focus polar answers

In affirmative broad focus polar responses (118b), I claimed that the narrow focus [iFoc] feature is absent. I stipulated that in these constructions FOCUS^0 head bears the [FP] feature. This feature requires FOCUSP to have a filled specifier and as a result, aspectual auxiliary or V^0 head-adjoined to FOCUSP in accordance with the HEAD MOVEMENT GENERALIZATION. Here we observe a difference between broad- and narrow-focus

constructions in terms of whether post-negation ellipsis is possible. In (119b), a negation is followed by a constituent which itself is followed by an ellipsis site. Such responses are sharply ungrammatical in broad focus questions as (120) shows.

(120) lah-bal   aw-il-on?
       PFV-Q   ERG2-see-ABS1
       'Did you see me?'

    a. —lah   b. —ma-a   c. * —ma lah
        —PFV   —NEG-A   —NEG PFV
        —'Yes.'   —'No.'   —'No.'

The (120c) differs from (119b) in that the negation cannot be followed by any part of the clause: everything must be elided (actually pronominalized) in broad focus negative responses. We derive this difference from the structure adopted for Tseltal clauses and the fact that aspectual auxiliaries head-move to FOCUSP to realize affirmative polarity focus. In (119b), the (pronominalized) focused constituent independently appears in [Spec, FOCUSP], and when $FOCUS^0$ elides its complement, the C-commanding negation and the focalized constituent remain (121a). In contrast, in negative (broad focus) polar answers, it is the negation in Σ^0 that realizes polarity focus. Consequently, no phrase marker is attracted to FOCUSP to satisfy its polarity focus feature.

(121) a. NEGATION WITH NARROW FOCUS
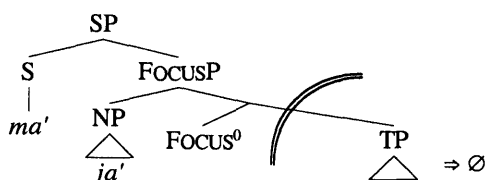
b. NEGATION WITH BROAD FOCUS
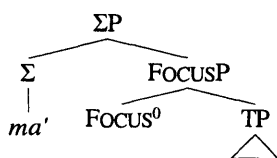
5.8.1.3 Fragment answers

Turning to fragment answers (118c), we note that these also license ellipsis. We have identified the *ex situ* focus position with exhaustive focus. In narrow (*ex situ*) focus constructions this appears to be the right semantics. In polarity focus constructions, affirmative or negative polarity is necessarily exhaustive since one excludes the other,

therefore movement to FOCUS^0 is would be expected as well. The same is not clear for fragment answers: fragment answers are not necessarily exhaustive. É. Kiss (1998) observes that in Hungarian, most commonly wh-answers appear in pre-verbal exhaustive focus position, but can appear post-verbally as well:

(122) a.   Hol   jartal   a   nyaron?   [Hungarian, É. Kiss 1998]
where went.you the summer.in
'Where did you go in the summer?'

b.   Jartam Olaszorszagban.   [Hungarian, É. Kiss 1998]
went.I Italy.to
'I went TO ITALY [among other places].'

c.   Olaszorszagban jartam.   [Hungarian, É. Kiss 1998]
Italy.to   went.I
'It was Italy where I went.'

I assume that the same is true for Tseltal: that unmarked answers to polar questions involve *ex situ* focus and exhaustive reading, but that non-focused answers are also possible.[28] The fragment answers derive from *ex situ* (exhaustive) focus, and are derived via focus ellipsis, much like affirmative answers to narrow focus questions.

5.8.1.4 Sluicing

Another elliptical construction in Tseltal is sluicing (118d). In Hungarian wh-constituents always appear in focus position, in contrast to wh-answer XPs (É. Kiss 1998). Aissen (1992) assumes that the focus position is lower than the wh-position in Tzotzil, and I have adopted this for Tseltal as well. This accounts for the pro-form -*a* appearing in sluicing constructions as well: the C^0 is unable to trigger ellipsis of its complement either.

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[28] This makes a prediction that fragment answers are necessarily exhaustive, whereas complete non-focused answers to wh-questions are not. I am unable to verify this prediction at the moment.

5.8.1.5 Pseudo VPE

We are now in the position to provide an account of the difference in pseudo VPE constructions with contrastive polarity and without. The contrast is repeated below:

(116) a. Mariya ma lah s-we'   sats' axan jo'on-e' lah
          Maria NEG PFV ERG3-eat.ABS3 sats' but I-CL   PFV
          'Maria didn't eat sats' but I did.'

     b. * te Pedro-he' lah s-mil   chitam i   jo'on'-e' (lah) (ejuk)
          DET Pedro-CL PFV ERG3-kill.ABS3 pig   and I-CL   (PFV) (also)
          'Pedro killed a pig and I did too.'

We observe that in the grammatical case in (116a), the conjunct with ellipsis involves contrastive polarity focus. The polarity focus is realized as in affirmative polar answers: FOCUS^0 head with [FP] attracts the head of AspAuxP, followed by ellipsis of the complement of FocusP. In (116b), in contrast, no polarity focus obtains. If FocusP is present at all, it enters the derivation without any features. This entails that it will not trigger movement (either of X^0 or XP categories) and will also be unable to trigger ellipsis.

It is worth noting that a similar sensitivity to polarity in VPE-like constructions is observed in Swedish and Norwegian in Thoms (2012). Thoms (2010; 2012) proposes that ellipsis is licensed by head movement and A'-movement (alternatively: "non-A-movement"), in contrast to the featural licensing approach adopted here. In Thoms' account of polarity contrast as a licenser of VPE in Swedish and Standard Norwegian, V^0-to-Σ movement plays a crucial role: it is this head movement that licenses VPE. This analysis is similar to the proposals for deriving affirmative polar responses and pseudo VPE defended in this chapter. In fact, if FOCUS^0 were the only trigger of non-A-movement, then the proposals here and in Thoms (2010; 2012) would collapse.[29] These two accounts diverge when it comes to wh-movement and negation: under my account, the presence of post-wh-constituent *a*, analyzed here as a pro-form, is a consequence of the fact that only FOCUS^0 is a possible ellipsis trigger. I set aside further comparison of the two proposals for future research.

Returning to the focus-based account advocated in this chapter, we note that one prediction of the present proposal is that if there were a way to focus a constituent in

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[29] I am setting aside EPP-based movement as a possible ellipsis licenser, though Thoms does not address this type of movement as far as I know.

non-contrastive polarity coordination, then ellipsis should become possible in these constructions. The example in (123) shows that this might be the case.

(123)   te   Pedro-he' lah s-mil   chitam i   ja' nix   jich-on
          DET Pedro-CL PFV ERG3-kill pig   and FOC same so-ABS1
          'Pedro killed a pig, and I did too.'

I am unable to provide a complete analysis of (123). We can observe, however, that this example involves a focus construction, as evidenced by the presence of the focus marker *ja'*. What is not clear, however, is whether (123) involves ellipsis. The word *jich* means 'so' or 'like this,' and seems to be a type of pro-form. The second conjunct in (123) involves a kind of set expression *ja' nix jich*, which means 'the same' or 'also.' It appears that given the data in (123), the correct analysis of *ja'* in *ja' nix jich* is as third-person emphatic pronoun. One reason to adopt this analysis is the absolutive agreement in (123), which can receive two types of analysis. The first of these would be to argue that (123) involves first-person pronoun (*jo'on*) interrupted by two Wackernagel clitics: *nix* ('same') and *jich* ('so,' or 'like this'). Alternatively, (123) involves *ja nix jich* plus clausal absolutive agreement, though on this analysis it isn't clear what the predicate is, exactly. Provisionally adopting the first analysis, we observe the contrast between (116b) and (123): whereas in the latter the pronominal subject is in the topic position, in (123) it appears to be in focus position: second-position clitics never attach to topics in Tseltal (Polian to appear). Consequently, we would predict then that pseudo VPE with contrastive polarity (116a) and pseudo VPE with focused subjects (123) differ not only in the fact that the former exhibits polarity focus, but also in the interpretation of subjects. Specifically, the prediction of the present account is that the pronominal in (123) should be interpreted exhaustively, while no such interpretation obtains in (116a). I leave this for future research.

5.9 Conclusions

This chapter developed an analysis of Tseltal polar responses and fragment answers. Under the proposal advocated here, all polar responses are derived either via movement to FOCUS projection followed by ellipsis of the complement of FOCUS, or by pronominalization of the focus phrase. In this chapter I argued that Tseltal only has a single ellipsis-licensing head, FOCUS, and that this fact accounts for the restrictions on polar answers if we set aside pro-drop. It was shown that when pro-drop could be ruled out, Tseltal ellipsis system is quite restrictive, as predicted by the single ellipsis licensor proposal. The evidence for the relative impoverishment Tseltal ellipsis came from fragment answers involving adnominal adjectives, as well as unavailability of pseudo

VPE in non-contrastive coordinations. Further support for the theory advocated here is provided by the fact that in every kind of polar answer, ellipsis was possible only in one place in the linear string: directly after the focus constituent in narrow focus answers, and immediately to the right of the aspectual auxiliary in broad focus answers to predicates with aspectual auxiliaries. The fact that in all affirmative polarity focus cases, narrow focus realization pre-empted polarity focus confirms the idea developed here that polarity focus and narrow focus are realizations of the same phenomenon. This hypothesis also receives support from the facts of affirmative polarity focus in polar answers in Russian.

Bibliography

Abney, Steven. 1987. The English noun phrase in its sentential aspect. Doctoral dissertation, Cambridge, MA: MIT.

Academia de las lenguas mayas. 1988. *Documento De Referencia Para La Pronunciación De Los Nuevos Alfabetos Oficiales.* Guatemala City: Instituto Indigenista Nacional.

Adger, David & Daniel Harbour. 2007. Syntax and syncretisms of the Person Case Constraint. *Syntax* 10(1). 2–37.

Aelbrecht, Lobke. 2010. *The Syntactic Licensing of Ellipsis.* (Linguistik Aktuell 149). Amsterdam: John Benjamins Publishing Company.

Aissen, Judith. 1979. Possessor ascension in Tzotzil. In Laura Martin (ed.), *Papers in Mayan Linguistics*, 89–108. Columbia, MO: Lucas Brothers.

Aissen, Judith. 1987. *Tzotzil Clause Structure.* Dortrecht: D. Reidel.

Aissen, Judith. 1992. Topic and focus in Mayan. *Language* 68(1). 43–80.

Aissen, Judith. 1994. Tzotzil auxiliaries. *Linguistics* 32. 657–690.

Aissen, Judith. 1996. Pied-piping, abstract agreement, and functional projections in Tzotzil. *Natural Language and Linguistic Theory* 14(3). 447–491.

Aissen, Judith. 1997. On the syntax of obviation. *Language* 73(4). 705–750.

Aissen, Judith. 1999. Agent focus and inverse in Tzotzil. *Language* 75(3). 451–485.

Akmajian, Adrian. 1979. *Aspects of the Grammar of Focus in English.* New York: Garland.

Albizu, Pablo. 1997. Generalized Person-Case Constraint: A case for a syntax-driven inflectional morphology. In Amaya Mendikoetxea & Myriam Uribe-Etxebarria (eds.), *Theoretical Issues on the Morphology-Syntax Interface*, 1–34. San Sebastian: ASJU Gehigarriak XL.

Aldridge, Edith. 2007. Minimalist analysis of ergativity. *Sophia Linguistica* 55. 123–142.

Alexiadou, Artemis. 2001. *Functional Structure in Nominals: Nominalization and Ergativity.* Amsterdam: John Benjamins Publishing Company.

Alexiadou, Artemis & Elena Anagnostopoulou. 1998. Parametrizing Agr: word order, V-movement and EPP-checking. *Natural Language & Linguistic Theory* 16(3). 491–539.

Alexiadou, Artemis & Elena Anagnostopoulou. 2006. From hierarchies to features. In Cedric Boeckx (ed.), *Agreement Systems*, 41–62. Amsterdam: John Benjamins Publishing Company.

Anagnostopoulou, Elena. 2003. *The Syntax of Ditransitives: Evidence from Clitics.* Berlin: Walter de Gruyter.

Anagnostopoulou, Elena. 2005. Strong and weak person restrictions: A feature checking analysis. In Lorie Heggie & Fernando Ordóñez (eds.), *Clitic and Affix Combinations: Theoretical Perspectives*, 199–235. (Linguistik Aktuell 74). Amsterdam: John Benjamins Publishing Company.

Anagnostopoulou, Elena. 2008. Notes on the Person Case Constraint in Germanic (with special reference to German). In Roberta D'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson (eds.), *Agreement Restrictions*, 15–47. (Interface Explorations 15). Berlin: Mouton de Gruyter.

Anagnostopoulou, Elena & Martin Everaert. 1999. Toward a more complete typology of anaphoric expressions. *Linguistic Inquiry* 30(1). 97–119.

Anand, Pranav & Andrew Nevins. 2006. The locus of ergative Case assignment: Evidence from scope. In Alana Johns, Diane Massam & Juvenal Ndayiragije (eds.), *Ergativity: Emerging Issues*, 3–25. Berlin: Springer.

Baker, Mark C. 1985. The mirror principle and morphosyntactic explanation. *Linguistic Inquiry* 16(3). 373–415.

Baker, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.

Baker, Mark C. 1996. *The Polysynthesis Parameter*. Oxford: Oxford University Press.

Baker, Mark C., Roberto Aranovich & Lucía Golluscio. 2005. Two types of syntactic noun incorporation: Noun incorporation in Mapudungun and its typological implications. *Language* 81(1). 138–176.

Baltin, Mark. 2012. Deletion versus pro-forms: an overly simple dichotomy? *Natural Language & Linguistic Theory* 30(2). 381–423.

Baltin, Mark & Jeroen van Craenenbroeck. 2008. On becoming a pronoun: Towards a unified theory of ellipsis. CUNY, New York.

Barss, Andrew & Howard Lasnik. 1986. A note on anaphora and double objects. *Linguistic Inquiry* 17(2). 347–354.

Bejar, Susana & Diane Massam. 1999. Multiple case checking. *Syntax* 2(2). 65–79.

Bejar, Susana & Milan Rezac. 2003. Person licensing and the derivation of PCC effects. In Ana Teresa Pérez Leroux & Yves Roberge (eds.), *Romance Linguistics: Theory and Acquisition*, 49–62. Amsterdam: John Benjamins Publishing Company.

Belletti, Adriana. 1999. Italian/Romance clitics: Structure and derivation. In Henk C. van Riemsdijk (ed.), *Clitics in the Languages of Europe*, 543–580. Walter de Gruyter.

Berinstein, Ava. 1985. *Evidence for Multiattachment in K'ekchi Mayan*. New York: Garland.

Berlin, Brent. 1968. *Tzeltal Numeral Classifiers: A Study in Ethnographic Semantics*. The Hague: Mouton.

Bhatt, Rajesh & Roumyana Pancheva. 2007. Implicit arguments. In Martin Everaert & Henk C. van Riemsdijk (eds.), *The Blackwell Companion to Syntax*, vol. 2, 558–588. Malden, MA: Blackwell.

Biezma, María. 2011. Alternative vs polar questions: The cornering effect. *Proceedings of SALT*, vol. 19, 37–54.

Biezma, María & Kyle Rawlins. 2010. Responding to polar and alternative questions. Ms., University of Massachusetts Amherst; Johns Hopkins University. http://blogs.umass.edu/mbiezmag/files/2007/11/BiezmaRawlinsRespondingpolaralternativequestions.pdf.

Bjorkman, Bronwyn. 2011. BE-ing default: the morphosyntax of auxiliaries. Doctoral dissertation, Cambridge, MA: MIT.

Bobaljik, Jonathan David. 2008. Where's phi? Agreement as a post-syntactic operation. In Daniel Harbour, David Adger & Susana Bejar (eds.), *Phi Theory: Phi-features Across Modules and Interfaces*, 83–129. Oxford: Oxford University Press.

Bobaljik, Jonathan David & Idan Landau. 2009. Icelandic control is not A-movement: the case from Case. *Linguistic Inquiry* 40(1). 113–132.

Boeckx, Cedric. 2000. Quirky agreement. *Studia Linguistica* 54(3). 354–380.

Du Bois, John W. 1987. The discourse basis of ergativity. *Language* 63(4). 805–855.

Bolinger, Dwight. 1958. A theory of pitch accent in English. *Word* 14(2-3). 119–149.

Bolkestein, A. Machtelt. 2001. Possessors and experiencers in Classical Latin. In Irène Baron, Michael Herslund & Finn Sørensen (eds.), *Dimensions of Possession*, 269–284. (Typological Studies in Language 47). Amsterdam: John Benjamins Publishing Company.

Bonet, Eulalia. 1991. Morphology after syntax: Pronominal clitics in Romance. Doctoral dissertation, Cambridge, MA: MIT.

Borer, Hagit. 1984. *Parametric Syntax: Case Studies in Semitic and Romance Languages*. (Studies in Generative Grammar 13). Dordrecht: Foris Publications.

Bresnan, Joan & Lioba Moshi. 1990. Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry* 21(2). 147–185.

Bricker, Victoria. 1979. Wh-questions, relativization, and clefting in Yucatec Maya. In Laura Martin (ed.), *Papers in Mayan Linguistics*, 107–136. Columbia, MO: Lucas Brothers.

Brody, Jill. 1984. Cleft in Tojolabal Maya: structure and discourse function. *Journal of Mayan Linguistics* 4(2). 65–90.

Brown, Penelope. 2007. Culture-specific influences on semantic development: Learning the Tzeltal "benefactive" construction. In Barbara Pfeiler (ed.), *Learning Indigenous Languages: Child Language Acquisition in Mesoamerica*, 119–154. Berlin: Mouton de Gruyter.

Brown, Penelope. 2008. Conversational structure and language acquisition: The role of repetition in Tzeltal. *Journal of Linguistic Anthropology* 8(2). 197–221.

Brown, Penelope. 2010. Questions and their responses in Tzeltal. *Journal of Pragmatics* 42(10). 2627–2648.

Büring, Daniel. 2011. Focus and intonation. In Gillian Russell & Delia Graff Fara (eds.), *Routledge Companion to Philosophy of Language*, 103–115. (Routledge Philosophy Companions). New York: Routledge.

Campbell, Lyle. 1987. Tzeltal dialects: New and old. *Anthropological Linguistics* 29(4). 549–570.

Campbell, Lyle & Terrence Kaufman. 1985. Mayan Linguistics: Where are we now? *Annual Review of Anthropology* 14. 187–198.

Carnie, Andrew. 1995. Non-verbal predication and head-movement. Doctoral
    dissertation, Cambridge, MA: MIT.

Carnie, Andrew. 2000. On the definition of X0 and XP. *Syntax* 3(2). 59–106.

Cecchetto, Carlo. 2000. Doubling structures and reconstruction. *Probus* 12(1). 93–126.

Chafe, Wallace. 1976. Giveness, contrastiveness, definiteness, subjects, topics, and point
    of view. In Charles Li (ed.), *Subject and Topic*, 25–55. New York: Academic Press.

Chierchia, Gennaro. 1998. Reference to kinds across language. *Natural Language Semantics*
    6(4). 339–405.

Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris Publications.

Chomsky, Noam. 1986. *Knowledge of Language: Its Nature, Origin, and Use*. New York: Praeger.

Chomsky, Noam. 1991. Some notes on economy of derivation and representation. In
    Robert Freidin (ed.), *Principles and Parameters in Comparative Grammar*, 417–454.
    Cambridge, MA: MIT Press.

Chomsky, Noam. 1995a. *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam. 1995b. Bare phrase structure. In Héctor Campos & Paula Marie
    Kempchinsky (eds.), *Evolution and Revolution in Linguistic Theory*. Washington, D.C:
    Georgetown University Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David
    Michaels & Juan Uriagereka (eds.), *Step by Step: Essays on Minimalist Syntax in Honor of
    Loward Lasnik*, 89–156. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: a Life
    in Language*, 1–52. Cambridge, MA: The MIT Press.

Chomsky, Noam. 2004. Beyond explanatory adequacy. In Adriana Belletti (ed.), *Structures
    and Beyond*, 104–131. (Oxford Studies in Comparative Syntax 3). New York: Oxford
    University Press.

Chung, Sandra, William Ladusaw & James McCloskey. 1995. Sluicing and logical form.
    Natural Language Semantics 3(3). 239–282.

Cinque, Guglielmo. 1977. The movement nature of left dislocation. *Linguistic Inquiry* 8(2).
    397–412.

Coon, Jessica. 2009. Interrogative possessors and the problem with pied-piping in Chol.
    Linguistic Inquiry 40(1). 165–175.

Coon, Jessica. 2010. Complementation in Chol (Mayan): A theory of split ergativity.
    Doctoral dissertation, Cambridge, MA: MIT.

Coon, Jessica. 2012. Split ergativity and transitivity in Chol. *Lingua* 122(3). 241–256.

Coon, Jessica & Robert Henderson. 2011. Two binding puzzles in Mayan. In Rodrigo
    Gutiérrez Bravo & Line Mikkelsen (eds.), *Representing Language: Essays in Honor of Judith
    Aissen*, 51–67. Santa Cruz, CA: Linguistics Research Center, University of California
    Santa Cruz.

van Craenenbroeck, Jeroen. 2004. *Ellipsis in Dutch Dialects*. Utrecht: LOT.

Craig, Colette Grinevald. 1977. *The Structure of Jacaltec*. Austin: University of Texas Press.

Creswell, Cassandre. 2000. The discourse function of verum focus in wh-questions.
    Proceedings of NELS 30, vol. 30, 165–180.

Cruz Gómez, Sandra Rocío. 2009. Revitalización y fortalecimiento lingüístico: La Normalización de los sistemas de escritura de algunas lenguas indígenas de Chiapas. Paper presented at the Conference on Indigenous Languages of Latin America IV, University of Texas, Austin. http://www-ailla.lib.utexas.edu/site/cilla4/CruzGomez_CILLA_IV.pdf. (10 August, 2012).

Cruz Gómez, Sandra Rocío. 2011. Normalización de sistemas de escritura en: tseltal, tsotsil, chol y tojolabal. In Kirill Shklovsky, Pedro Mateo Pedro & Jessica Coon (eds.), *Proceedings of FAMLi*. Cambridge, MA: MITWPL.

Culicover, Peter. 1991. Topicalization, inversion, and complementizers in English. In Denis Delfitto, Martin Everaert, Arnold Evers & Frits Stuurman (eds.), *In Going Romance, and Beyond: Fifth Symposium on Comparative Grammar*, 1–43. Utrecht: OTS Working Papers.

Dayley, Jon P. 1981. Voice and ergativity in Mayan languages. *Journal of Mayan Linguistics* 2(2). 3–82.

Deal, Amy Rose. 2010. Ergative case and the transitive subject: a view from Nez Perce. *Natural Language & Linguistic Theory* 28(1). 73–120.

Deal, Amy Rose. 2011. Possessor raising. Ms., Harvard University.

Declerck, Renaat. 1988. *Studies on Copular Sentences, Clefts, and Pseudo-clefts*. Walter de Gruyter.

Dik, Simon C., Maria E. Hoffmann, Jan R. de Long, Sie Ing Djiang, Harry Stroomer & Lourens Devries. 1981. On the typology of focus phenomena. In Teun Hoekstra, Harry van der Hulst & Michael Moortgat (eds.), *Perspectives on Functional Grammar*. Dordrecht: Foris Publications.

den Dikken, Marcel. 2006a. A reappraisal of vP being phasal—a reply to Legate. Ms., CUNY Graduate Center.

den Dikken, Marcel. 2006b. *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*. (Linguistic Inquiry Monographs 47). Cambridge, MA: MIT Press.

den Dikken, Marcel. 2007. Phase Extension: Contours of a theory of the role of head movement in phrasal extraction. *Theoretical Linguistics* 33(1). 1–41.

Dixon, R. M.W. 1994. *Ergativity*. (Cambridge Studies in Linguistics 70). Cambridge: Cambridge University Press.

Drubig, H. B. 2003. Toward a typology of focus and focus constructions. *Linguistics* 41(1). 1–50.

Dryer, Matthew S. 1986. Primary objects, secondary objects, and antidative. *Language* 62(4). 808–845.

É. Kiss, Katalin. 1998. Identificational Focus versus Information Focus. *Language* 74(2). 245–273.

Eby Clemens, Lauren. 2012. V2 in a V1 language. Paper presented at the 86th meeting of the Linguistic Society of America (LSA).

Elbourne, Paul. 2008. Ellipsis sites as definite descriptions. *Linguistic Inquiry* 39(2). 191–220.

England, Nora C. 1986. Mamean voice: Syntactic and narrative considerations. Ms., University of Iowa.

England, Nora C. 1991. Changes in basic word order in Mayan languages. *International Journal of American Linguistics* 57(4). 446–486.

Erteschik-Shir, Nomi. 1986. Wh-questions and focus. *Linguistics and Philosophy* 9(2). 117–149.

Fábregas, Antonio. 2011. Rising possessors in Spanish. *IBERIA* 3(1).

Féry, Caroline. 2007. Information structural notions and the fallacy of invariant correlates. In Caroline Féry, Gisbert Fanselow & Manfred Krifka (eds.), *The Notions of Information Structure*, 161–184. Potsdam: Universitätsverlag Potsdam.

Fiengo, Robert & Robert May. 1994. *Indices and Identity*. (Linguistic Inquiry Monographs 24). Cambridge, MA: MIT Press.

Fodor, Jerry A. 1975. *The Language of Thought*. New York: Cowell.

Fox, Danny & Howard Lasnik. 2003. Successive-cyclic movement and island repair: The difference between sluicing and VP-ellipsis. *Linguistic Inquiry* 34(1). 143–154.

Frampton, John & Sam Gutmann. 2002. Crash-proof syntax. In Samuel David Epstein & T. Daniel Seely (eds.), *Derivation and Explanation in the Minimalist Program*, 90–105. Malden, MA: Blackwell.

Goldberg, Lotus Madelyn. 2005. Verb-stranding VP ellipsis: A cross-linguistic study. Doctoral dissertation, Montreal, Canada: McGill University.

Griffiths, James & Anikó Lipták. 2012. Contrast and island sensitivity in clausal ellipsis. *Syntax*.

Grimshaw, Jane B. 1990. *Argument Structure*. (Linguistic Inquiry Monographs 18). Cambridge, MA: MIT Press.

Gruet-Skrabalova, Hana. 2012. Answers to yes-no questions in Czech. Paper presented at the Workshop on the Syntax of Polar Questions, Newcastle. http://hal.archives-ouvertes.fr/hal-00707067. (28 August, 2012).

Guerzoni, Elena. 2003. Why even ask?: On the pragmatics of questions and the semantics of answers. Doctoral dissertation, Cambridge, MA: MIT.

Gussenhoven, Carlos. 1983. Focus, mode and the nucleus. *Journal of Linguistics* 19(02). 377–417.

Gyuris, Beáta. 2009. Quantificational contrastive topics with verum/falsum focus. *Lingua* 119(4). 625–649.

Hamblin, C. L. 1973. Questions in Montague grammar. *Foundations of Language* 10(1). 41–53.

Han, Chung-hye & Maribel Romero. 2001. Negation, focus and alternative questions. *WCCFL*, vol. 20, 262–275.

Hankamer, Jorge & Ivan A. Sag. 1976. Deep and surface anaphora. *Linguistic Inquiry* 7(3). 391–428.

Hardt, Daniel, Line Mikkelsen & Bjarne Ørsnes. 2011. Orphans hosted by VP anaphora. *Proceedings of WCCFL*, vol. 29.

Harley, Heidi. 2002. Possession and the double object construction. *Linguistic Variation Yearbook* 2(1). 31–70.

Haspelmath, Martin. 2004. Explaining the ditransitive person-role constraint: A usage-based approach. Ms., Max Planck Institute for Evolutionary Anthropology Leipzig. http://www.constructions-online.de/articles/35/?searchterm=.

Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3(1). 1–21.

Heim, Irene. 1997. Predicates or formulas? Evidence from ellipsis. *Proceedings of SALT*, vol. 7, 197–221.

Herslund, Michael & Irène Baron. 2001. Introduction: Dimensions of possession. In Irène Baron, Michael Herslund & Finn Sørensen (eds.), *Dimensions of Possession*, 1–25. (Typological Studies in Language 47). Amsterdam: John Benjamins Publishing Company.

Hiraiwa, Ken. 2001. Multiple agree and the defective intervention constraint in Japanese. In Ora Matushansky, Albert Costa, Javier Martin-Gonzalez, Lance Nathan & Adam Szczegielniak (eds.), *Proceedings of the 1st HUMIT Student Conference in Language Research (HUMIT 2000)*, vol. 40, 67–80. (MIT Working Papers in Linguistics). MIT: MITWPL.

Hiraiwa, Ken. 2005. Dimensions of symmetry in syntax: Agreement and clausal architecture. Doctoral dissertation, Cambridge, MA: MIT.

Höhle, Tilman. 1992. Über verum-fokus im Deutschen. *Informationsstruktur Und Grammatik* 4. 112–142.

Hole, Daniel. 2005. Reconciling "possessor" datives and "beneficiary" datives–Towards a unified voice account of dative binding in German. In Claudia Maienborn & Angelika Wöllstein-Leisten (eds.), *Event Arguments: Foundations and Applications*. Tübingen: Niemeyer.

Holmberg, Anders. 2001. The syntax of yes and no in Finnish. *Studia Linguistica* 55(2). 141–175.

Holmberg, Anders. 2007. Null subjects and polarity focus. *Studia Linguistica* 61(3). 212–236.

Holmberg, Anders & Christer Platzack. 1995. *The Role of Inflection in Scandinavian Syntax*. New York: Oxford University Press.

Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30(1). 69–96.

Horvath, Julia. 2010. "Discourse features", syntactic displacement and the status of contrast. *Lingua* 120(6). 1346–1369.

Iatridou, Sabine. 1988. Clitics, anaphors, and a problem of coindexation. *Linguistic Inquiry* 19(4). 698–703.

Imanishi, Yusuke. to appear. How to merge a possessor wh in Kaqchikel (Mayan): A non-uniform merge and (null) resumption.

INEGI. 2009. *Perfil Sociodemográfico De La Población Que Habla Lengua Indígena*. Instituto Nacional de Estadística y Geografía (INEGI). http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/censos/poblacion/poblacion_indigena/leng_indi/PHLI.pdf. (10 August, 2012).

INEGI. 2012. Principales resultados del censo de población y vivienda 2010. http://www.inegi.org.mx/est/contenidos/proyectos/ccpv/cpv2010/principales2010.aspx. (10 August, 2012).

Jelinek, Eloise. 1984. Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2. 39–76.

Johns, Alana. 1992. Deriving ergativity. *Linguistic Inquiry* 23(1). 57–87.

Johnson, Kyle. 2001. What VP-ellipsis can do, and what it can't, but not why. In Mark
     Baltin & Chris Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, 439–479.
     Malden, MA: Blackwell.

Johnson, Kyle. 2004. How to be quiet. *Proceedings from the Annual Meeting of the Chicago
     Linguistic Society*, vol. 40, 1–20.

Kaufman, Terrence. 1971. *Tzeltal Phonology and Morphology*. (Linguistics 61). Berkeley, CA:
     University of California Press.

Kaufman, Terrence. 1972. *El Proto-tzeltal-tzotzil: Fonología Comparada y Diccionario
     Reconstruido*. UNAM, Coordinaciion de Humanidades.

Kaufman, Terrence. 1977. Some structural characteristics of mayan languages with
     special reference to Quiche. Ms., University of Pittsburgh.

Kayne, Richard S. 1975. *French Syntax: The Transformational Cycle*. Cambridge, MA: MIT
     Press.

Kempchinsky, Paula. 1992. The Spanish possessive dative construction: ⊡-role
     assignment and proper government. In Paul Hirschbühler & E. F. K Koerner (eds.),
     *Romance Languages and Modern Linguistic Theory: Papers from the 20th Linguistic Symposium on
     Romance Languages*, 135–135. (Amsterdam Studies in the Theory and History of
     Linguistic Science. Series IV, Current Issues in Linguistic Theory 91). Amsterdam:
     John Benjamins Publishing Company.

Kenesei, Istvan. 2006. Focus as identification. In Valéria Molnár & Susanne Winkler
     (eds.), *The Architecture of Focus*, 137–168. (Studies in Generative Grammar 82). Berlin:
     Mouton de Gruyter.

King, Tracy Holloway. 1994. Focus in Russian yes-no questions. *Journal of Slavic Linguistics*
     2(1). 92–120.

Ko, Heejeong. 2005. Syntactic edges and linearization. Doctoral dissertation, Cambridge,
     MA: MIT.

Kramer, Ruth. 2011. Clitic doubling or object agreement: An Amharic investigation. Ms.,
     Georgetown University. http://ling.auf.net/lingBuzz/001406. (22 June, 2012).

Kramer, Ruth & Kyle Rawlins. 2009. Polarity particles: an ellipsis account. *Proceedings of
     NELS*, vol. 39.

Kratzer, Angelika. 1989. An investigation of the lumps of thought. *Linguistics and Philosophy*
     12(5). 607–653.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck
     & Laurie Ann Zaring (eds.), *Phrase Structure and the Lexicon*, 109–137. Dordrecht:
     Kluwer.

Kügler, Frank & Stavros Skopeteas. 2006. Interaction of lexical tone and information
     structure in Yucatec Maya. *Proceedings of the Second International Symposium on Tonal
     Aspects of Languages (TAL-2). Université De La Rochelle*, 380–388.

Kügler, Frank, Stavros Skopeteas & Elisabeth Verhoeven. 2007. Encoding information
     structure in Yucatec Maya: on the interplay of prosody and syntax. *Interdisciplinary
     Studies on Information Structure* 8. 187–208.

Kumakhov, Mukhadin & Karina Vamling. 1995. On root and subordinate clause
     structure in Kabardian. *Working Papers, Lund University, Department of Linguistics*. 91–110.

Kumakhov, Mukhadin, Karina Vamling & Zara Kumakhova. 1996. Ergative case in the Circassian languages. *Working Papers, Lund University, Department of Linguistics.*

Laka, Itziar. 1990. Negation in syntax: On the nature of functional categories and projections. Doctoral dissertation, Cambridge, MA: MIT.

Landau, Idan. 1999. Possessor raising and the structure of VP. *Lingua* 107(1-2). 1–37.

Landau, Idan. 2000. *Elements of Control: Structure and Meaning in Infinitival Constructions.* Dordrecht: Kluwer Academic Publishers.

Landau, Idan. 2001. Control and extraposition: The case of super-equi. *Natural Language & Linguistic Theory* 19(1). 109–152.

Landau, Idan. 2004. The scale of finiteness and the calculus of control. *Natural Language & Linguistic Theory* 22(4). 811–877.

Landau, Idan. 2006. Severing the distribution of PRO from Case. *Syntax* 9(2). 153–170.

Landau, Idan. 2010. The explicit syntax of implicit arguments. *Linguistic Inquiry* 41(3). 357–388.

Lasnik, Howard. 1992. Two notes on control and binding. In Richard Larson, Sabine Iatridou, Utpal Lahiri & James Higginbotham (eds.), *Control and Grammar*, 235–251. Dordrecht: Kluwer Academic Publishers.

Lasnik, Howard. 2001. When can you save a structure by destroying it? *Proceedings of the North East Linguistic Society 31*, vol. 31, 301–320.

Legate, Julie Anne. 2003. Some interface properties of the phase. *Linguistic Inquiry* 34(3). 506–515.

Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39(1). 55–101.

Levin, Theodore F. 2010. External possession constructions in Korean. Senior honors thesis, Waltham, MA: Brandeis University.

Littell, Patrick, Lisa Matthewson & Tyler Peterson. 2010. On the semantics of conjectural questions. In Tyler Peterson & Uli Sauerland (eds.), *Evidence from Evidentials*, vol. 28, 89–104. (University of British Columbia Working Papers in Linguistics). Vancouver, Canada: UBCWPL.

Lobeck, Anne C. 1995. *Ellipsis: Functional Heads, Licensing, and Identification.* New York: Oxford University Press.

Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement in syntax and logical form. *Linguistic Inquiry* 25(4). 609–665.

López Gómez, José Francisco & Jaime Sántiz Gómez. 2004. *Petalcingo: Pueblo de los k'ajoles.* (Monografías de la identidad chiapaneca). México, D.F.: CONACULTA.

Malchukov, Andrej, Martin Haspelmath & Bernard Comrie. 2010. Ditransitive constructions: a typological overview. In Andrej Malchukov, Martin Haspelmath & Bernard Comrie (eds.), *Studies in Ditransitive Constructions: A Comparative Handbook*, 1–64. Berlin: Mouton de Gruyter.

Maling, Joan & Soowon Kim. 1992. Case assignment in the inalienable possession construction in Korean. *Journal of East Asian Linguistics* 1(1). 37–68.

Marantz, Alec. 1993. Implications of asymmetries in double object constructions. In Sam Mchombo (ed.), *Theoretical Aspects of Bantu Grammar*, 113–151.

Marantz, Alec. 2000. Case and licensing. In Eric Reuland (ed.), *Arguments and Case: Explaining Burzio's Generalization*, 11–30. Amsterdam: John Benjamins.

Matthewson, Lisa. 2004. On the methodology of semantic fieldwork. *International Journal of American Linguistics* 70(4). 369–415.

Matushansky, Ora. 2006. Head movement in linguistic theory. *Linguistic Inquiry* 37(1). 69–109.

Maxwell, Judie. 1975. San Mateo Chuj: A VOS language that paid the price. Paper presented at the Winter meetings of the Linguistic Society of America.

McCloskey, James. 1983. VP in a VSO language. In Gerald Gazdar, Ewan Klein & Geoffrey K Pullum (eds.), *Order, Concord, and Constituency*. (Linguistic Models 4). Dordrecht: Foris Publications.

McCloskey, James. 1991. Clause structure, ellipsis and proper government in Irish. *Lingua* 85(2-3). 259–302.

McGinnis, Martha. 1998. Locality in A-movement. Doctoral dissertation, Cambridge, MA: MIT.

Merchant, Jason. 2001. *The Syntax of Silence: Sluicing, Islands, and the Theory of Ellipsis*. Oxford: Oxford University Press.

Merchant, Jason. 2005. Fragments and ellipsis. *Linguistics and Philosophy* 27(6). 661–738.

Merchant, Jason. 2006. Why no(t)? *Style* 40(1/2). 20–25.

Merchant, Jason. 2009. Polyvalent case, geometric hierarchies, and split ergativity. In Jacqueline Bunting, Sapna Desai, Robert Peachey, Christopher Straughn & Zuzana Tomková (eds.), *Proceedings from the Annual Meeting of the Chicago Linguistic Society*, vol. 42, 57–76.

Meyer, Roland & Ina Mleinek. 2006. How prosody signals force and focus—A study of pitch accents in Russian yes–no questions. *Journal of Pragmatics* 38(10). 1615–1635.

Miller, Philip H. & Ivan A. Sag. 1997. French clitic movement without clitics or movement. *Natural Language & Linguistic Theory* 15(3). 573–639.

Molnár, Valéria. 2002. Contrast - from a contrastive perspective. *Language and Computers* 39(1). 147–161.

Moore, John & David M. Perlmutter. 2000. What does it take to be a dative subject. *Natural Language & Linguistic Theory* 18(2). 373–416.

Müller, Gereon. 2004. Argument encoding and the order of elementary operations. Ms., University of Leipzig. http://www.uni-leipzig.de/~muellerg/mu57.pdf. (6 August, 2011).

Nakao, Chizuru & Masaya Yoshida. 2005. Japanese sluicing as a specificational pseudo-cleft. *Proceedings of the 6th Tokyo Conference on Psycholinguistics*, 243–267.

Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25(2). 273–313.

Nevins, Andrew. 2011. Multiple agree with clitics: person complementarity vs. omnivorous number. *Natural Language & Linguistic Theory* 29(4). 939–971.

Norcliffe, Elisabeth. 2009. Head marking in usage and grammar: A study of variation and change in Yucatec Maya. Doctoral dissertation, Stanford, CA: Stanford University.

Norman, William M. & Lyle Campbell. 1978. Toward a Proto-Mayan syntax: a comparative perspective on grammar. In Nora C. England (ed.), *Papers in Mayan Linguistics*, vol. 2, 136–155.

Ormazabal, Javier & Juan Romero. 2007. The object agreement constraint. *Natural Language & Linguistic Theory* 25(2). 315–347.

Partee, Barbara. 1987. Noun phrase interpretation and type-shifting principles. In J. Groenendijk, D. de Jong & M. Stokhof (eds.), *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, 115–143. Dordrech: Foris.

Patel, Pritty. 2010. Pronouns, reflexives, and why Kutchi Gujarati binds like Modern Greek. Paper presented at the Peculiar Binding Configurations, University of Stuttgart.

Payne, Doris L. & Immanuel Barshi. 1999. *External Possession*. Amsterdam: John Benjamins Publishing Company.

Percus, Orin. 1997. Prying open the cleft. In Kiyomi Kusumoto (ed.), *Proceedings of NELS*, vol. 27, 337–352.

Perlmutter, David M. 1970a. The Two Verbs "Begin." In Roderick Jacobs & Peter Rosenbaum (eds.), *Readings in English Transformational Grammar*, 107–115. Waltham, MA: Ginn & Co.

Perlmutter, David M. 1970b. Surface structure constraints in syntax. *Linguistic Inquiry* 1(2). 187–255.

Pesetsky, David. 1995. *Zero Syntax: Experiencers and Cascades*. Cambridge, MA: MIT Press.

Pesetsky, David & Esther Torrego. 2001. T-to-C Movement: Causes and consequences. In Michael J. Kenstowicz (ed.), *Ken Hale: A Life in Language*, 355–426. Cambridge, MA: The MIT Press.

Pesetsky, David & Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In Simin Karimi, Vida Samiian & Wilkins (eds.), *Phrasal and Clausal Architecture: Syntactic Derivation and Interpretation: In Honor of Joseph E. Emonds*, 262–294. (Linguistik Aktuell 101). Amsterdam: John Benjamins Publishing Company.

Polian, Gilles. to appear. *Gramática Del Tseltal De Oxchuc*.

Polian, Gilles. 2005. Dinámica de la oración tseltal: la topicalidad como un factor determinante del orden lineal. *Trace* 47.

Polian, Gilles. 2009. Las oraciones ditransitivas en tseltal: la oposición entre receptor, beneficiario y poseedor externo. *Proceedings of the Conference on Indigenous Languages of Latin America-IV*. Austin, TX.

Polian, Gilles. 2012. Infinitivos transitivos: innovaciones del tseltal en la familia maya. In Roberto Zavalla & Enrique Palancar (eds.), *Estudios De Morfosintaxis En Lenguas De Mesoamérica*. México D.F.: CIESAS.

Pollock, Jean-Yves. 1989. Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20(3). 365–424.

Preminger, Omer. 2009. Breaking agreements: Distinguishing agreement and clitic-doubling by their failures. *Linguistic Inquiry* 40(4). 619–666.

Preminger, Omer. 2011. Agreement as a fallible operation. Doctoral dissertation, Cambridge, MA: MIT.

Pylkkänen, Liina. 2002. Introducing arguments. Doctoral dissertation, Cambridge, MA: MIT.

Quizar, Robin. 1979. Comparative word order in Mayan. Doctoral dissertation, Boulder, CO: University of Colorado at Boulder.

Quizar, Robin. 1994. Split ergativity and word order in Ch'orti'. *International Journal of American Linguistics* 60(2). 120–138.

Ravinski, C. 2007. Possessor raising in Nuu-chah-nulth. *The Canadian Journal of Linguistics* 52(1-2).

Reinhart, Tanya & Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24(4). 657–720.

Repp, Sophie. 2010. Defining "contrast" as an information-structural notion in grammar. *Lingua* 120(6). 1333–1345.

Rezac, Milan. 2008a. Phi-Agree and theta-related Case. In Daniel Harbour, David Adger & Susana Bejar (eds.), *Phi Theory: Phi-features Across Modules and Interfaces*, 83–129. Oxford: Oxford University Press.

Rezac, Milan. 2008b. The syntax of eccentric agreement: the Person Case Constraint and absolutive displacement in Basque. *Natural Language & Linguistic Theory* 26(1). 61–106.

Rezac, Milan. 2011. *Phi-Features and the Modular Architecture of Language*. Dordrecht: Springer.

Richards, Marc D. 2008. Quirky Expletives. In Roberta D'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson (eds.), *Agreement Restrictions*, 181–213. Berlin: Mouton de Gruyter.

Richards, Norvin. 2007. Lardil "case stacking" and the structural/inherent case distinction. Ms., MIT. http://ling.auf.net/lingBuzz/000405.

Ritter, Elizabeth, Martina Wiltschko. 2009. Varieties of Infl: Tense, location, and person. In Jeroen van Craenbroeck (ed.), *Alternatives to Cartography*, 153–202. (Studies in Generative Grammar 100). Berlin: Mouton de Gruyter.

Rizzi, Luigi. 1990. *Relativized Minimality*. (Linguistic Inquiry Monographs 16). Cambridge, MA: MIT Press.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of Grammar: Handbook in Generative Syntax*. (Kluwer International Handbooks of Linguistics 1). Dordrecht: Kluwer Academic Publishers.

Robertson, John S. 1977. A proposed revision in Mayan subgrouping. *International Journal of American Linguistics* 43(2). 105–120.

Robinson, Stuart. 2002. Constituent order in Tenejapa Tzeltal. *International Journal of American Linguistics* 68(1). 51–80.

Rochemont, Michael. 1986. *Focus in Generative Grammar*. (SIGLA 4). Amsterdam: John Benjamins Publishing Company.

Romero, Maribel & Chung-hye Han. 2002. Verum focus in negative yes/no questions and Ladd's p/¬p ambiguity. *Proceedings of SALT* 12(0). 204–224.

Rooth, Mats. 1992a. A theory of focus interpretation. *Natural Language Semantics* 1(1). 75–116.

Rooth, Mats. 1992b. Ellipsis Redundancy and reduction redundancy. In Steve Berman & Arild Hestvik (eds.), *Proceedings of the Stuttgart Ellipsis Workshop*. (Arbeitspapiere Des Sonderforschungsbereichs 340, Bericht Nr. 29.). Heidelberg: IBM Germany.

Ross, John R. 1969. Guess who? In Robert I. Binnick, Alice Davison, Georgia M. Green & Jerry L. Morgan (eds.), *Proceedings of the Fifth Regional Meeting of the Chicago Linguistic Society*, 252–286.

Santos, Ana Lúcia. 2009. *Minimal Answers: Ellipsis, Syntax and Discourse in the Acquisition of European Portuguese*. Amsterdam: John Benjamins Publishing Company.

Schüle, Susanne. 2000. Perception verb complements in Akatek, a Mayan language. Doctoral dissertation, Universität Tübingen.

Schütze, C. T. 1997. Syncretism and double agreement with Icelandic nominative objects. *Grammar in Focus: Festschrift for Christer Platzak 18 November 2003*, 295–303.

Schwarzschild, Roger. 1999. GIVENness, AVOIDF and other constraints on the placement of accent. *Natural Language Semantics* 7(2). 141–177.

Selkirk, Elisabeth. 2008. Contrastive focus, givenness and the unmarked status of "discourse-new." *Acta Linguistica Hungarica* 55(3). 331–346.

Shklovsky, Kirill. 2005. Person-marking in Petalcingo Tseltal. Undergraduate thesis, Portland, OR: Reed College.

Shklovsky, Kirill. 2011. Petalcingo Tseltal intonational prosody. In Kirill Shklovsky, Pedro Mateo Pedro & Jessica Coon (eds.), *Proceedings of FAMLi*. Cambridge, MA: MITWPL.

Sigurðsson, Halldór Ármann. 1991. Icelandic Case-marked PRO and the licensing of lexical arguments. *Natural Language & Linguistic Theory* 9(2). 327–363.

Sigurðsson, Halldór Ármann. 1996. Icelandic finite verb agreement. *Working Papers in Scandinavian Syntax* 57. 1–46.

Sigurðsson, Halldór Ármann. 2010. On EPP effects. *Studia Linguistica* 64(2). 159–189.

Sigurðsson, Halldór Ármann & Anders Holmberg. 2008. Icelandic dative intervention: Person and number are separate probes. In Roberta D'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson (eds.), *Agreement Restrictions*, 181–213. Berlin: Mouton de Gruyter.

Skopeteas, Stavros & Gisbert Fanselow. 2010. Focus in Georgian and the expression of contrast. *Lingua* 120(6). 1370–1391.

Smith, Joshua. 1975. La familia tzeltalana. Paper presented at the Mayan Workshop, Antigua, Guatemala.

Taraldsen, Knut Tarald. 1978. On the nominative island condition, vacuous application and the that-trace filter. Ms., MIT.

Taraldsen, Knut Tarald. 1994. Reflexives, pronouns and subject/verb agreement in Icelandic and Faroese. *Working Papers in Scandinavian Syntax* 54. 43–58.

Taraldsen, Knut Tarald. 1995. On agreement and nominative objects in Icelandic. In Hubert Haider, Susan Olsen & Sten Vikner (eds.), *Studies in Comparative Germanic Syntax*, 307–327. Dordrecht: Springer.

Thoms, Gary. 2010. Verb floating and VP-ellipsis: Towards a movement account of ellipsis licensing. *Linguistic Variation Yearbook* 10(1). 252–297.

Thoms, Gary. 2012. Ellipsis, polarity and the variety of verb movement in Scandinavian. Paper presented at the Verb Movement Workshop, University of Edinburgh.

Titov, Elena. 2010. Do contrastive topics exist? Ms., UCL.

Tomioka, Satoshi & Chang-Yong Sim. 2007. The event semantic root of inalienable possession. Ms., University of Delaware; Gyeongin National University of Education.

Tonhauser, Judith. 2003. F-constructions in Yucatec Maya. *The Proceedings of SULA* 2. 203–223.

Torrego, Esther. 1992. Case and argument structure. Ms., University of Massachusetts, Boston.

Tóth, Ildikó. 2000. Inflected infinitives in Hungarian. Doctoral dissertation, Tilburg: Tilburg University.

Travis, Lisa D. 1984. Parameters and effects of word order variation. Doctoral dissertation, Cambridge, MA: MIT.

Trinh, Tue. 2009. A constraint on copy deletion. *Theoretical Linguistics* 35(2-3). 183–227.

Trinh, Tue. 2011. Edges and linearization. Doctoral dissertation, Cambridge, MA: MIT.

Tuggy, David. 2008. Common questions about Nahuatl. *Summer Institute of Linguistics*. http://www.sil.org/mexico/nahuatl/10i-nahuatlquestions.htm. (10 September, 2012).

Umbach, Carla. 2004. On the notion of contrast in information structure and discourse structure. *Journal of Semantics* 21(2). 155–175.

Ura, Hiroyuki. 1996. Multiple feature-checking: a theory of grammatical function splitting. Doctoral dissertation, Cambridge, MA: MIT.

Uriagereka, Juan. 1995. Aspects of the syntax of clitic placement in Western Romance. *Linguistic Inquiry* 26(1). 79–123.

Velleman, Dan. 2011. Clefts and temporal clauses in K'ichee'.

Vergnaud, Jean Roger. 2006. Letter to Noam Chomsky and Howard Lasnik (1976). In Robert Freidin & Howard Lasnik (eds.), *Syntax: Critical Concepts in Linguistics*, vol. 5, 21–34. London: Routledge.

Vermeulen, Reiko. 2005. External possession in Korean. *University of College London Working Papers in Linguistics* 17. 175–213.

Vicente, Luis. 2007. The syntax of heads and phrases: A study of verb (phrase) fronting. Doctoral dissertation, Leiden, The Netherlands: Universiteit Leiden.

Vicente, Luis. 2009. An Alternative to remnant movement for partial predicate fronting. *Syntax* 12(2). 158–191.

Walcow, Martin. 2010. A unified analysis of the Person Case Constraint and 3-3-effects in Barceloni Catalan. *Proceedings of the 40th Annual Meeting of the North East Linguistic Society*. Amherst, MA: GLSA.

Winkler, Susanne. 2005. *Ellipsis and Focus in Generative Grammar*. (Studies in Generative Grammar 81). Berlin: Mouton de Gruyter.

Woolford, Ellen. 1997. Four-way case systems: Ergative, nominative, objective and accusative. *Natural Language & Linguistic Theory* 15(1). 181–227.

Woolford, Ellen. 1999. More on the anaphor agreement effect. *Linguistic Inquiry* 30(2). 257–287.

Wurmbrand, Susanne. 2001. *Infinitives: Restructuring and Clause Structure*. Berlin: Mouton de Gruyter.

Yoon, J.H.S. 1989. The grammar of inalienable possession constructions in Korean, Mandarin and French. *Harvard Studies in Korean Linguistics* 3. 357–368.

Yoon, J.H.S. 1990. Theta theory and the grammar of inalienable possession constructions. *Proceedings of NELS*, vol. 20, 502–516.

Zanuttini, Raffaella. 1996. On the relevance of tense for sentential negation. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and Functional Heads: Essays in Comparative Syntax*, 181–208. Oxford University Press.

Zanuttini, Raffaella. 2001. Sentential negation. In Mark Reuben Baltin & Chris Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, 511–535. Malden, MA: Blackwell.

Zwicky, Arnold M. & Geoffrey K. Pullum. 1983. Cliticization vs. inflection: English n't. *Language* 59(3). 502–513.