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Kirill Shklovsky

Person-Case effects in Tselal*

Abstract: In this paper I show that in Tselal (Mayan), constructions with aspectual auxiliary only admit third-person internal arguments, whereas embedding verbs that assign ergative case exhibit no such restriction. I offer an account of this contrast in terms of multiple-agree account of person-case constraint (PCC, Anagnostopoulou 2003; Anagnostopoulou 2005; Béjar and Rizac 2003) and inherent case theory of ergative case (Woolford 1997; Legate 2008; Aldridge 2007; Anand and Nevins 2006 inter alia). I show that the presence of PCC effects with aspectual verbs and absence of this restriction with transitive embedding verbs is predicted by these two theories. I then extend my account of PCC in Tselal to show that some nominal ergative splits can be accounted for using the same framework.

Keywords: PCC, Ergativity, Mayan, Multiple-agree, Case, abstract case, inherent case, Agreement

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The person-case constraint (PCC), a prohibition against 1st and 2nd person direct objects in ditransitive constructions, has been identified in many languages (Bonet 1991; Haspelmath 2004). In this paper I present novel data from Tselal, an ergative language, showing that Tselal exhibits PCC restriction not only in ditransitive clauses, but also, unexpectedly, in a class of non-finite complements lacking an indirect object. I present a multiple-agree account of PCC effects in Tselal following Anagnostopoulou (2003, 2005), and Béjar & Rizac (2003). I

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argue that ergative case in Tselal is a kind of inherent case as proposed in Woolford (1997), Alexiadou (2001), Legate (2008), Aldridge (2007), and Anand & Nevins (2006), *inter alia*. These two proposals taken together predict the range of PCC effects in Tselal, including those not involving ditransitive constructions. As a part of my account of Tselal PCC effects, I maintain that some NPs in Tselal are invisible (opaque) to phi-probes while other NPs are not, and that this difference is rooted in the case assigned to an NP. The possible range of variation of inherent case opacity predicts the attested variation in PCC effects in world's languages and may account for some of the nominal splits in split-ergative languages.

I begin with an overview of Tselal, and Tselal ditransitives. I then present the PCC effects in Tselal in ditransitive monoclausal environments and in clausal complementation. After this, I introduce the theoretical background and develop my account of Tselal PCC restrictions in ditransitives and complement clauses. In the conclusion address some issues with respect to the nature of multiple agree and suggest some avenues for explorations of cross-linguistic implications of case opacity.

1 Tselal background

1.1 Tselal basics

Tselal is an ergative language of the Mayan family, spoken by about 280 thousand speakers in the south Mexican state of Chiapas.^{1,2} Tselal is a pro-drop, head-marking language, and the verbal word shows two agreement markers: ergative morphemes as prefixes or pro-clitics (Shklovsky 2005), and absolutive markers as suffixes. The following examples illustrate the argument-marking and ergative properties of Tselal:³

1 Data from 2000 census, Instituto Nacional de Estadística y Geografía (INEGI), <http://www.inegi.org.mx/sistemas/tabuladosbasicos/tabulados/cpv2000/07le03.pdf> (accessed 31 December 2010)

2 This paper is based on the Petalcingo variant of Tselal, spoken in the village of Petalcingo, Municipio Tila, Chiapas. The data, except where noted, is based on primary fieldwork.

3 I employ the following abbreviations in the glosses: ABS1/ABS2/ABS3: absolutive 1st, 2nd, and 3rd person, AGR1/AGR2/AGR3: (unspecified) agreement for 1st, 2nd, and 3rd person, APPL: applicative, DET: determiner, ERG1/ERG2/ERG3: ergative 1st, 2nd, and 3rd person, CL: clitic, COMP: complementizer, EPN: epenthetic segment, IMP: imperative, IPFV: imperfective, NEG: negation, NF: non-finite, OBJ1, OBJ2, OBJ3: 1st, 2nd, and 3rd person object agreement, PASS:

	Ergative	Absolutive
1 st	<i>k- / j-</i>	<i>-on</i>
2 nd	<i>a(w)-</i>	<i>-at</i>
3 rd	<i>s- / y-</i>	<i>-∅</i>

Table 1: Tseltal Person Agreement Paradigm

- (1) a. *jul-on*
 arrive-ABS1
 ‘I arrived’
 b. *lah aw-il-on*
 PFV ERG2-see-ABS1
 ‘You saw me’

The person agreement paradigm is presented in Table 1.⁴

Number agreement in Tseltal, to be discussed at the end of the paper, for the most part constitutes a separate paradigm from person agreement.

In Tseltal, as in many other Mayan languages, possessor cross-referencing markers are homophonous to ergative markers:

- (2) *k-mut*
 POSS1-chicken
 ‘my chicken’

I will be glossing these morphemes as either ergative or possessive depending on the context.

Tseltal does not overtly mark tense: only aspect is morphologically marked.⁵ The most salient aspectual opposition is between perfective and imperfective. In intransitive clauses perfective aspect is not overtly realized, while in transitive clauses (clauses with subject and direct object) it is imperfective aspect that usually receives zero realization:

passive, PFV: perfective, PL: plural, POSS1, POSS2, POSS3: possessive 1st, 2nd, and 3rd person, PREP: preposition, PROG: progressive, REFL: reflexive, RN: relational noun.

⁴ Note that 3rd person absolutive agreement is null. In most cases I will not include the null absolutive agreement in the glosses.

⁵ The distal marker *-ʔa* can sometimes be used to mark past tense.

	Intransitive	Transitive
Perfective	∅	<i>lah</i>
Imperfective	<i>x-</i>	<i>(ya[k])</i>
Progressive	<i>yakal</i>	<i>yakal</i>

Table 2: Tseltal Aspect Marking

The aspectual marking can be seen in the following examples:

- (3) a. *jul-on*
arrive-ABS1
'I arrive (perfective)'
- b. *x-jul-on*
IPFV-arrive-ABS1
'I arrive (imperfective)'
- (4) a. *lah aw-il-on*
PFV ERG2-see-ABS1
'You saw me (perfective)'
- b. *(ya) aw-il-on*
(IPFV) 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 perfective aspect and non-past translations for imperfective constructions. This tendency will be reflected in the glosses.

In addition to perfective and imperfective, a progressive aspect can be distinguished. It employs the progressive auxiliary *yakal*, the syntax of which is one of the topics of the present paper.

1.2 Tseltal ditransitives

Tseltal is a primary object language in a sense of Dryer (1986): with ditransitive verbs the goal argument controls absolutive agreement while in monotransitive constructions the absolutive agreement tracks the theme argument. All Tseltal ditransitives are applicative constructions: verbs such as 'give' feature an overt applicative marker *-be*. Ditransitive/applicativized constructions show no addi-

tional agreement beyond the two arguments marked by 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:⁶

- (5) a. *lah y-aʔ-be*
 PFV ERG3-give-APPL.ABS3
 ‘She gave it to her’
- (6) a. *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 Malchukov et al 2010 and Haspelmath 2005 for an overview). Since in this language ditransitive constructions are applicative constructions I will be using those terms interchangeably when referring to Tseltal data.

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

- (7) a. **yahl/nux-bon*
 fall/swim-APPL.ABS1
 ‘She fell/swam for/to me’, ‘I fell/swam for/to her’
- b. *ʔaʔ-bot-on me mut-eʔ*
 give-APPL.PASS-ABS1 DET chicken-CL
 ‘I was given a chicken’

Agreeing preposition *-uʔun* can introduce benefactive indirect objects with intransitive stems:⁷

- (8) *yahl-on ta aw-uʔun*
 fall-ABS1 PREP AGR2-for
 ‘I fell for you’

⁶ The applicative marker *-be* loses its vowel when followed by absolutive suffix in most cases.

⁷ An alternative analysis of *-uʔun* is as a relational noun. I treat *-uʔun* as an agreeing preposition on the basis of the fact that non-argumental relational nouns appear in Tseltal with a preposition *ta*, whereas *-uʔun* can introduce reason adjuncts in the absence of a preposition. Nothing in this work hinges on this choice.

The example in (7b) demonstrates that in a passivized ditransitive it is the indirect object that is promoted to subject rather than the direct object. A direct object cannot become subject in a passivized applicative construction:

- (9) *ʔaʔ-bot me mut-eʔ
 give-APPL.PASS.ABS3 DET chicken-CL
 Intended reading: ‘The chicken was given (to her)’

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

2 An overview of PCC effects in Tselal

In this section I present Tselal PCC effects in ditransitive and non-finite complementation configurations. The Person Case Constraint (PCC) is a syntactic effect that rules out 1st or 2nd person direct objects in ditransitive configurations. As was discussed in Bonet (1991) PCC is a cross-linguistic phenomenon, attested in French, Spanish, Catalan, Greek, Basque, Arabic among other languages (cf. Bonet 1991; Haspelmath 2004; Rezac 2011). Example in (10) shows PCC effects in French:

- (10) *Paul me lui présentera
 Paul 1SG-ACC 3SG-DAT will.introduce.3SG
 ‘Paul will introduce me to him’
 Anagnostopoulou (2005: 31b)

Tselal features 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 1st or 2nd person direct objects in a ditransitive configuration, while weak PCC rules out 1st or 2nd person direct object only when the indirect object is 3rd person. The difference between strong and weak PCC is whether a speech-act participant (1st or 2nd person) Goal with 1st or 2nd person Theme is permitted: strong PCC prohibits such configurations while weak PCC admits them. Tselal exhibits only strong PCC effects which will be the focus of this paper.

2.1 PCC in Tsetlal ditransitives

I begin by demonstrating Tsetlal PCC effects with the ditransitive/applicative constructions, where they have been identified in other languages, including closely-related Tzotzil (Aissen 1987), where ditransitive environments exhibit syntax very similar to Tsetlal.

In Tsetlal applicative constructions, the absolutive agreement morphology can only be controlled by the applied argument (indirect object):

- (11) *lah y-aʔ-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 Tsetlal exhibit PCC effects: 1st or 2nd person direct objects cannot appear in ditransitive/applicative constructions:⁸

- (12) *lah y-aʔ-bat me mut-eʔ / *joʔon-eʔ*
 PFV ERG3-give-APPL.ABS2 DET chicken-CL / * I-CL
 ‘She gave you a chicken/*me’

8 Here and in what follows, the unavailable readings are highlighted by inclusion of a personal pronoun even though Tsetlal being a robust pro-drop language, personal pronouns are not very common in discourse. Examples like (12) are grammatical if an object pronoun is not included on an irrelevant non-PCC reading. Besides overt 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, Tsetlal 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 *inter alia*) Tsetlal “strong” pronouns do not repair PCC violations (cf. Aissen 1987 for similar facts in Tzotzil). The only PCC repairs available in Tsetlal 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. An anonymous reviewer points out (also argued for in Rezac 2011) that the unavailability of repair via strong pronouns argues against “spell out the lower copy of the chain” morphological theory of PCC repair (Bonet 1991). Given the view of Tsetlal absolutive arguments and agreement adopted here (cf. Jelinek 1993; Baker 1996), it seems likely that overt pronouns (along with other NPs) are the higher copies and spelling out the lower copy in Tsetlal is never an option (here I use the term *copy* even though it seems unlikely that chain formation is involved)

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 blocked meanings are expressed via constructions where benefactives and recipient goals 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 (13) shows one such construction:

- (13) a. *ya k-ak' k-bah ta a-tojol*
 IPFV ERG1-put-ABS3 POSS1-REFL 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'

2.2 PCC in non-finite complements

In addition to finite complement clauses, Tselal 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 this paper seeks to address 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 is illustrated in (14) and (15). Example (14) demonstrates the fact that under an aspectual auxiliary only 3rd person NPs may function as objects of the embedded verb.⁹

- (14) 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'

⁹ 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.

Contrary to initial appearances, the 3rd person agreement on the embedded verb glossed as ergative in the above examples is not object agreement. The nature of this marker will be discussed in Section 4.4

As (15) shows, the PCC restriction does not hold for non-finite complements embedded under transitive (ergative-assigning) verbs: 1st and 2nd person objects are licit in these constructions.

- (15) *j-k'an-at* *s-pet-el* (*jaʔat-eʔ*)
 ERG1-want-ABS2 ERG3-hug-NF (you-CL)
 'I want to hug you'

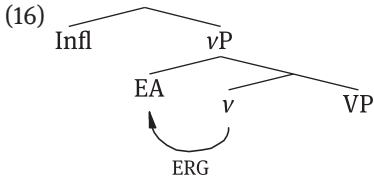
In the next section I offer my account of the PCC restriction in Tseltal ditransitive constructions.

3 The account of PCC effects in Tseltal ditransitives

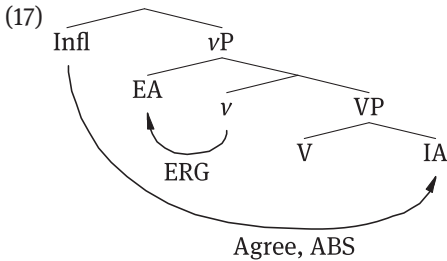
I begin my analysis of PCC effects in Tseltal by outlining the assumptions I make about case and agreement in this language. I then present the multiple-agree theory of PCC, and show how these assumptions derive the PCC effects in Tseltal.

3.1 Ergative case

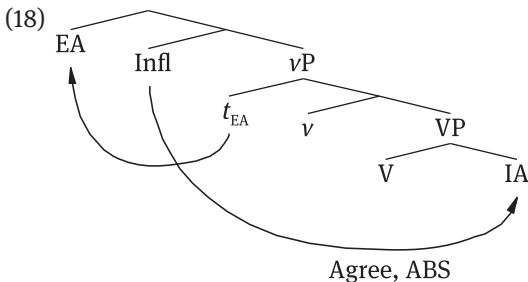
It has been proposed that arguments receiving inherent case (i.e. case concomitant with theta role assignment) cannot value phi-probes (cf. McGinnis 1998; Chomsky 2000). On the other hand, arguments that come to bear structural case enter the derivation caseless and receive structural case from c-commanding probes via phi-agree. Following Woolford (1997), Alexiadou (2001), Legate (2008), Aldridge (2007) among others, I assume that ergative case is an instance of inherent case (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 such argument both the agent theta role and ergative case:



The absolutive markers, on the other hand, I assume are a reflex of true phi-agreement from the finite Infl with internal arguments (IA) as in (17). The hypothesis that overt NPs in Tselal are in a dislocated relationship to the null elements in argument positions (Jelinek 1993; Baker 1996) would account for the free word order and pro-drop properties of this language.



The inherent ergative proposal for case assignment raises the question of how phi-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). 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 phi-agree with the IA inside the VP without the external argument intervening:



The EPP approach to the issue of ergative intervention requires a specific timing of EPP versus phi-agree: the relevant head (most likely T⁰/Infl) must trigger EPP movement of the ergative NP first, and only after that probe for phi features; otherwise the ergative argument would intervene with phi-agreement from Infl.

Alexiadou & Anagnostopoulou (2006), who propose a very similar account of Lummi ergative clauses, suggest, following an argument in Bobaljik (2008), that the absence of ergative intervention effects can be reduced to the fact that defective intervention is not attested in mono-clausal environments generally.

Here I will pursue an alternative approach. I argue that arguments with ergative case in Tseltal are *opaque* to phi-agree (i.e. not visible for agreement and non-interveners for agree relations with lower arguments) even though ergative NPs may be targeted for EPP. I assume that EPP is not parasitic on phi-agree and that heads can target phrases for EPP satisfaction without entering phi-agree relations with such phrases (cf. Ura 1996; Anagnostopoulou 2003). One empirical reason for choosing the opacity approach to ergative syntax in Tseltal is the syntax of number agreement, discussed later in the paper. The opacity approach also makes correct predictions with respect to intervention in control environments. In addition, this idea will permit consideration of ergative splits from the perspective of opacity to phi-agree (*phi-opacity*).

In my account of phi-opacity of ergative arguments I adopt Rezac's (2008a) theory of NP's inability to value phi-probes when the NP bears theta-related case. For Rezac, some NPs with theta-related case are invisible to phi-probes: they cannot value a phi-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 as follows (adopted with modifications from Rezac [2008a] example 2b):

(19) *There seem_i to him to be some books_i on the shelf*

In (19) the agreement in the matrix clause tracks the phi-features of NP *some books*, even though the NP *him* is structurally closer to the phi-probe on the matrix T.

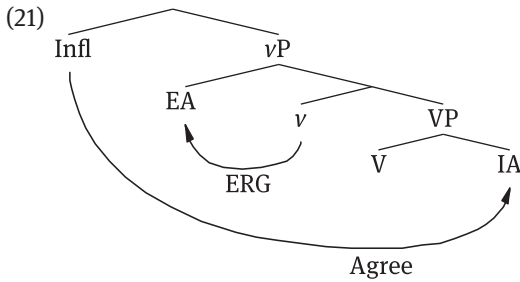
I take Tseltal ergative arguments to be NPs with the kind of theta-related case makes them opaque to phi-probes (an assumption I will revise later). This is codified in the following lemma (cf. Anand & Nevins 2006 *VIVA parameter*):

(20) **Ergative Argument Invisibility Hypothesis (EAIH)** (to be revised)

An argument receiving ergative case is invisible to a phi probe

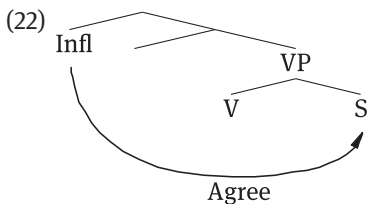
(20) stipulates that arguments with ergative case (external arguments of active transitive verbs) cannot serve as goals for phi-agree, but do not act as interveners for phi-agree relations between C-commanding phi-probes and lower goals.

It follows from (20) that when the phi-probe on Infl searches its c-command domain for an agreement target, the first and only NP visible for phi-agree is the internal argument inside the VP:



The result is that while v^0 assigns ergative to the external argument, the internal argument enters an agree relation with *Infl* receiving absolutive case as a result, even though the *EA* is structurally 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 phi-agreement the sole argument projected, the intransitive subject:¹⁰



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

10 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 and 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 Tsel'tal 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 Tsel'tal.

of the finite clause (in the terms of Legate [2008] this is an ABS = NOM type 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.

3.2 Multiple agree account of PCC

PCC effects resist a naive morphological account as it has been known since Perlmutter (1970) and Kayne (1975) that identical strings differ with respect to their PCC status depending on the syntactic structure involved:

- (23) a. **Paul vous lui presentera*
 b. *Vous lui presenterez Paul*
 (Kayne 1975)

Likewise, 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).

Other morphological accounts of PCC have been proposed for clitic languages (see, for example, Miller & Sag [1997] and Walkow [2010], though see Anagnostopoulou [2003] 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 that exhibit both a (strong) PCC restriction and zero agreement morphology provide an argument against a morphological account in such languages. Taking Tseltal ditransitives as an example, we observe that the PCC restriction persists even when the indirect object is 3rd person:

- (24) *lah y-aʔ-bat/be*
 PFV ERG3-give-APPL.ABS2/APPL.ABS3
 *‘She gave you to her’ (OK as ‘She gave it to you’)

If the PCC restriction arose as a result of impossibility of accommodating agreement morphemes for all the arguments of a tri-valent predicate then (24) would be predicted to be good: the indirect object is 3rd person and triggers null agreement, making it possible, in theory, for the direct object to be agreed with as well in this case. The fact that agreement with direct object is in principle possible, yet

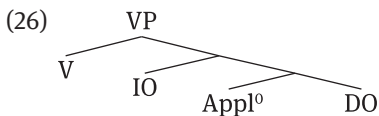
the construction remains ungrammatical suggests that some reference to syntactic status of the relevant arguments is necessary.

The Basque data in Albizu (1997) and Rezac (2008b) provides an additional argument in favor of 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 hold. The difference correlates with the presence of PCC effects:

- (25) a. *Haieki Itxaso-rij gustatzen zai-zkii-oj*
 they.ABS Itxaso-DAT liking vD-PL-3
 Itxaso likes them.
 (Rezac 2008b: 63)
- b. **Nii Itxaso-rij gustatzen ni-a-tzai-oj.*
 I.ABS Itxaso-DAT liking 1-TM-vD-3
 Itxaso likes me.
 (Rezac 2008b: 63)
- c. **Nii Itxaso-rij etortzen ni-a-tzai-oj.*
 I.ABS Itxaso-DAT coming 1-TM-vD-3
 I am coming to Itxaso.
 (Rezac 2008b: 63)

I follow a syntactic account of PCC in Anagnostopoulou (2003, 2005) and Béjar & Rezac (2003). These proposals derive PCC from failure to license a nominal's [person] features in multiple-agree¹¹ configurations (see Boeckx 2000; Nevins 2007; Adger & Harbour 2007 for similar approaches; see also Ormazabal & Romero 2007 for an alternative approach).

I assume following Pylkkänen (2002) that indirect object arguments are introduced in the specifier of a dedicated applicative head which merges above the direct object (DO):¹²



¹¹ Properly speaking, *multiple phi-agreement* should be distinguished from *split phi-agreement*, as discussed at the end of the paper. Here, I continue employing *multiple (phi-)agreement* as a cover term for both operations, until the last section, where I argue that the operation relevant to Tsetal is multiple agree and not split phi-agreement.

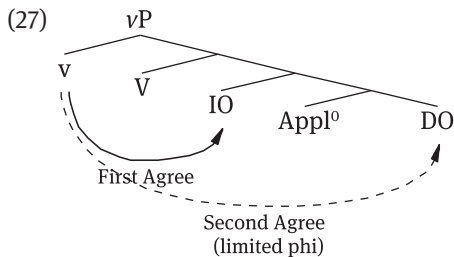
¹² Pylkkänen (2002) makes a distinction between low, possession-transfer applicative and a high benefactive applicative. I abstract away from this difference.

I take the Tseltal applicative morphology (-*be*) to be the phonological realization of the Appl⁰ head. I assume that in Tseltal the applicative head projects the indirect object argument, but does not itself probe (Béjar & Rezac 2003; Anagnostopoulou 2005).

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. 1st and 2nd person NPs have [person] features, and thus require licensing, while 3rd person NPs lack [person] features.¹³
- A single head can enter into phi-agree relations with multiple NPs, as either *multiple agree* in Hiraiwa (2001; 2005) or *split-phi-agree* in Béjar & 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 an phi-agree relation with the lower direct object:¹⁴



13 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 3rd person and [+person] when 1st or 2nd person. 3rd person direct objects lack a [person] specification entirely, which makes these arguments licit in PCC configurations. Adger & Harbour (2007) root the distinction between 3rd person DO and 3rd person IO in animacy feature: it could be argued that the applicative head only selects animate arguments in its specifier.

14 On Hiraiwa (2001, 2005) view of *multiple agree*, this operation is simultaneous agree with more than one goal. On the other hand, *split phi-agreement* (Anagnostopoulou 2005 and Béjar & 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 3rd person.¹⁵

3.3 PCC in Tselal ditransitive clauses

An example of PCC restriction in Tselal ditransitive clause was presented in (12) and is repeated below:

- (12) *lah y-aʔ-bat me mut-eʔ / *joʔon-eʔ*
 PFV ERG3-give-APPL.ABS2 DEF chicken-CL / *I-CL
 ‘She gave you a chicken/*me’

Consider the possible phi-agreement targets in (12): the Ergative Argument Invisibility Hypothesis (20) stipulates that ergative arguments cannot serve as goals for agree and are not defective interveners. I assume that in Tselal, the IO-introducing applicative head does not itself probe.¹⁶ I also assume that the indirect object in the specifier of the applicative head is visible for agreement: either because Tselal Appl⁰ does not assign dative,¹⁷ or because the kind of dative available in Tselal is fully visible for phi-agree (I will return to the issue of transparency of indirect object for phi-agree in the last section of the paper).¹⁸ The

15 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 phi-features is checked and [person] is a phi-feature, the PCC effect follows. In Anagnostopoulou (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.

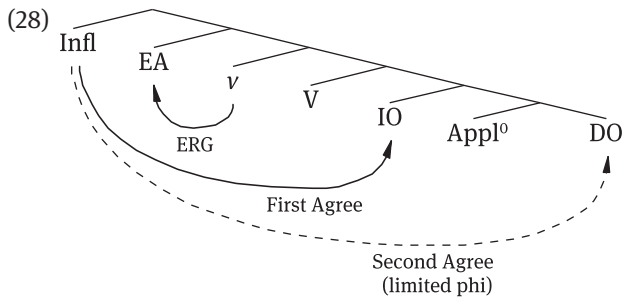
16 An alternative I will not explore here is the idea (in Adger and Harbour 2007) that in ditransitive constructions the applicative head probes and case-licenses the direct object but is unable to license [+person] arguments. Under the assumption that all NPs require case, it is not clear how to extend this proposal to structures with non-finite complementation in Tselal discussed below, since in non-finite complementation environments the applicative is not present. However, see fn. 24 for evidence that in certain cases v^0 in combination with the applicative head is able to probe/agree.

17 Thanks to an anonymous reviewer for bringing up this point.

18 An anonymous reviewer suggests that given the assumption that goals are bare NPs, multiple agree is unnecessary: the direct object is not agreed with and therefore is restricted to 3rd person, in the spirit of Ormazabal & Romero (2007). I assume that the 3rd person direct object requires structural case which is assigned by a phi-agree operation and therefore adopt the multiple agree approach whereby 3rd person DO is agreed with.

consequence of the fact that the goal can be a target for phi-agree is that in a ditransitive construction, when Infl probes for a nominal to agree with, the first NP it finds is the structurally higher indirect object. Agreement takes place, resulting in absolutive morphology referencing [person] features of the indirect (applied) object.

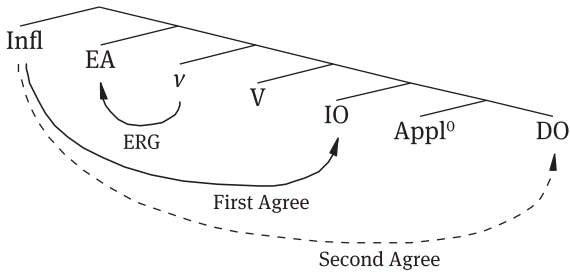
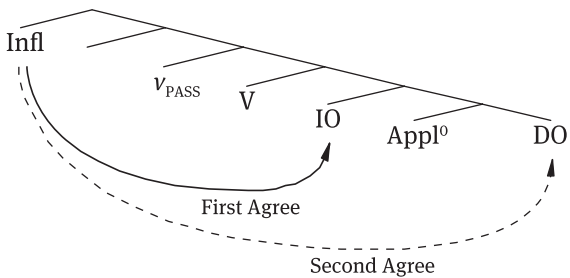
After the first phi-agree, Infl continues to probe and finds the direct object. The agree that takes place when phi-probe on Infl finds the direct object is of limited nature and cannot license [person] features of the direct object:



If the direct object is 3rd person the derivation converges, as 3rd person NPs have no [person] features that require licensing. On the other hand, if the direct object is 1st or 2nd person, it has [person] features that remain unlicensed, causing the derivation to crash.

Note that the external argument is not an intervener for the phi-probe on Infl precisely because it bears the kind of theta-related case that makes it invisible to phi-probes (cf. 20). The indirect object, on the other hand, is visible for phi-agree and therefore is a target for agreement from Infl.

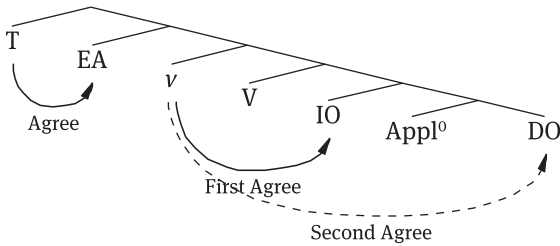
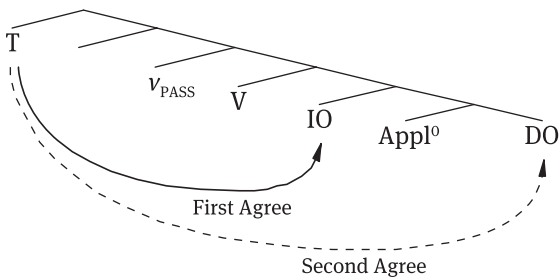
This theory accounts for the fact that the indirect object's person features are realized via absolutive morphology in ditransitive constructions. It also predicts that PCC effects will persist regardless of whether the ditransitive is active or passive. In both accusative and ergative languages the difference between active and passive clauses is commonly reduced to the nature of the v^0 head: in passive clauses it neither projects an (non-implicit) agent argument nor assigns case. In active clauses in ergative languages v^0 projects and case-marks the external argument, while in the passive clauses the absence of agent argument is concomitant with the inability of v^0 to assign ergative case to its specifier. The consequence of this is that in ergative languages, both in the active and the passive, v^0 never participates in the agree relations relevant to the person-case constraint: the finite Infl is the head that agrees with both internal arguments:

(29) a. **Active**b. **Passive**

Therefore we would predict that PCC effects in Tselal should be in evidence both in active and passive, as is the case:

- (30) a. *ʔaʔ-bot-on* *me* *mut-eʔ*
 give-APPL.PASS-ABS1 DET chicken-CL
 ‘I was given a chicken’
- b. **ʔaʔ-b-ot-on* (*me*) *jaʔat(-eʔ)*
 give-APPL.PASS-ABS1 (DET) you(-CL)
 ‘I was given you’

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

(31) a. **Active**b. **Passive**

If different heads exhibit different agreement properties, we might expect in nominative/accusative languages the possibility of PCC differences in active versus passivized ditransitives. This is exactly what we find in Icelandic, where active ditransitives show no PCC-like effects, while passive ditransitives restrict the nominative object to being 3rd person (see Anagnostopoulou 2005 for an analysis of PCC in Icelandic ditransitive passive)

- (32) a. *Ég gaf honum ig í jólagjöf.*
 I.NOM gave him.DAT you.ACC as Xmas-gift
 ‘I gave him you as a Christmas present.’
 (Schutze 1997: 117 citing Thrainsson p.c.)
- b. **Honum var/varst gefinn þú.*
 him.DAT was.3SG/was.2SG given you.NOM
 Assumed gloss: ‘you were given to him’
 (Schutze 1997: 117 citing Thrainsson p.c.)

The prediction of the present account is that nominative/accusative languages may vary in PCC properties between active and passivized ditransitives, while ergative languages where Infl assigns absolutive case should not exhibit such a difference.

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

4 PCC Effects in Tselal non-finite complements

4.1 Tselal non-finite complementation

Tselal 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 prenominal determiners in this language.¹⁹ Finite complement clauses are unremarkable in that they feature the same agreement and aspect marking as main clauses:

- (33) *lah k-il* [*me lah s-maj te s-ts'iʔ-eʔ te*
 PFV ERG1-see [COMP PFV ERG3-beat DET POSS3-dog-CL DET
Pedro-h-eʔ]
 Pedro-EPN-CL]
 'I saw that Pedro hit his dog'

Besides to finite complement clauses, Tselal features several types of non-finite complements, characterized by the *-el* morphology on the verb as in (34).

- (34) *j-k'an s-pet-el te alal-eʔ*
 ERG1-want ERG3-hug-NF DET baby-CL
 'I want to hug the baby'

Previous work has identified these and similar non-finite complements as nouns (Shklovsky 2005 for Tselal, Coon 2010 for Chol), or constructions that can be verbal nouns or infinitives depending on the context (Polian 2012). In this work 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 Tselal (see Polian (2012) for a detailed description of non-finite clauses

¹⁹ A particle *a*, whose syntax is obscure to me also has some complementizer-like properties. I set it aside here.

in various Tzeltal dialects, and see Aissen (1994) for 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*, appears with the NP PP frame where the complement to a preposition is an NP or a non-finite clause:²⁰

(35) 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’

Certain transitive embedded verbs, such as *k’an* (‘want’), *mulan* (‘like’), *nak* (‘despise’), and *na?* (‘to know [how to do something]’) also appear with either nominal (36) or non-finite (37) complements. Here, in contrast to *yakal*, the preposition is absent.

(36) a. *k-mulan-at*

ERG1-like-ABS2
 ‘I like you’

²⁰ *yakal* can also appear with a single DP complement:

- (i) *yakal-Ø 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’

The syntax of these constructions is outside the scope of this work, though see fn. 24 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.

b. *te ts'iʔ-eʔ ya s-mulan-∅ tiʔbal-eʔ*
 DET dog-CL ICMP ERG3-like-ABS3 meat-CL
 'The dog likes meat'

(37) *k-mulan s-pet-el te alal-eʔ*
 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 the argument structure of the non-finite clause.²¹ 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:

(38) **IV-*el* Non-finite Complement**

a. *yakal-on ta yahl-el*
 PROG-ABS1 PREP fall-NF
 'I am falling'

b. *j-k'an yahl-el*
 ERG1-want fall-NF
 'I want to fall'

When transitive stems head non-finite complements, two syntactic options are available, signaled morphologically by presence or 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 and impersonal:

21 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.

(39) **TV-el Non-finite Complement** (passive meaning)

- a. *yakal-on ta pet-el*
 PROG-ABS1 PREP hug-NF
 ‘I am being hugged’
- b. *j-k'an pet-el*
 ERG1-want hug-NF
 ‘I want to be hugged’

The thematic agent of the embedded verb can sometimes be expressed as an oblique, similar to an agent of a passivized finite transitive verb (40b)

- (40) a. *?yakal-on ta maj-el (y-u?un j-tuhl winik)*
 PROG-ABS1 PREP beat-NF (AGR3-by 1-NC man)
 ‘I am being beaten (by a man)’
- b. *ti?-ot (y-u?un ts'i?)*
 bite-PASS (AGR3-by dog)
 ‘She was bitten (by a dog)’

The active transitive meaning for the embedded predicate arises when the embedded non-finite transitive verb bears a 3rd person ergative marker (41), an option not available with intransitive verbs (42):

(41) **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’

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

The ergative marker in the “active” non-finite complement can only be 3rd person (43a) and does not reference any NP overtly present in the derivation. This can be

demonstrated by the means of a construction that only involves 1st and 2nd person arguments (43b).

- (43) a. **yakal-Ø* *ta* *k-/a-pet-el*
 PROG-ABS3 PREP ERG1/ERG2-hug-NF
 ‘She is hugging me/you’
- b. *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. In the following section, I discuss the general properties of non-finite complements in more detail.

4.2 Non-finite clause syntax

There are several differences between finite and non-finite complements in Tsel-tal. Morphologically, all non-finite complements feature *-el* morpheme on the verb, whereas (main) verbs in finite clauses never feature this marking. 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:

- (44) a. *lah* *k-il* ***te/me*** *lah* *a-pet* *te* [finite complement]
 PFV ERG1-see **COMP** PFV ERG2-hug DET
 alal-e?
 baby-CL
 ‘I saw that you hugged the baby’
- b. **j-k’an* ***te/me*** *s-pet-el* *te* *alal-e?* [NF complement]
 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 (35a, repeated below as 45). In this analysis I depart from Polian (2012), who suggests that the preposition is equivalent to a complementizer in cases of non-finite complementation.

- (45) *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 have (in certain cases, must have) aspectual morphology, non-finite clauses obligatorily lack aspect marking:²²

- (46) a. *lah k-il te/me lah a-pet te* [finite complement]
 PFV ERG1-see COMP **PFV** ERG2-hug DET
alal-e?
 baby-CL
 ‘I saw that you hugged the baby’
- b. **j-k’an lah s-pet-el te alal-e?* [NF complement]
 ERG1-want PFV ERG3-hug-NF DET baby-CL
 ‘I want to have seen the baby’²³

Finally, non-finite complement clauses feature restricted agreement, unlike finite CPs. Specifically, overt (1st and 2nd person) absolutive agreement is not possible on the embedded non-finite verb.²⁴ This differs from finite embedded clauses, where absolutive agreement is obligatory for non-3rd person arguments:

22 For some aspect/predicate valence combinations, such as transitive perfective, aspect marking in finite clauses is obligatory. See Table 2 for details.

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

24 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:

- (i) *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 Tselal (though see fn. 20 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:

- (47) a. *k-nah te lah aw-il-on* [finite complement]
 ERG1-know COMP PFV ERG2-see-ABS1
 ‘I know that you saw me’
- b. **j-k’an s-pet-el-at* [NF complement]
 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 Infl⁰ is either missing or is inactive as a phi-probe. Furthermore, given that in Tseltal finite clauses aspect realization is obligatory when a non-zero exponent is available,²⁵ we might speculate that in Tseltal, Infl is identified with Aspect, in the spirit of Ritter & Wiltschko (2009), 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 non-finite complements I discuss in this paper come in three types: intransitive, transitive passive, and transitive active:

(48) 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’

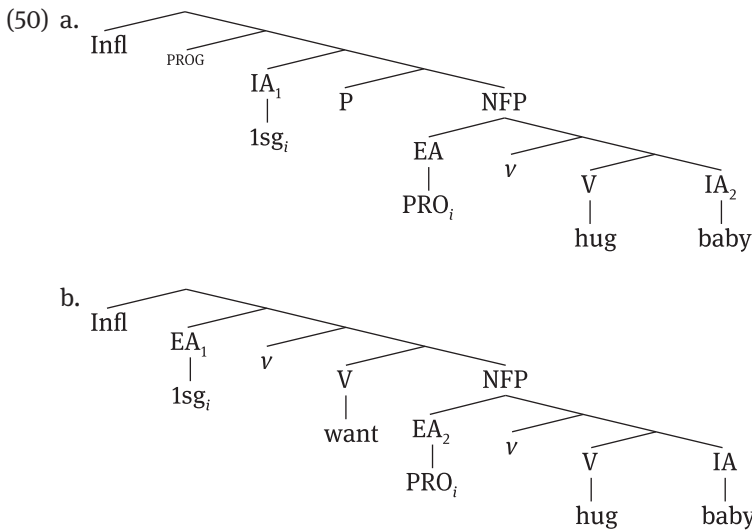
-
- (ii) **yakal-on ta chom-beyel-at*
 PROG-ABS1 PREP sell-APPL-EPN-NF-ABS2
 ‘(impersonal agent) is selling me you’

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 phi-agree.

25 The exception to this, the optional transitive imperfective marker *ya(k)*, must be realized in some syntactic configurations. In other cases its presence seems to serve an emphatic function.

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 progressive auxiliary (49a) and ergative-assigning verb (49b) are schematized in (50), where “NFP” is the label of the non-finite clause projection.

- (49) 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’



With respect to (50a), 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 (50a), however, nothing crucial hinges on this fact.

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. However, it has been known since Perlmutter (1970) that some aspectuals can be control verbs. Also, *yakal* does appear with NP (and PP) arguments as was seen in (35a), repeated below as (51a):

- (51) 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-Ø me reboclusion-eʔ / asamblea*
 PROG-ABS3 DET revolution-CL / assembly
 ‘The revolution/assembly was/is going on’

The examples in (51) 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.

At the same time, it may appear that the imperative formation provides an argument in favor of non-thematic treatment of the progressive auxiliary *yakal*. As the following example shows, *yakal* does not form imperatives:

- (52) a. **yak(a)l-an ta s-pet-el (te alal-eʔ)*
 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 (1970) 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 will 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 it is located somewhere in the VP.

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 (48). 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 construc-

tions 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 (53). Intransitive stems are ungrammatical with applicatives (54).

(53) a. **Transitive root***x-chom-be*

ERG3-sell-APPL.ABS3

'She sells it to her'

b. **Derived Transitive Stem***suĵ-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'

(54) a. **Intransitive root****yahl/nux-bat*

fall/swim-APPL.ABS2

'She fell/swam for you', '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 v^0 projection. We now observe that Tseltal non-finite complements with embedded transitive verbs admit the applicative suffix:

(55) *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'

From this I conclude that non-finite complements project a v^0 head, and consequently a vP layer.

4.3 Account of PCC effects in non-finite complement clauses

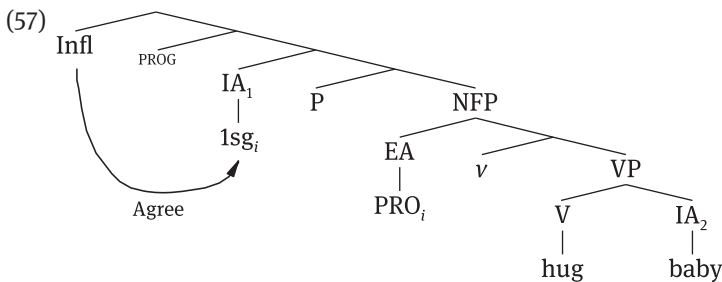
Having proposed a general structure for non-finite clauses in Tselal in the previous section, here I further flesh out the syntax of arguments and agreement in Tselal non-finite clauses. This will derive the PCC restriction in non-finite clauses embedded under aspectual auxiliary using the same assumptions necessary to derive PCC in Tselal 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.

4.3.1 Non-finite clauses with aspectual auxiliary

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

- (56) *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 Infi-agreement. From the observation that only one instance of absolutive morphology can be present in (56) it follows that there is only one probing/agreeing Infi head in these constructions.²⁶ 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 (56) receives case from the finite Infi:



²⁶ Given the fact that constructions like that in (56) are PCC environments, it is possible to suppose that there is absolutive agreement in the lower domain but it is invisible due to the fact that 3rd person absolutive agreement exponent is $-\emptyset$. This, however, would rob us of an

The argument in the matrix clause is co-indexed with the PRO subject of the embedded non-finite clause.²⁷ 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, however, since PRO is the second closest argument to the matrix Infl, I address the issues of PRO case and agreement next.²⁸

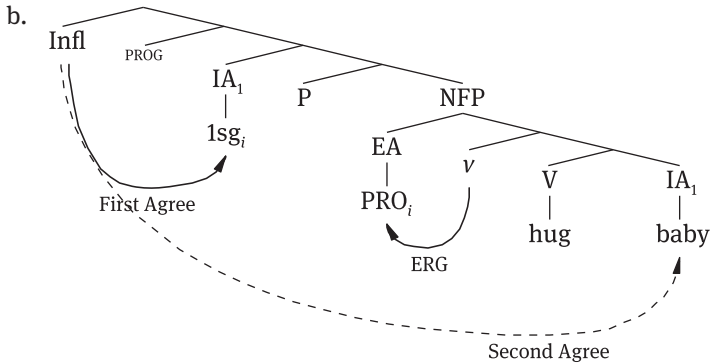
While the GB account of PRO (Chomsky 1981) held that PRO is obligatorily caseless, arguments that PRO bears structural or inherent case have been presented for many languages including Icelandic (Sigurðsson 1991), Russian (Moore & Perlmutter 2000, among many others), and Hungarian (Tóth 2000); see Landau (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 (57), 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. By the ergative argument invisibility hypothesis (20), PRO will not be visible for phi-agree in this configuration. Therefore, when the matrix Infl continues to probe after agreeing with the matrix subject NP, the next argument it will target for phi-agreement is the internal argument of the embedded verb:

- (58) a. **yakal-on ta s-pet-el jaʔat(-eʔ)*
 PROG-ABS1 PREP ERG3-hug-NF you(-CL)
 ‘I am hugging you’

account of PCC in these constructions. Furthermore, if complements to transitive embedding verbs feature identical syntax, then examples such as (43b), where the internal argument of the embedded verb is not 3rd person, demonstrate that embedded agreement is lacking in non-finite complements. I thank an anonymous reviewer for bringing up this issue.

27 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.

28 I want to thank an anonymous reviewer for bringing up the issues of PRO control and addressed here.



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.

An anonymous reviewer raises a question about PRO and PCC effects in Icelandic. Certain PRO subjects in Icelandic appear to induce PCC violations on the lower argument:

- (59) *Við vonumst til [að leiðast hún / *þið*
 we.NOM hope.PL for [to bore.INF she.NOM / you.PL.NOM
ekki]
 not]
 ‘We hope not to be bored with her / *you.’
 (data in Bobaljik [2008] fn. 27, attributed to Thráinsson, p.c.)

What is crucial about 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 (59) is a dative subject construction, where the lower nominative object is subject to PCC:

- (60) a. *henni leiddust þeir*
 she.DAT was.bored.by-3PL they.NOM
 ‘She was bored by them’
 (Taraldsen 1995)
- b. **?henni leiddumst við*
 she.DAT was.bored.by-1PL us.NOM
 ‘She was bored by us’
 (Taraldsen 1995)

From this perspective, Tselal and Icelandic PRO are exactly alike: they behave identically to overt NPs for the purpose of PCC effects. Icelandic dative subjects (whether overt NPs or PROs) induce PCC on the lower nominative objects, while Tselal ergative subjects, PRO or otherwise, do not cause PCC violations in the absolutive NPs they c-command. In Tselal, 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 (1997) and Sigurðsson (1991) arguments that Icelandic non-finite T is a structural case assigner.²⁹

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

4.3.2 Non-finite complements under ergative-assigning verbs

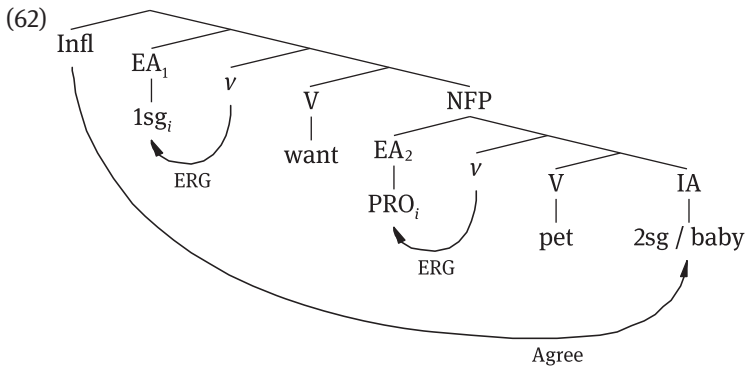
Recall that in constructions where ergative-assigning verbs embed non-finite complements no PCC effects are found:

- (61) 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 (61), 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 phi-probe in Tselal. 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: 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 phi-probe in the matrix Infl by Ergative Argument Invisibility, (20). Therefore, when the phi-probe on the

²⁹ The account herein could be assimilated to Landau (2000, 2004) account of the calculus of control if we assume (as Landau 2004 does) that PRO agreement is distinct from phi-agreement. In other words, while ergative arguments, both overt and PRO, are not visible for phi-agree, both EPP and Control-type agreement (for [\pm R] feature, in Landau's framework) can target NPs regardless of their case. A similar proposal seems to be necessary for Hebrew where dative arguments are invisible to phi-agree, yet nonetheless can control (Landau 1999).

matrix Infl searches for a possible target, the first argument it finds is the embedded object.



Given that the embedded direct object is the first argument that the matrix Infl agrees with, full phi 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 (62) it is the matrix Infl that agrees with embedded direct object:

- (63) *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 with transitive embedding verbs from the fact that all but one NP in the construction 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 Tsel'tal 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:

- (64) *xu* *k-uʔun* *s-loʔ-el* *manko*
 IPFV.able AGRI-RN ERG3-eat-NF mango
 'I can eat a mango'

The subject in (64) is projected as a complement to an agreeing preposition. Such constructions present another instance of NPs with theta-related case, similar to

ergative. We predict then that with these types of verb, the matrix Infl would not “see” the matrix subject (just like with the transitive embedding verbs), due to the matrix subject’s theta-related case. In these 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 in (65), where absolutive agreement appears in the matrix clause, as expected.

- (65) *xu* *k-uʔun-at* *s-maj-el*
 IPFV.able AGR1-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 (non-ergative assigning) verbs, this was the second phi-agreement for the matrix Infl, whereas under transitive (ergative-assigning) verbs, Infl enters into a single phi-agree relation. This latter case makes Tseltal non-finite complementation look similar to restructuring environments discussed in Wurmbrand (1998) and (2003).³⁰ Specifically, in both the German restructuring constructions 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:

- (66) a. **Active restructuring verb**³¹
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.’
 (Wurmbrand 2001)

³⁰ Thanks to an anonymous reviewer for bringing up this issue.

³¹ This example also involves scrambling which does not affect the relevant case assignment properties.

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.’
 (Wurmbrand 2001)

In passivized restructuring configurations, the embedded object can not receive accusative case from matrix v^0 assuming that passive v^0 is not a structural case assigner. However, the matrix Infl can (and does) assign nominative to the embedded object when the matrix verb is passivized as in (66b). Therefore, the passivization of matrix verb is reflected in the morphological case of the internal argument of the lower verb.

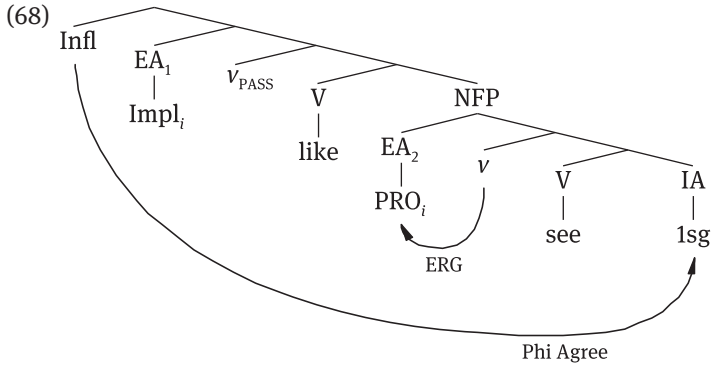
In Tselal, passivization does not affect how the direct object receives case. Passivization affects projection and case-assigning properties of v^0 which is not involved in assigning case to the internal argument. Instead, the case for the direct object is assigned by Infl both in active and passive 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 phi-agreement (under transitive verbs) or, in the case of intransitive verbs, as a result of second agreement. Tselal does not have impersonal passives (intransitive verbs do not passivize in Tselal). With transitive verbs with 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 phi-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 at this point, however, preliminary indications suggest that this analysis is on the right track:

(67) *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 agent argument in the matrix clause, the relationship between the matrix Infl and the internal argument of the embedded verb is not disrupted in (67). 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, not an uncommon phenomenon cross-linguistically (Bhatt & Pancheva 2007; Landau 2010).



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 phi-agreement target for the matrix Infl and the embedded direct object will not exhibit PCC restrictions.

In the next section I will address the syntax of other types of non-finite complement clause and the nature of 3rd person ergative morphology in non-finite clauses.

4.4 Types of non-finite complements and 3rd person ergative

Recall that in addition to the active transitive non-finite complements, two other types of non-finite complement clauses were discussed: intransitive and passive-like transitive non finite complements (48, repeated below):

(48) 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 3rd 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 (15), repeated below.

(15) *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 (48), the embedded 3rd 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 3rd person. I suggest that this is exactly what takes place in non-finite active transitive embedded clauses: the 3rd person ergative marker cross-references the external phi-features of the PRO argument in specifier of vP . The reason why the ergative morphology does not covary with phi-features of the controller of PRO is related to the referential properties of PRO and the nature of anaphors in Tsel'tal.

The idea that obligatory control (OC) PRO is anaphoric is not new (cf. Fodor 1975; Lasnik 1992), and although attempts to account for distribution of PRO via binding theory were abandoned some time ago, the idea that PRO is an anaphoric element has not disappeared (cf. Landau 2000). If PRO is a species of anaphor, it might not be surprising if PRO and anaphors had similar morphosyntactic characteristics. Recall that the idea under consideration is that regardless of the phi-features of its controller, Tsel'tal PRO always controls 3rd person agreement mor-

phology, at least when it is generated in the specifier of vP. Here we observe that Tseltal anaphors have the external syntax of 3rd person NPs. In this language, reflexives have characteristics of 3rd person nominals, with the embedded possessor bearing the person features of the controller, similar to anaphors in Greek (Iatridou 1988), Georgian (Bonet 1991), and Selayarese (Woolford 1999).

Three types of evidence can be adduced to show that Tseltal anaphors are 3rd person NPs. First, they only trigger 3rd person absolutive agreement:

- (69) a. *lah k-nak'-Ø/*on k-ba*
 PFV ERG1-hide-ABS3/*ABS1 POSS1-REFL
 'I hid myself'
 b. *lah aw-il-Ø/*at a-ba*
 PFV ERG2-see-ABS3/*ABS2 POSS2-REFL
 'You saw yourself'

Secondly, anaphors are licit in PCC environments:

- (70) *yakal-on ta y-il-el k-ba*
 PROG-ABS1 PREP ERG3-see-NF POSS1-REFL
 'I am looking at myself'

If anaphors were not externally 3rd person NPs, their ability to appear in PCC environments would be left unexplained.

Finally, consider Tseltal purpose clauses, a type of non-finite clause that has not been discussed so far in this work. The transitive verbs heading Tseltal purpose clauses feature prefixal agreement, which is normally ergative, however, in purpose clauses this agreement reflects phi-features of the internal rather than the external argument. In other words, Tseltal purpose clauses feature accusative agreement, as in (71a). This is in contrast to the complement non-finite clauses which have invariant 3rd person prefixal agreement (71b):

- (71) a. *lah s-tikun-on ta a-maj-el*
 PFV ERG3-send-ABS1 PREP OBJ2-hit-NF
 'She sent me to hit you'
 b. *k-mulan-at y-il-el*
 ERG3-like-ABS1 ERG3-see-NF
 'I like looking at you'

In the case of purpose clauses, when the internal argument of the non-finite verb is an anaphor, the prefixal agreement is 3rd person:

- (72) *k-tikun-at ta s-nak'-el a-ba*
 ERG1-send-ABS2 PREP OBJ3-hide-NF POSS2-REFL
 'I send you to hide yourself'

From this I conclude that Tsel'tal anaphors are indeed 3rd person NPs. I propose that Tsel'tal obligatorily controlled (OC) PRO is likewise a 3rd 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 3rd person ergative marking in Tsel'tal non-finite embedded clauses: when embedded v^0 projects a PRO external argument and assigns it ergative case, 3rd person agreement morphology is present, because, externally, PRO is 3rd person in Tsel'tal. When the PRO argument in a non-finite complement is not generated and case-marked in [Spec, vP], invariant 3rd person agreement is absent. In these cases the embedded v^0 does not assign case and ergative marking is lacking.³²

5 Conclusion

In this paper I have presented an account of Tsel'tal PCC effects in ditransitive and non-finite complementation environments. According to this proposal, the PCC effects in Tsel'tal come about when a derivation contains more arguments that require structural case licensing than the number of structural case assigners present. In such cases 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 3rd person. In the domain of non-finite complementation, the appearance of PCC restriction on the lower internal argument was correlated with the presence of higher argument receiving structural (absolute) case. It was proposed that there is only one source of structural case in non-finite complementation environments, and therefore, when an argument in the matrix clause receives absolute 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 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 Tsel'tal and b) that ergative case in Tsel'tal is inherent. The

³² For an alternative approach to obligatory coreference in certain Mayan constructions where 3rd person is necessarily anaphoric, see Coon & Henderson (2011).

first of these claims accounts for the lack of absolutive agreement in non-finite environments where an agent argument is projected, and also for the fact that in non-finite complements to transitive verbs, the lower internal argument controls the matrix absolutive agreement. The latter is necessary in 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 multiple-agree and case opacity.

5.1 Number agreement

Above, I have assumed that ergative arguments are invisible to phi-probes without offering an account of this restriction. For a theory of case opacity I follow Rezac (2008a) who proposes that NPs with theta-related case are projected in a derivation in a PP:

$$(73) \quad \begin{array}{l} \text{NP} \\ \text{with theta-related case} \end{array} = \begin{array}{c} \text{PP} \\ \swarrow \quad \searrow \\ \text{P} \quad \text{NP} \end{array}$$

The opacity to phi-probes comes about due to the fact that prepositions heading such PPs are (strong) phase heads, and therefore are spellout domains (Chomsky 2000, 2001). The NPs inside such PPs are not syntactically active in virtue of the phase impenetrability condition (PIC, Chomsky 2000). In the Rezac 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 phi-features. The availability of NP's phi-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 phi-probe. If P probes for phi-features, it agrees with its NP complement. Following such agreement, phi-features are available on the P head (and its maximal projection), and the PP itself is visible to a higher phi-probe. On the other hand, if the P head does not probe for any phi-features, the NP with theta-related case will be invisible to a phi-probe:

$$(74) \quad \begin{array}{ll} \text{Opaque (Invisible)} & \text{Visible} \\ \begin{array}{c} \text{PP} \\ \swarrow \quad \searrow \\ \text{P}_{\text{NO PROBE}} \quad \text{NP}_{\text{PHI}} \end{array} & \begin{array}{c} \text{PP}_{\text{PHI}} \\ \swarrow \quad \searrow \\ \text{P}_{\text{PROBE}} \quad \text{NP}_{\text{PHI}} \\ \curvearrowright \\ \text{phi features} \end{array} \end{array}$$

Availability of some but not all NP's phi-features outside the PP occurs when the relevant P probes for a subset of phi-features. Rezac (2008a) accounts for the differences among Basque dialects by suggesting that different dialects exhibit different kinds of P heads that probe for different features.

Such parametric phi-agree “permeability” is relevant to Tsel'tal number agreement. Tsel'tal plural agreement is suffixal and number agreement co-occurs with absolutive person agreement:

- (75) a. *y-ik'-on-ik*
 ERG3-call-ABS1-PL
 ‘They called me’
- b. *ma-x aw-ak'-on-ik ta k'op*
 NEG-ICMP ERG2-allow-ABS1-PL PREP word
 ‘You (plural) are not allowing me to speak’

The full agreement paradigm is presented in Table 3.

I will restrict the following discussion to 3rd person arguments as the interaction of plural morphology with 1st and 2nd person agreement is somewhat obscure to me. When the two core clausal arguments are 3rd person, either or both may control number agreement, but double exponence of plural agreement is ungrammatical:

- (76) *lah y-il-ik>(*ik)*
 PFV ERG3-see-ABS3-PL-PL
 Ambiguous between ‘they saw her,’ ‘She saw them’ and ‘they saw them’

For 3rd 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 number agreement*, (Nevins 2008) where a single number probe targets whichever argument bears a plural feature. Recall, however, that it was proposed in (20) that

	Absolutive		Ergative	
	Sg	Pl	Sg	Pl
1 st person exclusive	-on	-onyotik	k-	k-. . .-yotik
1 st person inclusive		-otik		k-. . .-tik
2 nd person	-at	-ex	a-	a-. . .-ik
3 rd person	-∅	-ik	s-	s-. . .-ik

Table 3: Tsel'tal Person and Number Agreement Paradigm

ergative arguments are entirely opaque to phi-agreement. Under the assumption that plural morphology in Tselal is a reflex of true phi-agreement, the number agreement facts necessitate a revision of the initial assumption that ergative arguments are wholly invisible to phi-probes. The opacity (invisibility) of Tselal ergative arguments to phi-agreement appears to hold for person, but not for number agreement features, as in (77)

(77) **Ergative Argument Invisibility Hypothesis (EAIH) (final)**

An argument receiving ergative case is invisible to a person-probe

Keeping to 3rd person arguments we observe that absolutive agreement is distinct from number agreement.³³ This suggests that in Tselal, person and number probes are distinct. Given the absolutive-plural morpheme order the null hypothesis (in keeping with the Mirror Principle, 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 Béjar & Rezac (2003) and Anagnostopoulou (2005).³⁴ The number probe agrees with any plural core argument present, agent or patient. There is no *number case constraint* (Nevins & Savescu 2008) in evidence in Tselal, in a sense that a lower plural argument is ungrammatical in a configuration where a higher argument is plural. I take this to be evidence that an NPs [plural] features do not require licensing.

In addition to the fact that Tselal number reasons need not be licensed, it appears that Tselal number agreement does not play a licensing function for PCC NPs. There are two types of multiple-agree accounts of PCC in the literature: in Béjar & Rezac (2003) and Anagnostopoulou (2005) the strong PCC is argued to be a result of split phi-agreement: given a probing head that probes for a full complement of phi-features, the person agreement targets the higher argument while the number agreement is valued by the lower argument. In contrast, Nevins (2007) proposes an account of strong PCC where a single probe agrees with multiple

33 For 1st 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 2nd person plural *-ex* as a sole portmanteau absolutive+number morpheme. If number agreement and person agreement in Tselal 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 2nd person plural *-ex*. More research is necessary.

34 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.

arguments in a sense of Hiraiwa (2005). While proposing split-phi-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-phi-agreement approach comes from languages like Icelandic, where in PCC configurations, the lower nominative argument controls number agreement, while the person agreement remains 3rd person. The 3rd person agreement arguably comes about as a result of defective agreement with the intervening dative (cf. Taraldsen 1994; Sigurðsson 1996; Sigurðsson & Holmberg 2008). However, Tselal presents a different case in PCC configurations: the argument that is restricted to 3rd person in PCC configurations cannot not be agreed with for number as in (78b). The examples in (79) demonstrate that number agreement with *yakal* is possible in principle.

- (78) a. *lah k-aʔ-be te mut-etik-eʔ*
 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-eʔ*
 PROG-ABS1(*-PL) PREP ERG3-hug-NF DET baby-PL-CL
 ‘I am hugging the babies’
- (79) a. *yakal-ik ta s-pet-el te winik-eʔ*
 PROG.ABS3-PL PREP ERG3-hug-NF DET man-CL
 ‘They are hugging the man’
 b. *s-maj-on-ik*
 ERG3-beat-ABS1-PL
 ‘They beat me’

I do not have an account for the number agreement restriction in (78b), though if 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 (78b). Setting aside this issue, we can nonetheless conclude from the above examples that single-probe/multiple-goals configurations are possible even in the absence of split-agreement as argued for in Nevins (2007). Nevins (2007). The fact that it is possible for ergative arguments to control number agreement may suggest that the lack of ergative intervention comes about though case opacity rather than EPP movement, if the number agreement probe can be shown to be on Infl.³⁵ I take up the issue of ergative case opacity in the next section.

³⁵ See Sigurðsson & Holmberg (2008) who argue for a displacement of an intervening argument to a specifier between person and number probes.

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 non-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 Tselal applicative/ditransitive constructions is projected in a position associated with theta-related case, namely dative. If the association of dative case with [Spec, ApplP] position is universal, this means that the two different theta-related cases in Tselal are treated differently by phi-probes:

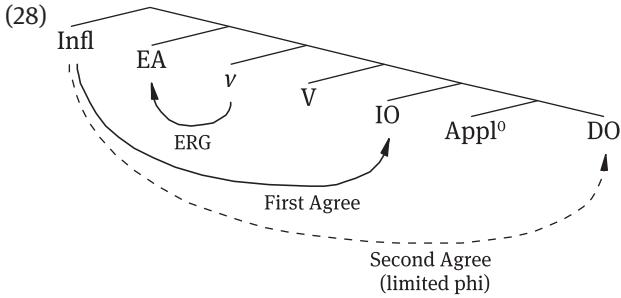
(80)	Case	Visibility to phi-probes
	a. Ergative	invisible
	b. Dative	visible

Abstracting away from the fine structure of phi-features and probes, I will assume for the purposes of this discussion 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 phi-probe or it is not. Tselal ergatives are NPs with inherent case of the latter kind, while Tselal datives are the former.³⁶ This is not the only possible state of affairs, and the two relevant arguments in combination with a phi-visibility parameter yield a typology of languages presented in (81).

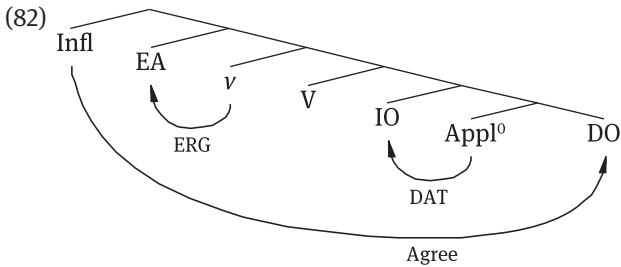
(81)	Ergative	Dative
	a. Non-target	Possible target
	b. Non-target	Non-target
	c. Possible target	Non-target
	d. Possible target	Possible target

Language type (a) is Tselal: ergative arguments are invisible (opaque) to phi-probes while dative is not. Recall how this derives PCC effects in ditransitive clauses in (28, repeated below): the single phi-probe (Infl) targets both IO and DO resulting in the direct object being limited to 3rd person arguments.

³⁶ I am setting aside the possibility that goal argument in Tselal 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.



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



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:

(83) a. **Adyghe**

w-je-s-tE-S't

OBJ2SG-IO3SG-SUBJ1SG-give-FUT

'I will give you to him'

(Kumakhov et al 1996)

b. **Kabardian**

w-je-s-te-n-s'

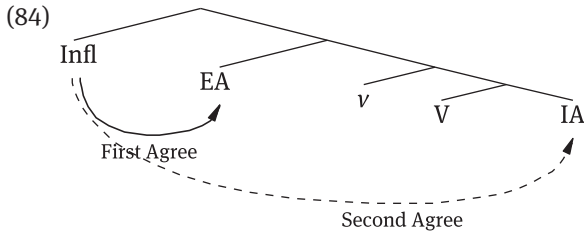
2SG.THEME-3SG.RECEPEINT-1SG.AGENT-give-FUT-ASSRT

'I will give you to him.'

(Kumakhov & Vamling 1995)

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 phi-agree and those that are not possible agreement targets also extends to nominative/accusative languages, though reasons of space preclude a detailed discussion 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:



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 phi-probe on *Infl*. The subsequent (second) agreement with the direct object results in a 3rd person restriction on the object: 1st or 2nd 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 1st and 2nd person arguments were transitive subjects. The reason for this is that with accusative syntax, both finite *Infl* and v^0 are phi-probes, and each argument would be agreed with separately. At the same time ergative derivations in 1st and 2nd person transitive subject contexts would crash to due PCC.

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, 1st and 2nd person pronouns are more likely to exhibit nominative/accusative syntax than 3rd person pronouns (Dixon 1994). This what we would expect if the 1st

and 2nd person pronouns have special licensing requirements that are not satisfied when they are the lower argument in an ergative clause. If, on the other hand, 1st and 2nd 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 phi-probes, the switch to nominative/accusative syntax would also be triggered by 1st or 2nd 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. More research into this topic is necessary, however, I hope to have shown that opacity account of split ergativity is possible at least in principle.

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