

Pronominal licensing in Mam*

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1 Introduction

- Many language exhibit person restrictions on direct (DO) and indirect (IO) objects of ditransitive verbs, a phenomenon investigated and termed the PCC by Bonet (1991).

– *3.dat > 2.acc

- (1) Je le / *te lui ai présenté.
1.SG 3.SG.A / *2.SG.A 3.SG.D have introduced
'I introduced him/*you to her.' (French, Bejar & Rezac 2003:49)

- Two varieties of Mam (Mayan) have been noted to have a person restriction on subjects and objects of active transitive clauses (Ixtahuacan, England 1983; Cajola, Perez Vail 2014).¹

– *3 subj > 2 obj

- (2) *Ma tz/*chin ok t-zeeq'an.
PROX B3SG/*B1SG POT A3SG-hit
'He hit him/*me.' (Ixtahuacan Mam, England 1983:62)

- Accounts of certain PCC patterns like Bejar & Rezac 2003 appeal to the idea of a Person Licensing Condition (PLC) that picks out local person pronouns as having a special licensing requirement that is not met in constructions like (1).
- I will argue here that there is a similar licensing condition in Mam: the Pronoun Licensing Condition (ProLC) which ensures **all** pronouns get licensed, including 3rd person pronouns.

*Acknowledgments

¹Abbreviations include: 1=first person, 2=second person, 3=third person, A= set A agreement, B= set B agreement, agt=agent, ap=antipassive, dep=dependent, dir=directional, ds=directional suffix, lp=local person, pat=patient, pl=plural, pot=potential, prox=proximate aspect, rn=relational noun, sg=singular

- Ingredients leading the to PCC in Ixtahuacan Mam

- Objects move to a position immediately above the subject, resulting in the two arguments in the same agreement domain
- A ϕ probe (LP) is situated directly above where the object moves. This probe spells out =a for local persons and can agree with the subject, object or both.
- Due to the specification of the ϕ probe, local person objects **block** agreement with 3rd person subjects
- The licensing requirement for 3rd persons: they must be agreed with **by an LP probe**.

- Road map:
 2. Structure of Mam
 3. Transitive person restriction
 4. How the LP probe Agrees
 5. Consequences of the Analysis
 6. Conclusion

2 Structure of Mam

In order to talk about the PCC effect in Mam and how this suggests a licensing requirement for all pronouns, I'll walk through:

1. Agreement patterns
2. Object movement
3. Heads responsible for agreement

2.1 Agreement

- Ixtahuacan Mam is a typical Mayan language:
 - Rigid VSO word order

– Ergative (set A) and absolutive (set B) agreement.

(3) Ixtahuacan Mam (England 1983:58,62)

- a. Ma **chin** b'eet=a.
PROX B1SG walk=LP
'I walked.'
- b. Ma **chin** ok t-tzeeq'an=a.
PROX B1SG POT A2SG-hit=LP
'You hit me.'
- c. Ma tz'=ok **n-tzeeq'an=a**.
PROX B2SG=POT A1SG-hit=LP
'I hit you.'

- In addition to these two agreement sites, there is agreement for local person (LP) as a suffix on verbs.

(4) **Intransitive subjects**

- a. Ma ∅-b'eet=a.
PROX B2SG-walk=LP
'You walked.'
- b. Ma ∅-b'eet.
PROX B3SG-walk
'He/she walked.'

- The LP suffix can agree with either the transitive subject or object.

(5) a. **Transitive subject**

Ma tz'=ok **n-tzeeq'an=a**
PROX B3SG-POT A1SG-hit=LP
'I hit him.'

b. **Transitive object**

Ma **chin** tzaj t-tzyu-'n=a Kyel.
PROX B1SG DIR A3SG-grab-DS=LP Miguel
'Miguel grabbed me.'

- This is an example of "omnivorous" (Nevins 2011), or "promiscuous" agreement (Bejar 2003).

- Agreement with possessors is marked with Set A + LP agreement.

- (6) a. **n-k'uj=a**
A1SG-mask=LP
'my mask'
- b. **t-jaa**
A3SG-house
'his house'

- Like other Mayan languages, oblique phrases are constructed with a "relational noun" (RN) which shows possessive agreement with the object. (Following England 1983:153, 2017:514 I assume the syntax for possessive DPs is the same for RNPs).

- (7) a. **...w-u'n=a**.
A1SG-RN.AGT=LP
'... by me.'
- b. **...ky-u'n** xjaal ...
A3PL-RN.AGT people ...
'for the people.'

2.2 Object movement

In Mam, objects moves to a position above subjects.

- Mayan languages are often classified as either "high-abs" or "low-abs" depending where in the verb absolutive is marked.

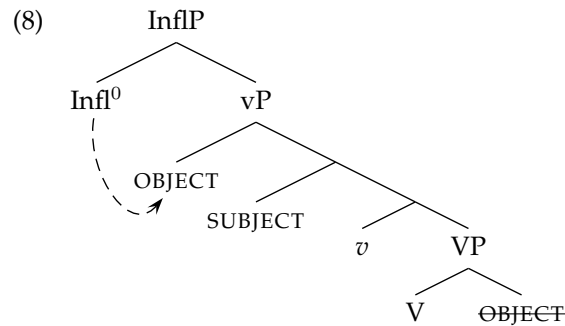
Table 1: Absolutive Parameter

HIGH ABS	ASPECT	ABS	ERG	ROOT	(VOICE)	SUFFIX
LOW ABS	ASPECT		ERG	ROOT	(VOICE)	SUFFIX ABS

- Evidence for object movement

1. Locality of Agree

- In both transitive and intransitive clauses, Infl⁰ is source of absolutive in high-abs languages (Coon et al 2014).
- The object is only accessible by Infl⁰ if it moves to the edge of vP.



2. Ergative Extraction Constraint

- The connection: In high-absolutive languages, the ergative argument is prohibited from extracting (Tada 1993).
- Coon et al (2014) and Coon et al (2019) attribute the restriction to the high object **blocking** extraction of the subject.

(9) [_{CP} ___ ... [_{vP} OBJECT [SUBJECT [_{VP} V OBJECT]]]]

- Ixtahuacan Mam shows both correlates of high objects

- High-abs marking

(10) Ma **chin** b'eet=a.
 PROX B1SG walk=LP
 'I walked.'

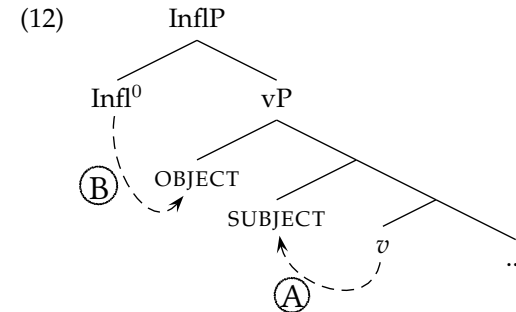
- Ergative arguments cannot extract

- (11) a. Ma chi kub' ky-tzyu-'n xiinaq cheej
 PROX B3P DIR A3PL-grab-DS man horse
 'The men grabbed the horses.'
- b. *Aa xiinaq [ma chi kub' ky-tzyu-'n cheej.]
 DEM man [PROX B3P DIR A3PL-grab-DS horse]
 Int: 'It was the men who grabbed the horses.'
- c. Antipassive is used:
 Aa xiinaq [ma chi tzyuu-n ky-i'j cheej.]
 DEM man [PROX B3P grab-AP A3PL-RN:PAT horse]
 'It was the men who grabbed the horses.'

2.3 Probe placement

2.3.1 Set A/B Probes

- As we've just seen, the source of **Set B** (absolutive) morphology in Mam is Infl⁰
- Following Coon 2017, I assume **Set A** agreement arises directly a Spec-Head relationship between transitive *v* and the external argument.



- I assume a similar probe is present in possessive and relational noun constructions (all Set A contexts).

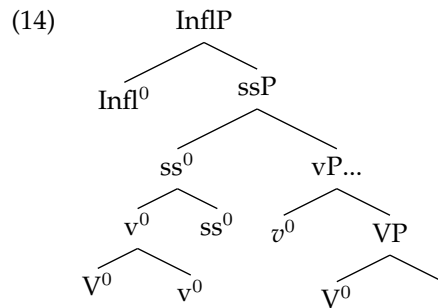
2.3.2 LP probes

- Remember that LP agreement isn't restricted to subjects or objects. Since can co-occur with Set A or Set B marking, I start with the base assumption that the LP probe is not on *v*⁰ or Infl⁰.

- **Status suffix:** Many Mayan languages have a special "status" suffix that always appears last in the verb tracks transitivity.

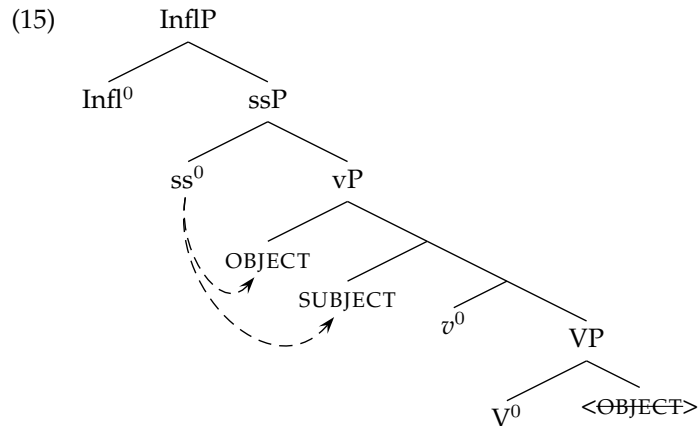
(13) Max-ach hin-kol-**o'**.
 PFV-B2S A1S-help-TV
 'I helped you.' (Q'anjob'al; Mateo Toledo 2017, 538).

- Clemens & Coon (2108) analyze the position of the status suffix as the head (*ss*⁰) above *v*⁰ which marks the edge of the verbal projection and the landing site of the verb.



- Ixtahuacan Mam does not have status suffixes that tracked transitivity. Instead, the LP suffix always takes the final position on the verb. I take this to suggest the LP probe is on the ss^0 head.

- LP probe on ss^0 sees the object first
- LP probe keeps on probing after agreeing with the object



- In addition to appearing on verbs, recall that LP agreement appears on possessed (relational) nouns as well.
- **Heads that can host the LP probe: ss^0 (verbal domain) and RN^0 (nominal domain).**

3 Transitive person restriction

- Sentences with two pronouns

(16) Ma **tz'**-ok t-tzeeq'an=a.
 PROX B3SG-POT A2SG-hit=LP
 'You hit him.'

- Person restriction: *3 > local²

- Note that the '>' represents SUBJECT > OBJECT but that since object moves, the syntactic configuration of the two arguments is opposite: local object c-commands 3rd person subject (13).

(17) a. *Ma **chin** ok t-tzeeq'an.
 PROX B1SG POT A3SG-hit
 Int: 'He hit me.'

b. *Ma **tz'**=ok t-tzeeq'an.
 PROX B3SG=POT A2SG-hit
 Int: 'He hit you.'

- The PCC goes away in non-pronominal contexts

(18) Ma **chin** tzaj t-tzyu-'n=a **Kyel.**
 PROX B1SG DIR A3SG-grab-DS=LP **Miguel**
 Miguel grabbed me.'

- Local > local is grammatical

(19) a. Ma **chin** ok t-tzeeq'an=a.
 PROX B1SG POT A2SG-hit=LP
 'You hit me.'

b. Ma **chin** ok n-tzeeq'an=a.
 PROX B3SG POT A1SG-hit=LP
 'I hit you.'

²This construction is noted to be accepted for some and rejected by others. Here I am only accounting for the ungrammaticality. In addition, plurals play an important role in the restriction. See appendix A for the full paradigm.

Table 2: Transitive argument restriction in Ixtahuacan Mam

SUBJ	OBJ	
1	3	OK
1	2	OK
2	1	OK
2	3	OK
3	1	*
3	2	*

- This general pattern is the same as the weak PCC
 - **Weak PCC:** Certain varieties of Catalanian Spanish (Bonet 1991)
 - **Strong PCC** I.e.- Romance, Greek, Basque, etc. (Bonet 1991)

Table 3: PCC patterns

IO	DO	weak	strong
1	3	OK	OK
1	2	OK	*
2	1	OK	*
2	3	OK	OK
3	1	*	OK
3	2	*	OK

- That a transitive PCC exists in Ixtahuacan Mam is not surprising.
 - Scholars agree that the main ingredients that give rise to PCC effects are:
 1. One probe that agrees with multiple goals
 2. Phonologically weak elements (agreement, clitics)
 - Nevins (2007) points out that the reason we don't see transitive PCCs is because subjects and objects are usually in separate agreement domains.
 - High-absolutive languages provide the perfect PCC configuration by moving the object into the domain of the subject.
 - What makes Ixtahuacan Mam different from other high-abs Mayan languages? There is a ϕ probe on the status suffix head that interacts with both arguments.

- **The repair** - To express a third person agent acting on a local person patient, one argument must be in an oblique phrase.

(20) **Antipassive** - Ixtahuacan Mam (England 1983:307)

a. ... sajtz iilan wi'ja.

... x-tz'-aj-tz iila-n [RNP w-i'j=a].
 ... DEP.PROX-B3SG-DIR see-AP [RNP A1SG-RN: PAT=LP]
 '... he scolded me.'

(21) **Passive** - Cajola Mam (Perez Vail 2014:143 cited in England 2017:518).

a. *Ma \emptyset -kub' k-tzyu-'n=a.
 PROX B2SG-DIR A3PL-grab-DS=LP

Int: 'They grabbed you.'

b. Ma \emptyset -kub' tzyu-'n=a [RNP k-u'n].
 PROX B2SG-DIR grab-DS=LP [RNP A3PL-RN: AGT]
 They grabbed you. (You were grabbed by them.)

- Notice that in both repair constructions, the verb only agrees with one argument and expressed it with Set B agreement.
- The other argument is expressed in a relational noun phrase with Set A and LP agreement.
- The effect of each repair is that each pronoun is in its own LP domain.

4 How the LP probe Agrees

4.1 Agree: Interaction and Satisfaction

- I adopt Deal's (2015) Interaction and Satisfaction model of Agree.
 - **Probe specifications**
 - * Interaction condition: the features that a probe copies back
 - * Satisfaction condition: the features that cause a probe to stop probing
 - Under this theory, the probes responsible for Set A and Set B agreement are simple phi probes satisfied by [ϕ].

(22) Int- [ϕ], Sat- [ϕ]

- Probes like this will stop probing after agreeing with one pronoun. These probes will not display omnivorous agreement.
- An **insatiable** probe will continue probing until it reaches the end of its domain

(23) Int- [ϕ], Sat- []

- Probes that *do* agree with multiple DPs can also be satisfied by a feature more specific than [ϕ] (Deal 2019a,b).
 - Strong PCC probe: Int- [ϕ], Sat- [PART(ICIPANT)]
 - This probe will probe until it hits a [PART], then it will stop. If the probe sees a [PART] DO first, this will prohibit any IO from being agreed with, giving rise to the Strong PCC pattern.

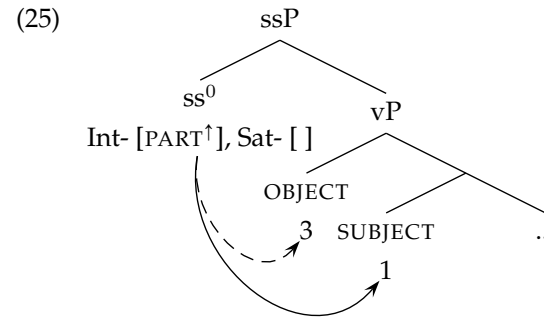
4.2 Weak PCC

- Proposal to account for weak PCC (Deal 2019a,b):
 - **Dynamic Interaction:** a probe can update its interaction condition during the course of the derivation.
 - * Interaction condition is already like an Agree-accessibility filter.
 - * Dynamic Interaction: the probe copies back feature X to the interaction conditions, changing the probe to now only access feature X for Agree.
 - * **Result:** Interaction with local person ([PART] feature) limits all further interaction of the probe to local person.
 - The dynamic LP probe notation:
 - * Int- [PART[↑]], Sat- []

4.3 Dynamic Interaction + Licensing

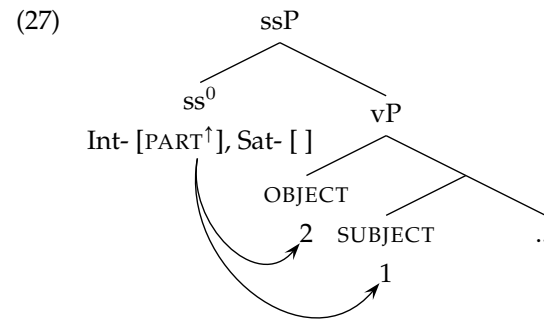
- Solid lines indicate agreement Agree with [PART] which updates the Interaction condition.
- Local SUBJECT ">" 3rd OBJECT (3 c-commands local)

(24) Ma tz'=ok n-tzeeq'an=a
PROX B3SG-POT A1SG-hit=LP
'I hit him.'



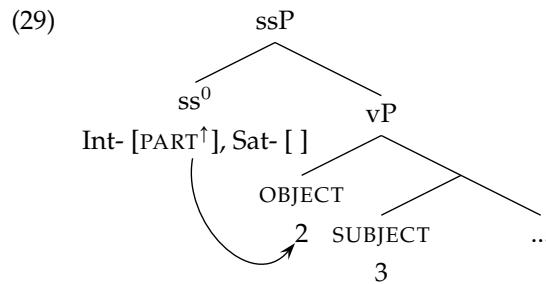
- Local > local

(26) Ma chin ok t-tzeeq'an=a
PROX B1SG POT A2SG-hit=LP
'You hit me.'



- * 3rd SUBJECT ">" local OBJECT (local c-commands 3rd)

(28) *Ma chin ok t-tzeeq'an.
PROX B1SG POT A3SG-hit
Int: 'He hit me.'



- The question is, what makes (28-29) ungrammatical?
 - Preminger (2014) shows that Agree can fail, so it's unclear why an insatiable probe would be required to agree with all arguments in its domain.
 - Even when 3rd person pronouns are agreed with, the LP agreement is \emptyset , which suggests that it's not a morphological constraint (i.e. - slot competition in the verb).
- It seems like both pronouns must be agreed with **specifically by the LP probe**.
- In other words, **all pronouns** have a licensing requirement that can only be fulfilled by the LP probe.

5 Consequences of the analysis

5.1 Licensing and the PCC

- **Strong PCC.** Bejar and Rezac (2003) appeal to the Person Licensing Condition (PLC):
 - An interpretable 1st/2nd person feature must be licensed by entering into an Agree relation with a functional category.
- In [3 c-commanding local] configurations, a high probe only agrees with the 3rd person IO and the local person features are not agreed with, violated the PLC.
- In [local c-commanding 3] contexts in Ixtahuacan Mam, **(the opposite)**, the probe only agrees with the local object. Whatever feature that all and only pronouns share is not licensed.

- For concreteness, we can state the Pronoun Licensing Condition (ProLC) for Ixtahuacan Mam:

- An interpretable **pronoun feature** must be licensed by entering into an Agree relation with **an LP probe**.

5.2 A familiar repair

- French Strong PCC repair: IO appears in PP (oblique phrase).

(30) Je te ai présenté [PP à lui]
 1.SG 2.SG.A have introduced [PP to her]
 "I introduced you to her."

- "Strategies to rescue PCC violations all involve satisfying the PLC by making sure **each 1st/2nd person NP has a corresponding $[\pi]$ probe to Agree with it**" (Bejar & Rezac 2003:55).

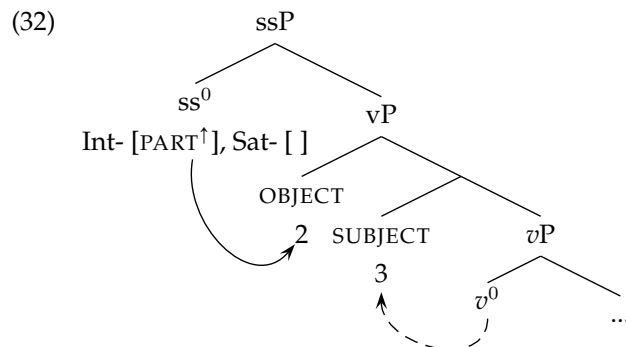
- Ixtahuacan weak PCC repair: One pronoun appears in RNP (oblique phrase).

(31) ... x-tz'-aj-tz iila-n [RNP w-i'j]=a]
 ... DEP.PROX-B3SG-DIR-DIR see-AP [RNP A1SG-RN:PAT=LP]
 '... he scolded me.'

- Both strategies of repairing the weak PCC in Ixtahuacan and Cajola Mam involve satisfying the ProLC by making sure each pronoun has a corresponding **LP probe** to Agree with it.

5.3 Why can't *v* license pronominal subjects?

- Recall that although the LP probe cannot reach 3rd person subjects in configurations like (25), there is presumably still ergative agreement.



- What does it mean, then, to be licensed if not “to be Agreed with by a functional category” as defined by Bejar and Rezac?
 - Agree as two-way feature sharing
 - The probe copies features back from the goal
 - The goal copies features from the probe
 - Licensing: a requirement that a nominal has feature [X] (reflecting that it has been agreed with by X^0).
 - In this light, we can state a condition on licensing as the following: Check that element Y has feature [X]. If not, crash the derivation.
 - Licensing in Mam: Check that pronouns have feature [LP]. If not, crash the derivation.
- Licensing sounds like a filter...
 - What else is a filter?
 - The EPP is a filter: “Crash the derivation if position X is empty.”
 - Note that EPPs can not be filled by just any material, that material has to have certain features, suggesting that licensing by a particular probe isn't so crazy.
 - A possible draw back of the ProLC is that filters are perhaps undesirable and stipulative in our theory and our goal should be to reduce our reliance on them to account for patterns.

6 Conclusion

- Major take-aways from this:
 - This research further supports the idea that it is the following ingredients lead to the PCC, and notions like ‘direct’ and ‘indirect’ object themselves do not cause the restrictions (see also Stegovec 2019).
 - Two pronouns are in the domain of one probe.
 - The single probe pays special attention to local persons.
 - A certain set of pronouns (perhaps all) require licensing.
 - The weak PCC pattern between the subject and object in Ixtahuacan Mam supports an Interaction and Satisfaction model of Agree (Deal 2015) over accounts of weak PCC using different models of Agree.
 - Person, number, gender, animacy hierarchies
 - Many varieties of Mam also have animacy and number restrictions in active clauses.
 - Ormazabal and Romero (2001) argue that proper distinction between local and 3rd person rests in inherent animacy.
 - Taken together, this points to a unified set of analytical tools that can account for a wide range of hierarchy effects in grammar, possibly rooted in one animacy continuum (along the lines of Haspelmath 2004 and Bianchi 2006).

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