

Introduction to Mayan Obviation

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1 Introduction

- Mayan languages show two kinds of restrictions broadly relating to voice:

1. **Relative hierarchy restrictions** on combinations of arguments, e.g.:

- In active sentences, combinations of agents/objects are restricted such that the object can't outrank the agent on either:
 - An “animacy” hierarchy, e.g.: HUMAN>ANIMATE>INANIMATE
→ ✓*The horse kicked the cat* | **The horse kicked the man*
 - A “definiteness” hierarchy, e.g.: DEFINITE>INDEFINITE
→ ✓*A child saw a man* | **A child saw the man*

2. **Absolute coreference restrictions**, e.g.:

- Matrix subjects can't co-refer with objects of CP complements that have an active verb: **Xun₁ said that Malin saw_{ACT} him₁*
- The strategies to circumvent these restrictions are quite uniform across Mayan: most alter the verb's voice to passive, antipassive, or agent focus.
- Aissen (1997) influentially related the Mayan restrictions to Algonquian patterns of **obviation** (despite absence of overt OBV/PROX marking).
 1. Active voice required when the agent is PROX and object OBV.
 2. Animacy/definiteness scales must align with PROX>OBV scale.
 3. Co-referential nominals must bear the same obviation status.

Goals of this talk:

1. Survey constructions that have been grouped under “obviation effects”.
2. Identify points of described **Mayan-wide variation**—and nonvariation—now possible due to the large body of work on the topic (Zavala 2007, Aissen 1997, 1999, Broadwell 2000, Minkoff 2000, Polian 2004, 2013, Curiel 2007, Pascual 2007, Bohnemeyer 2009, Vázquez Álvarez 2011, Pérez Vail 2014, Benito Pérez 2016, Pérez González 2021, Deal and Royer to appear).
 - (a) What “voices” the hierarchy effect holds in
 - Tsotsil: hierarchy effects in both actives and passives
 - Chuj: hierarchy effects in actives but not passives
 - (b) How different hierarchies interact
 - (c) Articulation of hierarchy scales:
 - Poqom (Benito Pérez 2016): (ANIM>INAN)
 - Chuj: three distinctions (HUM > ANIM > INAN)
 - Cajolá Mam (Pérez Vail 2014): seven distinctions
 - (d) No reported variation regarding coreference restrictions
3. Add novel data from Q'anjob'al suggesting there can also be **language-internal variation** regarding obviation effects.
 - Animacy restrictions only attested for some verbs but not others.

Structure of talk

- §2 Mayan languages
- §3 Mayan **hierarchy restrictions** and points of variation
- §4 Variation in hierarchy restrictions
- §5 Mayan **coreference restrictions** and (near absence of) variation
- §6 Novel data from Q'anjob'al: verb-dependent hierarchy restrictions

2 Mayan languages

- Family of 32 languages spoken in Guatemala, Mexico and Belize.
- Primarily verb-initial languages in discourse neutral-contexts (see e.g., Aissen 1992, Clemens and Coon 2018)
 - Some languages are rigidly VSO
 - Others are VOS/VSO alternating
 - Some languages may be slowly evolving into SVO languages (see e.g., England 1991, Clemens et al. to appear)
- Head-marking, ergative-absolutive alignment.
 - Set A = ergative/genitive
 - Set B = absolutive
- The Mayan family tree (based on Kaufman 1974; Law 2014):

	Primary branch	Secondary Branch	Languages
P R O T O M A Y A N	Huastecan		Huastec (Teenek)
	Yukatekan		Itzaj (Itza'), Lacandon (Lakantun), Mopan, Yucatec (Maya)
	Western	Ch'olan-Tseltalan	Ch'ol , Ch'olti', Chontal (Yokot'an), Ch'orti', Tseltal , Tsotsil
		Q'anjob'alan	Chuj , Akatek , Mocho' Popti', Q'anjob'al , Tojol-ab'al
Eastern	K'ichean	Achi, Kaqchikel , K'iche' Poqom (Poqomam) , Poqomchi', Q'eqchi', Sakapultek, Sipakapense Tz'utujil, Uspantek	
	Mamean	Awakatek, Chalchitek Ixil, Mam , Tektitek (Teko)	

- Languages in bold are those for which obviation effects have been discussed.

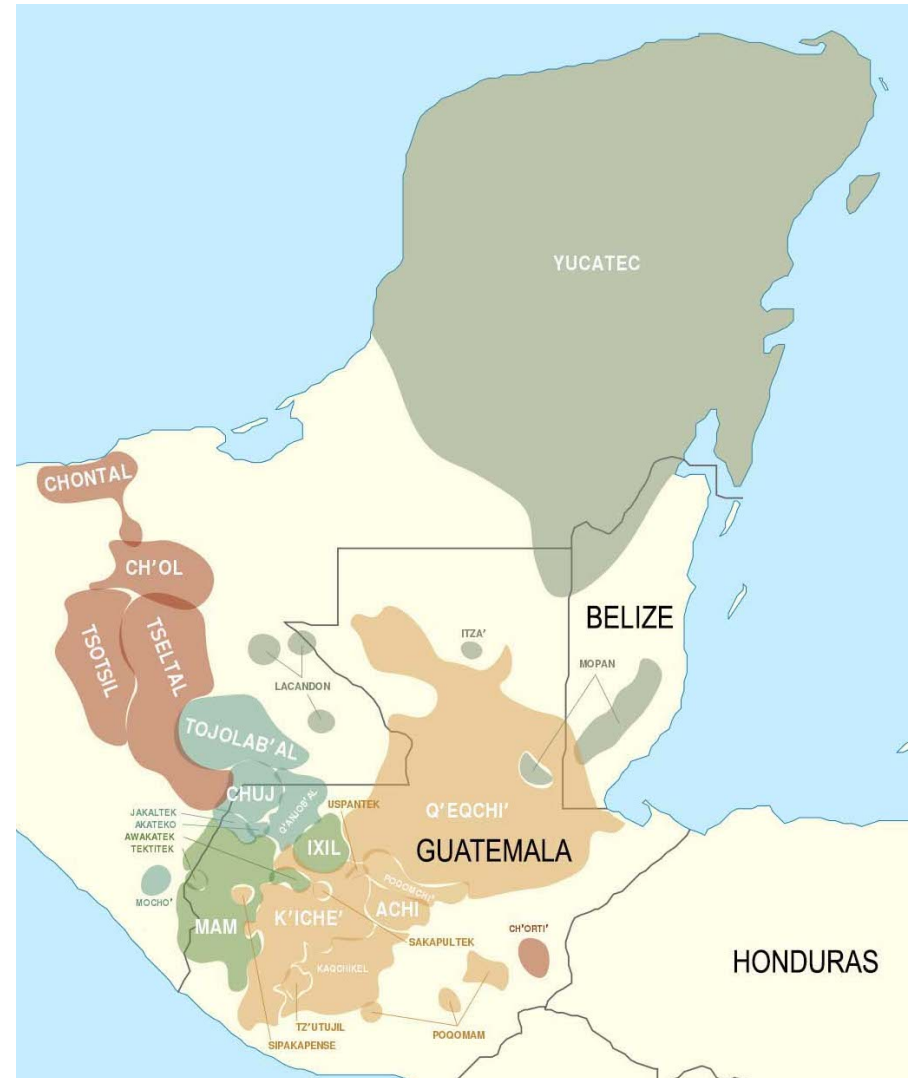


Figure 1: Current-day Mayan-speaking area (Law 2014, p. 25)

3 Hierarchy restrictions

- Hierarchy restrictions in Mayan mostly hold of combinations of 3rd person arguments (except in Cajolá Mam and Huastec):

(1) *Typical hierarchy effect for an active sentence:*

An agent can't combine with an object that outranks it on a hierarchy.

- At least two kinds of hierarchies have been discussed:

§3.1 “Animacy”-based hierarchies, e.g.: HUMAN>ANIMATE>INANIMATE

§3.2 “Definiteness”-based restrictions, e.g., DEFINITE>INDEFINITE

- After discussing these below, §3.3 discussed points of variation.

3.1 Animacy restrictions: A concrete example from Chuj

- Chuj belongs to the Q'anjob'alan sub-branch, and is primarily spoken in Mexico and Guatemala by ≈70,000 to 80,000 speakers
- Data on Chuj here come from the San Mateo Ixtatán dialect (basic VOS word order), and are all taken from Deal and Royer (to appear).
- Combinations of **third person arguments** in active sentences are subject to the following restriction:

(2) Objects cannot outrank agents on the hierarchy

HUMAN > ANIMATE > INANIMATE

- **Human/animal combinations:** ✓HUM>ANIM, *ANIM>HUM

- (3) a. ✓ Ix-y-il nok' chan winh winak.
 PFV-A3-see CLF snake CLF man
 'The man saw the snake.' HUM A, ANIM Obj
- b. * Ix-y-il winh winak nok' chan.
 PFV-A3-see CLF man CLF snake
 Int. 'The snake saw the man.' ANIM A, HUM Obj

- Note: *nok' chan* 'the snake' can be the agent of 'see'; it just can't be the agent of a "3rd person human-seeing" active, e.g. (3b).

- (4) a. ✓ Ix-y-il nok' much nok' chan.
 PFV-A3-see CLF bird CLF snake
 'The snake saw the bird.' ANIM A, ANIM OBJ
- b. ✓ Ix-{in/ach/onh}-y-il nok' chan.
 PFV-B1S/B2S/B2P-A3-see CLF snake
 'The snake saw me/you/us.' ANIM A, LOCAL OBJ

- **Human/inanimate combinations:** ✓HUM>INAN, *INAN>HUM

- (5) a. ✓ Ix-y-il k'en kamera waj Xun.
 PFV-A3-see CLF camera CLF Xun
 'Xun saw the camera.' HUM A, INAN OBJ
- b. * Ix-y-il waj Xun k'en kamera.
 PFV-A3-see CLF Xun CLF camera
 Int. 'The camera saw/filmed Xun.' INAN A, HUM OBJ

- Again, note that INAN>INAN is fine:

- (6) ✓ Ix-y-il te' pat k'en kamera.
 PFV-A3-see CLF house CLF camera
 'The camera filmed the house.' INAN A, INAN OBJ

- **Animal/inanimate combinations:** ✓ANIM>INAN, *INAN>ANIM

- (7) a. ✓ Ix-y-il k'en kamera nok' chab'in.
 PFV-A3-see CLF camera CLF monkey
 'The monkey saw the camera.' ANIM A, INAN OBJ
- b. * Ix-y-il nok' chab'in k'en kamera.
 PFV-A3-see CLF monkey CLF camera
 Int. 'The camera saw/filmed the monkey.' INAN A, ANIM OBJ

- **In sum:** (im)possible combinations of 3P in Chuj actives:

AG	OBJ		AG	OBJ		AG	OBJ	
HUM	HUM	✓	ANIM	HUM	✗	INAN	HUM	✗
HUM	ANIM	✓	ANIM	ANIM	✓	INAN	ANIM	✗
HUM	INAN	✓	ANIM	INAN	✓	INAN	INAN	✓

- **What's the repair?** To express the desired meaning for the ungrammatical sentences above, a detransitivizing strategy is used, either by using a passive or an agent focus construction (common strategies in Mayan; Zavala 2007).

- (8) a. *Ix-y-il winh winak nok' chan.
 PFV-A3-see CLF man CLF snake
 Int. 'The snake saw the man.' (active)
- b. Ix-il-j-i winh winak [OBL yuj nok' chan].
 PFV-see-PASS-IV CLF man by CLF snake
 'The man was seen by the snake.' (passive)
- c. [FOC Ha nok' chan] ix-il-an winh winak.
 FOC CLF snake PFV-see-AF CLF man
 'It's the snake that saw the man.' (agent focus)

- **Important:** In Chuj, there are no animacy restrictions in passives or agent focus constructions (the oblique agent *can* outrank the passive subject):

- (9) a. Ix-y-il nok' chan winh winak.
 PFV-A3-see CLF snake CLF man
 'The man saw the snake.' (active)
- b. Ix-il-j-i nok' chan [OBL yuj winh winak].
 PFV-see-PASS-IV CLF snake by CLF man
 'The snake was seen by the man.' (passive)
- c. [FOC Ha winh winak] ix-il-an nok' chan.
 FOC CLF man PFV-see-AF CLF snake
 'It's the man that saw the snake.' (agent focus)

3.2 Definiteness hierarchies

- Similar hierarchy effects have been discussed in the domain of referentiality, such as *definiteness*, *individuation* or *familiarity*; though these are left underdefined and could correspond to the same categories.

- Here's an example from Cajolá Mam from Pérez Vail 2014: p. 192-197.

- (10) *Cajolá Mam definiteness restriction in actives:*
 Objects cannot outrank agents on the hierarchy DEF > INDEF

- (11) Pérez Vail 2014: 193-194

- a. ✓ Ma txi' t-ooni-'n qya iichin.
 pfox DIR A3S-help-DS woman man
 'The woman helped the man.' (DEF>DEF)
- b. ✓ Ma t-il qya jun iichin toj b'e.
 PROX A3S-see woman INDF man on pathway
 'The woman saw a man on the pathway.' (DEF>INDF)
- c. ✓ Ma=pi=na' t-il=te' jun iichin jun qya=ch.
 PROX=even=AFI A3S-see-EMPH INDF man INDF woman
 'They even say that a man saw a woman.' (INDF>INDF)
- d. * Ma t-il jun iichin qya toj b'e.
 PROX A3S-see INDF man woman on pathway
 Int: 'A man saw the woman on the pathway.' (*INDF>DEF)

- Again, the solution is valency reduction (Pérez Vail 2014: 194):

- (12) Ma tz'-il-wi qya tu'un jun iichin toj b'e.
 PROX B3S-see-PASS woman by INDF man on pathway
 'The woman was seen by a man on the pathway.'

- **In sum:** Definiteness hierarchy effects in Cajolá Mam:

AG	OBJ		AG	OBJ	
DEF	DEF	✓	INDF	DEF	✗
DEF	INDF	✓	INDF	INDF	✓

4 Variation in hierarchy restrictions

- Thanks to vast work on the topic (Aissen 1997, 1999; Zavala 1997, 2007 2017; Curiel 2007; Pascual 2007; Polian 2013; Pérez Vail 2014), we know there's **variation** across Mayan languages w.r.t. hierarchy effects.

§4.1 What voices hierarchy effects hold in

§4.2 How different hierarchies interact

§4.3 The articulation of animacy/definiteness scales

4.1 Variation in whether hierarchy effects also hold in passives

- Hierarchy effects in passives are reported for Ch'ol (Zavala, 2007; Vázquez Álvarez, 2011), Tsotsil (Aissen, 1997, 1999) and Tojol-ab'al (Curiel, 2007).

(13) Oblique agents can't outrank the subjects of passives.

(14) Tsotsil (Aissen, 1997, 728)

- I-s-man nukul li Xun-e.
CP-A3-buy skin the Juan-ENC
Juan bought the skin.
- ?? I-man-at yu'un Xun li nukul-e.
CP-buy-PASS by Juan the skin-ENC
The skin was bought by Juan.

- They are specifically reported not to arise in Cajolá Mam (Pérez Vail 2014), Poqom (Benito Pérez 2016) or Chuj (Deal and Royer to appear); see (9b) above.
- It is unclear what happens in other Mayan languages.
- **However:** hierarchy effects in passives like (14b), contrary to hierarchy effects with actives, are most often reported as degraded (?? vs. *); see Aissen 1997 on Tsotsil and Vázquez Álvarez 2011 on Ch'ol.
- It is possible that passives just require special discourse properties in order to be used in cases where they do not circumvent a hierarchy effect (see Deal and Royer (to appear) on this possibility).

4.2 Variation in how the hierarchies interact

- Since two hierarchies are operating at the same time, animacy/definiteness, a question arises as to whether one hierarchy takes precedence over the other.
- We still have limited information about hierarchy interactions, but Pérez Vail (2014) shows that in most cases, intransitivization repair strategies are used whenever there's a hierarchy effect.
- He provides one example in which an indefinite human appears to act on a definite object (yet: the definiteness status of the object is questionable):

(15) Ma=pi-na' txi' t-elq'a-'n jun xjaal w-iiqitz=e'.
PROX=even=AFI DIR A3-steal-DS INDF person A 1S-load-1SG
'A person even stole my load.' (Cajolá Mam: Pérez Vail 2014: 210)

- Pérez Vail (2014) further claims that violating the animacy scale for the benefit of the definiteness scale *with an active verb* is never possible.
- Similarly, Aissen (1999) argues that indefinite humans rank above indefinite nonhumans in Tsotsil.
- On the other hand, Vázquez Álvarez (2011) argues that an animacy hierarchy violation can occur in Ch'ol whenever a *definite inanimate agent* acts on an *indefinite animate* object (see also Bohnemeyer 2009 on Yucatec Maya):

(16) Tyi i-tsän-ä wiñik li tye'.
PFV A3-kill-DT man DET tree
'The tree killed a man.' (Ch'ol: Vázquez Álvarez 2011: 359)

- It is worth noting, however, that Ch'ol animacy hierarchy effects are generally reported as weaker ("?" instead of "*" in Vázquez Álvarez 2011; a similar state of affairs holds for Yucatec Maya in Bohnemeyer 2009)
- And a pilot quantitative study conducted by Royer, Vázquez Martínez, and Little (2024) suggests that Ch'ol might be in the process of losing animacy hierarchy effects in general.

4.3 Variation in the articulation of animacy/definiteness scales

- There is little reported variation regarding **definiteness scales** (all works, except Aissen 1999, leave unspecified whether the scale could be larger):
 - **2-way scale** (DEF>INDEF): Chuj (Buenrostro 2013); Q'anjob'al (Pascual 2007), Tojol-ab'al (Curiel 2007); Mocho' (Pérez González 2021), Cajolá Mam (Pérez Vail 2014), Poqom (Benito Pérez 2016), Ch'ol (Vázquez Álvarez 2011), Kaqchikel (Broadwell 2000), Huastec (Zavala 2007)
 - **3-way scale** (DEF>INDIVUATED>NONINDIVIDUATED): Tsotsil (Aissen 1999), Tseltal (Polian 2013).¹

- There is much more variation regarding **animacy scales**.

	scale n.s. = not specified	reference
Chuj	HUM>ANIM>INAN	(data presented here)
Akatek	HUM>ANIM>INAN, other n.s.	Zavala 1992, 2007
Q'anjob'al	HUM>ANIM>INAN; other n.s.	Pascual 2007
Tojol-ab'al	ANIM>INAN; other n.s.	Curiel 2007
Mocho'	ANIM>INAN	Pérez González 2021
Cajolá Mam	7 distinctions, including PART	Pérez Vail 2014
Ch'ol	HUM>ANIM>INAN	Zavala 2007
Tseltal	HUM>BIG.ANIM>ANIM>INAN	Polian 2004, 2013
Tsotsil	HUM>NON.HUM	Aissen 1997, 1999
Poqom	ANIM>INAN	Benito Pérez 2016
Kaqchikel	no animacy hierarchy	Broadwell 2000
Huastec	no animacy hierarchy, but 1>2>3	Zavala 1994, 2007
Yucatec Maya	HUM>ANIM>INAN; other n.s.	Bohnemeyer 2009

- Cajolá Mam's has the most articulated scale:

↓
 Local persons
 Other humans
 Infants
 Other animals
 Insects
 Energetic inanimates
 Nonenergetic inanimates

¹Polian (2013, 255) mentions that the scale provided by Aissen (1999) is at first glance appropriate for Tseltal, but states explicitly that more work on the topic is needed.

- A particularity of Cajolá Mam is that local persons are part of the system:
 - (17) Cajolá Mam person hierarchy (Pérez Vail 2014: 139)
 - a. ✓ Ma kub' n-tzyu-'n=e' Leexh.
PROX DIR A1S-grab-DS=1S Andrés
'I grabbed Andrés.' (1>3)
 - b. ✓ Ma kub' t-tzyu-'n=a Leexh.
PROX DIR A2S-grab-DS=2S Andrés
'You grabbed Andrés.' (2>3)
 - c. * Ma chin kub' t-tzyu-'n=e' Leexh
PROX B1S DIR A3S-grab-DS=1S Andrés
Int. 'Andrés grabbed me.' (*3>1)
 - d. * Ma kub' t-tzyu-'n=a Leexh
PROX DIR A3S-grab-DS=2S Andrés
Int. 'Andrés grabbed you.' (*3>2)
- The effect is again relative: local person objects are fine as long as the subject is also a local person.
 - (18) Cajolá Mam: local/local cases (Pérez Vail 2014: 139)
 - a. ✓ Ma kub' n-tzyu-'n=a.
PROX DIR A1S-grab-DS=2S
'I grabbed you.' (1>2)
 - b. ✓ Ma chin kub' t-tzyu-'n=a.
PROX B1S DIR A2S-grab-DS=2S
'You grabbed me.' (2>1)
- Again, this is not the case in Chuj (example repeated from (4b)):
 - (19) ✓ Ix-{in/ach/onh}-y-il nok' chan.
PFV-B1S/B2S/B2P-A3-see CLF snake
'The snake saw me/you/us.' (3>local)
- Amy Rose and Justin will talk further about Cajolá Mam and provide more data relevant to the hierarchy on the left in tomorrow's talk.

5 Coreference restrictions

- One coreference restriction that has been widely discussed is the following:

(20) **The genitive constraint** (Aissen 1997)

- The possessor of an agent cannot be coreferential with the object of an active verb: **Xun₁'s mother saw_{ACT} him₁*
- The possessor of a passive subject cannot be coreferential with an oblique agent: **Xun₁'s mother was seen by him₁*

- (20a) is reported across almost all Mayan languages in the above-cited works (except Mocho', for which there is no relevant data); here's an example:

(21) * Max y-il ix s-txutx naq Xhunik.
 PFV A3-see CLF A3-mother CLF Xhunik
 Intended: 'Xhunik₁'s mother saw him₁.' (Q'anjob'al)

– Note though, that few works have engaged with the constraint in (20b).

- The other coreference restriction is the following:

(22) **The complement object constraint** (Aissen 1997)

Matrix subjects can't co-refer with objects of CP complements that have an active verb: **Xun₁ said that Malin saw_{ACT} him₁*

- To our knowledge, the only other work to have engaged with this constraint beyond Aissen (1997) on Tsotsil is Polian (2013: §9.3.6) on Tseltal:

(23) Y-u'un ja' y-al pro [te ya y-ut'sin te ch'in kerem pro].
 A3-RN FOC A3-say DET INC A3-annoy DET DIM boy
 Impossible as: 'Maybe he₁ thinks that the boy will annoy him₁.'
 Possible as: 'Maybe he₁ thinks that he₁ will annoy the boy.'

- This restriction also holds in Q'anjob'al (and in Chuj):

(24) Max y-al naq Xhunik [tol max y-il ix Malin naq].
 PFV A3-say CLF Xhunik COMP PFV A3-see CLF Malin CLF.him
 Impossible as: 'Xhunik₁ said Malin saw him₁.' (Q'anjob'al)

6 Verb-dependent hierarchy effects in Q'anjob'al

- While all previous works have assumed that hierarchy effects hold across all transitive verbs uniformly, our preliminary data on Q'anjob'al suggest that this assumption is questionable.

(25) **Verb-dependent hierarchy effects**

For some Q'anjob'al speakers, there are relative animacy hierarchy effects only for a subset of active verbs.²

- Contrary to Chuj (cf. (3b)), verbs like *il* 'see' don't induce hierarchy effects:

(26) ✓ Max y-il no' lab'aj naq winaq.
 PFV A3-see CLF snake CLF man
 'The snake saw the man.' (ANIM>HUM)

- Other perception verbs, like *sug'tej* 'smell', are like (26) in lacking effects.

- As identified by Pascual (2007), however, verbs like *maq' kam* 'kill' do:

(27) Q'anjob'al hierarchy effects for the verb *maq' kam* 'kill'

- * Max s-maq' kam no' chej naq winaq.
 PFV A3-hit dead CLF horse CLF man
 'The horse killed the man.' (ANIM>HUM)
- ✓ Max s-maq' kam no' chej no' mis.
 PFV A3-hit dead CLF horse CLF cat
 'The horse killed the cat.' (ANIM>ANIM)
- ✓ Hoq-in s-maq' kam no' chej.
 FUT-B1S A3-hit dead CLF horse
 'The horse will kill me.' (ANIM>LOCAL)

- The same holds for *maq'* 'hit' and *tek'* 'kick'.

- **Take home:** more careful work is needed on a larger inventory of verbs.

²The other speaker we collaborated with judged all VSO sentences with 3>3 configurations as unacceptable, no matter the verb or the animacy status of each argument.

7 Conclusion

- Obviation in the Mayanist literature has traditionally been used to describe two families of restrictions relating to grammatical voice:
 - **Relative hierarchy restrictions**, e.g. an agent can't combine with an object that outranks it on a given hierarchy.
 - **Absolute coreference restrictions**, e.g. the possessor of an agent cannot corefer with the object of an active verb.
- Whether these restrictions should be accounted for as unified phenomenon, such as through Algonquian-style obviation, remains debated:
 - Aissen (1997) offers a unified account of both restrictions set on an obviation tier and formalized in Optimality Theory
 - Deal and Royer (to appear) offer a separate, yet related, account of each restriction in the Interaction/Satisfaction model of Agree
- More work is needed on the Mayan language family to determine:
 - The exact articulation of hierarchies for each language
 - Whether hierarchy/coreference effects correlate perfectly
 - Whether some languages are indeed in the process of losing hierarchy effects (as suggested in Royer, Vázquez Martínez, and Little 2024)
- Deepening our knowledge of these facts will surely help to frame the direction of future theories of both restrictions.

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