

Two case studies in morphological person restrictions

Madeline Bossi, Emily Drummond & Zachary O'Hagan

University of California, Berkeley

Corresponding author: madeline_bossi@berkeley.edu

September 11, 2020

Person restrictions

- Many languages do not allow all person combinations to appear as the two objects of a ditransitive.
 - ▶ The most well-known of these restrictions is the Person-Case Constraint (PCC) (Bonet 1991, 1994), originally described in Romance.

(1) PCC in French

- a. Je le lui ai présenté.
1SG 3SG.ACC 3SG.DAT have introduced
'I introduced him to her.'

(3>3)

- b. *Je te lui ai présenté.
1SG 2SG 3SG.DAT have introduced
Intended: 'I introduced you to her.'

(*3>2)

Person restrictions

- PCC-like patterns have now been described in many languages outside of Romance. (Anagnostopoulou 2017)
 - ▶ Restrictions are commonly found when two arguments are realized weakly (as clitics or agreement).
- The documented patterns of person restrictions are now quite diverse, but the literature has focused on two primary “flavors” of the PCC: **weak & strong**.

Person restrictions: Weak PCC

- Weak PCC languages (e.g. Catalan, Italian) ban combinations of 3rd person IOs with 1st or 2nd person (local) DOs.
 - ▶ We abbreviate this restriction as $*3 > \text{local}$.

(2) Weak PCC in Catalan (Bonet 1991:178, Bonet 1994)

- a. $* \dots \text{me} \quad \text{li} \quad \text{va recomenar la Mireia.}$
1SG.ACC 3SG.DAT recommended the Mireia
'She (Mireia) recommended me to him.' $(*3 > 1)$
- b. $\text{Te} \quad \text{m}' \quad \text{ha venut el mercader més important.}$
2SG.ACC 1SG.DAT has sold the merchant most important
'The most important merchant has sold you to me.' $(1 > 2)$

Person restrictions: Strong PCC

- Strong PCC languages (e.g. Greek, French) ban combinations of two local persons in addition to banning $*3 > \text{local}$.

(3) Strong PCC in Greek (Anagnostopoulou 2005:202)

- a. *Tha **tu** **me** sistisune.
FUT 3M.GEN 1.ACC introduce.3PL
Intended: 'They will introduce me to him.' (*3 > 1)
- b. *Tha **su** **me** sistisune.
FUT 2.GEN 1.ACC introduce.3PL
Intended: 'They will introduce me to you.' (*2 > 1)

Person restrictions

- Other PCC patterns aside from Strong & Weak are also attested.
 - ▶ Me-first: 1st person must be IO (Nevins 2007)
 - ▶ Ultrastrong: IO must outrank DO on 1>2>3 hierarchy (Walkow 2012)

Table 1: Summary of attested PCC patterns

IO>DO	Strong	Weak	Me-first	Ultrastrong
1>3	✓	✓	✓	✓
2>3	✓	✓	✓	✓
1>2	*	✓	✓	✓
2>1	*	✓	*	*
3>1	*	*	*	*
3>2	*	*	✓	*

Person restrictions

- All of these patterns are **hierarchical** in nature.
 - ▶ They allow $\text{local} > 3$ & ban some form of $3 > \text{local}$.
- To account for the hierarchical nature of the PCC, most current analyses claim that the restriction is fundamentally syntactic.
- They commonly rely on the Agree operation (Chomsky 2000) & assume that person restrictions arise when two goals are accessible within the domain of one probe.

Person restrictions

- In this talk, we describe a novel ditransitive person restriction, which is **non-hierarchical**: only local > local is ungrammatical.
 - ▶ This pattern is found in two unrelated, underdescribed languages: Caquinte (Arawak; Peru) & Kipsigis (Kalenjin; Kenya).
- We show that *local > local requires a morphological analysis: no existing syntactic analysis predicts this pattern.
- We then develop a cross-linguistic typology showing how syntactic & morphological restrictions interact to derive all attested PCC patterns.

Outline

- 1 Existing analyses of the PCC
- 2 Case studies
 - Caquinte
 - Kipsigis
- 3 Two classes of person restrictions
- 4 A predictive typology
 - Accounting for variation
 - A third case study: French
 - Empirical predictions

1 Existing analyses of the PCC

2 Case studies

- Caquinte
- Kipsigis

3 Two classes of person restrictions

4 A predictive typology

- Accounting for variation
- A third case study: French
- Empirical predictions

Types of analyses

- Analyses of ditransitive person restrictions can be divided into three categories:
 - ▶ Morphological
 - ▶ Syntactic
 - ▶ Hybrid morphosyntactic

Morphological analyses

- Morphological accounts generally ban particular surface combinations of morphemes.
- Bonet (1991, 1994) offers one of the earliest analyses of the Strong PCC in French, proposing the **me-lui* constraint.
 - ▶ This constraint blocks the surface co-occurrence of local person DO clitics & 3rd person IO clitics.

Morphological analyses

- However, this type of analysis faces empirical & theoretical challenges.

- ▶ First, **me-lui* does not hold globally in French, since these clitic combinations are licit in ethical datives. (Perlmutter 1971)

(4) **French** (Rezac 2008:68)

Pierre **me** **lui** semble fidèle.

Pierre 1SG.DAT 3SG.DAT seems faithful

‘Pierre seems to me to be faithful to her.’

- ▶ Second, **me-lui* simply restates the empirical generalization without offering a real explanation.

Morphological analyses

- However, morphological analyses do well in accounting for $*3>3$, which can appear in addition to canonical PCC patterns (Perlmutter 1971; Bonet 1995; Pescarini 2005; Nevins 2007) or on their own (Dumézil 1975, Deal 2020)
 - ▶ In Spanish & Catalan, $3>3$ configurations are ungrammatical unless the IO clitic is replaced with the reflexive pronoun (i.e. spurious-se).

(5) **Spanish** (Bonet 1995:608)

... {se / *le} lo dieron ayer.

SE 3SG.ACC 3SG.DAT gave.3PL yesterday

'They gave it to him yesterday.'

($*3>3$)

Morphological analyses

- The appearance of $3 > 3$ restrictions is surprising from a syntactic perspective.
 - ▶ 3rd persons are often thought to lack person features or to not require licensing. (e.g. Harley & Ritter 2002; Béjar & Rezac 2003)
- Rather, this effect parallels more established morphological processes.
 - ▶ $*3 > 3$ bans adjacent, featurally similar elements.
 - ▶ Dissimilation rescues the derivation, in a way that is reminiscent of the Obligatory Contour Principle (OCP).

Syntactic analyses

- The vast majority of current PCC analyses are syntactic. (e.g. Albizu 1997; Béjar & Rezac 2003; Anagnostopoulou 2005; Nevins 2007; Rezac 2008; Pancheva & Zubizarreta 2018; Preminger 2019; Deal 2020b; Stegovec 2020)
- Syntactic accounts generally rely on the Agree operation (Chomsky 2000) & assume that ditransitive person restrictions arise when two goals are accessible within the domain of one probe.

Syntactic analyses

- The exact source of ungrammaticality in one probe-two goal configurations varies from analysis to analysis.
 - ▶ Some argue that the relevant probe simply fails to Agree with both goals. (e.g. Béjar & Rezac 2003; Deal 2020b; Stegovec 2020)
 - ▶ Others claim that it Agrees with both goals, but finds conflicting specifications. (e.g. Anagnostopoulou 2005; Nevins 2007)

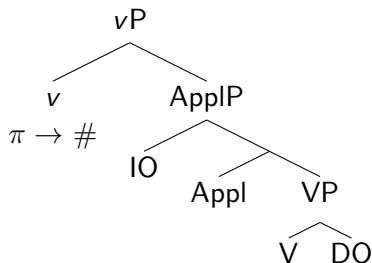
Syntactic analyses

- Crucially, though, none of these syntactic analyses captures *local>local as an independent restriction.
 - ▶ 3>local configurations are always ruled out alongside them.

Syntactic analyses: Béjar & Rezac (2003)

- Béjar & Rezac (2003) derive the Strong PCC using a person probe (π) & a number probe ($\#$) above the objects in a ditransitive.
 - ▶ π probes first, Agreeing with the IO.
 - ▶ The IO moves out of the way for subsequent probing (i.e. cliticization).
 - ▶ Then, $\#$ probes & Agrees with the DO.

(6)



- This creates a configuration in which the π probe is always “eaten up” by the structurally higher IO .

Syntactic analyses: Béjar & Rezac (2003)

- To derive ungrammaticality in PCC-violating configurations, Béjar & Rezac propose the Person Licensing Condition (PLC).
 - ▶ The PLC requires local person arguments to be Agreed with by a π probe in the syntax.
- Because the π probe always Agrees with the IO, local person DOs cannot be licensed—regardless of the features of the IO.
 - ▶ 3>local & local>local are ruled out together via the exact same mechanism.
- In this way, Béjar & Rezac are unable to derive *local>local independently.

Hybrid morphosyntactic analyses

- The final—and smallest—class of analyses treats ditransitive person restrictions as hybrid morphosyntactic phenomena. (Nevins 2007; Walkow 2012; Stegovec 2015; Coon & Keine to appear)
 - ▶ Some hybrid analyses account for certain restrictions like *3>local in the syntax & others like *3>3 in the morphology. (e.g. Nevins 2007)
 - ▶ Others rely on syntactic & morphological machinery to capture each restriction within a given PCC pattern. (e.g. Coon & Keine to appear)

Hybrid morphosyntactic analyses

- However, like the syntactic analyses presented earlier in this section, existing hybrid accounts are unable to rule out local>local as an independent restriction.
 - ▶ In fact, Coon & Keine (to appear) incorrectly predict that any language that rules out local>local should also rule out 3>local due to the nature of feature geometries. (Coon & Keine to appear:23)

1 Existing analyses of the PCC

2 Case studies

- Caquinte
- Kipsigis

3 Two classes of person restrictions

4 A predictive typology

- Accounting for variation
- A third case study: French
- Empirical predictions

Two case studies

- Descriptions from two unrelated, understudied languages: Caquinte (Arawak; Peru) & Kipsigis (Kalenjin; Kenya)
- Novel pattern: only *local>local is ungrammatical in ditransitives

The Caquinte pattern

- Kampa Arawak language with several hundred speakers in southeastern Peru
- Relevant linguistic features:
 - ▶ VSO, polysynthetic, head-marking
 - ▶ Rigidly-ordered morphology
 - ▶ All arguments reflected by verbal affixes
- All data come from Zachary O'Hagan's fieldwork in Kitepámpani
 - ▶ Page numbers are from two text collections:
Salazar Torres & O'Hagan 2019 [ST&O]
Salazar Torres et al. 2019 [ST]



(available online)

The Caquinte pattern

- Caquinte has strictly-ordered verbal morphology, presented pretheoretically below:

Basic verbal template

[SUBJ]-...-V-...-[SLOT 1]-[SLOT 2]

- ▶ Slot 1: Local person object suffixes, applicative $-nV$ (V =copy vowel)
- ▶ Slot 2: 3rd person object suffixes
- Only one suffix may appear in each slot.

	SUBJ	OBJ
1	no-	-na
1INCL	a-	-aji
2	pi-	-mpi
3M	i-	-ri
3F	o-	-ro

Table 2: Caquinte argument affixes

The Caquinte pattern

- When object suffixes belong to different morphological “slots”, the result is grammatical.
 - ▶ Unlike the PCC, this rules in both local>3 & 3>local.

Local & 3 in Caquinte

- (7) a. ...*pamenagetenari* *nogepigairikitite*.
pi-amen-ge-e-**na-ri** no-kepigairikiti-te
2-look.for-DSTR-IRR-1-3M 1-louse-POSS
'...look for my lice for me.' (ST p.98) (1>3)
- b. ...*yojokabakokenari* *Joanka*.
i-ojok-bako-k-i-**na-ri** Joanka
3M-give-hand-PFV-AR-1-3M Juan
'...he gave me to Juan [in marriage].' (ST&O p.13) (3>1)

The Caquinte pattern

- When object suffixes belong to the same “slot” (local>local, 3>3), competition is resolved differently.
- **Local>local competition is not tolerated**; ditransitives that have two local person objects are simply ungrammatical.

*Local>local in Caquinte

- (8) a. * *Yojokakenampi*.
i-ojok-k-i-**na-mpi**
3M-give-PFV-AR-1-2
Intended: ‘He gave you to me.’ (*1>2)
- b. * *Yojokakempina*.
i-ojok-k-i-**mpi-na**
3M-give-PFV-AR-2-1
Intended: ‘He gave me to you.’ (*2>1)

The Caquinte pattern

- 3>3 competition is permitted: only the IO suffix appears.
- The first suffix “slot” is filled by the applicative morpheme *-nV*
 - ▶ Evidence that *-nV* is an applicative (not a repair strategy) can be found in the Appendix.

3>3 in Caquinte

- (9) *...nojokakotajeneri* *aapani* *kishokiro...*
 no-ojok-ako-aj-e-**nV-ri** aapani kishokiro
 1-give-A:INDR-REG-IRR-APPL-3M father.M cooked.manioc.F
 ‘...I’ll give father cooked manioc...’ (ST p.71) (3M>3F)

The Caquinte pattern: Summary

- Local>local is ungrammatical in any form.
- Combinations of local & 3 are grammatical regardless of hierarchy.
- 3>3 is grammatical & one suffix “wins” over the other.
- See Drummond & O’Hagan (to appear) for more details.

The Kipsigis pattern

- Nilo-Saharan language of the Kalenjin subgroup with about 1.9 million speakers in western Kenya (Eberhard et al. 2019)
- Relevant linguistic features:
 - ▶ VSO-VOS alternating
 - ▶ Postverbal word order dictated by information structure (Bossi & Diercks 2019)
- All data come from Madeline Bossi's fieldwork.



The Kipsigis pattern

- In 3>3 ditransitives, the verb surfaces with the Appl suffix *-i* & both objects can be realized independently.

Applicatives

- (10) Koo-Ø-maas-i Madeline (ineendet) Kibeet.
PST-3-hit-APPL Madeline 3SG Kibeet
'Madeline hit Kibeet for him/her (yesterday).' (3>3)

- 3rd person pronouns can co-occur with *-i*, though they are often *pro*-dropped.

The Kipsigis pattern

- When the ditransitive contains one local person object, it surfaces as a suffix on the verb & replaces *-i*, regardless of its grammatical function.
 - ▶ Local>3: Verbal suffix tracks the IO (11)
 - ▶ 3>local: Verbal suffix tracks the DO (12)

Promiscuous agreement in ditransitives

- (11) Koo-i-mut-**waan** Nancy ineendet.
PST-3-bring-1SG.IO Nancy 3SG
'Nancy brought him/her to me (yesterday).' (1>3)
- (12) Koo-i-mut-**yaan** Nancy ineendet.
PST-3-bring-1SG.DO Nancy 3SG
'Nancy brought me to him/her (yesterday).' (3>1)

The Kipsigis pattern

- This type of pattern is known as promiscuous or context-sensitive agreement. (Béjar 2003)
 - ▶ The verb agrees sometimes with one argument (e.g. the IO) & other times with a different argument (e.g. the DO) depending on the ϕ -features of the other arguments within the agreement domain.

	IO	DO
1SG	-waan	-yaan
2SG	-uun	-yiin
3SG	∅	∅
1PL	-weech	-yeech
2PL	-woog	-yoog
3PL	∅	∅

Table 3: Kipsigis object suffixes

The Kipsigis pattern

- These local person object suffixes are obligatory.
 - ▶ Local person objects cannot be realized as full pronouns post-verbally.

Obligatory local suffixes

- (13) * Koo-i-mut^j-i Chepkoech **ane** ineendet.
PST-3-bring-APPL Chepkoech 1SG 3SG
Intended: 'Chepkoech brought me to him/him to me
(yesterday).'

The Kipsigis pattern

- (11) - (12) show that there is no canonical PCC pattern in Kipsigis.
 - ▶ Local>3 & 3>local combinations are both possible.
- However, **local>local configurations are ungrammatical**, regardless of which object is realized as a verbal suffix—be it the IO (14a) or the DO (14b).

*Local>local in Kipsigis

(14) *1>2

- a. * Koo-i-mut-**waan** Kibeet **inye**.
PST-3-bring-1SG.IO Kibeet 2SG
Intended: 'Kibeet brought you to me (yesterday).'
- b. * Koo-i-mut-**yiin** Kibeet **ane**.
PST-3-bring-2SG.DO Kibeet 1SG
Intended: 'Kibeet brought you to me (yesterday).'

The Kipsigis pattern

- Stacking of these local person suffixes is likewise impossible.

No suffix stacking

- (15) a. * Koo-i-mut-**yaan-uun** Kibeet.
PST-3-bring-1SG.DO-2SG.IO Kibeet
Intended: 'Kibeet brought me to you (yesterday).'
- b. * Koo-i-mut-**uun-yaan** Kibeet.
PST-3-bring-2SG.IO-1SG.DO Kibeet
Intended: 'Kibeet brought me to you (yesterday).'

The Kipsigis pattern: Summary

- Combinations of local & 3 are grammatical regardless of hierarchy.
 - ▶ The local person object is a verbal suffix whether it is the IO or DO (promiscuous agreement; Béjar 2003).
- Local > local is ungrammatical in any form.
- 3 > 3 is grammatical & neither object surfaces as a verbal suffix.
- See Bossi (2020) for more details.

Case studies: Summary

- Both Caquinte & Kipsigis exhibit a novel *local>local restriction.
 - ▶ *Local>local is unique because it does not co-occur with any type of 3>local restriction in the languages.

Table 4: Caquinte & Kipsigis vs. attested PCCs

IO>DO	Caq/Kip	Strong	Weak	Me-first	Ultrastrong
1>3	✓	✓	✓	✓	✓
2>3	✓	✓	✓	✓	✓
1>2	*	*	✓	✓	✓
2>1	*	*	✓	*	*
3>1	✓	*	*	*	*
3>2	✓	*	*	✓	*

- 1 Existing analyses of the PCC
- 2 Case studies
 - Caquinte
 - Kipsigis
- 3 Two classes of person restrictions
- 4 A predictive typology
 - Accounting for variation
 - A third case study: French
 - Empirical predictions

Two classes of person restrictions

- As seen in the previous section, *local > local in Caquinte & Kipsigis has different hallmarks than the PCC.
- We introduce one additional hallmark in this section: repair strategies.

Class 1: Syntactic

References syntactic hierarchy

No restriction on exponence

Syntactic repairs

Class 2: Morphological

Ignores syntactic hierarchy

Restrictions on exponence

(Post-)syntactic repairs

Hierarchy

- All existing PCC analyses reference syntactic hierarchy.
 - ▶ The structurally higher argument (IO) must outrank the structurally lower argument (DO) in the person dimension.
- Probe-based analyses—syntactic & hybrid morphosyntactic—rely on “finding” certain features (e.g. IO) before other features (e.g. DO).
- A striking example of syntactic hierarchy sensitivity is found in Slovenian, which has a Strong PCC. (Stegovec 2020)
 - ▶ When the DO scrambles above the IO, the PCC pattern is *reversed*.

Hierarchy

- By contrast, $*\text{local} > \text{local}$ & $*3 > 3$ are **symmetrical**; either hierarchical configuration will yield the same result.
- When these restrictions appear on their own, as in Caquinte & Kipsigis, probe-based analyses overgenerate & predict hierarchy sensitivity.
 - ▶ All syntactic analyses in their current forms cannot capture $*\text{local} > \text{local}$ without also predicting $*3 > \text{local}$.

Restrictions on exponence

- PCC patterns are famously insensitive to morphological form.
 - ▶ Identical morpheme combinations can be ungrammatical in a certain syntactic configuration, but grammatical in another.
- French *me lui* is ungrammatical in double object constructions but grammatical in ethical datives, where both objects are dative.

(16) **French** (Rezac 2008:68)

- a. * Pierre me lui a présenté.
Pierre 1SG.ACC 3SG.DAT has introduced
Intended: 'Pierre introduced me to her.'
- b. Pierre me lui semble fidèle.
Pierre 1SG.DAT 3SG.DAT seems faithful
'Pierre seems to me to be faithful to her.'

Restrictions on exponence

- However, morphological person restrictions are **sensitive to surface-level constraints on exponence**.
- They appear in contexts in which two morphemes demand exponence, but only one can surface for a variety of reasons.
 - ▶ Templatic competition (Caquinte)
 - ▶ Realizing the same head (Kipsigis)
 - ▶ Ban on adjacent identical features (Spanish spurious-se)

Restrictions on exponence: Caquinte

- In Caquinte, position-class morphology (Simpson & Withgott 1986; Inkelas 1993) creates competition: only one morpheme may surface in each “slot”.
- Evidence for this template comes from:
 - ▶ Arbitrary ordering of valence-changing morphology
 - ▶ The fixed order of local & non-local suffixes
 - ▶ The behavior of the applicative suffix *-nV* (Appendix)
- This template prevents two local person suffixes from appearing on the same verb.

Restrictions on exponence: Kipsigis

- In Kipsigis, only one local person object suffix can appear on the verb.
- Bossi (2020) analyzes them as portmanteaux (Appl+local object) because they replace the default Appl suffix *-i*.
- Given that all local person suffixes realize Appl, only one can be inserted in local > local ditransitives.
 - ▶ Morphological competition is formalized as realization of the same syntactic head.

Restrictions on exponence: Spanish

- In Spanish, two clitics with the same person features cannot be adjacent (**me-me*, **nos-me*, **le-lo*). (Nevins 2007)
- This effectively creates competition: two clitics are syntactically present, but both cannot surface.

Repairs

- Repair strategies for person restrictions also give key insight into how the restriction is derived.
- The canonical PCC repair is to place one of the arguments into a PP.
 - ▶ This alleviates the restriction by moving one of the arguments outside the domain of the probe.

(17) **French repair strategy** (Kayne 1975:174)

Paul me présentera **à lui**.

Paul 1SG.ACC will.present to him

‘Paul will introduce me to him.’

(3>1)

- This is a syntactic manipulation to fix a syntactic problem.

Repairs

- Yet for $*\text{local} > \text{local}$ & $*3 > 3$, we see **post-syntactic repairs** in addition to syntactic ones.
- A post-syntactic repair is incompatible with a syntactic restriction, as the repair occurs *too late* to fix a syntactic problem.

Repairs: Anti-agreement

- In Caquinte & Kipsigis, when either object is fronted for focus, the morphology canonically triggered by that object must disappear.

Focus fronting & anti-agreement

- (18) lro namakempi paperi.
iro no-am-k-i-mpi(*-ro) paperi
3F.FOC 1-bring-PFV-AR-2-3F book.F
'It's the book that I brought you.' (2>3extr)
- (19) **Ane** ne koo-i-mut^j-i Kibeet ineendet.
1SG REL.SG PST-3-bring-APPL Kibeet 3SG
'It's me who Kibeet brought to her/her to (yesterday).'

- This anti-agreement is obligatory; fronted objects cannot be doubled by verbal morphology.

Repairs: Anti-agreement

- Crucially, fronting of either local person object in a local>local ditransitive obviates the person restriction.

Anti-agreement rescues *local > local

- (20) Abiro yojokakena piraapanite.
abiro i-ajok-k-i-**na** pir-aapani-te
 2.FOC 3M-give-PFV-AR-1 2-father-POSS
 'It's you that your father gave me.' (1>2extr)
- (21) **Ane** ne koo-i-mut-**yiin** Kibeet.
 1SG REL.SG PST-3-bring-2SG.DO Kibeet
 'It's me who Kibeet brought you to (yesterday).' (1extr>2)

- In these cases, only the non-extracted object is realized using the standard verbal morphology.

Repairs: Anti-agreement

- The formal implementation of anti-agreement differs in Caquinte vs. Kipsigis.
 - ▶ **In Caquinte:** ϕ -features undergo morphological impoverishment in the context of \bar{A} -features. (Baier & O'Hagan 2019)
 - ▶ **In Kipsigis:** The object that would otherwise be morphologically incorporated with the verb is moved. (Bossi 2020)

Repairs: Anti-agreement

- However, on both analyses the anti-agreement mechanism must be post-syntactic.
 - ▶ **For Caquinte:** Not all \bar{A} -extracted elements trigger anti-agreement
 - ★ See Baier (2018), Baier & O'Hagan (2019) & Drummond & O'Hagan (to appear) for more detailed discussions of anti-agreement as impoverishment.
 - ▶ **For Kipsigis:** Focus fronting involves constituent movement, giving extraction & non-extraction contexts a shared underlying syntax
 - ★ See Bossi (2020) for more detailed discussion about why focus fronting resolves a morphological—rather than syntactic—issue.

Repairs: Anti-agreement

- Abstracting away from the analytical details, (20) - (21) show that when the offending morphological competition is removed, *local > local disappears.
 - ▶ When either object is fronted for focus, it is no longer realized as a verbal suffix.
 - ▶ This allows the non-extracted object to surface without competition.
 - ★ In Caquinte the relevant slot becomes open.
 - ★ In Kipsigis there is now only one suffix realizing Appl.

- 1 Existing analyses of the PCC
- 2 Case studies
 - Caquinte
 - Kipsigis
- 3 Two classes of person restrictions
- 4 A predictive typology
 - Accounting for variation
 - A third case study: French
 - Empirical predictions

A predictive typology

- PCC analyses tend to propose a unified mechanism which can be parameterized to account for the full range of PCC patterns.
- The exception has been in analyzing $3>3$ restrictions, which are typically analyzed morphologically. (cf. Pancheva & Zubizarreta 2018)

A predictive typology

- Based on Caquinte & Kipsigis data, we believe it's helpful to extend the insight from $3 > 3$ restrictions to $\text{local} > \text{local}$ ones as well.
- We argue that certain restrictions—like those banning $3 > \text{local}$ —are purely syntactic, while others are morphological (i.e. $*3 > 3$ & $*\text{local} > \text{local}$).

A predictive typology

- These morphological & syntactic person restrictions are fully modular, each functioning independently of the other.
- A modular system predicts a typology of person restrictions where certain ungrammatical combinations appear to “toggle” on & off.
 - ▶ The difference between the Strong & Weak PCCs is the acceptability of local>local in the Weak PCC.
 - ▶ 3>3 restrictions are attested independently of all PCC varieties.
 - ★ Varieties of Spanish show *3>3 alongside Strong, Weak & Ultrastrong patterns. (Pancheva & Zubizarreta 2018)
 - ★ Ubykh bans 3>3 with no other person restriction. (Dumézil 1975; Deal 2020a)

A predictive typology

- Table 5 outlines a typology, showing how these modular syntactic & morphological restrictions interact to derive some attested PCC patterns.
 - ▶ If restrictions on similarity (i.e. $*\text{local} > \text{local}$, $*3 > 3$) can be attributed to the morphology, a division of labor between syntax & morphology could simplify the analyses in both modules.¹

Table 5: A typology of ditransitive person restrictions

	SYNTACTIC	NO SYNTACTIC
MORPHOLOGICAL	Strong PCC	Caq/Kip
NO MORPHOLOGICAL	Weak PCC	No PCC

¹In Table 5 “morphological” refers to $*\text{local} > \text{local}$, though the same typology exists for $*3 > 3$.

A predictive typology

Table 5: A typology of ditransitive person restrictions

	SYNTACTIC	NO SYNTACTIC
MORPHOLOGICAL	Strong PCC	Caq/Kip
NO MORPHOLOGICAL	Weak PCC	No PCC

- The Weak PCC, which rules out only 3>local, is purely syntactic.²
- The Caquinte & Kipsigis pattern forbidding local>local combinations is morphological.
- No PCC effects arise when neither type of restriction is active in a language.

²The Me-first & Ultrastrong PCCs also fall into the syntactic category, since they rule out 3>local configurations while permitting certain local>local ones. See Nevins (2007); Deal (2020b); Coon & Keine (to appear) for possible implementations.

A predictive typology

Table 5: A typology of ditransitive person restrictions

	SYNTACTIC	No SYNTACTIC
MORPHOLOGICAL	Strong PCC	Caq/Kip
NO MORPHOLOGICAL	Weak PCC	No PCC

- The Strong PCC results from the co-occurrence of syntactic & morphological restrictions, as it encompasses both $*3 > \text{local}$ & $*\text{local} > \text{local}$.
 - ▶ Different restrictions within the Strong PCC warrant different analyses.
 - ▶ $*3 > \text{local}$ is due to a syntactic restriction, while $*\text{local} > \text{local}$ is morphological.

A third case study: French

- Preliminary evidence for this hybrid approach to the Strong PCC comes from French.
- French clitics surface in a fixed order, schematized below:

French clitic template (Perlmutter 1971:57)

[local persons]-[3.ACC]-[3.DAT]-[locative]-[partitive]

- ▶ In French, local person clitics including *me*, *te*, *nous* & *vous* are syncretic for case.
- ▶ Regardless of their grammatical function, these local person clitics surface in the same morphological slot.
- ▶ They are followed by separate slots for 3rd person DO & IO clitics.

A third case study: French

- French displays the Strong PCC, ruling out clitic combinations with a local person DO (i.e. **me-lui*).
- We've seen that *me lui* is acceptable in ethical dative constructions, even though this cluster is ungrammatical in PCC configurations.
 - ▶ This has been used to argue that the PCC cannot be morphological.

(22) *Me lui* in French ethical datives (Rezac 2008:68)

Pierre **me** **lui** semble fidèle.

Pierre 1SG.DAT 3SG.DAT seems faithful

'Pierre seems to me to be faithful to her.'

A third case study: French

- However, *me te* remains ungrammatical in ethical datives.
 - ▶ This asymmetry suggests that *me te* configurations are ruled out for a different reason than *me lui*.

(23) **Me te* in French ethical datives (Rezac 2008:98)

*Elle **me** **te** semble infidèle.

she 1SG.DAT 2SG.DAT seems unfaithful

Intended: 'She seems to me to be unfaithful to you.'

A third case study: French

- If **me-te* has a unique explanation in ethical datives, then it likely also has a unique explanation in PCC configurations.
 - ▶ Specifically, **me-te* has a uniform morphological source across both types of constructions.
 - ▶ In ethical datives & PCC configurations, local person clitics “compete” for a single morphological slot, which prevents exponence of both clitics.



A third case study: French

- Such an analysis places French in the upper left quadrant of the proposed typology.
 - ▶ $*3 > \text{local}$ is due to a syntactic restriction, while $*\text{local} > \text{local}$ is morphological—evidenced by the more widespread ungrammaticality of this clitic cluster.

Table 5: A typology of ditransitive person restrictions

	SYNTACTIC	NO SYNTACTIC
MORPHOLOGICAL	Strong PCC	Caq/Kip
NO MORPHOLOGICAL	Weak PCC	No PCC

Empirical predictions

- This hybrid analysis of the Strong PCC predicts that 3>local & local>local configurations should show different behaviors in different parts of the grammar.
 - ▶ If *local>local is morphological, it should be ruled out in a wider range of contexts than *3>local.
- More work that considers local>local behaviors separately from 3>local ones is needed to fully test the proposed typology.
- Our proposal leaves open the possibility that the Strong PCC pattern could be derived in multiple ways.

Conclusion

- Motivated a morphological analysis of a novel $*\text{local} > \text{local}$ restriction found in two unrelated languages—Caquinte & Kipsigis
- Described two classes of person restrictions, each with their own hallmarks
 - ▶ Syntactic restrictions reference hierarchy, are not sensitive to constraints on exponence & only have syntactic repairs.
 - ▶ Morphological restrictions do not reference hierarchy, are sensitive to constraints on exponence & have syntactic or post-syntactic repairs.
- Detailed a cross-linguistic typology of person restrictions, which derives all attested PCC patterns
 - ▶ Weak/Ultrastrong/Me-first PCCs are syntactic.
 - ▶ $*\text{Local} > \text{local}$ & $*3 > 3$ are morphological.
 - ▶ Strong PCC (or a PCC + $*3 > 3$) can arise from co-occurring syntactic & morphological restrictions.

References

- Albizu, Pablo. 1997. Generalized Person-Case Constraint: A case for a syntax-driven inflectional morphology. In *Anuario del seminario de filología vasca julio de urquijo*. 1–33.
- Anagnostopoulou, Elena. 2005. Strong and weak person restrictions: A feature-checking analysis. In *Clitic and affix combinations*. John Benjamins.
- Anagnostopoulou, Elena. 2017. Clitic doubling. In Martin Everaert & Henk C. van Riemsdijk (eds.), *The Wiley Blackwell Companion to Syntax*. 1–56. John Wiley and Sons, Inc. 2nd edn.
- Baier, Nico. 2018. *Anti-agreement*. Berkeley, CA: UC Berkeley dissertation.
- Baier, Nico & Zachary O'Hagan. 2019. Morphological reflexes of subject extraction in caquinte. In D.K.E. Reisinger & Yu-Hsiang Lo (eds.), *Proceedings of the workshop on the Structure and Constituency of Languages of the Americas*, vol. 23. 1–14.
- Béjar, Susana. 2003. *Phi-syntax: A theory of agreement*. Toronto, Canada: University of Toronto dissertation.
- Béjar, Susana & Milan Rezac. 2003. Person licensing and the derivation of PCC effects. In Ana Teresa Perez-Leroux & Yves Roberge (eds.), *Romance linguistics: Theory and acquisition*. 49–62. John Benjamins Publishing Company.
- Bonet, Eulália. 1991. *Morphology after syntax: Pronominal clitics in Romance languages*. Cambridge, MA: Massachusetts Institute of Technology dissertation.
- Bonet, Eulália. 1994. The person-case constraint: A morphological approach. In Heidi Harley & Colin Phillips (eds.), *The morphology-syntax connection*. 33–52. MIT.
- Bonet, Eulália. 1995. Feature structure of Romance clitics. *Natural Language and Linguistic Theory* 13(4). 607–647.
- Bossi, Madeline. 2020. A morphological account of promiscuous agreement and *local > local in Kipsigis ditransitives. Unpublished manuscript.
- Bossi, Madeline & Michael Diercks. 2019. V1 in Kipsigis: Head movement and discourse-based scrambling. *Glossa: a journal of general linguistics* 4(1).
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*. 89–156. MIT Press.
- Coon, Jessica & Stefan Keine. to appear. Feature gluttony. *Linguistic Inquiry*.
- Deal, Amy Rose. 2020a. 3-on-3 restrictions and PCC typology. To appear at NELS51.
- Deal, Amy Rose. 2020b. Interaction, Satisfaction, and the PCC. Unpublished manuscript.
- Drummond, Emily & Zachary O'Hagan. to appear. Morphological person restrictions and the pressure to realize local persons. In *Proceedings of NELS 50*.
- Dumézil, Georges. 1975. *Le verbe Oubykh: études descriptives et comparatives*. Paris: Imprimerie nationale.

References

- Eberhard, David M., Gary F. Simons & Charles D. Fennig. 2019. Kipsigis. In *Ethnologue: Languages of the world*. Dallas, TX: SIL International 22nd edn.
- Harley, Heidi & Elizabeth Ritter. 2002. Person and number in pronouns: A feature-geometric analysis. *Language* 78(3). 482–526.
- Inkelas, Sharon. 1993. Nimboran position class morphology. *Natural Language and Linguistic Theory* 11(4). 559–624.
- Kayne, Richard S. 1975. *French syntax: the transformational cycle*. Cambridge, Massachusetts: MIT Press.
- Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language and Linguistic Theory* 25(2). 273–313.
- O'Hagan, Zachary. 2018. The syntax of Matsigenka object marking. *Berkeley Papers in Formal Linguistics* 1.
- Pancheva, Roumyana & Maria Luisa Zubizarreta. 2018. The Person Case Constraint: The syntactic encoding of perspective. *Natural Language & Linguistic Theory* 36. 1291–1337.
- Perlmutter, David. 1971. *Deep and surface structure constraints in syntax*. New York: Holt, Rinehart and Winston.
- Pescarini, Diego. 2005. Clitic clusters and morphological repairs: Evidence from Italian, Spanish, and Barceloní. *Studi Linguistici e Filologici* 3. 239–264.
- Preminger, Omer. 2019. What the PCC tells us about “abstract” agreement, head movement, and locality. *Glossa: a journal of general linguistics* 4(13). 1–42.
- Rezac, Milan. 2008. The syntax of eccentric agreement: The pcc and absolutive displacement in basque. *Natural Language and Linguistic Theory* 26. 61–106.
- Salazar Torres, Antonina & Zachary O'Hagan. 2019. Tsabetsatsarentsipae itionkantajitakaroka igenketsatsare kakinte. Ms., University of California, Berkeley.
- Salazar Torres, Antonina, Joy Salazar Torres, Emilia Sergio Salazar, Miguel Sergio Salazar & Zachary O'Hagan. 2019. Tsabetsatsarentsipae itionkantajitakaroka igenketsatsare kakinte. Ms., University of California, Berkeley.
- Stegovec, Adrian. 2015. It's not Case, it's Personal! Reassessing the PCC and clitic restrictions in O'odham and Warlpiri. In Pocholo Umbal (ed.), *WCCFL 33 poster session proceedings*. 131–140. Simon Fraser University Working Papers in Linguistics.
- Stegovec, Adrian. 2020. Taking case out of the Person-Case Constraint. *Natural Language & Linguistic Theory* 38. 261–311.
- Swift, Kenneth E. 1988. *Morfología del Caquinte*. Lima: Instituto Lingüístico de Verano.
- Walkow, Martin. 2012. *Goals, big and small*. Amherst, MA: University of Massachusetts Amherst dissertation.

Appendix: Caquinte $-nV$

- In basic ditransitives, the morpheme $-nV$ only appears in $3>3$ configurations.
 - ▶ For this reason, Swift (1988) analyzes it as a more general realization of the DO (similar to Spanish spurious-*se*).
- We analyze $-nV$ as an applicative (following O'Hagan 2018) because:
 - 1 $-nV$ does not realize the DO
 - 2 $-nV$ is not a $*3>3$ repair
 - 3 $-nV$ is best analyzed as an Appl head

Appendix: Caquinte *-nV*

① *-nV* does not realize the DO

- All focused objects in Caquinte undergo full anti-agreement.
- When the DO is extracted from a 3>3, both IO agreement and *-nV* remain on the verb (24).
 - ▶ If *-nV* realizes the DO, it should be fully impoverished by anti-agreement.

No anti-agreement of *-nV*

(24)	<i>Irokampa</i>	<i>ajokakeneri</i>	<i>sheri</i>	<i>obatsa</i> .
	iro =ka=mpa	a-ojok-k-e- nV - ri	sheri	obatsa
	3F.FOC=MOD=INC 1INCL-give-PFV-IRR-NV-3M			tobacco dip
	'We might give him tobacco dip.' (ST p.154)			(3>3extr)

Appendix: Caquinte $-nV$

② $-nV$ is not a $*3>3$ repair

- $-nV$ appears outside of $3>3$ contexts when local suffixes undergo anti-agreement.
- When extraction impoverishes a local person object, $-nV$ always appears in the local suffix slot.

$-nV$ outside of $3>3$

- (25) *Abiro yojokakeneri iritinerijaniki.*
abiro i-ajok-k-i-**nV**-ri iri-tinerijaniki
2.FOC 3M-give-PFV-AR-APPL-3M 3M-nephew
'It's you that he gave to his nephew.' (3>2extr)
- (26) *Naro yojokakene irorijanite.*
naro i-ajok-k-i-**nV** iri-orijani-te
1.FOC 3M-give-PFV-AR-APPL 3M-daughter-POSS
'It's to me that he gave his daughter.' (1extr>3)

Appendix: Caquinte $-nV$

- ③ $-nV$ is best analyzed as an Appl head
 - $-nV$ only appears in ditransitive contexts.
 - The appearance of $-nV$ after impoverishment (anti-agreement) suggests that it is always present in ditransitives.
 - $-nV$ appears whenever there is no local person suffix.
 - ▶ This is explained if $-nV$ realizes Appl, which arbitrarily competes in the same morphological slot as local person agreement.

IO↓ DO→	Local	3rd	Extracted
Local	—	-local-3	-local
3rd	-local-3	$-nV$ -3	$-nV$ -3
Extracted	*	$-nV$	—

Table 6: Distribution of $-nV$ in ditransitives