

Feature gluttony and the syntax of hierarchy effects

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1 Introduction

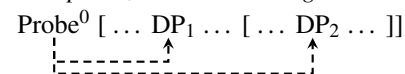
- This talk offers a new take on a variety of hierarchy-effect inducing configurations, including:
 1. *PCC effects* (Perlmutter 1971, Bonet 1991, Anagnostopoulou 2003, Nevins 2007)
 2. *German copular construction* (Coon, Keine, and Wagner 2017)
 3. *Icelandic dative–nominative configurations* (Sigurðsson and Holmberg 2008, Sigurðsson 1996)
 4. with possible extensions to
 - *local person portmanteaux* (Heath 1991, Georgi 2013),
 - *Nez Perce complementizer agreement* (Deal 2015),
 - *direct–inverse splits* (Béjar and Rezac 2009)
- (1) **Basque PCC**¹
- a. Zuk *harakinari liburua* saldu d-i-o-zu.
you.ERG butcher.DAT book.ABS sold 3ABS-AUX-3DAT-2ERG
'You have sold the book to the butcher.' (✓3DAT > 3ABS)
 - b. Zuk *niri liburua* saldu d-i-da-zu.
you.ERG me.DAT book.ABS sold 3ABS-AUX-1DAT-2ERG
'You have sold the book to me.' (✓1DAT > 3ABS)
 - c. *Zuk *harakinari ni* saldu n-(a)i-o-zu.
you.ERG butcher.DAT me.ABS sold 1ABS-AUX-3DAT-2ERG
intended: 'You have sold me to the butcher.' (*3DAT > 1ABS)

This project grew out of collaborative work with Michael Wagner, who first suggested putting the problem in the probe. For helpful discussion we would also like to thank Nico Baier, Amy Rose Deal, Laura Kalin, Martha McGinnis, Ethan Poole, Omer Preminger, Zach Stone, and audiences at the *Manitoba Workshop on Person*, the workshop *Current Issues in Comparative Syntax* (Singapore), McGill, Cornell, Princeton, Berkeley, UCLA, and Maryland.

¹ Data due to Laka (1996) and Jon Ander Mendia (p.c.)

- Following previous work, we take these configurations to arise when two accessible DPs are in the same domain as a single agreeing probe:

(2) *One probe, two accessible goals*



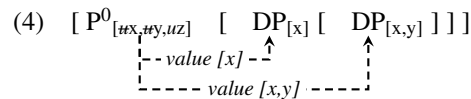
- ⇒ Hierarchy effects emerge in environments in which the lower DP is more highly specified/marked than the higher DP.
- Many standard accounts of these hierarchy effects attribute them to failures of **nominal licensing**. A [PARTICIPANT] DP must be licensed through ϕ -Agree (Anagnostopoulou 2005, Béjar and Rezac 2003, Adger and Harbour 2007, Baker 2008, 2011, Preminger to appear)
 - ⇒ In hierarchy-violating configurations, the higher DP intervenes for Agree with the lower DP, which remains unlicensed
 - ⇒ *not enough Agree/probes*
- **Our proposal:** Hierarchy effects have nothing to do with nominal licensing. They arise from an *overapplication of Agree*: A probe agrees with more than one DP.
 - In hierarchy-effect inducing structures, a probe participates in more than one valuation relation, effectively “biting off more than it can chew”, a configuration we refer to as **feature gluttony**.
 - Feature gluttony—i.e. multiple values on a single probe—can create conflicting requirements for subsequent operations.
- We draw on recent work on *Cyclic Agree* (Béjar and Rezac 2009) and *interaction in ϕ -agreement* (Deal 2015), but offer a more constrained account of when it may occur (3):

(3) **Agree:**

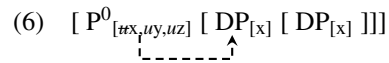
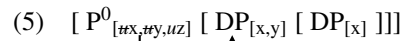
Given a probe P with a hierarchy of unvalued features [uF],

- a. P searches the closest accessible DP in its domain such that this DP contains feature set [G], with $[G] \cap [F] \neq \emptyset$;
- b. [G] and all features in [G]'s feature hierarchy are copied to P;
- c. [G] is removed from [uF];
- d. iterate over steps a.–c. until search fails.

- In other words: a probe will only enter into successive Agree relations with two DPs if the lower DP values *more* of its unvalued features than the higher DP, as in (4).



- If the lower DP has fewer features, as in (5), or the same features, as in (6), the probe will not enter into a second Agree relation:



- We argue that a variety of hierarchy effects can be attributed to **feature gluttony**, resulting from multiple agreement relations as in the configuration in (4):

(7) **Feature gluttony:**

A probe P that agrees with more than one goal is *gluttonous*. A configuration that gives rise to gluttonous probes is called *feature gluttony*.

- Having agreed with several goals is not in and of itself a problem—the problem is in the aftermath:

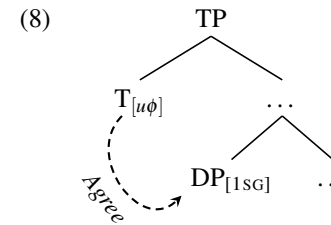
- In the case of PCC configurations, a probe which interacts with more than one DP creates an intervention problem for clitic-doubling.
- In violations involving agreement, gluttony in features results in a configuration with no available morphological output.

Plan: □ Licensing • □ PCC/clitics • □ Agreement • □ Extensions

2 Licensing

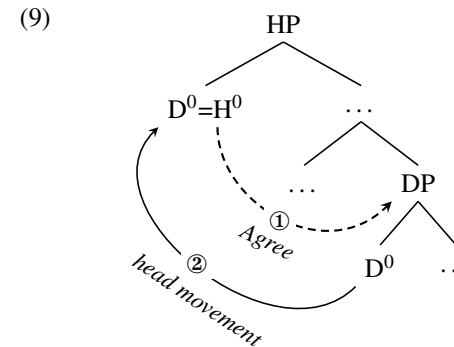
2.1 Terminological background

- **Agree:** Feature valuation of a probe with unvalued features [uF] by a goal bearing [F].
 - Here we focus on ϕ -agreement: agreement in person, number, and gender features.
 - The relevant probes are typically finite $T^0/InfI^0$ and v^0 .



- Unvalued features on T^0 are valued and may be spelled out in the morphology.

- **Pronominal clitics:** A D^0 head typically attached to a verbal element.
 - Clitics are the result of an agreement operation between a probe and the DP (Anagnostopoulou 2003), specifically:
 - Cliticization is an instance of long head-movement of a D^0 element, triggered by a ϕ -Agree relationship between the probe (clitic host) and goal DP (see Preminger to appear for recent proposals and discussion).

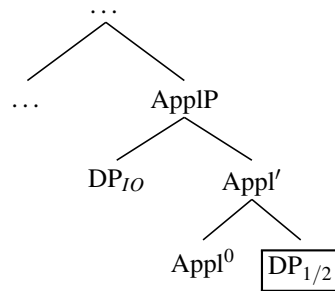


- ① Head H^0 enters into Agree relationship with DP.
- ② D^0 head undergoes head-movement and cliticizes to H^0 .

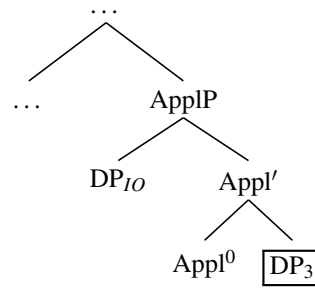
2.2 PCC background

- **Person Case Constraint (PCC):** “prohibits 1st and 2nd person phonologically weak accusative or absolutive direct objects (clitics, agreement markers, weak pronouns) when they cluster together in ditransitives with phonologically weak dative indirect objects of the same type.” (Anagnostopoulou to appear)

(10) *



(11) ✓



- Found in genetically diverse languages: Greek, Spanish, Basque, Passamaquoddy, Walpiri, Takelma, Kiowa, French, Nahuatl, Yimas, Georgian ... (Perlmutter 1971, Bonet 1991, Anagnostopoulou 2003, to appear, Adger and Harbour 2007, Doliana 2013, Nevins 2007, Pancheva and Zubizarreta to appear).

(12) Greek PCC (Anagnostopoulou to appear)

- a. Tha *su* **ton** stilune.
 FUT CL.2SG CL.3SG.MASC send.3PL
 ‘They will send him to you.’ (✓2DAT > 3ACC)
- b. *Tha *tu* **se** stilune.
 FUT CL.3SG.MASC CL.2SG send.3PL
 intended: ‘They will send you to him.’ (*3DAT > 2ACC)

(13) Basque PCC (=1)

- a. Zuk *harakinari* **liburua** saldu **d-i-o-zu**.
 you.ERG butcher.DAT book.ABS sold 3ABS-AUX-3DAT-2ERG
 ‘You have sold the book to the butcher.’ (✓3DAT > 3ABS)
- b. Zuk *niri* **liburua** saldu **d-i-da-zu**.
 you.ERG me.DAT book.ABS sold 3ABS-AUX-1DAT-2ERG
 ‘You have sold the book to me.’ (✓1DAT > 3ABS)
- c. *Zuk *harakinari* **ni** saldu **n-(a)i-o-zu**.
 you.ERG butcher.DAT me.ABS sold 1ABS-AUX-3DAT-2ERG
 intended: ‘You have sold me to the butcher.’ (*3DAT > 1ABS)

- There is broad consensus that the PCC is a *syntactic problem*; not a semantic or morphological one (Rezac 2008).
- **PCC variation** (Nevins 2007, Doliana 2013, Anagnostopoulou to appear, Pancheva and Z to appear):

- **Strong PCC:** bans any clitic combinations in which DO is 1/2 person
- **Weak PCC:** bans 1/2 DOs in the presence of a 3rd person IO
- **Me-First PCC:** bans any combination with a 1st person DO
- **Ultra-Strong PCC:** Me-First + Weak PCC

(14) Types of PCC

	IO	>	DO
<i>Strong:</i>	*X	>	1/2
<i>Weak:</i>	*3	>	1/2
<i>Me-First:</i>	*X	>	1
<i>Ultra-Strong:</i>	*3	>	1/2 &
	*2	>	1

- ⇒ Despite this variation, the problems always arise when the lower direct object is 1st or 2nd person.

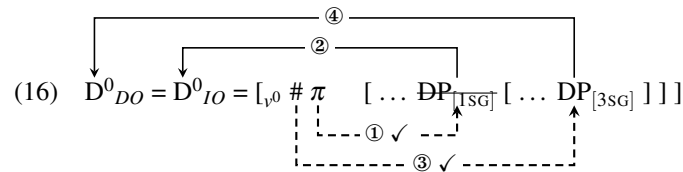
- Since Anagnostopoulou (2003) and Béjar and Rezac (2003, 2009), many accounts of the PCC rely on a *licensing condition*:

(15) **Person Licensing Condition (PLC)** (Béjar and Rezac 2003: 53)
 An interpretable 1st/2nd person feature must be licensed by entering into an Agree relation with a functional category.

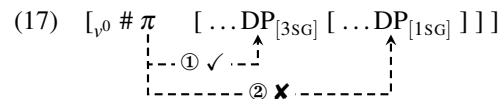
- There is *something special* about 1st and 2nd person “discourse participants”—[PART]—see also e.g. Nichols 2001.
- PCC violations arise when the higher DP *intervenes* between the probe and the lower DP, preventing licensing of the lower DP’s [PART] features.
- **Béjar and Rezac 2003 ingredients:**
 1. Functional heads responsible for licensing (v^0 and T^0) are made up of distinct probes: person (π) and number ($\#$) (Laka 1993, Taraldsen 1995)
 - These are universally ordered: π probes first
 2. [PART] DPs must have their features licensed by π per (15); 3rd person DPs may be licensed by $\#$

3. Cliticization of a DP removes that DP as an intervener for subsequent operations (Anagnostopoulou 2003, Preminger 2009; we come back to this)

- In a **PCC-compliant configuration** like (16):
 - The higher [1SG] DP agrees with π ; [PART] features are licensed (①);
 - The higher DP is clitic-doubled, and is removed as an intervener for subsequent operations (②);
 - # then probes and licenses the lower [3SG] DP (③), again triggering cliticization (④).



- In a **PCC-violating configuration** like (17) the π probe is blocked from licensing the lower [1SG] by the higher DP.



► **Core idea:** This is a *licensing problem*; 1st and 2nd person DPs must be licensed by π , and the higher DP is getting in the way.

- Repairs for the PCC are compatible with this account:

(18) *French PCC and repair*

- a. *Je **te** lui ai présenté.
 I CL.2SG CL.3SG have introduced
 intended: ‘I introduced you to him.’ (*3DAT > 2ACC)
- b. Je **t’**-ai présenté à lui.
 I CL.2SG-have introduced to him
 ‘I introduced you to him.’

- In (18b), the indirect object is a full dative PP rather than a clitic.
- The PP does not have ϕ -features and is invisible to the probe.
- ↪ The probe can license the [2SG] direct object.

2.3 Caveats for licensing

- While a licensing-based approach captures many of the special properties of [PART] DPs, recent work has shown that it can’t be the case that *all* [PART] DPs need licensing—special caveats are needed:

(19) Person Licensing Condition (PLC) (Preminger to appear)

A [participant] feature on a DP that is a canonical agreement target must participate in a valuation relation.

- What does it mean to be a “canonical agreement target”?

(20) Canonical agreement target (Preminger to appear):

A given DP x is a canonical ϕ -agreement target **iff** there is at least one ϕ -probe y such that:

- x and y are clausemates;
- x meets the CASE-DISCRIMINATION requirements of y .

2.3.1 Clausemate condition

- According to (20a), a [PART] DP need only be licensed if there is a probe in the same clause which can license it (see Preminger 2011).

(21) PCC clausemate condition in Basque²

a. Finite clause: PCC

*Zuk *harakinari ni* saldu **n**-(a)i-o-zu.
 you.ERG butcher.DAT me.ABS sold 1ABS-AUX-3DAT-3ERG
 ‘You have sold me to the butcher.’ (*3DAT > 1ABS)

b. Case-marked infinitival clause: No PCC

Gaizki iruditzen \emptyset -zai-t [zuk **ni**
 wrong look.IMPF 3ABS-AUX-1DAT you.ERG me.ABS
harakinari sal-tze-a].
 butcher-DAT sell-NMZ-ART.ABS
 ‘It seems wrong to me for you to sell me to the butcher.’
 (✓3DAT > 1ABS)

² Laka (1993) and Jon Ander Mendia (p.c.)

- c. *Adpositional infinitival clause: No PCC*
 [Zuk ni harakinari sal-tze-n] probatu
 you.ERG me.ABS butcher-DAT sell-NMZ-LOC attempted
 d-u-zu
 3ABS-AUX-2ERG
 ‘You have attempted to sell me to the butcher.’ (✓3DAT > 1ABS)

(22) *Clausemate condition in Basque (Arregi and Nevins 2012: 65,69)*

- a. **Ni-ri su ondo jaus-ten s-a-t (>sasta)*
 me-DAT you.ABS well fall-IMP 2SG.ABS-AUX-1SG.DAT
 ‘I like you(sg).’ (*1DAT > 2ABS)
- b. [*Ni-ri su ondo jaus-ti*] nai d-o-t
 me-DAT you.ABS well fall-NF want 3ABS-AUX-1ERG
 ‘I want to like you(sg).’ (✓1DAT > 2ABS)

- PCC effects disappear if the IO > DO DPs are in a nonfinite embedded clause; no agreement on the embedded nominalized verb.
- ▶ The first person absolutive direct object *ni* in (21b) does not have a head to license it—but the derivation still converges.
- Hierarchy-type effects also disappear in non-finite environments in Georgian (Béjar and Rezac 2003), Greek (Anagnostopoulou 2003), Icelandic (below), and German (below).
- **Predicament for standard licensing accounts:** If hierarchy effects arise because there aren’t enough probes to license all DPs, removing probes should exacerbate the problem, not resolve it.
- Preminger’s (to appear) clausemate condition (20a) is more successful, but (we think) conceptually unappealing.³

2.3.2 **Case-discrimination condition**

- According to (20b), a [PART] DP need only be licensed if it is in the right case form—specifically, if it is a viable target for agreement.
- We know from Bobaljik (2008) that agreement can be *case-discriminating*.

- For example, in Hindi subjects control verb agreement if they are not overtly case-marked (23a), but not if they bear ergative case (23b). In the latter case, agreement is controlled by the object.

(23) *Split ergativity in Hindi*⁴

- a. māĩ roṭii khaa-t-aa hūũ
 I bread.F eat-HAB-M.SG be.1SG
 ‘I eat bread.’
- b. māĩ-ne roṭii khaa-yii hai
 I-ERG bread.F eat-PERF.FEM.SG be.3SG
 ‘I ate bread.’

- ▶ Given that many DPs cross-linguistically are simply not viable agreement targets, it is difficult to maintain that all 1st and 2nd person DPs must have their [PART] features licensed.

2.4 **Where this leaves us**

- **Licensing conclusion:** Under a licensing-based approach, the empirical facts demonstrate that Preminger’s caveats in (20) *are necessary*.
- But this leaves us in an uncomfortable position:⁵ 1st and 2nd person [PART] DPs must be licensed only if they *can* be licensed. That is:
 - ... only if there is something there to license them;
 - ... and only if they are visible to the licensing probe.
- ▶ Rather than supplementing the original PLC with these caveats, we take the empirical evidence to point in a different direction.
- If [PART] DPs are content to go unlicensed if the probe either (i) can’t access them, or (ii) is simply absent, then it seems fair to conclude that *the problem lies with the probe*, and not with the licensing of DPs.

Plan: Licensing • PCC/clitics • Agreement • Extensions

³ Other recent work on the PCC also proposes alternatives to the standard licensing approach; see for example, Pancheva and Zubizarreta to appear, Stegovac to appear. However, it is not clear to us that these accounts fare better with respect to this condition.

⁴ Bhamati Dash (p.c.)

⁵ We are grateful to Martha McGinnis and Michael Wagner for this discussion, which helped make us more uncomfortable and prompt the work here.

3 Gluttony and clitics

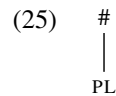
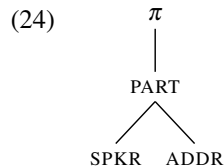
- In this section, we lay out an alternative means of deriving the PCC effects examined in section 2, which we attribute to *feature gluttony*.
 - We show that we achieve the same empirical coverage, without the need for the caveats needed for the licensing-based approach in (20).
 - In section 4, we show that our account makes correct predictions in other domains where we find hierarchy effects which can't be handled by a licensing-based approach.

3.1 Ingredients of the account

- **Proposal:** the problem with PCC—and other hierarchy-violating configurations—is that a probe agrees with more DPs than it can handle.
- Our proposal retains many of the insights from recent PCC literature described above:
 - Effects arise when two DPs are in the domain of a single ϕ -probe.
 - The agreeing ϕ -probe is articulated into π and $\#$ and these are universally ordered such that π probes first: $(\pi, \#)$.
 - Cliticization is an instance of long head-movement of a D^0 element, triggered by a ϕ -agreement relationship between the probe (clitic host) and goal DP (Preminger to appear).
 - Cliticization of a DP removes that DP as an intervener to subsequent probes (Anagnostopoulou 2003, Preminger 2009).

Assumptions:

- ① Person and number features are arranged in feature geometries (Harley and Ritter 2002), for example:
 - 1st person — $[\pi [PART [SPKR]]]$
 - 3rd person — $[\pi]$



- These geometries encode entailment relations among features, such that features on lower nodes entail the features on higher nodes:

- [SPKR] and [ADDR] entail [PART]
- [PART] entails $[\pi]$
- [PL] entails $[\#]$

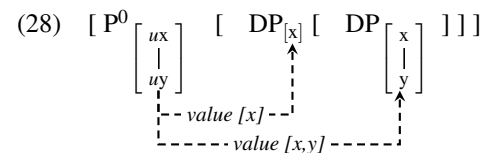
- ② ϕ -probes may vary as to the degree to which they are specified—i.e. to what kinds of features they are *satisfied by* (Béjar and Rezac 2009, Preminger 2014, Deal 2015, Oxford to appear).

- (26)
- a. $\begin{bmatrix} u\pi \\ | \\ uPART \\ | \\ uSPKR \end{bmatrix}$ — fully satisfied by 1st person DPs
 - b. $\begin{bmatrix} u\pi \\ | \\ uPART \end{bmatrix}$ — fully satisfied by 1st and 2nd person DPs
 - c. $[u\pi]$ — fully satisfied by any ϕ -bearing DP

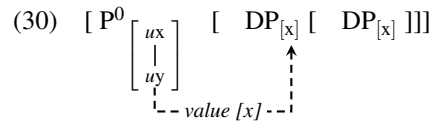
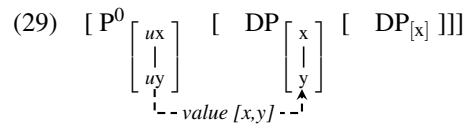
- A probe will Agree with the closest accessible DP which matches a subset of its features; if the most-specified features haven't been found, the probe is not *satisfied*, in Deal's (2015) terms, and probing continues.
- We formalize this as follows:

- (27) **Agree:**
 Given a probe P with a hierarchy of unvalued features $[uF]$,
- a. P searches the closest accessible DP in its domain such that this DP contains feature set $[G]$, with $[G] \cap [F] \neq \emptyset$;
 - b. $[G]$ and all features in $[G]$'s feature hierarchy are copied to P;
 - c. $[G]$ is removed from $[uF]$;
 - d. iterate over steps a.–c. until search fails.

- Informally, a probe will only Agree with a subsequent DP which matches *more features* (because of (27c)), as in (28).



- Otherwise probing stops (29)–(30).



③ The probe must try, but failure is okay (Preminger 2014).

- ▶ Entering into multiple Agree relationships is not a problem in and of itself—problems may arise depending on what happens next...

3.2 How this works for the PCC

- Catalan is a “Weak-PCC” language:

- *3>[PART]
- ✓[PART]>3, ✓[PART]>[PART], ✓3>3

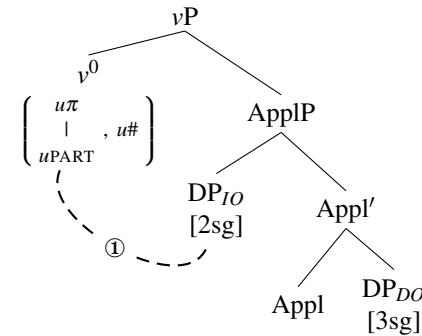
(31) *Catalan Weak-PCC (Bonet 1991)*

- a. En Josep, **te** 'I va recomenar la Mireia.
the Josep, 2CL 3CL recommended the Mireia
'Mireia recommended him (Josep) to you.' (✓2>3)
- b. *A en Josep, **te** **li** va recomenar la Mireia.
to the Josep, 2CL 3CL recommended the Mireia
intended: 'Mireia recommended you to him (Josep).' (*3>2)

- ▶ The ϕ probe is articulated into ordered π and # probes: $\left(\begin{matrix} u\pi \\ | \\ u_{PART} \end{matrix}, u\# \right)$

- In a Weak-PCC language, the π probe is articulated to [PART].
 - It is only fully satisfied by a DP with [PART] features.
 - But it will Agree with any ϕ -bearing element along the way.
- We start with the good 2>3 configuration in (31a):

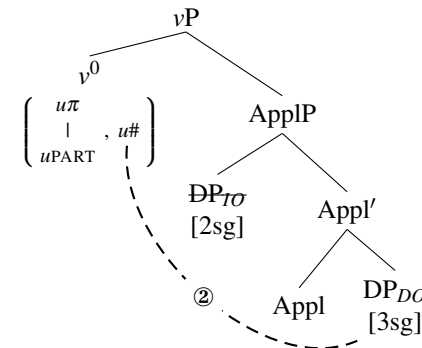
(32)



- The π -probe finds the 2nd person DP_{IO} ; its [PART] features are satisfied.
- Probing stops.
- DP_{IO} is clitic-doubled and removed as an intervener.

- Next, the #-probe probes; since DP_{IO} has been clitic-doubled and no longer intervenes, the #-probe locates the DP_{DO} and clitic-doubles it.

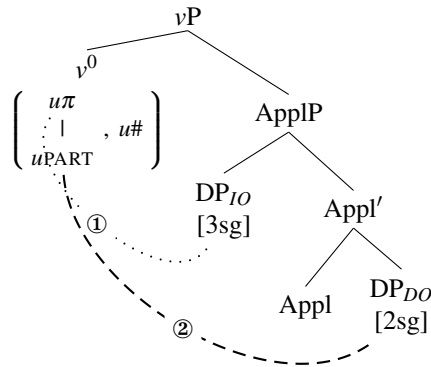
(33)



- Now we turn to the PCC-violating 3>2 configuration in (31b):

- ① The articulated π -probe first reaches 3rd person DP_{IO} which bears only π . This satisfies a *subset* of the probe's features, so an Agree relationship is established (..... line).
- ② The probe is *not* satisfied—it still has unvalued [PART]. Search continues and it finds the lower 2nd person DP, establishing a subsequent Agree relationship (----- line).

(34)

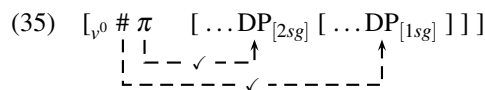


- **The probe is in trouble:** It has successfully entered into Agree relationships with two DPs.

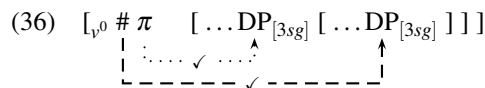
- It wants to move the lower one because it is the best match (see van Urk and Richards’ (2015) *Multitasking*, Oxford’s (to appear) *Best Match*, and Chomsky’s (2000, 2001) *Maximize matching*).
- It wants to move the higher one because of *Attract Closest* (Chomsky 1995).
- By assumption, both requirements are unranked and inviolable.

☹ The derivation crashes.

- In grammatical 1>2 or 2>1 configuration, the the π -probe is satisfied by the DP_{IO} and probing stops, as in (32).



- In grammatical 3>3 configurations, the π probe is not satisfied by DP_{IO} , but has *nothing to gain* by agreeing with the lower DP_{DO} , and probing stops.



3.3 Recap

3.3.1 Benefits of gluttony

- This analysis correctly captures PCC-violations without resorting to the weakened licensing in section 2.

- In several respects, gluttony is the opposite of a licensing account:
 - The problem is with the probe, not the DP.
 - The hierarchy effect is due to *too much* Agree, rather than *too little*.
- Since the problem arises when a *probe* agrees with more than one DP, we predict the absence of PCC effects in non-finite (probeless) environments (20a).

(37) *Licit hierarchy configuration w/o a probe* → no gluttony
 $[\dots DP_{[3sg]} \dots [\dots DP_{[1/2sg]} \dots]]$

- We gain a handle on rescue strategies for the PCC, which often involve using a full PP—inaccessible to the ϕ -probe—in place of clitic-doubling.

(38) $[_{v^0} \# \pi \quad [\dots \boxed{PP} [\dots DP_{[1sg]}]]]$

- The fact that the IO is removed as an intervener in PCC-obeying configurations means that the # probe will always agree with only a single DP—the remaining DO.

(39) $[_{v^0} \# \pi \quad [\dots \cancel{DP}_{[3sg]} [\dots DP_{[3sg]}]]]$

⇒ We derive the absence of “Num-CC” effects without resort to an ontological difference between person and number features (cf. Nevins 2011).⁶

3.3.2 Gluttony vs. Contiguous Agree

- We illustrated our account for a Weak-PCC system, because this pattern is the most difficult to understand in terms of licensing: a lower [PART] direct object is possible, so long as the higher indirect object is also [PART]
 - *3>[PART]; ✓[PART]>[PART]
- Anagnostopoulou (2005) and Nevins (2007), for example, use *Multiple Agree* to capture these patterns. Nevins formulates the requirement as:

(40) *Contiguous Agree:* Agree in a marked feature across an unmarked intervener is prohibited.

- **The upshot:** For Nevins, agreement is blocked by an unmarked feature, but not by a marked feature: ✓[+PART]>[+PART]

⁶ This predicts that number effects should appear if the higher DP is not removed as an intervener. Evidence from German suggests that this prediction is indeed borne out (see section 4.1).

- But based on relativized minimality (Rizzi 1990) in other domains of syntax (e.g. *wh*-movement), this is the opposite of what we might expect.
- Our account instead attributes the problem to an *overapplication* of agreement, avoiding this worry.

3.3.3 Other PCC and clitic patterns

- By modulating the specifications of the feature probe, the same basic mechanisms here can be used to capture other types of PCC effects.⁷

⇒ Including the possible *absence of PCC effects altogether* (reported in Haspelmath 2004).

(41) *PCC probe variation; see (14)*

- a. $\left(\begin{array}{c} \pi \\ | \\ \text{PART} \end{array} \right) = \text{Weak PCC}$
- b. $\left(\begin{array}{c} \pi \\ | \\ \text{PART} \\ / \quad \backslash \\ \text{SPKR} \quad \text{ADDR} \end{array} \right) = \text{Strong PCC (see also fn. 10)}$
- c. $\left(\begin{array}{c} \pi \\ | \\ \text{SPKR} \end{array} \right) = \text{Me-First PCC}$
- d. $\left(\begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{SPKR} \end{array} \right) = \text{Ultra-Strong PCC}$
- e. $\left(\pi \right) = \text{No PCC}$

- **Reverse PCC:** Stegovec (to appear) documents a ‘reverse PCC’ in Slovenian: The order of the ACC and DAT clitics is variable. If the order is flipped, so is the PCC restriction:

(42) *Slovenian* (Stegovec to appear: 4)

- a. *Mama *mu* **me/te** bo predstavila.
mom 3.M.DAT 1/2.ACC will introduce
‘Mom will introduce me/you to him.’ (*3DAT > 1/2ACC)
- b. *Mama **ga** *mi/ti* bo predstavila.
mom 3.M.ACC 1/2.DAT will introduce
‘The sister will introduce him to me/you.’ (*3ACC > 1/2DAT)

- Such effects are predicted on our account:

- (43) a. $\pi \dots \text{DP}_{3.\text{DAT}} \dots \text{DP}_{1/2.\text{ACC}}$
 $\uparrow \quad \uparrow$
 $\uparrow \quad \uparrow$
- b. $\pi \dots \text{DP}_{3.\text{ACC}} \dots \text{DP}_{1/2.\text{DAT}}$
 $\uparrow \quad \uparrow$
 $\uparrow \quad \uparrow$

- **Non-PCC:** We modelled this with double object constructions and a ϕ -probe on v^0 , but this analysis extends to other configurations of a single probe and two DPs, for example the Basque DAT-ABS pattern from above:

(44) *Basque*⁸

- a. *Ni Itxaso-ri gustatzen n-a-tzai-o.
1SG.ABS Itxaso-DAT liking 1ABS-TM-AUX-3DAT
intended: ‘Itxaso likes me.’ (*3DAT > 1ABS)
- b. Itxaso ni-ri etortzen \emptyset -zai-t.
Itxaso.ABS 1SG-DAT coming 3ABS-AUX-1SG.DAT
‘Itxaso is coming to me.’ (\checkmark 3ABS > 1DAT)

- *3DAT > 1ABS — DAT can’t clitic-double because the probe has agreed with both it and the lower ABS, as in (45).

- (45) $[_{T^0} \# \pi \ [\dots \text{DP}_{[3sg]} \ [\dots \text{DP}_{[1sg]}]]]$
 $\uparrow \quad \uparrow$
 $\uparrow \quad \uparrow$

- Why doesn’t gluttony occur in the ABS > DAT configuration in (44b)? (\checkmark 3ABS > 1DAT)

- **Proposal:** The lower DAT is ϕ -defective and has only ϕ visible, regardless of its person specification (Chomsky 2000, 2001)⁹

⁷ See Yokoyama 2017 for a licensing-based approach which seeks to capture this variation by modulating feature specifications in a similar manner, but *on the DP*.

⁸ Thanks to Jon Ander Mendia (p.c.) for providing the example in (44b).

⁹ The higher dative could either have or not have a full ϕ -specification under this proposal.

⇒ This means that when it is the lower argument, a probe will never gain anything by agreeing with it, and gluttony does not arise.¹⁰

$$(46) \quad [_{T^0} \# \pi \quad [\dots DP_{[3sg]} [\dots \boxed{DP_{DAT} \phi}]]]$$

\vdots
 \vdots
 \vdots

\checkmark

Plan: Licensing • PCC/clitics • DNC/agreement • Predictions

4 Gluttony and agreement

- For the clitic-doubling cases above, all that mattered was that more than one Agree relationship was established, creating conflicting demands on the movement required for clitic-doubling.
 - Where clitic-doubling is obligatory, forms involving gluttonous probes are either ineffable or last resort strategies are required.
- Here we focus in on the probe itself by looking at a different domain of hierarchy effects, this time in *agreement*.
- When a probe enters into an Agree relationship with more than one DP, ϕ -features from each DP are copied to the probe.
- **Problems arise when:** (i) Each value on the probe demands a different Vocabulary Item (VI); (ii) only a single VI can be inserted.

4.1 German copular constructions

- Coon, Keine, and Wagner (2017) present experimental evidence that German exhibits hierarchy effects in “assumed identity” copular constructions:

- | | |
|---|---|
| <p>(47) Person hierarchy</p> <p>a. <i>Ich</i> bin er.
I am he
‘I am him.’ ($\checkmark 1 > 3$)</p> <p>b. <i>?*Er</i> ist ich.
he is I
‘He is me.’ ($*3 > 1$)</p> | <p>(48) Number hierarchy</p> <p>a. <i>Sie</i> sind er.
they are he
‘They are him.’ ($\checkmark PL > SG$)</p> <p>b. <i>?*Er</i> ist die Bäume.
he is the trees.NOM
‘He is the trees.’ ($*SG > PL$)</p> |
|---|---|

- It is exactly in these configurations that we find two accessible (i.e. nominative) DPs in the domain of a single agreeing probe.

(49) **Hierarchy effects**

- a. $*3 > [PART]$
b. $*SG > PL$

- Unlike in the PCC, we find effects of both person and *number* (see Nevins 2011 on the absence of “Num-CC” effects in ditransitives).
- **Licensing?**
Coon, Keine, and Wagner (2017) propose a licensing account of these restrictions. But such an account is subject to the same objections as licensing accounts of the PCC:

– The hierarchy effect disappears in nonfinite clauses:¹¹

- (50) a. *Er* scheint **ich** zu sein.
he seems I to be
‘He seems to be me.’ ($\checkmark 3 > 1$)
- b. *Er* scheint **die Bäume** zu sein.
he seems the trees to be
‘He seems to be the trees.’ ($\checkmark SG > PL$)

- **Proposal:**

The π -probe and #-probe are articulated as follows:

$$(51) \quad \text{a.} \quad \left[\begin{array}{c} u\pi \\ | \\ uPART \end{array} \right] \qquad \text{b.} \quad \left[\begin{array}{c} u\# \\ | \\ uPL \end{array} \right]$$

¹⁰ If the DAT in Basque has only ϕ -features visible, as needed for this account, then Basque should be a Strong-PCC language: a lower [PART] DO should be impossible regardless of features of the IO. This prediction is borne out. This leaves us with two options to derive Strong-PCC languages: either the probe is highly articulated, as in (41)-b; or the probe is as in (41)-a and datives are ϕ -deficient.

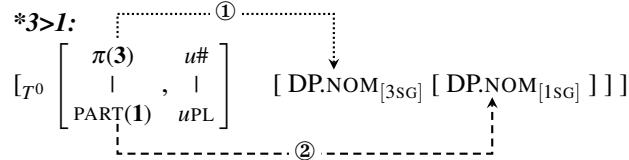
¹¹ We owe this observation to discussions with David Adger.

(52) *Agree (repeated)*

Given a probe P with a hierarchy of unvalued features [*uF*],

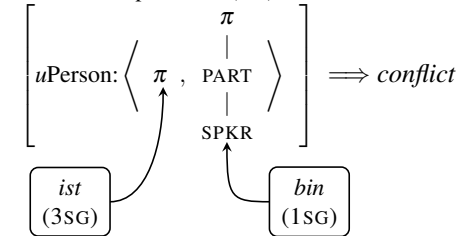
- a. P searches the closest accessible DP in its domain such that this DP contains feature set [*G*], with $[G] \cap [F] \neq \emptyset$;
- b. [*G*] and all features in [*G*]'s feature hierarchy are copied to P;
- c. [*G*] is removed from [*uF*];
- d. iterate over steps a.–c. until search fails.

(53) *3>1:



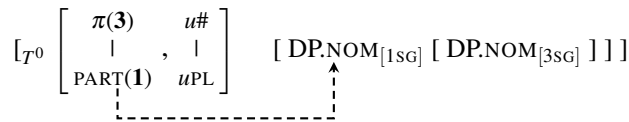
- Having agreed with two goals, the π -probe has as its value a pair of values.

(54) *Gluttonous probe in (53)*

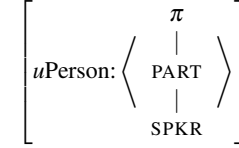


- The problem here is in the **morphological realization**: conflicting features from both DPs have been copied to the probe, and no morphological form is available to realize them. This creates an irresolvable morphological conflict.
- Note that the probe copies [SPKR] despite being only specified for [PART], in accordance with (52b). In this sense, ϕ -Agree is *coarse* (Deal 2015).

(55) $\checkmark I > 3$:

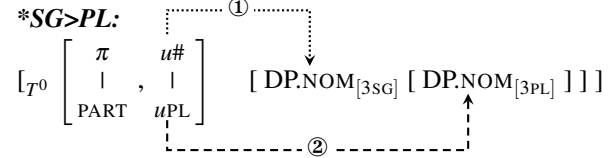


(56) *Non-gluttonous probe in (55)*

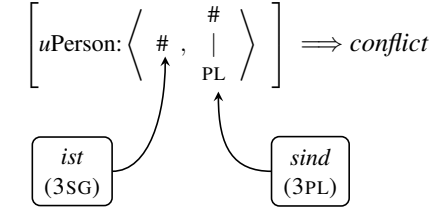


- The same line of account applies to the number hierarchy effect (49b): SG > PL is ruled out.

(57) *SG > PL:



(58) *Gluttonous probe in (57)*



• **Independent support: Matching effects in ATB movement**

Citko (2005) shows that ATB movement is possible only if the two gaps are associated with the same case form. Assuming a multidominance structure for ATB movement, her explanation is that the ATBed DP is assigned two case values and these can create a morphological conflict (see also Kratzer 2009).

(59) *Case-mismatch effects in German ATB movement*

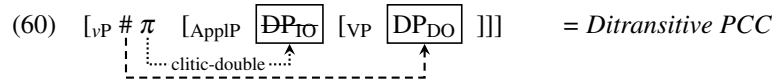
- a. Ich weiß [wen Jan ___ hasst und Maria ___ mag]
I know who.ACC Jan ___.ACC hates and Maria ___.ACC likes
'I know who Jan hates and Maria likes.'
- b. *Ich weiß [wen/wem Jan ___ vertraut und Maria ___ mag]
I know who.ACC/who.DAT Jan ___.DAT trusts and Maria ___.ACC likes
'I know who Jan trusts and Maria likes.'

• **Number hierarchy?**

Why is there a number hierarchy effect in German but not in PCC configurations? Coon et al. (2017) connected to the absence of clitic doubling in German. In the absence of clitic doubling, the higher DP (i.e., the subject) will not be removed as an intervener for the second #-probe.

– **Ditransitive constructions**

Clitic doubling of an indirect object as a result of Agree with π removes it as an intervener—the # probe has no opportunity for gluttony.



– **Copula constructions**

Since German lacks clitic doubling, Agree between the π probe and the higher DP in copula constructions does not render the lower DP invisible for subsequent Agree.



4.2 Syncretism and Icelandic DAT–NOM constructions

- Agreement patterns in Icelandic dative-nominative constructions (DNCs) have been widely discussed in the literature (see Sigurðsson 1991, 1996, Taraldsen 1995, Holmberg and Hróarsdóttir 2003, Sigurðsson and Holmberg 2008).
- The similarity to PCC environments has been noted as well (see e.g. Boeckx 2000, Anagnostopoulou 2003, Béjar and Rezac 2003).
- Famously, in Icelandic DNCs:
 - A dative DP occupies true subject position, but does not control agreement on the verb.
 - For some speakers, in certain configurations, partial agreement in number *is* possible with the lower nominative DP.¹²

¹² We do not discuss a gluttony approach to this partial number agreement, though our account is compatible with existing proposals in which the [π] probe may move a DAT DP to subject position, allowing the [#] probe to access the object (Béjar and Rezac 2003).

(62) Henni leiddust strákarnir.
her.DAT bored.3PL the.boys.NOM
'She found the boys boring.'
($\sqrt{3} > 3PL$)

- But agreement with the lower nominative is subject to a restriction:

(63) **Person Restriction (Sigurðsson and Holmberg 2008: 254):**
In DAT–NOM constructions, only 3rd person NOM may control agreement.

- Agreement with 1st and 2nd person nominatives is impossible:

(64) a. *Henni leiddumst við.
her.DAT bored.1PL we.NOM
intended: 'She found us boring.'
(*3 > 1PL)

b. *Henni líkaðir þú.
her.DAT like.2SG you.SG
intended: 'She likes you.'
(*3 > 2SG)

- As Sigurðsson and Holmberg (2008) point out, the problem is not with having a 1/2 person nominative object, but with person agreement itself.
- Configurations equivalent to those in (64) in infinitival forms are deemed “quite acceptable”.

(65) *Non-agreement fix (Sigurðsson and Holmberg 2008: 271)*
?Hún vonaðist auðvitað [til að leiðast við/þið/þeir
she hoped of.course for to find.boring.INF **we/you/they.NOM**
ekki mikið].
not much
'She of course hoped not to find us/you/them very boring.'

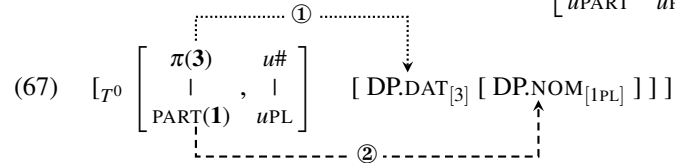
- Furthermore, in the presence of an embedded clause, the verb has the option agreeing with the NOM argument (and presumably agrees with the clause instead). In this case, the person restriction is alleviated (Sigurðsson 1996, Hrafnbjargarson 2002, Sigurðsson and Holmberg 2008).

(66) *Non-agreement fix (Hrafnbjargarson 2002: 2)*
a. Mér þykja þau góð í fótbolta
me.DAT think.3PL they.NOM good in football
'I think they are good at football.'

- b. **Ykkur** **bykir** / ***byki** **ég** góður í fótbolta
 you.PL.DAT think.3SG / *think.1SG I.NOM good in football
 ‘You think I am good at football.’

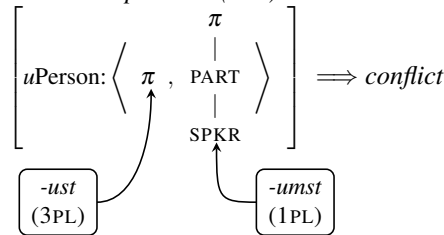
- Drawing on the articulated ϕ -probes from §3, as well as on proposals that dative DPs in Icelandic behave formally as 3rd person (Boeckx 2000, Anagnostopoulou 2003), we account for the ungrammaticality of forms like (64a) as follows:

– The ϕ -probe is articulated for person and number: $\begin{bmatrix} u\pi & u\# \\ | & | \\ u_{PART} & u_{PL} \end{bmatrix}$



- ① The π probe searches first, agrees with DP.DAT and copies 3rd person features to the probe.
- ② The probe is not satisfied and continues to agree with DP.NOM; its 1st person features are also copied to the probe.

(68) *Gluttonous probe in (64a)*



- As in German above, the problem is in the *morphological realization*: the two feature values impose conflicting demands on the morphological realization (also see Schütze 2003, Atlamaz and Baker 2018).
- **Handling non-agreement:** Recall that the restriction on the nominative disappears if the verb does not agree with it. This follows naturally now: Without agreement, there is not gluttony, and the problem in (68) does not arise in the first place.
- **The role of syncretism:** Across all paradigms, in environments where agreement with [PART] agreement is syncretic with 3rd person agreement, grammaticality is considerably improved (Sigurðsson 1991, 1996, Sigurðsson and Holmberg 2008).

(69) *Syncretism fix (Sigurðsson and Holmberg 2008: 270)*

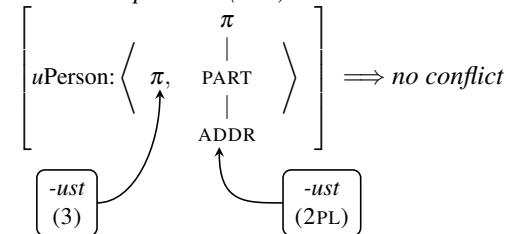
- Henni virtust **þið** eitthvað einkennilegir.
her.DAT seemed.2PL/3PL you.PL.NOM somewhat strange
‘You seemed somewhat strange to her.’
- *Henni virtumst **við** eitthvað einkennilegir.
her.DAT seemed.1PL we.NOM somewhat strange

(70) *Syncretism fix (Sigurðsson 1996: 28)*

- *Henni líkaðir **þú**.
her.DAT like.2SG you.SG.NOM
‘She likes you.’
- ?Henni leiddist **ég/þú**.
her.DAT bored.1SG/2SG/3SG I.NOM/you.SG.NOM
‘She found me/you boring.’

- In exactly these configurations, an underspecified form is available to spell out the features on the gluttonous probe: the [3]-person feature from the dative, along with the lower nominative features.

(71) *Gluttonous probe in (69a)*



• **Icelandic recap:**

- Person effects arise in only a corner of Icelandic grammar: in DNCs, where both DPs are in the domain of a single agreement probe.
- Assuming that dative DPs have only [ϕ] visible (as in (67)), we explain the person effect, along with the syncretism fix, as an expected consequence of the system of feature gluttony.

Plan: Licensing • PCC/clitics • Agreement • Extensions

5 Extensions: More gluttony repairs

- We saw some ways in which configurations that otherwise give rise to gluttony can be ‘repaired’:
 - absence agreement/clitic doubling (PCC, German, Icelandic)
 - syncretism (Icelandic)
- Are there others? We suggest that the answer is yes based on complementizer agreement in Nez Perce and portmanteaux agreement, both of which arguably involve licit cases of gluttony.

5.1 Fission and Nez Perce complementizer agreement

- Deal (2015) analyzes complementizer agreement in Nez Perce. When embedding a transitive, the Nez Perce complementizer is realized as:

(72) *Nez Perce omnivorous complementizer agreement*

COMP form	SUBJ>OBJ
<i>ke</i>	3>3
<i>ke-x</i>	1>3 3>1
<i>ke-m</i>	2>3 3>2

- Our account predicts gluttony in the 3>1 and 3>2 forms: the probe must be specified at least to [PART], and should agree with the higher 3rd person subject.

(73) $[_{C^0} \# \pi [\dots DP_{[3SG]} [\dots DP_{[1/2SG]}]]]$

- Evidence that cases of object agreement indeed involve gluttony comes from combinations of two [PART] DPs.

(74) *Nez Perce “1/2 asymmetry” (Deal 2015)*

COMP form	SUBJ>OBJ
<i>ke-m</i>	2>1
<i>ke-m-ex</i>	1>2

- In 2>1 configurations, only 2nd person agreement appears (75a);

- In 1>2 configurations, 2nd and 1st person agreement appears (75b):

- (75) a. **ke-m** kaa *pro.subj* cewcew-téetum *pro.obj*
 COMP-2 then PRO.2SG telephone-TAM PRO.1SG
 ‘when you call me’
- b. **ke-m-ex** kaa *pro.subj* cewcew-téetu *pro.obj*
 COMP-2-1 then PRO.1SG telephone-TAM PRO.2SG
 ‘when I call you’

- Deal (2015): Nez Perce complementizer probe:

$$\left[\begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{array} \right]$$
 - 2>1: [ADDR] agrees with 2nd person subject and the probe is *fully satisfied*; probing stops.
 - 1>2: [PART] node agrees with 1st person subject; [ADDR] node continues and agrees with object. — **gluttony!**

- In (75b) we have a case of gluttony where two morphemes are spelled out.

- Nez Perce appears to handle this instance of gluttony by *fission*: the gluttonous probe is split into two terminal nodes, and a VI is inserted for each.

(76) $\left[u\text{Person}: \left\langle \begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{SPKR} \end{array}, \begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{array} \right\rangle \right] \Rightarrow \left[u\text{Person}: \begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{SPKR} \end{array} \right] \left[u\text{Person}: \begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{array} \right]$

5.2 Portmanteaux

- Another solution for gluttonous probes are *portmanteaux* morphemes: a special portmanteau VI is inserted which reflects features of both DPs
- Cross-linguistically, portmanteaux forms are especially prevalent in combinations of *local person* DPs (Heath 1991, 1998, Georgi 2013, Oxford to appear).
 - In the 1>3 configuration in (77a), we find a 1st person subject agreement morpheme, *-nash*.
 - In the 1>2 configuration in (77b), the portmanteau form *-mash* reflects features of both the subject and the object.

(77) *Sahaptin local person portmanteaux*

a. cháw-**nash** mish á-mi-ta iwínsh-nan
NEG-1SG how 3-do-FUT man-OBJ
'Maybe I will not do anything to him.'

b. á-**mash** twána-ta
now-1SG>2SG DIR.follow-FUT
'I will follow you.'

(Rude 1994: 103)

- Georgi (2013) develops a formal account of person portmanteaux which relies on now-familiar mechanisms:
 - Portmanteaux forms may arise when more than one DP is in the domain of a single articulated probe.
 - Features from the multiple Agree operations undergo *fusion* (Noyer 1992), and a single portmanteau Vocabulary Item can be inserted.
- Georgi notes that *the majority* of the languages in Heath’s surveys which exhibit portmanteaux in local (1>2/2>1) scenarios *also* show person hierarchy effects in non-local combinations of arguments.
- Georgi restricts Agree to positive values of features, arguing following Nevins 2007 that only 1/2 person DPs have positive values: $\pm 1, \pm 2$
- ▶ By instead adopting a system in which probe specification correspond to varying specifications of feature-geometric values, we avoid concerns about how to account for languages with 3rd person agreement forms (see Georgi’s fn. 4)

Plan: Licensing • PCC/clitics • Agreement • Extensions

6 Consequences and extensions

6.1 Summary

- The system of *feature gluttony* developed here both gives us the possibility to account for a range of hierarchy effects from seemingly disparate domains, but is also constrained enough to not overgenerate.
- Gluttony arises when an articulated probe agrees with more than one DP. For gluttony to occur:
 - the probe must have access to two DPs

- the probe must be articulated (i.e. *picky*) enough to not be completely satisfied by the first DP it encounters
- the lower DP must have more features than the higher DP (i.e. hierarchy environments)

1. **First**, because it is not double Agree itself, but rather the possible *aftermath* that causes hierarchy effects, we make predictions about which types of effects should be found where, along with repairs:

▶▶ **Clitic problem** = conflicting movement demands (§3)

◊ *Solution*: don’t clitic-double (e.g. PP as last resort in PCC)

▶▶ **Agreement problem** = spell-out of conflicting features (§4)

◊ *Solutions*:

1. absence of agreement (infinitives in Basque, German, Icelandic)
2. syncretism (Icelandic)
3. portmanteaux agreement (Sahaptin)
4. fission (Nez Perce)
5. absence of VI

2. **Second**, we are able to do away with the caveats of the Person Licensing Condition (15) while still accounting for the empirical facts which motivated them:

- absence of effects in non-finite or cross-clausal environments
- absence of effects with inaccessible DPs

3. **Finally**, variation can be accounted for along several constrained and independently motivated axes:

- the degree to which the probe is articulated (41)
- whether the higher DP is a defective dative

6.2 Extensions and questions

- As in other accounts of these phenomena, the proposal that π and $\#$ are distinct and universally-ordered probes gives us a handle on certain facts:
 - There are Person Case Constraint effects, but no Num-CC effects.
 - In general, person agreement is more “fragile” than number (Baker 2011, Preminger 2011).
- Lots of questions and extensions for future work, at least one:

- As Deal (2015) shows for Nez Perce complementizers, the features which determine whether or not a probe is *satisfied* are not the same as the features with which a probe *interacts*.
- The Nez Perce C⁰ probe is fully satisfied by a [ADDR]—2nd person DPs cause probing to halt. *However*, not just person features, but also number features are copied back to the probe along the way.
- ↳ Is it possible that agreement triggered by [π] always results in the full set of [ϕ] features being copied back to the probe?

References

- Adger, David, and Daniel Harbour. 2007. Syntax and Syncretisms of the Person Case Constraint. *Syntax* 10:2–37.
- Anagnostopoulou, Elena. 2003. *The syntax of ditransitives: Evidence from clitics*. Berlin: Mouton de Gruyter.
- Anagnostopoulou, Elena. 2005. Strong and weak person restrictions: A feature checking analysis. In *Clitic and affix combinations: Theoretical perspectives*, ed. Lorie Heggie and Francisco Ordoñez, 199–235. Amsterdam: John Benjamins.
- Anagnostopoulou, Elena. to appear. The Person Case Constraint (PCC). In *The Blackwell Companion to Syntax*, ed. Martin Everaert and Henk van Riemsdijk. Blackwell Publishers, 2nd edition.
- Arregi, Karlos, and Andrew Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. Dordrecht: Springer.
- Atlamaz, Ümit, and Mark Baker. 2018. On partial agreement and oblique case. *Syntax* 21:195–237.
- Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge, UK: Cambridge University Press.
- Baker, Mark C. 2011. When agreement is for number and gender but not person. *Natural Language and Linguistic Theory* 29:875–915.
- Béjar, Susana, and Milan Rezac. 2003. Person Licensing and the Derivation of PCC Effects. In *Romance Linguistics: Theory and Acquisition*, ed. Ana Teresa Perez-Leroux and Yves Roberge, 49–62. Amsterdam: John Benjamins.
- Béjar, Susana, and Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40:35–73.
- Bobaljik, Jonathan David. 2008. Where's Phi? Agreement as a Post-Syntactic Operation. In *Phi Theory: Phi-features across interfaces and modules*, ed. Daniel Harbour, David Adger, and Susana Béjar, 295–328. Oxford: Oxford University Press.
- Boeckx, Cedric. 2000. Quirky Agreement. *Studia Linguistica* 54:354–380.
- Bonet, Eulàlia. 1991. Morphology after syntax. Doctoral Dissertation, MIT, Cambridge, MA.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Citko, Barbara. 2005. On the nature of merge: External merge, internal merge, and parallel merge. *Linguistic Inquiry* 36:475–496.
- Coon, Jessica, Stefan Keine, and Michael Wagner. 2017. Hierarchy effects in copular constructions: The PCC corner of German. In *The proceedings of the 47th North-Eastern Linguistic Society (NELS 47)*, ed. Andrew Lamont and Katerina Tetzloff, 205–214. Amherst, MA: GLSA.
- Deal, Amy Rose. 2015. Interaction and satisfaction in ϕ -agreement. In *The proceedings of the 45th North-Eastern Linguistic Society (NELS 45)*, ed. Thuy Bui and Deniz Ozyildiz, 179–192. Amherst, MA: GLSA.
- Doliana, Aaron. 2013. The super-strong Person Case Constraint: Scarcity of resources by scale-driven impoverishment. In *Rule interaction in grammar*, ed. Fabian Heck and Anke Assmann, 177–202. Universität Leipzig. Linguistische Arbeits Berichte 90.
- Georgi, Doreen. 2013. Deriving the distribution of person portmanteaux by relativized probing. In *Proceedings of NELS 42*, ed. S. Keine and S. Sloggett, 155–168. Amherst: GLSA.
- Harley, Heidi, and Elizabeth Ritter. 2002. Person and Number in Pronouns: A Feature-Geometric Analysis. *Language* 78:482–526.
- Haspelmath, Martin. 2004. Explaining the ditransitive Person-Role Constraint: A usage-based approach. Ms. Max Planck Institute for Evolutionary Anthropology.
- Heath, Jeffrey. 1991. Pragmatic disguise in pronominal-affix paradigms. In *Paradigms: The economy of inflection*, ed. Frans Plank, 75–89. Berlin and New York: Mouton de Gruyter.
- Heath, Jeffrey. 1998. Pronominal skewing in $1 \leftrightarrow 2$ combinations in Native American languages. *International Journal of American Linguistics* 64:83–104.
- Holmberg, Anders, and Thorbjörg Hróarsdóttir. 2003. Agreement and Movement in Icelandic Raising Constructions. *Lingua* 113:997–1019.
- Hrafnbjargarson, Gunnar Hrafn. 2002. Reduced agreement in Icelandic and Old English. Ms. University of Aarhus.
- Kratzer, Angelika. 2009. Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40:187–237.
- Laka, Itziar. 1993. The structure of inflection: A case study in X⁰ syntax. In *Generative studies in Basque linguistics*, ed. José Ignacio Hualde and Jon Ortiz de Urbina, 21–70. Amsterdam: John Benjamins.
- Laka, Itziar. 1996. A Brief Grammar of Euskara, the Basque Language (ISBN: 84-8373-850-3). Ms., Vitoria-Gasteiz: Euskal Herriko Unibertsitatea (University of the Basque Country).
- Nevins, Andrew. 2007. The representation of third person and its consequences for Person-Case effects. *Natural Language and Linguistic Theory* 25:273–313.
- Nevins, Andrew. 2011. Multiple agree with clitics: person complementarity vs. omnivorous number. *Natural Language and Linguistic Theory* 29:939–971.
- Nichols, Lynn. 2001. The syntactic basis of referential hierarchy phenomena: Clues from languages with and without morphological case. *Lingua* 111:515–537.
- Noyer, Rolf. 1992. Features, positions, and affixes in autonomous morphological structure. Doctoral Dissertation, MIT, Cambridge, MA.
- Oxford, Will. to appear. Inverse marking and Multiple Agree in Algonquin: Complementarity and variability. *Natural Language and Linguistic Theory*.
- Pancheva, Roumyana, and Maria Luisa Zubizarreta. to appear. The Person Case Constraint: the syntactic encoding of perspective. *Natural Language and Linguistic Theory*.
- Perlmutter, David. 1971. *Deep and surface structure constraints in syntax*. New York: Holt, Rinehart and Winston, Inc.
- Preminger, Omer. 2009. Breaking Agreements: Distinguishing Agreement and Clitic-Doubling by Their Failures. *Linguistic Inquiry* 40:619–666.
- Preminger, Omer. 2011. Asymmetries between person and number in syntax: A commentary on Baker's SCOPA. *Natural Language and Linguistic Theory* 29:917–937.
- Preminger, Omer. 2014. *Agreement and its failures*. Cambridge, MA: MIT Press.
- Preminger, Omer. to appear. What the PCC tells us about “abstract” agreement, head movement, and locality. *Glossa*.
- Rezac, Milan. 2008. The syntax of eccentric agreement: The PCC and Absolutive Displacement in Basque. *Natural Language and Linguistic Theory* 26:61–106.
- Rizzi, Luigi. 1990. *Relativized minimality*. Cambridge, MA: MIT Press.
- Rude, Noel. 1994. Direct, inverse and passive in Northwest sahapitin. In *Voice and inversion*, ed. Talmy Givón, volume 28 of *Typological Studies in Language*, 101–119. Amsterdam: John Benjamins.
- Schütze, Carson. 2003. Syncretism and double agreement with Icelandic nominative objects. In *Grammar in focus: Festschrift for Christer Platzack, vol. 1*, ed. Lars-Olof Delsing, Cecilia Falk, Gunlög Josefsson, and Halldór Ármann Sigurðsson, 295–303. Lund University: Department of Scandinavian Languages.
- Sigurðsson, Halldór Ármann. 1991. Icelandic case-marked pro and the licensing of lexical arguments. *Natural Language and Linguistic Theory* 9:327–364.
- Sigurðsson, Halldór Ármann. 1996. Icelandic Finite Verb Agreement. *Working Papers in Scandinavian Syntax* 57:1–46.
- Sigurðsson, Halldór Ármann, and Anders Holmberg. 2008. Icelandic dative intervention: *Person* and *Number* are separate probes. In *Agreement Restrictions*, ed. Roberta D'Alessandro, Susann Fischer, and Gunnar Hrafn Hrafnbjargarson, 251–280. Berlin: Mouton de Gruyter.
- Stegovec, Adrian. to appear. Taking Case out of the Person-Case Constraint. *Natural Language and Linguistic Theory*.
- Taraldsen, Knut Tarald. 1995. On agreement and nominative objects in Icelandic. In *Studies in Comparative Germanic Syntax*, ed. Hubert Haider, Susan Olsen, and Sten Vikner, 307–327. Dordrecht: The Netherlands: Kluwer Academic Publishers.
- van Urk, Coppe, and Norvin Richards. 2015. Two components of long-distance extraction: Successive cyclicity in Dinka. *Linguistic Inquiry* 46:113–155.
- Yokoyama, Tomohiro. 2017. The Person Case Constraint: Repairing the notion of “repair”. Paper presented at the Manitoba Workshop on Person, Winnipeg, Manitoba.