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 & Wagner 2017)

  3. *Icelandic dative–nominative configurations* (Sigurðsson 1996, Sigurðsson & Holmberg 2008)

  4. with possible extensions to
     - *local person portmanteaux* (Heath 1991, Georgi 2013),
     - *Nez Perce complementizer agreement* (Deal 2015),
     - *direct–inverse splits* (Béjar & Rezac 2009), and
     - *focus intervention effects* (Beck 1996)

(1)   **Basque PCC**[1]

    a.   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)

    b.   *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)

    c.   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)

- 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*
Probe^0 [… DP$_1$ … [… DP$_2$ …]]

↪ 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 [PART(ICIPANT)] DP must be licensed through φ-Agree (Anagnostopoulou 2005, Béjar & Rezac 2003, Adger & Harbour 2007, Baker 2008, 2011, Preminger 2017)

  ↪ In hierarchy-violating configurations, the higher DP intervenes for Agree with the lower DP, which remains unlicensed

  ↪ *not enough Agree/probes*

- **Our proposal:**
  We argue that hierarchy effects are the result not from the *underapplication* of Agree, but instead from an *overapplication of Agree.*

  - 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.
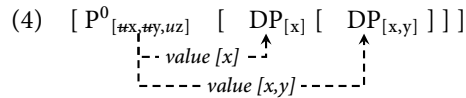
- We draw on recent work on *Cyclic Agree* (Béjar & Rezac 2009) and *interaction in φ-agreement* (Deal 2015), but offer a more constrained account of when it may occur (3):
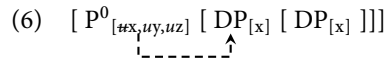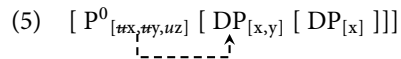
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[1]   Data due to Laka (1996) and Jon Ander Mendia (p.c.)

(3) **Agree**:
Given a probe P with a hierarchy of unvalued features $[u\text{F}]$,
a. P searches the closest accessible DP in its domain such that this DP contains feature set $[\text{G}]$, with $[\text{G}] \cap [\text{F}] \neq \varnothing$;
b. $[\text{G}]$ and all features in $[\text{G}]$'s feature hierarchy are copied to P;
c. $[\text{G}]$ is removed from $[u\text{F}]$;
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).

(4) $[\text{P}^0_{[\#\text{x},\#\text{y},u\text{z}]} \ [\ \text{DP}_{[\text{x}]} \ [\ \text{DP}_{[\text{x,y}]} \ ] \ ] \ ]$
$\quad\quad\quad$ *value [x]*
$\quad\quad\quad\quad$ *value [x,y]*

- If the lower DP has fewer features, as in (5), or the same features, as in (6), it will not enter into *Agree* with it:

(5) $[\text{P}^0_{[\#\text{x},\#\text{y},u\text{z}]} \ [\ \text{DP}_{[\text{x,y}]} \ [\ \text{DP}_{[\text{x}]} \ ] \ ] \ ]$

(6) $[\text{P}^0_{[\#\text{x},u\text{y},u\text{z}]} \ [\ \text{DP}_{[\text{x}]} \ [\ \text{DP}_{[\text{x}]} \ ] \ ] \ ]$

- 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 with a feature that has more than one value is *gluttonous*. A configuration that gives rise to gluttonous probes *feature gluttony*.

- Having too many values 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 $[u\text{F}]$ by a goal bearing $[\text{F}]$.
  - Here we focus on ϕ-agreement: agreement in person, number, and gender features.
  - The relevant probes are typically finite T^0/Infl^0 and v^0.

(8)
TP
$\text{T}_{[u\phi]}$ ...
Agree
$\text{DP}_{[1\text{sG}]}$ ...
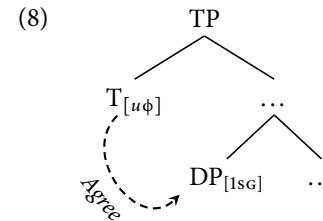
  - Unvalued features on T^0 are valued and may be spelled out in the morphology.

- **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 (Preminger 2017).

(9)
HP
$\text{D}^0 = \text{H}^0$ ...
① *Agree*
② *head movement*
DP
D^0 ...

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

- **Clitics and agreement compared:**
  - Clitics are D^0 heads and are the result of movement; *te* in (10).
  - Agreement is the morphological spell out of features on a probe; no movement necessary; subject agreement *-amos* in (10).

  (10)   [Te]   busc-**amos**.
  2OBJ.CL   search-1PL
  'We're looking for you.'

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)

(11) *   (12) ✓

- Found in a range of genetically diverse languages: Greek, Spanish, Basque, Passamaquoddy, Walpiri, Takelma, Kiowa, French, Nahuatl, Yimas, Georgian, Albanian … (Perlmutter 1971, Bonet 1991, Anagnostopoulou 2003, to appear, Adger & Harbour 2007, Doliana 2013, Nevins 2007, Pancheva & Zubizarreta to appear).[2]

(13)   **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)

(14)   **Basque PCC (=(14))**

   a.   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)

   b.   *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)

   c.   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)

- 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 & Zubizarreta to appear):
  - **Strong PCC**: ban any clitic combinations in which DO is 1/2 person
  - **Weak PCC**: ban 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

(15)   **Types of PCC**

	IO	>	DO
Strong:	*X	>	1/2
Weak:	*3	>	1/2
Me-First:	*X	>	1
Ultra-Strong:	*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 & Rezac (2003, 2009), many accounts of the PCC rely on a *licensing condition:*

(16) **Person Licensing Condition (PLC)**　　　　(Béjar & 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 & 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 thus probes first

  2. [PART] DPs must have their features licensed by π per (16); 3rd person DPs
  may be licensed by #

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

- In a **PCC-compliant configuration** like (17):
  - 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 subse-
  quent operations (②);
  - # then probes and licenses the lower [3SG] DP (③), again triggering cliti-
  cization (④).

(17)　　$D^0{}_{DO} = D^0{}_{IO} = [_{v^0}$ # π　[… $\overline{DP_{[1SG]}}$ [… $DP_{[3SG]}$]]]
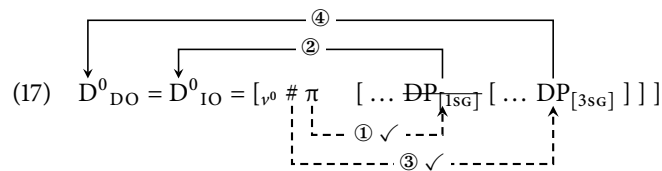
- In a **PCC-violating configuration** like (18) the π probe is blocked from licensing
the lower [1SG] by the higher DP.

(18)　　$[_{v^0}$ # π　[…$DP_{[3SG]}$ […$DP_{[1SG]}$]]]
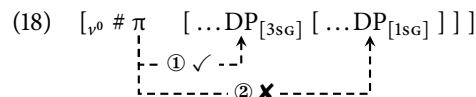
➡ **Core idea:** This is a *licensing problem*; 1st and 2nd person DPs must be
licensed by π, and the higher DP is getting in the way.

- Repairs for the PCC are compatible with this account:

(19) *French PCC and repair*

　a. *Je **te**　$\boxed{\text{lui}}$　ai　presenté.
　　I　CL.2SG　CL.3SG　have　introduced
　　intended: 'I introduced you to him.'　　　　(*3DAT > 2ACC)

　b. Je **t'**-ai　　　presenté　$\boxed{\text{à lui}}$.
　　I　CL.2SG-have　introduced　to him
　　'I introduced you to him.'

  - In (19b), 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:

(20) **Person Licensing Condition (PLC) (Preminger 2017)**
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"?

(21) **Canonical agreement target (Preminger 2017)**:
A given DP *x* is a canonical ϕ-agreement target **iff** there is at least on
ϕ-probe *y* such that:
　a.　*x* and *y* are clausemates;
　b.　*x* meets the CASE-DISCRIMINATION requirements of *y*.

2.3.1　Clausemate condition

- According to (21a), a [PART] DP need only be licensed if there is a probe in the
same clause which can license it (see Preminger 2011).

(22) *PCC clausemate condition in Basque*[3]

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

    c.   *Adpositional infinitival clause: No PCC*

        [Zuk   **ni**   *harakinari*   sal-tze-n   ]   probatu
          you.ERG   me.ABS   butcher-DAT   sold-NMZ-LOC   attempted
        d-u-zu
        3ABS-AUX-2ERG
        'You have attempted to sell me to the butcher.'   (✓3DAT > 1ABS)

(23) *Clausemate condition in Basque (Arregi & 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 (22b) does not have a head to license it—yet the derivation converges.

- Hierarchy-type effects also disappear in non-finite environments in Georgian (Béjar & 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 (2017) clausemate condition (21a) is more successful, but conceptually unappealing.

2.3.2   Case-discrimination condition

- According to (21b), 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 (24a), but not if they bear ergative case (24b). In the latter case, agreement is controlled by the object.

(24) *Split ergativity in Hindi*[4]

    a.   **mãĩ** roṭii   khaa-t-**aa**   **hũũ**
        I   bread.F   eat-HAB-M.SG   be.1SG
        'I eat bread.'

    b.   mãĩ-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 (21) *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

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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 (21).
  - 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: (π, #).
  - 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 2017).
  - 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 & Ritter 2002), for example:
  - 1st person — [π [PART [SPKR]]]
  - 3rd person — [π]

(25)
```
        π
        |
      PART
       / \
    SPKR  ADDR
```

(26)
```
     #
     |
     PL
```
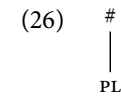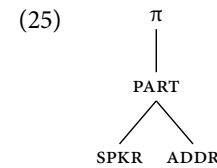
- These geometries encode entailment relations among features, such that features on lower nodes entail the features on higher nodes:
  - [SPKR] and [ADDR] entail [PART]
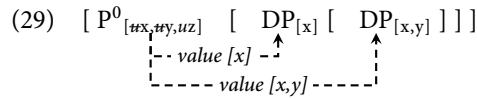 - [PART] entails [π]
  - [PL] entails [#]

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 & Rezac 2009, Preminger 2014, Deal 2015, Oxford to appear).

(27) a. $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \\ | \\ u\text{SPKR} \end{bmatrix}$ — fully satisified by 1st person DPs

   b. $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \end{bmatrix}$ — fully satisfied by 1st and 2nd person DPs

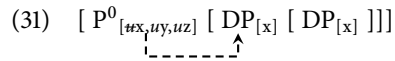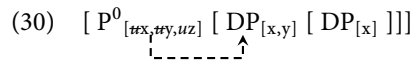   c. $\begin{bmatrix} u\pi \end{bmatrix}$ — fully satisfied by any ϕ-bearing DP

- 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:

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(28) **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] ∩ [F] ≠ ∅;
   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 (28c)), as in (29).

(29) $[\ P^0_{[\cancel{\#}x,\cancel{\#}y,uz]}\ [\ DP_{[x]}\ [\ DP_{[x,y]}\ ]\ ]\ ]$
  - - - *value [x]* - -
  - - - - - *value [x,y]* - - - - -

- Otherwise probing stops (30)–(31).

(30) $[\ P^0_{[\cancel{\#}x,\cancel{\#}y,uz]}\ [\ DP_{[x,y]}\ [\ DP_{[x]}\ ]]]$

(31) $[\ P^0_{[\cancel{\#}x,uy,uz]}\ [\ DP_{[x]}\ [\ DP_{[x]}\ ]]]$

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:
  - $^{\star}3 > [\textsc{part}]$
  - $^{\checkmark}[\textsc{part}] > 3,\ ^{\checkmark}[\textsc{part}] > [\textsc{part}],\ ^{\checkmark}3 > 3$

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

  a. En Josep, **te** **'l**   va recomenar la Mireia.
      the Josep, 2CL 3CL recommended the Mireia
      'Mireia recommended him (Josep) to you.' $(^{\checkmark}2 > 3)$

  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).' $(^{\star}3 > 2)$

➼ The φ probe is articulated into ordered π and # probes: $\begin{bmatrix} u\pi \\ | \\ u\textsc{part} \end{bmatrix},\ u\#$

- 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.

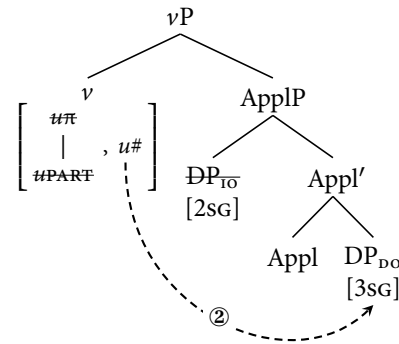- We start with the **PCC-obeying** 2>3 configuration in (32a):

(33)
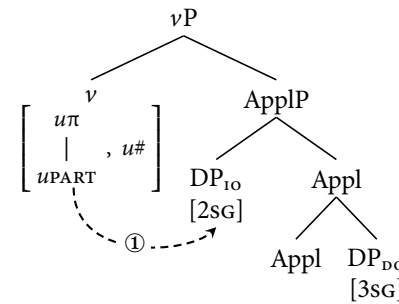
- The π-probe finds the 2nd person DP$_{\text{IO}}$; its [PART] features are satisfied.
- Probing stops.
- DP$_{\text{IO}}$ is clitic-doubled and removed as an intervener.

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

(34)

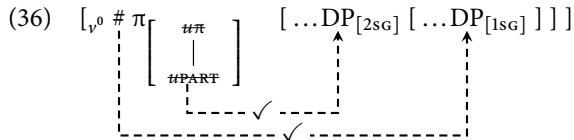- Now we turn to the **PCC-violating** 3>2 configuration in (32b):
  ① The articulated π-probe first reaches 3rd person DP$_{\text{IO}}$ which bears only π. This satisfies a *subset* of the probe's features, so an *Agree* relationship is established (①).
  ② The probe is <u>not satisfied</u>—it still has [*u*PART]. Search continues and it finds the lower 2nd person DP, establishing a subsequent *Agree* relationship (②).

(35)
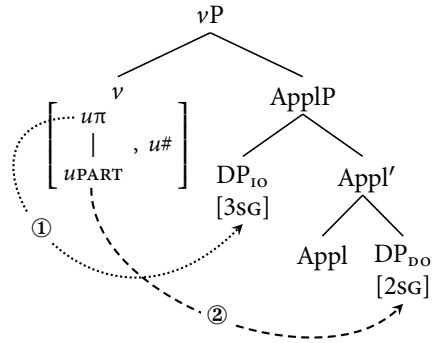
- **The probe is in trouble:** It has successfully entered into *Agree* relationships with two DPs.

    - It wants to move the lower one because it is the best match (see van Urk & 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 (33).

(36) $[_{v^0}$ # π $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \end{bmatrix}$ $[\dots DP_{[2SG]} [\dots DP_{[1SG]}]]]$

- In grammatical 3>3 configurations, the probe is not satisfied by DP_{IO}, but its remaining [*u*PART] feature is not matched by the 3rd person DO, and probing stops.

(37) $[_{v^0}$ # π $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \end{bmatrix}$ $[\dots DP_{[3SG]} [\dots DP_{[3SG]}]]]$
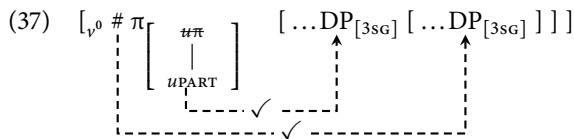
3.3 Recap

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 only when a *probe* agrees with more than one DP, we predict the absence of PCC effects in non-finite (probeless) environments (21a).

(38) *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.

(39) $[_{v^0}$ # π $[\dots \boxed{PP} [\dots DP_{[1SG]}]]]$

- 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.

(40) $[_{v^0}$ # π $[\dots \cancel{DP_{[3SG]}} [\dots DP_{[3SG]}]]]$

    ⇨ 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 Another problem for a licensing-based approach

- 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].

(41) a. *3 > [PART]

      b. ✓[PART] > [PART]

---

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

- On a licensing account, it would have to be the case that a [PART] DO can be π-agreed with across a [PART] intervener, but not across a 3rd person intervener.

(42) *Agree requirements on a licensing-based account*

    a. [π … [… DP$_{[PART]}$ [… DP$_{[PART]}$]]]
             ✓

    b. [π … [… DP$_{[3]}$ [… DP$_{[PART]}$]]]
   ✗
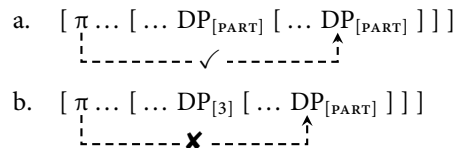
- Special stipulations are required to accommodate this restriction. Nevins (2007), for example, proposes a special condition on *Multiple Agree* to capture these patterns:

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

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

- But based on relativized minimality (Rizzi 1990) in other domains of syntax (e.g. *wh*-movement), this is exactly the <u>opposite</u> of what we might expect.

- Because our account is not based on licensing, it does not require DO agreement in [PART] > [PART], and hence avoids this worry altogether.
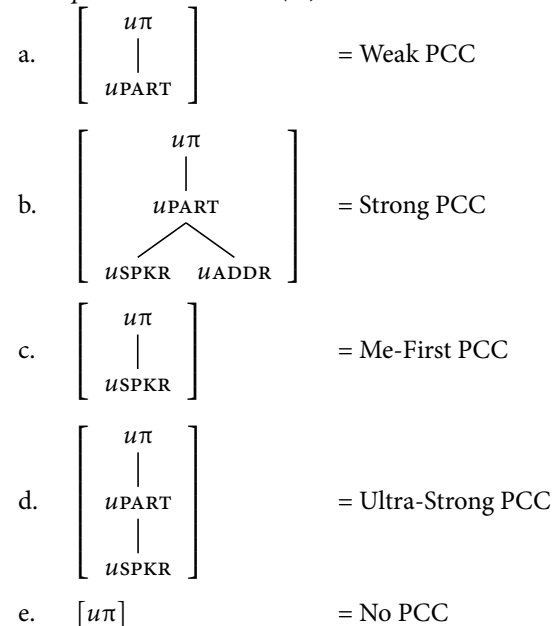
(44) *Agree on gluttony account*

    a. [π … [… DP$_{[PART]}$ [… DP$_{[PART]}$]]]
             ✓

    b. [π … [… DP$_{[3]}$ [… DP$_{[PART]}$]]] ⇝ *gluttony*
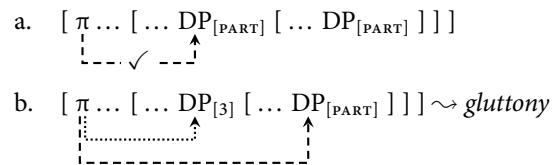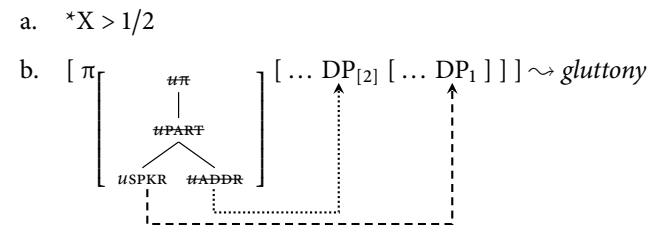
3.3.3 Other PCC and clitic patterns

- 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.

(45) *PCC probe variation; see (15)*

    a. $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \end{bmatrix}$ = Weak PCC

    b. $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \\ \diagup \diagdown \\ u\text{SPKR} \quad u\text{ADDR} \end{bmatrix}$ = Strong PCC

    c. $\begin{bmatrix} u\pi \\ | \\ u\text{SPKR} \end{bmatrix}$ = Me-First PCC

    d. $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \\ | \\ u\text{SPKR} \end{bmatrix}$ = Ultra-Strong PCC

    e. $[\,u\pi\,]$ = No PCC

(46) *Illustration: Strong PCC*

    a. *X > 1/2

    b. [π $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \\ \diagup \diagdown \\ u\text{SPKR} \quad u\text{ADDR} \end{bmatrix}$ [… DP$_{[2]}$ [… DP$_1$]]] ⇝ *gluttony*

Plan: ☑ Licensing • ☑ PCC/clitics • ☐ Agreement • ☐ Extensions

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.

---

[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*. See also Doliana (2013) for discussion and analysis of a *super strong* version of the PCC, which also blocks 3 > 3. Whether our account can be extended to the super strong PCC remains to be seen.

- Here we focus in on <u>the probe itself</u> 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 & Wagner (2017) present experimental evidence that German exhibits hierarchy effects in "assumed identity" copular constructions:

(47) **Person hierarchy**

   a. *Ich* bin **er**.
      I   am he
      'I am him.' ($\checkmark$ 1 > 3)

   b. ?*Er ist **ich**.
      he is I
      cf. 'He is me.' (*3 > 1)

(48) **Number hierarchy**

   a. *Sie* sind **er**.
      they are he
      'They are him.' ($\checkmark$ PL > SG)

   b. ?*Er ist **sie**.
      he is they
      cf. 'He is them.' (*SG > PL)

- ➠ 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 & 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:[8]

(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)

  ▷ Because 1>2 and 2>1 are okay, [–Part] DPs must count as an intervener, but [+Part] DPs must not. As mentioned above, this would be dubious.

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

(51) a. $\begin{bmatrix} u\pi \\ | \\ u\text{PART} \end{bmatrix}$ b. $\begin{bmatrix} u\# \\ | \\ u\text{PL} \end{bmatrix}$

(52) *Agree* (*repeated*)
Given a probe P with a hierarchy of unvalued features $[u\text{F}]$,

   a. P searches the closest accessible DP in its domain such that this DP contains feature set $[\text{G}]$, with $[\text{G}] \cap [\text{F}] \neq \varnothing$;

   b. $[\text{G}]$ and all features in $[\text{G}]$'s feature hierarchy are copied to P;

   c. $[\text{G}]$ is removed from $[u\text{F}]$;

   d. iterate over steps a.–c. until search fails.

(53) ***3>1:**

$[_{\text{T}^0} \begin{bmatrix} \pi(3) & u\# \\ | & | \\ \text{PART}(1) & u\text{PL} \end{bmatrix}$ $[\text{DP.NOM}_{[3\text{SG}]} [\text{DP.NOM}_{[1\text{SG}]}]]]$

                         ①
                         ②
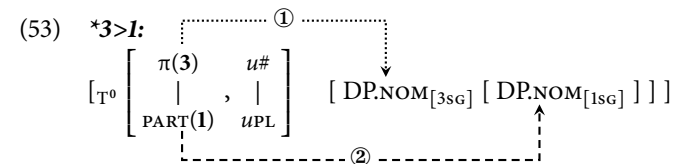
- Having agreed with two goals, the π-probe has as its value a *pair of values*.

(54) *Gluttonous probe in (53)*

$\begin{bmatrix} & & \pi & \\ & & | & \\ u\text{Person:} & \langle\ \pi\ , & \text{PART} & \rangle \\ & & | & \\ & & \text{SPKR} & \end{bmatrix} \Longrightarrow conflict$

    ist
    (3SG)   *bin*
                             (1SG)

---
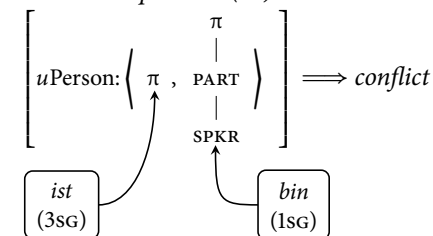
8 We owe this observation to discussions with David Adger.

- 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) $\checkmark$ *1>3:*

$$[_{T^0} \begin{bmatrix} \pi(3) & u\# \\ | & , & | \\ \text{PART}(1) & u\text{PL} \end{bmatrix} \quad [\text{DP.NOM}_{[1\text{SG}]} \, [\, \text{DP.NOM}_{[3\text{SG}]} \,] \,] \,]$$
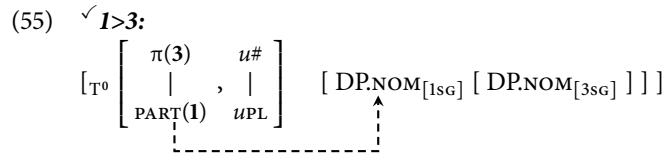
(56) *Non-gluttonous probe in (55)*

$$\begin{bmatrix} & \pi & \\ & | & \\ u\text{Person:} \left\langle \begin{array}{c} \text{PART} \\ | \\ \text{SPKR} \end{array} \right\rangle \end{bmatrix}$$

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

(57) **SG>PL:*

$$[_{T^0} \begin{bmatrix} \pi & u\# \\ | & , & | \\ \text{PART} & u\text{PL} \end{bmatrix} \quad [\text{DP.NOM}_{[3\text{SG}]} \, [\, \text{DP.NOM}_{[3\text{PL}]} \,] \,] \,]$$

(58) *Gluttonous probe in (57)*

$$\begin{bmatrix} u\text{Person:} \left\langle \begin{array}{cc} & \# \\ \# & , & | \\ & \text{PL} \end{array} \right\rangle \end{bmatrix} \Longrightarrow \textit{conflict}$$
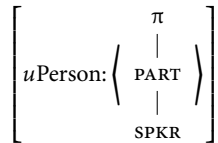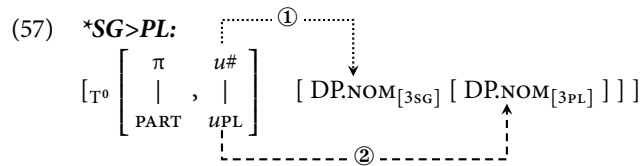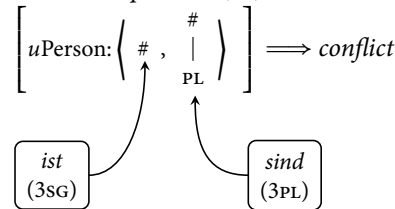
ist (3SG)   *sind* (3PL)

- **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).

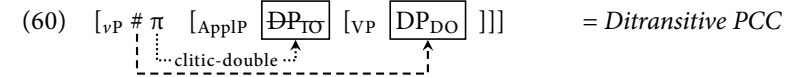(59) *Case-mismatch effects in German ATB movement*

a. Ich weiß [**wen**   Jan __   mag und Maria __
    I   know   who.**ACC** Jan __.**ACC** likes and Maria __.**ACC**
    hasst]
    hates
    'I know who Jan likes and Maria hates.'

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

- **Number hierarchy?**
  Why is there a number hierarchy effect in German but not in PCC configurations? This is plausibly 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.

(60) $[_{vP} \# \pi \, [_{\text{ApplP}} \, \overline{\text{DP}_{\text{IO}}} \, [_{vP} \, \boxed{\text{DP}_{\text{DO}}} \,]]]$ = *Ditransitive PCC*
      clitic-double

  - **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.

(61) $[_{TP} \# \pi \, [_{\text{PredP}} \, \text{DP}_{\text{SUBJ}} \, [\, \text{DP}_{\text{PRED}} \,] \,] \,]$ *German copula*
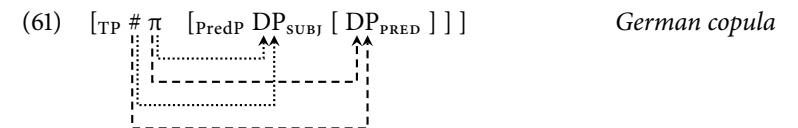
4.2 Syncretism and Icelandic DAT–NOM constructions

- Agreement patterns in Icelandic dative-nominative constructions (DNCs) have been widely discussed in the literature (see Sigurðsson 1991, 1996, Taraldsen 1995, Holmberg & Hróarsdóttir 2003, Sigurðsson & Holmberg 2008).

- The similarity to PCC environments has been noted as well (see e.g. Boeckx 2000, Anagnostopoulou 2003, Béjar & 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:[9]

(62) ~~Henni~~ leidd**ust** strákarnir.
her.DAT bored.3PL the.boys.NOM
'She found the boys boring.' ($\checkmark$ 3 > 3PL)

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

(63) **Person Restriction (Sigurðsson & 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~~ leidd**umst** við.
her.DAT bored.1PL we.NOM
intended: 'She found us boring.' (*3 > 1PL)

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

➥ As Sigurðsson & Holmberg (2008) point out, the problem is not with having a 1/2 person nominative object, but with <u>person agreement itself</u>.

- Configurations equivalent to those in (64) in <u>infinitival forms</u> are deemed "quite acceptable".

(65) *Non-agreement fix (Sigurðsson & 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.'

---

9. 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 & Rezac 2003).

- 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 & 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~~ **þykir** / *þyki **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: $\begin{bmatrix} u\pi & u\# \\ | & | \\ u\text{PART} & u\text{PL} \end{bmatrix}$

(67) $[_{T^0} \begin{bmatrix} \pi\mathbf{(3)} & u\# \\ | & | \\ \text{PART}\mathbf{(1)} & u\text{PL} \end{bmatrix}$ [DP.DAT$_{[3]}$ [DP.NOM$_{[1PL]}$]]]

  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)*

$$u\text{Person:} \begin{bmatrix} & \pi & \\ & | & \\ \pi & , & \text{PART} \\ & & | \\ & & \text{SPKR} \end{bmatrix} \implies conflict$$

-ust (3PL) ⟶ π
-umst (1PL) ⟶ SPKR

- As in German above, the problem is in the *morphological realization:* the two feature values impose conflicting demands on the morphological realization (also see Atlamaz & Baker to appear).

- **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 <u>syncretic</u> with 3rd person agreement, grammaticality is considerably improved (Sigurðsson 1991, 1996, Sigurðsson & Holmberg 2008).

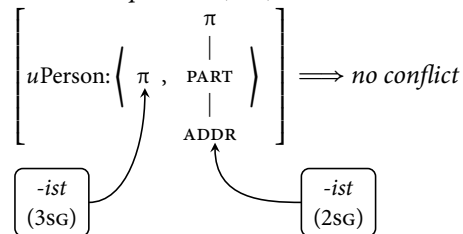(69) *Syncretism fix (Sigurðsson & Holmberg 2008: 270)*

    a.   Henni   virt**ust**   **þið**   eitthvað   einkennilegir.
         her.DAT seemed.**2PL/3PL** you.PL.NOM somewhat strange
         'You seemed somewhat strange to her.'

    b. *Henni   virt**umst**   **við**   eitthvað   einkennilegir.
         her.DAT seemed.**1PL** we.NOM somewhat strange

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

    a. *Henni   líka**ðir** **þú**.
         her.DAT like.**2SG** you.SG.NOM
         'She likes you.'

    b. ?Henni   leidd**ist**   **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 (70b)*

$$
\begin{bmatrix} u\text{Person:} \left\langle\ \pi\ ,\ \begin{array}{c} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{array}\ \right\rangle \end{bmatrix} \implies no\ conflict
$$

    -ist (3SG)   -ist (2SG)

- **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':

  1. absence agreement/clitic doubling (PCC, German, Icelandic)

  2. 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
ke	3>3
ke-x	1>3
	3>1
ke-m	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.

13

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

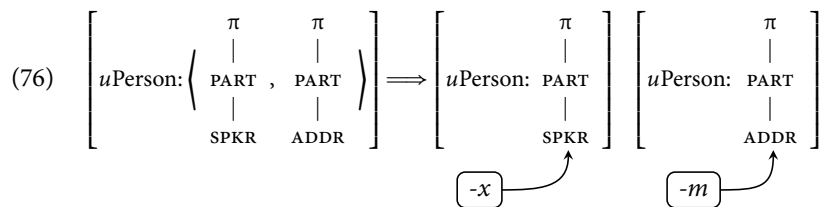- Evidence that cases of object agreement indeed involve gluttony comes from combinations of two [PART] DPs.

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

COMP form	SUBJ>OBJ
ke-m	2>1
ke-m-ex	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: $\begin{bmatrix} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{bmatrix}$

  – 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) $\begin{bmatrix} u\text{Person:} \left\langle \begin{matrix} \pi \\ | \\ \text{PART} \\ | \\ \text{SPKR} \end{matrix}, \begin{matrix} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{matrix} \right\rangle \end{bmatrix} \Longrightarrow \begin{bmatrix} u\text{Person:} \begin{matrix} \pi \\ | \\ \text{PART} \\ | \\ \text{SPKR} \end{matrix} \end{bmatrix} \begin{bmatrix} u\text{Person:} \begin{matrix} \pi \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{matrix} \end{bmatrix}$

  -x   *-m*

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, Sandalo 2016, 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 ɨwínsh-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 <u>more than one DP is in the domain of a single articulated probe</u>.

  – 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: ±1, ±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

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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 the accumulation of φ-features 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; see also Kaqchikel AF; Appendix A)
   - ➲ **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 (Kaqchikel, see Appendix A)

2. **Second**, we are able to do away with the caveats of the Person Licensing Condition (16) 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 (45)
   - 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).

- Interesting domains for future work:

1. **Kaqchikel Agent Focus** (Appendix A): A hierarchy-based system of clitic doubling in which 3rd person singular DPs have no overt form; gluttony is correctly predicted to result in a converging derivation in instances where there is only one clitic.

2. **Algonquian, Nez Perce, Nahuatl . . . :**
   - As Deal (2015) shows for Nez Perce complementizers, the features which determine whether or not a probe is *satisifed* are not the same as the features with which a probe *interacts*.
   - The Nez Perce C^0 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.
   - This appears to be true in other languages, e.g. Algonquian (Oxford to appear), Nahuatl (Baker 2011)
   - ➲ Is it possible that agreement triggered by [π] always results in the full set of [φ] features being copied back to the probe? (i.e. no variation in interaction?)

3. **Focus intervention** (Appendix B): Divorcing hierarchy effects from nominal licensing, as we suggest, leads one to expect that similar effects might be observed for Ā-dependencies. Focus intervention is a possible instance.

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A Kaqchikel Agent Focus

- In a regular transitive verb, dedicated morphemes index subjects (ERG) and objects (ABS) on the predicate:

  (78) X-**e**-**ru**-pön   wäy   ri ixtän.
        CPL-ABS3P-ERG3S-make.tortilla tortilla the girl
        'The girl made tortillas.'

- As in many other Mayan languages, Kaqchikel has an *Agent Focus* construction, used when an agent has A'-extracted, the verb has only a single absolutive morpheme.

- In the Kichean subbranch, the subject and object *compete* for realization of this slot: [PART]>[3PL]>[3SG] (Davies & Sam-Colop 1990).

(79) *Person hierarchy effects (Preminger 2014)*

a. Ja ⌊rat⌋ x-**at**-ax-an   ri achin.
    FOC you CPL-ABS2S-hear-AF the man
    'You heard the man.'

b. Ja ri achin x-**at**-ax-an   ⌊rat⌋.
    FOC the man CPL-ABS2S-hear-AF you
    'The man heard you.'

(80) *Number hierarchy effects (Preminger 2014)*

a. Ja ⌊rje'⌋ x-**e**-tz'et-ö   rja'.
    FOC them CPL-ABS3PL-see-AF him
    'They saw him.'

b. Ja rja' x-**e**-tz'et-ö   ⌊rje'⌋.
    FOC him CPL-ABS3PL-see-AF them
    'He saw them.'

➼ There is an interesting asymmetry in the realization of person and number:

  – Combinations of [PART] DPs are simply ineffable in the Agent Focus construction (Smith-Stark 1978, Preminger 2014).

  (81) *Ja rat x-⌊in/at/Ø⌋-ax-an   yïn.
        FOC you CPL-ABS1S/ABS2S/ABS3S-hear-AF me
        intended: 'It was you who heard me.'

  – However, two 3rd person plural DPs are acceptable with a single 3rd person plural ABS marker on the verb (Preminger 2014).

  (82) Ja ri ixoqi' x-**e**-tz'et-o   ri ak'wala'.
        FOC the women CPL-ABS3P-see-AF the children
        'It was the women who saw the children.'

- Preminger (2014) accounts for this asymmetry via the Person Licensing Condition from above: [PART] features require licensing, in a way that [PL] features do not.

(83)

	SINGULAR Pre-C / Pre-V	PLURAL Pre-C / Pre-V
1st	*i-* / *in-*	*oj-*
2nd	*a-* / *at-*	*ix-*
3rd	Ø	*e-* / *e'-*

Proposal:

- Absolutive morphemes in Kaqchikel are *syntactic clitics* (D^0 heads).[10]

- The π probe in Kaqchikel is maximally articulated, while the # probe is articulated to [PL]:

$$
\left[
\begin{array}{c}
\begin{array}{c}
u\pi \\
| \\
u\text{PART} \\
\diagup \diagdown \\
u\text{SPKR} \quad u\text{ADDR}
\end{array}
\end{array}
, \quad
\begin{array}{c}
u\# \\
| \\
u\text{PL}
\end{array}
\right]
$$

➼ Agreement with π and #—the top nodes of the probes, corresponding to 3rd person singular—does *not* trigger clitic doubling.

- As in the other Mayan languages, there is no overt reflex of 3rd person singular absolutive → 3SG is 'Ø' in (83).

- π probes first; here are the possibilities:

(84)

	configuration	gluttony?	result
a.	[PART]>[3]	no	[PART] clitic-doubled (79a)
b.	[PART]>[PART]	yes	ineffable (81)
c.	[3]>[PART]	yes	[PART] clitic-doubled (79b)

- Row (b) is reminiscent of Strong-PCC from section 3—the gluttonous probe agrees with two [PART] DPs and conflicting constraints on movement prevent clitic-doubling of either.

- Because there is no clitic form for 3rd person singular DPs, such DPs don't qualify as closer targets for cliticization. Hence, a gluttonous probe in a [3]>[PART] will successfully clitic-double the [PART] DP.

- Next the # probe probes:

(85)

	configuration	gluttony?	result
a.	[PL]>[SG]	no	[PL] clitic-doubled (80a)
b.	[PL]>[PL]	no	[PL] clitic-doubled (82)
c.	[SG]>[PL]	yes	[PL] clitic-doubled (80b)

---

[10] Preminger (2014) proposes that 1st and 2nd person morphemes are instances of *clitic-doubling*, while the 3rd person plural morpheme is an *agreement* marker. In their detailed study of absolutive markers in Kaqchikel, Bennett, Harizanov & Henderson (to appear) find consistent prosodic and phonological behavior across this paradigm of morphemes in (83). In aspectless Kaqchikel non-verbal predicates the absolutive morphemes behave as morphophonological clitics. As discussed in Bennett et al. (to appear), they may be prosodically smothered into the verbal complex in inflected verbal predicates, and in this environment they behave prosodically as affixes. This is consistent with our proposal.

- As in the case of the π-probe, the gluttonous configuration does not cause a problem because 3rd person singular does not trigger a clitic double and hence no intervention effect arises.

- **Note:** # yields a clitic only if π fails to create one (i.e. there is no [PART] DP)—this could either be because of a morphological restriction (not more than one clitic), or alternatively a syntactic interaction between the two probes.

B Gluttony in the Ā-system?

- All the gluttony cases so far were based on agreement or cliticization. But if the problem is due to over specification of a probe, as we suggest, then we might expect similar effects to obtain in the Ā-system as well.

- One potential candidate is *focus intervention* a.k.a. *Beck effects* (Hoji 1985, Beck 1996, 2006, Beck & Kim 1997, Miyagawa 2010).

(86) **Focus intervention** (Beck 2006)
A quantificational or focusing element may not intervene between a wh-phrase and its licensing complementizer.

(87) *Focus intervention in Hindi* (Keine 2016)

    a. ??**kisi-bhii laṛke-ne** *kis-ko* nahĩĩ dekhaa?
          some-NPI boy-ERG who-ACC not saw
          'Who did no boy see?'

    b. *kis-ko*₁ **kisi-bhii laṛke-ne** t_1 nahĩĩ dekhaa?
          who-ACC some-NPI boy-ERG not saw
          'Who did no boy see?'

- There are a variety of different approaches, but at least some attribute the effect to Agree(ment), e.g., (Kim 2006, Miyagawa 2010). Building on these approaches, a gluttony-based approach might involve a structure like (88), where the focus intervener matches the probe in fewer features than the wh-element.

(88) $^*[_{CP}\ C_{[iQ,u\text{wh},u\text{Foc}]}\ [\ \ldots\ \text{Foc}_{[i\text{Foc}]}\ \ldots\ [\ \ldots\ wh_{[i\text{wh},i\text{Foc}]}\ \ldots\ ]]]$
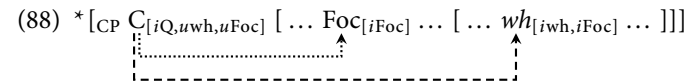
- This structure might plausibly be understood in terms of gluttony:

- Like in the case of cliticization, *Best Match* requires (covert) movement of *wh*, whereas *Attract closest* mandates movement of Foc.

☹ The derivation crashes.