## A Person-Case Constraint without Case

Adrian Stegovec

adrian.stegovec@uconn.edu

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Abstract The Person-Case Constraint (PCC) is a cross-linguistically common condition on co-occuring weak pronominal direct objects (DO) and indirect objects (IO) that restricts the person value of the DO. This paper presents a previously unattested variant of the PCC which is found in Slovenian, where the standard PCC operates alongside an INVERSE PCC, where the person restriction applies to the IO. This kind of restriction is not predicted by standard syntactic approaches to the PCC, which are built around inherent asymmetries between the IO and DO. The paper argues that the PCC (in all its forms) arises because clitic/weak pronouns are inherently unspecified for a person value and need to receive one externally from a functional head via Agree. The structurally higher pronoun blocks the structurally lower pronoun from receiving a person value, giving rise to the PCC effect. The difference between the Slovenian and canonical PCC pattern can then be attributed solely to the presence of optional DO-over-IO movement in Slovenian, prior to person valuation.

**Keywords** Agree · clitic movement · deficient pronouns · Person-Case Constraint · Slovenian · unvalued interpretable features

## 1 Introduction

Compared to other  $\varphi$ -features, like number, gender, or class, person stands out as having the most restricted distribution. While long acknowledged as a tendency, recent cross-linguistic studies like Baker (2008) have shown just how systematic this split is. A seemingly unrelated split occurs between strong and deficient or reduced pronouns, which consistently differ with respect to syntactic placement and interpretation (see, among many others, Cardinaletti and Starke 1994). On the surface, the two issues seem unrelated. However, in spite of that, they often turn out to interact.

A case in point is the \*me lui constraint (Perlmutter 1971, Bonet 1991), now better known as Person-Case Constraint (PCC) (Bonet 1994). It is typically characterized as a constraint on weak pronominal elements (clitics, weak pronouns, agreement markers), specifically on co-occurring weak direct objects (DO) and indirect objects (IO), where their co-occurrence is restricted according to their person value. Although different iterations of the PCC have been described (see below), the most prevalent one is the STRONG PCC; the relevant descriptive generalization is provided in (1).

(1) STRONG PCC. When a weak DO and IO co-occur, the DO has to be  $3^{rd}$  person. (based on: Bonet 1991:182)

A prototypical case of (1) is found in Greek; in ditransitives, DO and IO clitics may co-occur only if the DO is  $3^{rd}$  person (3P), as in (2a). In contrast, a  $1^{st}$  or  $2^{nd}$  person (1P, 2P) DO clitic cannot co-occur with an IO clitic, as shown by (2b).

(2) a. Tha mu/su/tu to stilune. 1/2/3P.IO  $\gg$  3P.DO<sup>2</sup> FUT 1/2/3M.DAT 3.N.ACC send.3.PL 'They will send it to me/you/him.'

b. \* Tha **mu/su/tu se/me** sistisune. \*1/2/3P.IO  $\gg$  2/1P.DO FUT 1/2/3.M.DAT 2/1.ACC introduce.3.PL 'They will introduce you/me to me/you/him.'

(Greek; Anagnostopoulou 2005:202)

Cross-linguistically, we find at least another variant of the constraint, the WEAK PCC. In contrast to the STRONG PCC, this variant allows for more clitic combinations, as characterized in the descriptive generalization given in (3).

(3) WEAK PCC. When a weak DO and IO co-occur, if one of them is 3<sup>rd</sup> person it has to be the DO. (based on: Bonet 1991:182)

An example of this pattern is attested in Catalan. Both STRONG and WEAK PCC ban clusters of 1P/2P.DO and 3P.IO clitics (shown in (4) for Catalan), but the latter does not ban clusters of 1P and 2P object clitics, as illustrated in (5).<sup>3</sup>

- (4) \* A en Josep, **me/te li** va recomenar la Mireia. \*3P.IO ≫ 1/2P.DO to the Josep, 1/2.ACC 3.DAT recommended the Mireia 'She (M) recommended me/you to him (J).' (Catalan; Bonet 1991:178–179)
- (5) a. **Te m'** ha venut el mercader més important.  $1P.IO \gg 2P.DO$  2.ACC 1.DAT has sold the merchant most important 'The most important merchant has sold you to me.'
  - b. Vi ci manderá. 2P.IO ≫ 1P.DO
     2.PL.DAT 1.PL.ACC send.FUT.3P.SG
     'S/he will send us to you (pl).' (Catalan; Anagnostopoulou 2005:203)

Both constraints appear to be sensitive to the DO/IO distinction, and the general consensus in the literature is that the PCC can be tied directly to an asymmetry between the inherent properties of the DO and IO. In particular, in minimalist syntactic analyses of the PCC, such as Anagnostopoulou (2003; 2005) and Béjar and Řezáč (2003), the restriction has been argued to follow from a direct connection between Case checking and  $\varphi$ -agreement as proposed by Chomsky (2000; 2001).

 $<sup>^{1}\,</sup>$  In Modern Greek DAT and GEN are fused, so I mark 10 clitics as DAT, despite the GEN morphology.

 $<sup>^2</sup>$  The  $\gg$  symbol indicates an asymmetrical c-command relation between elements. Crucially, this differs from  $\gg$ , which is used to mark linear precedence. I assume, following among others Anagnostopoulou (2003), that in double-object constructions the base position of the IO asymmetrically c-commands the DO.

<sup>&</sup>lt;sup>3</sup> Note that the 2P clitic also consistently precedes the 1P one. This is briefly discussed in Section 4.1.4.

In this paper, I focus on a previously unnoticed person restriction found in Slovenian. Whereas the canonical PCC restricts the person value of DO clitics co-occurring with 10 clitics, in Slovenian the person restriction applies consistently to the linearly second object clitic regardless of its morphological case or grammatical function. The pattern is observable in Slovenian due to two possible orders of object clitics (IO » DO and DO » IO). I argue that not only should this restriction be treated on par with the PCC, but that the standardly assumed case-sensitivity of the PCC does not hold, which will be confirmed by languages other than Slovenian. The PCC is then not a case of defective intervention, where an inherent case element intervenes between a structural case element and its Case assigner (Béjar and Řezáč 2003, Anagnostopoulou 2003; 2005; a.o.), but arises due to restrictions on the valuation of person features independent of Case-checking. Specifically, I argue that the PCC results from clitic/weak pronouns being inherently underspecified for person values, which means they must be valued by a functional head (cf. Kratzer 2009, Zanuttini et al. 2012). The person restriction then follows from the local nature of Agree (Chomsky 2000; 2001) and the configuration of one functional head and two arguments. This analysis thus divorces Case-checking from  $\varphi$ -valuation, but retains the insight of Anagnostopoulou (2003; 2005) and Béjar and Řezáč (2003) that the PCC is essentially an intervention effect. It also derives the constraint without stipulating any special conditions on person feature licensing or inherent asymmetries in the  $\varphi$ -feature make-up of IO and DO.

This approach can explain why the restriction in Slovenian is sensitive to the order of clitics and not their case. Of course, descriptively this is not the pattern of most other languages, which I claim follows from the universal structure of *double-object constructions*; the base position of objects is always IO  $\gg$  DO (see also Anagnostopoulou 2003). The Slovenian pattern then only emerges in languages where a reordering of clitics is allowed at a very specific point in the derivation. This will be further supported by an asymmetry found in Slovenian with imperatives, showing that only a specific kind of narrow-syntactic reordering may interact with the person restriction. In matrix, but crucially not embedded, imperatives a PF reordering operates alongside the syntactic reordering, where the former effectively undoes the latter, making it seem like there is no restriction. I will also discuss other languages where clitic order interacts with person restrictions, as well as those where it does not, focusing on how the attested variation fits in the proposals made in this paper.

The paper is organized as follows: Section 2 presents the Slovenian data, focusing on the existence of the INVERSE PCC. Section 3 reviews the standard syntactic approach to the PCC and shows that the Slovenian INVERSE PCC is problematic for it. Section 4 introduces the new analysis of the PCC. Section 5 discusses the PCC-voiding imperatives in Slovenian, offering further support for the proposed analysis of the PCC. Section 6 deals with the cross-linguistic distribution of INVERSE PCC. Section 7 concludes the paper.

## 2 The Slovenian clitic person restriction

In Slovenian, object clitics are part of the clitic cluster in the 2nd clausal position (with some exceptions — see below). In ditransitives, as in Greek and Catalan, both

objects can be expressed as clitics, as shown in (6a). In such cases, the DO clitic is overtly marked as accusative (ACC) and the IO clitic as dative (DAT) regardless of person, number, and gender value. The example in (6b) parallels Greek (2a) and Catalan (4) in that it appears to show that a 3P.IO clitic cannot co-occur with a 1P/2P.DO clitic. However, we will see below that this is not always the case.

- (6) a. Mama **mi/ti/mu ga** bo predstavila. 1/2/3P.IO » 3P.DO mom 1/2/3.M.DAT 3.M.ACC will introduce 'Mom will introduce him to me/you/him.'
  - b. \* Mama **mi/ti/mu te/me** bo predstavila. \*1/2/3P.IO » 2/1P.DO mom 1/2/3.M.DAT 2/1.ACC will introduce 'Mom will introduce you/me to me/you/him.'

In contrast to Greek and Catalan, the order of DAT and ACC clitics is not fixed to DAT » ACC in Slovenian. Speakers allow both DAT » ACC and ACC » DAT clitic orders. The two clitic orders are presented in (7) for 3P-only IO and DO clitic pairs.<sup>4</sup>

- (7) a. Mama **mu ga** je opisala. DAT » ACC mom 3.m.dat 3.m.acc is described
  - b. Mama **ga mu** je opisala. ACC » DAT mom 3.M.ACC 3.M.DAT is described 'Mom described him to him.'

Interestingly, the clitic reordering interacts with the ban on 1/2P.ACC clitics we saw in (6b). The equivalent of (6b) with an ACC » DAT clitic order is actually grammatical, as shown in (8a). However, the ACC » DAT clitic order is not entirely devoid of person restrictions. As shown in (8b), there is a restriction on \*1/2P.DAT clitics which are otherwise allowed in the DAT » ACC order (6b).

- (8) a. Mama **me/te/ga mu** bo predstavila. 1/2/3P.DO » 3P.IO mom 1/2/3.M.ACC 3.M.DAT will introduce 'Mom will introduce me/you/him to him.'
  - b. \* Mama **me/te/ga ti/mi** bo predstavila. \*1/2/3P.DO » 2/1P.IO mom 1/2/3.M.ACC 2/1.DAT will introduce 'The sister will introduce me/you/him to you/me.'

When restricted to the DAT » ACC order, 3P and 1/2P object clitics pattern identically with the standard PCC seen in Section 1. However, with ACC » DAT we observe the pattern I will call the INVERSE PCC, a complete reversal of the standard pattern.

In addition to this, speakers show variation parallel to the STRONG/WEAK PCC split. With DAT » ACC, some speakers exhibit the equivalent of the WEAK pattern, allowing combinations of two 1P and 2P clitics (9a), but disallowing 1/2P.DO clitics exclusively in the presence of a 3P.IO (9b). Crucially, such speakers also exhibit an

<sup>&</sup>lt;sup>4</sup> The two orders are not entirely equivalent in examples like (7). There seem to be discourse factors that influence the choice of one over the other. This will be briefly addressed in Section 4.1.1.

INVERSE pattern with ACC » DAT. They allow 1P.IO clitics in the presence of 2P.DO clitics (10a), but disallow 1/2P.IO clitics specifically when the DO is 3P (10b).<sup>5</sup>

(9)	a.	% Mama mi/ti te/me bo predstavila. mom 1/2.DAT 2/1.ACC will introduce 'Mom will introduce you/me to me/you.'	1/2p.io » 2/1p.do
	b.	* Mama <b>mu me/te</b> bo predstavila. mom 3.M.DAT 1/2.ACC will introduce 'Mom will introduce me/you to him.'	*3P.IO » 1/2P.DO
(10)	a.	% Mama te mi bo predstavila. mom 2.ACC 1.DAT will introduce 'Mom will introduce you to me.'	2P.DO » 1P.IO
	b.	* Mama <b>ga mi/ti</b> bo predstavila. mom 3.m.acc 1/2.dat will introduce 'Mom will introduce him to me/you.'	*3P.DO » 1/2P.IO

The examples above show that not only does Slovenian exhibit a restriction on the co-occurrence of specific person features on object clitics that is consistent with PCC patterns in the DAT » ACC clitic order, but that it also exhibits variation along the same lines as observed for STRONG and WEAK PCC systems in that speakers differ in whether they allow two local person (= 1/2P) object clitics to co-occur.

To clarify the main point, the full STRONG Slovenian pattern is given in Table 1. If we ignore the morphological case on the two object clitics (as in the third row of the table), we see that there is essentially a single person restriction sensitive to the order in which the two clitics occur, but not the particular case they bear.

Table 1 Full pattern of object clitic person restrictions in Slovenian

STANDARD STRONG PCC:	3P.DAT	*	3P.ACC	1/2P.DAT	>>	3P.ACC
STANDARD STRONG PCC.	*1/2P.DAT	*	2/1P.ACC	*3P.DAT	>>	1/2P.ACC
NAMED OF OTROMO DOG	3P.ACC	<b>»</b>	3p.dat	1/2P.ACC	>>	3p.dat
INVERSE STRONG PCC:	*1/2P.ACC	>>	2/1P.DAT	*3P.ACC	>>	1/2P.DAT
COMPANED DATERDAY	3P.CL	<b>»</b>	3P.CL	1/2P.CL	<b>»</b>	3P.CL
COMBINED PATTERN:	*1/2P.CL	>>	2/1P.CL	*3P.CL	>>	1/2P.CL

Such a pattern can only be observed in a language with the properties of Slovenian, where both DAT » ACC and ACC » DAT clitics orders are available. Crucially, this is not typically found in canonical PCC languages, which will be a major point in the re-analysis of the PCC presented in Section 4.

\*1P.DO » 2P.IO

 $<sup>^5</sup>$  There is a contrast for WEAK PCC-like speakers between 2P.DO » 1P.IO and \*1P.DO » 2P.IO (i). This is reminiscent of Nevins's (2007) "ultra-strong PCC", but differs from it in significant ways. In fact, in Section 4.1.4 I will argue this is independent of the PCC (I put this aside pending the the discussion below).

<sup>(</sup>i) \* Mama **me ti** bo predstavila. mom 1.ACC 2.DAT will introduce 'Mom will introduce you/me to me/you.'

### 2.1 The status of the Slovenian clitic person restriction

Due to the seeming cross-linguistic robustness of the PCC's sensitivity to case, and the fact that most syntactic analyses of the constraint typically focus on case,  $\theta$ -role, or  $\varphi$ -feature asymmetries between the two objects, one could argue that at least the ACC » DAT half of the Slovenian person restriction should not be equated to the PCC.

As pointed out by an anonymous reviewer, Slovenian in fact does not fit the descriptive generalizations in (1) or (3). Speakers with the STRONG restriction *allow* the DO to be 1P or 2P in object clitic clusters, and those with a WEAK restriction likewise *allow* either the IO or DO to be 3P when the other clitic is 1P or 2P. As noted above, in Slovenian only the order of object clitics is regulated by their person values.

One could thus view the restriction as a kind of positive templatic restriction where clitics are ordered by an extrinsic template, like (11),<sup>6</sup> where each "slot" (represented here by ) can only be filled by one clitic of the specified kind.<sup>7</sup>

(11) a. 
$$\boxed{1P \mid 2P} \times \boxed{3P} \times \boxed{3P}$$
 STRONG RESTRICTION b.  $\boxed{1P \mid 2P} \times \boxed{1P \mid 2P} \times \boxed{3P} \times \boxed{3P}$  WEAK RESTRICTION

This is essentially Perlmutter's (1971) original analysis of clitic ordering and cooccurrence restrictions, which is in itself not explanatory. There is no built-in restriction on the types of features that can be referenced in the slots, so there is no restriction on possible templates. Crucially, the canonical PCC can also be derived by adding case or grammatical function information to the slots; as Perlmutter noted himself, the PCC is only a more restricted kind of his "global ordering constraints".

Unlike templatic approaches to clitics, cross-linguistic variation in syntactic person restrictions is very constrained. In his survey of 43 languages, Albizu (1997) observed that when syntactic person restrictions are active, the distribution of 3P is never more constrained than that of 1P or 2P, which needs to be explained.

We have two options: (i) to treat the PCC as a separate phenomenon from the Slovenian person restriction, thus missing a number of generalizations, including the fact that they both show the same STRONG/WEAK split, or (ii) to seek a principled unified account for both patterns, thus explaining why they are similar in so many ways. The latter is more appealing conceptually, if of course it can be accomplished, which I will argue below is indeed possible, in fact in a way that will enable us to understand better just why syntactic person restrictions behave the way they do.

Other researchers have already pointed out the advantages of deriving the PCC and the special status of 1P and 2P in a principled way, which is in line with the goals of this paper. In the next section I look more closely at one such account, which analyzes the PCC as a kind of Case-licensing failure. We will see the advantages of such a syntactic approach, but also that it encounters a serious problem if extended to the Slovenian person restriction, which we saw is entirely case-insensitive.

 $<sup>^{6}\,</sup>$  For ease of exposition the WEAK scale ignores the 1P vs. 2P asymmetry discussed in footnote 5.

One could also translate this into cartographic functional sequences, where slots correspond to specifiers of dedicated person (PersP), number (NumP), or case (KP) projections, and can only be filled by one element. This is essentially the approach adopted by Ciucivara (2009) and Cardinaletti (2008).

<sup>8</sup> Under this approach, Person-Case Constraint is a misnomer. However, PCC is used as a cover term for all syntactic person restrictions throughout due to it being so ubiquitous and established in the literature.

### 3 The PCC as a syntactic intervention effect

Because the PCC appears to be limited to clitic clusters, it was traditionally viewed as a representational (Perlmutter 1971) or morphological constraint (Bonet 1991; 1994) on said clusters, sensitive to their person and case values. But we have seen that in Slovenian morphological case (or grammatical function) does not play a role in the restriction. Rather, the order of object clitics does. Presumably, the two possible orders correspond to distinct structural configurations (see below), so a syntactic approach seems more promising. In this section I review an existing syntactic approach to the PCC, evaluating it with respect to the PCC in Slovenian.

The standard minimalist syntactic approach to the PCC is to treat it as the result of locality restrictions which apply in cases where two arguments must establish a syntactic dependency with a single functional head. Following the original proposal by Anagnostopoulou (1999; 2003), similar analyses which follow the intuition that the PCC is a type of intervention effect were also adopted by, among many others, Béjar and Řezáč (2003), Adger and Harbour (2007), Nevins (2007; 2011), and Richards (2008). In fact, in Section 4, I will also argue that a variant of the intervention approach is needed to capture both the Slovenian PCC and the canonical PCC.

The key innovation of Anagnostopoulou (1999; 2003), and subsequent related approaches, is a fully syntactic treatment of the PCC by means of existing technology introduced independently within the minimalist framework, in particular the operation Agree (cf. Chomsky 2000; 2001). The core assumption is that the PCC may arise when two Goals compete to enter Agree with a single Probe. I will use *one-Probe/two-Goals* as a cover term for all approaches based on this assumption. However, for ease of exposition, I present only one such approach in more detail, namely Béjar and Řezáč (2003) (BR). This is partly due to its popularity in current literature, and partly because it facilitates the discussion of the problematic Slovenian clitic restriction. Crucially, the issues that arise with their approach extend to all approaches where asymmetries in case or grammatical function are needed to derive the PCC. 9

In BR, the limited distribution of specific person features in *double-object constructions* (DOC) amounts to a special licensing requirement for 1/2P features:

(12) *Person Licensing Condition* (PLC). An interpretable 1P/2P feature must be licensed by entering into an Agree relation with a functional category.

(Béjar and Řezáč 2003:53)

With the PLC, the authors seek to capture that the PCC restricts only the occurrence of 1/2P features. Another important assumption BR make (see discussion below) is that arguments bearing an *inherent/lexical* case are not accessible Goals for Agree with external functional heads like *v* or T. As discussed in Section 3.1, this is responsible for the key issue BR's system faces when applied to Slovenian.

The other key component of BR's account is a particular view on Agree, namely *Cyclic Agree* (CA) — a particular variant of the idea that individual  $\varphi$ -features may probe independently, as previously argued by Taraldsen (1995) and Anagnostopoulou

<sup>&</sup>lt;sup>9</sup> Due to space considerations the discussion of other approaches will mostly be condensed with the discussion of Béjar and Řezáč (2003), but key issues will be addressed at the relevant points.

(1999; 2003). The core assumption of the CA approach is that individual  $\varphi$ -features enter Agree separately and in a particular order: *person features* ( $\pi$ ) must probe and Agree first, only then followed by *number features* ( $\pi$ ).

Having introduced the necessary technology, we can now look at BR's derivation of the PCC more closely, using the French examples in (13) (adapted from BR:53).

- (13) a. Je **le leur** ai presenté.

  I 3.DO 3.PL.IO have introduced 'I introduced him to them.'
- b. \* Je **te leur** ai presenté. I 2.DO 3.PL.IO have introduced 'I introduced you to them.'

BR propose that DOCs like (13) have the structure in (14), where the v head hosts a split  $\varphi$ -Probe with an uninterpretable  $[\pi]$  ( $[u\pi]$ ) and an uninterpretable [#] feature ([u#]), both of which must probe for matching interpretable features in their c-command domain. Both arguments have interpretable  $[\pi]$  ( $[i\pi]$ ) as well as interpretable [#] features ([i#]), which gives (14) a one-Probe/two-Goals configuration.

(14) 
$$\begin{bmatrix} vP & V & \begin{bmatrix} VP & DAT_{IO} & \begin{bmatrix} V' & V & DO \end{bmatrix} \end{bmatrix} \end{bmatrix}$$
  $\begin{bmatrix} u\pi \end{bmatrix}$   $\begin{bmatrix} i\pi \end{bmatrix}$   $\begin{bmatrix} i\# \end{bmatrix}$ 

As (15a) shows,  $[u\pi]$  on v probes first due to CA, matching with the closest Goal, which is  $[i\pi]$  on the IO (DAT). But Agree cannot occur at this point, as BR follow Chomsky (2000) and assume that for Agree to take place the Goal must not have been previously assigned Case (the *Active Goal Hypothesis*, Řezáč 2003). Because the IO already has inherent DAT, it is not an active Goal and v cannot establish Agree with it. This means any 1/2P features on DAT cannot be licensed via Agree with v (cf. PLC in (12)). BR thus must assume that 1/2P features on inherent Case marked arguments are licensed through inherent Case assignment itself. This ensures the DAT argument can have any person feature value despite Agree being blocked between v and DAT.

(15) a. 
$$[vP \ v \ [u\pi] \leftarrow -\frac{\text{match}}{*Agree} [vP \ DAT_{IO} \ [v' \ V \ DO]]]$$
  
b.  $[vP \ v \ [vP \ DAT_{IO} \ [v' \ V \ DO]]]$   
 $[u\pi] \leftarrow -\frac{|[i\pi]|}{[i\pi]} \rightarrow [i\pi]$ 

Note also that all the  $\varphi$ -features of the DO are inaccessible for Agree with  $\nu$ , shown in (15b), due to matching intervening features on DAT, i.e. DAT induces an intervention effect for the  $\nu$ -DO Agree relation. This is also observed in constructions like (16a), where a DAT argument blocks Agree between T and the THEME.

<sup>&</sup>lt;sup>10</sup> Note that despite the surface ACC » DAT clitic order in (13), it is crucial for BR that DAT asymmetrically c-commands ACC at this point in the derivation. See also Section 6 for a brief discussion of clitic order in French and a general discussion of how clitic order can interact with the PCC.

<sup>&</sup>lt;sup>11</sup> For BR, inherent/lexical Case is assigned by Agree with a silent P (see the discussion below). I will follow the authors here in using the capital "Case" for both structural and inherent variants.

- (16) a. Nelson<sub>1</sub> semble (\*à Mari-Jo) [ t<sub>1</sub> être intelligent. ] Nelson seems (\*to.dat Mari-Jo) to be intelligent 'Nelson seems to Mari-Jo to be clever.'
  - b. Nelson<sub>1</sub> lui<sub>2</sub> semble t<sub>2</sub> [ t<sub>1</sub> être intelligent. ]
     Nelson her.dat seems to be intelligent
     'Nelson seems to her to be clever.' (French; Béjar and Řezáč 2003:51–52)

For BR the intervention in (16a) is resolved through the cliticization of DAT, as in (16b), the grammatical counterpart of (16a). They assume the same occurs in DOCs like (15a); the IO cliticizes, as in (17), leaving behind a trace, and traces do not count as interveners for Agree (Chomsky 2000, Anagnostopoulou 2003, Bošković 2011b). Note also that since  $[u\pi]$  on v is never checked, BR assume it must get a default value.

(17) 
$$[_{vP} \ DAT_{IO} \ v \ [_{VP} \ t_{dat} \ [_{V'} \ V \ ACC_{DO} ]]]$$
  
 $[i\pi] \ [u\pi] \ [u\#] - - - - - [i\#]$ 

The person restriction may arise during the next cycle of Agree, as depicted in (17). The trace of DAT is not an intervener, so the [u#] on  $\nu$  can now Agree with [i#] on DO and be checked, assigning the DO structural ACC Case. However, the DO must be 3P, or the derivation crashes due to the unsatisfied PLC: 1/2P features on DO need to be licensed via Agree, but as Agree is only established for [#] in this cycle due to CA, the PLC is not satisfied, and only 3P features are possible on the DO. This is why (13a), where the DO is 3P, is grammatical and (13b), where the DO is 2P, is not.

The derivation is thus ultimately driven by Case-checking: all DPs must have their Case features checked, which occurs as a reflex of Agree between a DP and a functional category (Chomsky 2000; 2001). For BR, the structural ACC Case of the DO is checked by v, while the inherent DAT Case of the IO is checked by a silent applicative P selected by the ditransitive verb. The silent P and IO crucially constitute a PP with a [PP DP] structure, so unlike with v and the DO, blocking Agree between P and the IO by an intervening DP is impossible. BR's analysis therefore predicts that the PCC effect can arise when the following holds: in a  $\varphi$ -Probe  $\gg$  DP<sub>1</sub>  $\gg$  DP<sub>2</sub> configuration, DP<sub>1</sub> bears inherent Case, and DP<sub>2</sub> bears structural Case.

The gist of the account is that in DOCs the DO can only be 3P when the IO intervenes for ( $[\pi]$ ) Agree between the DO and v, since then the PLC is not satisfied. With the IO, the PLC is satisfied inherently by inherent Case, so the IO can have any person value, even if DO were to intervene between v and IO. BR thus successfully derive the PCC as an intervention effect, which is important as they do not make use of extrinsic person hierarchies (Rosen 1990) or morphological constraints (Bonet 1991; 1994). But we will see below that this type of analysis cannot be extended to Slovenian INVERSE PCC patterns (which, admittedly, were not known at the time).

### 3.1 Implications of the Slovenian person restriction

Let us consider the issue of the INVERSE PCC in more detail. A possible derivation of the restriction is to assume the ACC » DAT clitic order is derived from BR's structure

for DOC, given in (18a), where the IO is base generated above the DO. Assume then that the ACC » DAT order in Slovenian is derived by clitic movement in narrow syntax before v can probe, as illustrated in (18b). <sup>12</sup>

(18) a. 
$$[_{vP} \ v \ [_{VP} \ [_{PP} \ P \ IO]] \ [_{V'} \ V \ DO]]]]]$$
 (DOC) b.  $[_{vP} \ v \ [_{VP} \ DO] \ [_{PP} \ P \ IO]] \ [_{V'} \ V \ t_{DO}]]]]$  (DOC + DO-movement)

This basically reverses the status of IO and DO in terms of closest accessible Goal to v, making DO the intervener. But note that inherent DAT Case is still assigned to IO by the silent P, and recall that this also licenses the presence of 1/2P features on IO. This then predicts that with the ACC » DAT order, all person combinations should be possible; the licensing of 1/2P features on the IO is guaranteed by inherent Case marking, and with no intervener between v and DO, 1/2P features on the DO can also be licensed. But this is not borne out — in Slovenian ACC » DAT gives rise to the INVERSE PCC, which means DAT is restricted to 3P (with the STRONG constraint).

Another option is to analyze the ACC » DAT order as a *prepositional dative construction* (PDC) with a silent P and the structure in (19) (see BR). But like in (18b) there is no intervener for Agree between  $\nu$  and the DO, and the IO is inherently Case marked by P. This again wrongly predicts that no person restrictions should arise.

$$(19) \quad [_{VP} \quad V \quad [_{VP} \quad DO \quad [_{V'} \quad V \quad [_{PP} \quad P \quad IO \quad ]]]]$$
 (PDC)

Staying narrowly within BR's approach to the PCC, the INVERSE PCC seems not to be derivable. The only way it could be derived within the framework is by stipulating that  $\underline{\text{only}}$  with the ACC » DAT clitic order, the DO bears inherent ACC Case, and the IO bears structural DAT Case, assigned by  $\nu$ . Apart from lacking conceptual appeal, and the fact that the authors also explicitly assume that in ditransitives ACC is structural and DAT inherent, this assumption also makes wrong predictions regarding ditransitive passives, where Slovenian also exhibits the cross-linguistically common restriction against DAT arguments becoming subjects of passives.

In Slovenian canonical ditransitives, ACC alternates with NOM in passives, but DAT never does. The passive counterparts of (20), given in (21), show not only that the DAT case on the GOAL never alternates with NOM, but also that the GOAL is never the passive subject. In ditransitive passives, the GOAL can never bind the subject oriented anaphor 'svoj', which is always bound by the THEME. Even if the linear order of GOAL and THEME is changed, as in (21b), the facts remain the same: the subject of passives is the ACC object of the active counterpart. Thus, ACC must be structural and DAT is always inherent in Slovenian (see also Stegovec 2016; in preparation).

- (20) Sestroi so predstavili { Roku. / svojemui bratu. } sister.f.acc are.m.pl introduced.m.pl Rok.dat / self's brother.m.dat 'They introduced the sisteri to Rok / heri brother.'
- (21) a. Sestr<u>a</u> $_i$  je bil<u>a</u> predstavljen<u>a</u> { Roku. / svojemu $_i$  bratu. } sister.f.nom is been.f introduced.f Rok.dat / self's brother.m.dat 'The sister $_i$  was introduced to Rok / her $_i$  brother.'

<sup>&</sup>lt;sup>12</sup> I assume, roughly along the lines of Kayne (1994), that asymmetric c-command maps to precedence, making "»" and "»" essentially equivalent (*modulo* post-syntactic reordering — see below).

b. Roku je bil<u>a</u>; predstavljen<u>a</u> { sestr<u>a</u>. /\*svoj<u>a</u>; sestr<u>a</u>. } Rok.dat is been.f introduced.f sister.f.nom / self's sister.f.nom 'The sister / His; sister was introduced to Rok;'

Furthermore, some Slovenian verbs, like 'expose', select a default ACC » DAT order of objects (22) (Marvin and Stegovec 2012). In passives of such verbs, the restriction on the subject is identical to that of canonical ditransitives discussed above; the THEME is always the subject (23,24), and a reversed order of arguments, as in (24), does not change this. So even if the ACC » DAT clitic order always has the underlying structure of ACC » DAT selecting ditransitives, the status of DAT and ACC should not change. They are consistently well-behaved as inherent and structural respectively.

- (22) Vodič je Ano izpostavil smradu. guide.m.nom is Ana.acc exposed.m stench.m.dat 'The guide exposed Ana to the stench.'
- (23) Ana<sub>i</sub> je bil<u>a</u> izpostavljen<u>a</u> { smradu. /posledicam svojih<sub>i</sub> dejanj. } Ana.nom is been.f exposed.f stench.m.dat/conseq-.f.dat self's actions 'Ana<sub>i</sub> was exposed to the stench / the consequences of her<sub>i</sub> actions.'
- (24) Poku so bil<u>i</u> izpostavljen<u>i</u> { ps<u>i</u>. /\*svoj<u>i</u>; povzročitelj<u>i</u>. } bang.m.dat are been.m.pl exposed.m.pl dogs.m.nom/ self's causers.m.nom 'Dogs / Its causers; were exposed to the bang;.'

Other one-Probe/two-Goals approaches that assume an inherent asymmetry between the IO and DO encounter similar problems with deriving the INVERSE PCC. For instance, Anagnostopoulou (2003; 2005) assumes that IOs are defective for [#] features while 3P.DOs, but not 1/2P.DOs, are defective for  $[\pi]$  features.<sup>13</sup> As the IO is more local to  $\nu$  than the DO, it checks the  $[u\pi]$  on  $\nu$  against its  $[i\pi]$ . A 3P.DO can then Agree with  $\nu$  for all its  $\varphi$ -features, meaning [i#], but a 1/2P.DO, which also has  $[i\pi]$ , cannot do so. This means only the former can have its Case checked.

However, if the DO is closer to  $\nu$  than the IO, as with ACC » DAT in Slovenian, the predicted pattern is again not INVERSE PCC. When the DO is 1/2P, the IO cannot enter Agree, leaving its Case unchecked (25a), and when the DO is 3P,  $\nu$  can Agree with the IO (25b), incorrectly predicting a standard PCC pattern. <sup>14</sup>

(25) a. 
$$[v_{P} \quad v \quad [A_{pplP} \quad \boxed{DO} \quad \boxed{IO} \quad Appl \quad [v_{P} \quad V \quad t_{DO}]]]$$

$$[u\pi] - - - - - \rightarrow [i\pi] \quad *[i\pi]$$

$$[u\#] - - - - \rightarrow [i\#]$$
b.  $[v_{P} \quad v \quad [A_{pplP} \quad \boxed{DO} \quad \boxed{IO} \quad Appl \quad [v_{P} \quad V \quad t_{DO}]]]$ 

$$[u\pi] - - - - \rightarrow [i\#] \quad |$$

<sup>&</sup>lt;sup>13</sup> This essentially derives the Cyclic Agree effect without having it as a primitive in the grammar.

<sup>&</sup>lt;sup>14</sup> In Anagnostopoulou's (2003) analysis of Swiss German, she suggests that DAT in ACC » DAT configurations of weak pronouns may check only definiteness and/or phonological features. This again predicts no person restrictions on DAT — the same prediction BR's account would make (see above).

Despite the issues that arise when one attempts to extend existing syntactic analyses of the PCC to Slovenian and the INVERSE PCC, we will see in Section 4.1 that a modified version of the intervention approach can in fact derive the INVERSE (STRONG/WEAK) PCC and the standard PCC as a unified phenomenon.

## 3.2 WEAK PCC and Multiple Agree

Independently of the issues raised by Slovenian with the INVERSE PCC, BR's system also cannot derive the WEAK PCC. Since the second cycle of Agree is only for [#] features, it forces the IO to always be 3P in order not to violate the PLC, but recall that with the WEAK PCC, 1/2P » 2/1P clitic combinations are allowed.

This issue is resolved by Anagnostopoulou (2005), who shows a syntactic derivation of the WEAK PCC is possible by allowing *Multiple Agree* (Hiraiwa 2001; 2004), an operation where one head Agrees with multiple arguments. Anagnostopoulou explains the STRONG/WEAK PCC split by assuming a Multiple Agree parameter. <sup>15</sup> With STRONG PCC, Agree for  $[\pi]$  features is established only with the higher pronoun, while with WEAK PCC, Agree is established with both pronouns simultaneously. By allowing  $[u\pi]$  on v to Agree with both IO and DO,  $1/2P \gg 2/1P$  combinations can be licensed. However, the ungrammaticality of \*3P.IO » 1/2P.DO still needs to be explained. For that Anagnostopoulou (2005) proposes the condition in (26).

(26) *Condition on Multiple Agree:* Multiple Agree can take place only under non-conflicting feature specifications of the agreeing elements.

(Anagnostopoulou 2005:221)

Anagnostopoulou (2005) argues that 3P and 1/2P constitute a set of conflicting feature specifications, so Multiple Agree will not be possible when clitic pairs have this person feature combination. In that case single Agree takes place, with the IO as an intervener between  $[u\pi]$  on v and  $[i\pi]$  on DO, making the licensing of a 1/2P.DO impossible. This also means the INVERSE WEAK PCC cannot be derived for the same reasons the INVERSE STRONG PCC cannot be (see Section 3.1). We shall see, however, in Section 4.1.3 that WEAK PCC can be derived without either reference to IO/DO (Case) asymmetries or a Multiple Agree parameter.

# 4 A new approach to the Person-(\*Case) Constraint

The existence of the INVERSE PCC in Slovenian shows that person restrictions are not exclusive to structural case arguments. In this section I argue for an alternative

Anagnostopoulou's proposal is important as Bonet (1991) originally only noted the existence of the split without providing an analysis, and BR set the WEAK PCC pattern aside completely.

Nevins (2007) offers an interesting analysis of the PCC with Multiple Agree which does not appeal to Case checking; the PCC arises only from feature mismatches (cf. (26)) on multiple Goals due to relativized probing for  $[\pi]$  primitives. With no relevant mismatch between Goals, Agree occurs with both, triggering clitic-doubling. Crucially, Agree cannot occur with 3P Goals, and the Probe presumably receives a default value, but clitic-doubling of the Goal nonetheless occurs. However, this is at odds with Preminger's (2009) insight that failed Agree never results in the kind of default clitic-doubling Nevins must tacitly assume.

analysis of the PCC which divorces it from Case checking and Case differences between arguments, and derives standard and INVERSE PCC as a unified phenomenon. But before we move on to the analysis itself, let us examine a few more cases of non-canonical PCC patterns that support the overall approach argued for here.<sup>17</sup>

One such pattern is given by Kalin and van Urk (2015) with Neo-Aramaic languages where the PCC occurs with subject and object. In Christian Barwar perfective clauses, subject agreement is marked by the L-suffix and object agreement by the S-suffix, <sup>18</sup> and the two are restricted by a form of PCC. As shown in (27), 1/2P objects are banned (27a), while 3P ones are possible (27b). Crucially, Kalin and van Urk (2015) also show that unlike the S-suffix, the L-suffix is actually a clitic.

```
(27) a. * griš-an/at-le. b. griš-i-le.
pull.perf-S.1.f/S.2.f-L.3.M
'He pulled me/you.' 'He pulled them.'

(Christian Barwar; Kalin and van Urk 2015:19)
```

As Kalin and van Urk (2015) argue, the language consistently has a *nominative-accusative* alignment, but with an "agreement reversal" — the two suffixes switch functions between aspects. So the configuration where the PCC effect is found here is not *inherent*  $\gg$  *structural case*. But as Kalin and van Urk (2015) also show, BR's analysis can still be adopted for (27) under the assumption that both arguments enter Agree with the same Probe (the subject for  $[\pi]$  and the object for [#] features) as long as the subject cliticizes to the Probe under Agree (cf. Preminger 2009; 2014).

The same approch, however, cannot be extended to Digor and Iron Ossetic. Erschler (2014) observes the PCC with 2nd position clitics, which is crucially active also when both clitics bear an inherent case. In (28), we see this with *ablative* (ABL) and *superessive* (SUP) clitics, which in Iron Ossetic conform to STRONG PCC. The two clitics in (28) do not fit an IO/DO mold, and the two inherent cases can occur independently of each other (cf. Erschler 2014), indicating two distinct case assigners.

```
(28) a. eme=myl=še Medine jetteme niči ewwendy. 1P » 3P and=1.sup=3.pl..abl Madina besides nobody believes 'No one of them believes me, but Madina.'
```

b. \* eme=jyl=ne Medine jetteme niči ewwendy. \*3P » 1P and=3.sup=1.pl..abl Madina besides nobody believes 'No one of us believes them, but Madina.' (Iron Ossetic; Erschler 2014:6)

Person restrictions in exclusively inherent case clitic pairs occur in some cases even in canonical PCC languages like French. In (29a), the embedded verb 'téléphone' ('to phone') selects a DAT object, and if the embedded DAT clitic climbs into the matrix clause, the matrix DAT object clitic cannot be 1/2P. 19 Crucially, the restriction only occurs with clitic climbing. As shown in (29b), there is no restriction when the

<sup>&</sup>lt;sup>17</sup> See also Ormazabal and Romero (2007), for more arguments against limiting PCC effects specifically to inherent >> structural case argument configurations.

<sup>&</sup>lt;sup>18</sup> These are descriptive labels for the two sets of agreement markers that occur on the verb stem.

<sup>&</sup>lt;sup>19</sup> Although some caution should be taken with these examples, as Kayne (1975) suspects they might not be equivalent to the more canonical examples of the PCC found in French.

embedded DAT object clitic stays in the embedded clause, indicating the restriction is limited to one-Probe/two-Goals configurations in a single clause.

(29) a. \* Cette nouvelle **nous lui** a fait téléphoner.

this news 1.PL.DAT 3.DAT has made telephone.INF

'This news made us phone him/her.' (Kayne 1975:297)

b. Cette nouvelle **nous** a fait **lui** téléphoner. this news 1.PL.DAT has made 3.DAT telephone.INF 'This news made us phone him/her.' (Bonet 1991:196)

Bonet (1991) in fact noted the existence of such examples, expressing doubt that explaining the PCC in terms of syntactic Case is possible (Bonet 1991:196).

The take away message from all these examples is that variation across and within languages shows the PCC is not restricted to IO and DO pairs, or *inherent*  $\gg$  *structural case* configurations. This also means that BR's view that any Case-checking head can license 1/2P features seems not to hold, due to cases like Slovenian or Ossetic, where inherent Case does not automatically license 1/2P clitics.<sup>20</sup>

The set of heads that can license 1/2P clitics appears to be very restricted, and the licensing itself not governed by Case-checking. In the next section I develop an approach that aims to capture this insight, and show that it correctly derives the whole Slovenian paradigm, including the INVERSE PCC. The approach can be easily extended to canonical PCC languages, as their paradigms present in effect a subset of the Slovenian pattern due to their more limited options of object clitic displacement.

### 4.1 The PCC as a valuation fail on interpretable features

The account laid out below follows the general *one-Probe/two-Goals* logic, but departs from Anagnostopoulou (2003; 2005) and BR in two key ways: (i) it divorces  $\varphi$ -feature valuation from Case-checking, and (ii) it ties person restrictions to the properties of particular pronoun types (cf. also Nevins 2011). I propose that particular  $[\pi]$  values of deficient pronouns are *not licensed* via Agree, but rather directly acquired from a functional head via Agree. The limited distribution of 1/2P then does not result from specific configurations of Case-checking heads and arguments, but because only specific functional heads may bear the necessary valued  $[\pi]$  features.

The proposal is inspired by the analysis of bound pronouns by Kratzer (2009) and that of jussive clause subjects by Zanuttini et al. (2012). For both, pronouns may enter the derivation without a  $\varphi$ -feature value and must receive a value from a functional head. The analysis of the PCC I present here combines the intuitions of Kratzer (2009) and Zanuttini et al. (2012) with the approaches to feature valuation explored by, among others, Pesetsky and Torrego (2007) and Bošković (2007; 2011a).

In Pesetsky and Torrego (2007) and Bošković (2007; 2011a), interpretable features may enter the derivation unvalued and uninterpretable features may likewise enter the derivation specified for a value (contra Chomsky 2000; 2001). So although

<sup>&</sup>lt;sup>20</sup> Further examples of the case-insensitivity of the PCC are found in O'Odham and Warlpiri, see Stegovec (2015). Their PCC patterns, as well as those discussed above, fit within the analysis in Section 4.1.

pronouns bear interpretable  $\varphi$ -features, this feature system does not exclude the option of them being unvalued. I argue that deficient pronouns in the sense of Cardinaletti and Starke (1994), meaning clitic/weak pronouns, in fact enter the derivation with unvalued  $[i\pi]$  features which must then be valued by a functional head with valued  $[u\pi]$  features. A failure to value  $[i\pi:\_]$  results in the pronoun getting a default value, which is 3P. This in effect derives the PLC of BR from an existing an independently motivated approach to feature valuation (and without reference to Case).

Under this view, the PCC is essentially an LF violation, which is supported by its sensitivity to *de se* readings. As observed for French by Charnavel and Mateu (2015), the PCC is voided when a 1P clitic is not read *de se*. Evidence for this is also found in Slovenian. With examples like (30),<sup>21</sup> where two 1P clitics co-occur, speakers must interpret the ACC clitic as non-*de se* ('my traits') to avoid a Condition B violation. Consequentially, the PCC is voided even for STRONG PCC speakers in (30).<sup>22</sup> This also again shows that the canonical PCC and Slovenian PCC should be unified.

```
(30) (#) Janez mi me je pojasnil.

Janez 1.dat 1.acc is explained

'Janez explained me (= my traits) to me.'
```

As for the connection between deficient pronouns and Kratzer's (2009) "minimal pronouns", it can be seen in the distribution of bound pronouns in Slovenian. As observed by Montalbetti (1984), in many languages bound pronouns must be null, which also holds for Slovenian, as in (31a). However, if the bound pronoun is an object, it must be a clitic, as in (31b). This suggests deficient pronouns and null *pro* form a natural class (see Cardinaletti and Starke 1994). In Kratzer's (2009) analysis, bound pronouns enter the derivation underspecified for  $\varphi$ -feature values, which is what I argue holds for all deficient pronouns like clitic and weak pronouns.<sup>23</sup>

- (31) a. Nihče<sub>i</sub> ne misli, da  $\langle pro_i \rangle$  je neumen. no one not thinks, that  $\langle$  he  $\rangle$  is stupid.masc.sg. 'No one<sub>i</sub> thinks that he<sub>i</sub> is stupid.'
  - b. Nihče<sub>i</sub> ne misli, da **ga**<sub>i</sub> bo strela udarila no one not thinks, that 3.M.ACC will lightning strike 'No one<sub>i</sub> thinks that lightning will strike him<sub>i</sub>.'

The current analysis does not appeal to any Case or grammatical function asymmetry between arguments, but as we will see, it crucially still derives the PCC as syntactic intervention, preserving the insight from *one-Probe/two-Goals* approaches. The key assumptions of the proposal (discussed above) are summarized below:

<sup>&</sup>lt;sup>21</sup> I am grateful to Steven Franks for drawing my attention to such examples.

<sup>&</sup>lt;sup>22</sup> I will not attempt a full analysis of non *de se* 1P pronouns here due to space constraints. However, my analysis of the PCC is compatible with Smith (2015) and Messick (2015), who allow LF/PF feature mismatches. In such a system a non *de se* 1P pronoun would have 3P LF features but 1P PF features.

<sup>&</sup>lt;sup>23</sup> There is another link between the PCC and binding, noted by Ormazabal and Romero (2007) (attributing it to Roca 1992): in some languages animate DO clitics cannot be bound in the presence of an IO clitic. Bhatt and Šimík (2009) also note for Slovenian that with the ACC » DAT order, the binding ban applies to the DAT clitic (parallel to the INVERSE PCC). I take the constraint as additional support for analyzing the PCC in terms of Kratzer (2009) (but see Charnavel and Mateu (2015) for an alternative view).

(32) Deficient pronouns  $(pron_{DF})$  have unvalued interpretable  $[\pi]$  which must be valued before Spell-Out;  $[i\pi: ]$  is illicit at LF (Pesetsky and Torrego 2007);

(33) Valuation of  $[\pi]$  occurs: (a) via Agree with a valued  $[\pi]$ , or (b) by receiving a default 3P value ( $[d:\_]$ ) iff valuation via Agree is impossible;

I propose that (32) and (33) hold universally, and that different PCC patterns emerge due to independent factors such as different kinds of  $pron_{DF}$  displacement.

In (33) I follow, among others, Béjar and Řezáč (2009) and Preminger (2014) in assuming that default 3P is no different from its 'valued' counterpart; 3P is a  $[\pi]$  feature with no positive speaker or participant specification, which is not to be confused with the lack of  $[\pi]$  altogether or an unvalued  $[\pi]$ , which has the status of an active Probe (see Bošković 2011a). So, whether an unvalued  $[\pi]$  enters Agree with a 3P bare  $[\pi]$  or fails to Agree, the end result is formally equivalent (see also Section 4.1.4).

An important side note is that I assume clitics are base generated in argument positions, or in clitic-doubling languages inside a "Big-DP" (see Uriagereka 1995).

#### 4.1.1 A note on the Slovenian ACC » DAT clitic order

In Section 3.1, I suggested ACC » DAT in Slovenian results from DO-over-IO movement below  $\nu$ . While this did not derive the attested person restrictions within BR's or Anagnostopoulou's (2003, 2005) approaches, we will see below that in conjunction with (32) and (33), this assumption derives the standard/INVERSE PCC alternation.

In Slovenian, when both object clitics are 3P, their order is sensitive to information-structure: the ACC » DAT order is used when the ACC clitic is a salient topic established in a previous utterance, as in (34), or when ACC » DAT parallels the order of full NP objects (which is in principle free) in a previous utterance, as in (35).<sup>24</sup>

- (34) a. <u>Klobuk</u>? Od kdaj pa **on** nosi <u>klobuk</u>? hat from when PRT he.NOM wears hat.ACC 'A hat? Since when does he wear a hat?'
  - b. Odkar **ga mu** je žena kupila. ever since 3.M.ACC 3.M.DAT AUX.3 wife.NOM bought.F 'Ever since his wife bought it for him.'
- (35) a. Kdo je pa klobuk dal Davidu?
  who AUX.3 PRT hat.ACC gave.M David.DAT
  'And who gave *a hat* to David?'
  - b. Jana ga mu je dala.

    Jana 3.M.ACC 3.M.DAT AUX.3 gave.F

    'Jana gave it to him.'

Interestingly, ACC » DAT does not require a special information-structure context with 1/2P.ACC » 3P.DAT, where the order is used to yield a grammatical equivalent of \*3P.DAT » 1/2P.ACC. This mirrors (with clitics) Perlmutter's (1971) observation that

<sup>&</sup>lt;sup>24</sup> The DAT » ACC order is not entirely infelicitous in such environments. There is also some speaker variation regarding the environments where speakers prefer the ACC » DAT order.

in clitic pronoun languages the use of strong pronouns is pragmatically marked, but that strong pronouns are unmarked if used to avoid banned sequences of clitics.

Unlike Slovenian, other South Slavic languages lack the DAT » ACC/ACC » DAT alternation with clitics. However, Slovenian clitics also display other idiosyncrasies which could be related to the availability of the alternation. As noted, among others, by Bošković (2001): Slovenian clitics can be both proclitics and enclitics, and clitic clusters can even be split under special conditions (see also Section 4.2). It is possible that this clitic placement freedom is also what allows object clitics to parallel the object order alternations found in Slovenian ditransitives with non-clitics (subject to similar information-structure considerations). But again, like with strong pronoun replacement, the clitic reordering is freely available as a repair strategy.

The fact that this clitic reordering feeds into person restrictions reveals its place in the derivation: it must occur before the clitics'  $[i\pi]$  is valued. That is, before a functional head with valued  $[u\pi]$  features enters the derivation. In the following sections I show that this assumption, in conjunction with (32) and (33), is enough to derive both the INVERSE STRONG PCC (Sec. 4.1.2) and the INVERSE WEAK PCC (Sec. 4.1.3).

### 4.1.2 Deriving the (INVERSE) STRONG PCC

I will assume a GOAL  $\gg$  THEME base structure for all DOCs, where the ACC  $\gg$  DAT clitic order in Slovenian involves ACC-over-DAT clitic movement before v is merged in the structure. However, the account of the INVERSE PCC pattern with the ACC  $\gg$  DAT order is in principle also compatible with free base-generation of the two orders.

The derivation of the standard STRONG PCC, which is the only person restriction pattern in Greek or French, and the person restriction found in Slovenian with a DAT » ACC clitic order, is presented in (36) (to be spelled out below).

The structure I assume for DOCs is the same as Anagnostopoulou's (2003), with V introducing the DO as a complement, the applicative head Appl introducing the IO in SpecApplP, and the ApplP as the complement of v. Like Kratzer (2009), I assume that v may bear valued uninterpretable  $\varphi$ -features. I propose, however, that not all  $\varphi$ -features have the same status regarding valuation; the  $[u\pi]$  component of the  $\varphi$ -feature set on v is valued, while other  $\varphi$ -features on v distinct from  $[\pi]$  (henceforth  $[\Gamma]$ ) are unvalued. Similarly, only the  $[i\pi]$  on  $pron_{DF}$  is unvalued, the remaining  $\varphi$ -features  $[i\Gamma]$  are valued. We will see that this split is crucial for deriving the PCC, but it also explains why a comparable "Number/Gender-Case Constraint" is unattested.

Following standard assumptions, I assume unvalued features act as Probes, while matching valued features act as their Goals (see e.g. Bošković 2011a). This means

Number restrictions seem to always arise due to language specific morphological considerations (cf. Ciucivara and Nevins 2008, Nevins 2011). The PCC conversely occurs even with null forms (Albizu 1997, Ormazabal and Romero 2007). I do not, however, exclude PCC-like restrictions sensitive to animacy and/or definiteness/specificity (cf. Ormazabal and Romero 2007). If Richards (2008) is correct, animacy, definiteness, and specificity are all manifestations of person, and should then follow from my proposal.

that once v enters the derivation in (36), its  $[u\Gamma:\_]$  must probe for and enter Agree with the closest available matching Goal, which is  $[i\Gamma_{val}]$  on DAT (a  $pron_{DF}$ ).<sup>26</sup> Once Agree is established,  $[u\pi_{val}]$  on v can also value  $[i\pi:\_]$  on DAT as 1/2/3P. This "parasitic" feature valuation results due to the condition on valuation I propose in (37).

(37) If Agree is established between heads  $X^0$  and  $Y^0$  for a feature  $[\alpha]$ , then *all*  $[F:\_]$  features on  $X^0$  and  $Y^0$  must receive the value of any matching  $[F_{val}]$  on the opposing head in the Agree chain regardless of the direction of valuation.

Since with both v and DAT, their  $[\pi]$  and  $[\Gamma]$  features are located on the same head,  $[i\pi:\_]$  can also be valued by the c-commanding  $[u\pi_{val}]$  as a result of Agree established for  $[\Gamma]$  features. The intuitive idea behind the condition in (37) is similar to that of Řezáč's (2004) *Maximize Agree* condition, which is provided in (38).

(38) *Maximize Agree*. If a probe [F-] ['-' is 'uval'] of a head H Matches an interpretable [F+] ['+' is 'val'] on a goal G, all uninterpretable features on H attempt to Agree with G at that point in the derivation. (Řezáč 2004:477)

Similar assumptions have also been invoked for other  $\varphi$ -Agree phenomena, as in Bošković's (2009) analysis of Serbo-Croatian first and last conjunct agreement, which also assumes valued uninterpretable and unvalued interpretable features.

Returning to the derivation of the STRONG PCC in (36), after  $[u\Gamma]$  on v has entered Agree with  $[i\Gamma_{val}]$  on DAT, it is valued, hence no longer a Probe. At this point even if DAT were to move above v, leaving behind an inactive trace and removing DAT as an intervener for v and ACC (also a  $pron_{DF}$ ), v could not enter Agree with ACC, as it has been satisfied as a Probe. Consequently, the  $[i\pi:\_]$  feature on ACC can no longer be valued through Agree with v, which means the ACC clitic can only get a default 3P value as a last resort, which yields the STRONG PCC pattern.

As stated above, the INVERSE STRONG PCC can also be derived within this system. The INVERSE pattern is possible in Slovenian but not Greek or French due to the option of an object clitic reordering below  $\nu$  which is allowed in the former, but not the latter. The relevant derivation is presented in (39) and discussed below.

In (39) ACC moves across DAT before v is merged. This means that when v enters the derivation, ACC and not DAT is now the closest Goal for any Agree operation triggered by v. At this point the  $[u\Gamma:\_]$  on v probes and enters Agree with the closest available Goal, the  $[i\Gamma_{val}]$  on ACC. Once Agree is established, the  $[u\pi_{val}]$  on v can also value  $[i\pi:\_]$  on ACC as 1/2/3P, due to the condition on valuation in (37). Following this, the  $[u\Gamma]$  on v is no longer a Probe, so even if ACC moved above v, creating an inactive trace,  $[i\pi:\_]$  on DAT can no longer be valued via Agree with v, which means that DAT must get a default 3P value before Spell-Out.

<sup>&</sup>lt;sup>26</sup> The  $[u\pi_{val}]/[u\Gamma:\_]$  split is supported by the lack of the PCC with reflexive clitics in Slovenian (Stegovec in press) and Bulgarian (Rivero 2004). Such clitics lack  $[i\Gamma_{val}]$  (i.e. have no number/gender contrasts) and are not Goals for  $[u\Gamma:\_]$ , so a structurally lower clitic may  $[\Gamma]$ -Agree and be 1/2P (see below).

The derivations in (36,39) show that both the standard and INVERSE STRONG PCC can be derived with the  $[i\pi]$  underspecification approach. Crucially, the derivations do not make any reference to inherent asymmetries in Case or grammatical function. The PCC arises due to a mismatch between the number of  $pron_{DF}$  and valued  $[\pi]$  heads; Appl only introduces a new object, and not a new  $[u\pi_{val}]$  feature to value it.

The (INVERSE) STRONG PCC pattern is relatively simple, but it is not the only person restriction pattern. We will see in the next section that in fact a very small change in the  $\varphi$ -feature make-up of  $pron_{DF}$ , keeping everything else the same, results in a drastically different person restriction pattern: the (INVERSE) WEAK PCC.

#### 4.1.3 Deriving the (INVERSE) WEAK PCC

Recall that the difference between STRONG and WEAK PCC is that with the latter,  $1/2P \times 2/1P$  clusters are possible. In Section 3.2 it was shown how Anagnostopoulou (2005) derives the WEAK PCC with Multiple Agree; both clitics can then enter Agree with v. But as noted above, her approach faces similar issues as BR with respect to the INVERSE PCC, namely it fails to derive the attested restrictions on the DAT clitic.

In Section 4.1, I proposed that unvalued  $[i\pi]$  features of  $pron_{DF}$  must be valued via Agree with a c-commanding head with valued  $[u\pi]$  features. We saw that this excludes  $1/2P \times 2/1P$  combinations due to a locality restriction on Agree which makes only the topmost  $pron_{DF}$  an accessible Goal. But  $1/2P \times 2/1P$  combinations can in fact be derived within the current approach, even without a Multiple Agree parameter.<sup>27</sup> I propose that in WEAK PCC languages, an object  $pron_{DF}$  must first move to SpecvP and can only then get valued by the  $[u\pi]$  on v (see below for details). The exclusively local person combinations can then be derived via valuation of  $[i\pi]$  of both objects in a Spec-Head configuration with the  $[u\pi_{val}]$  on v. The STRONG/WEAK PCC split is then achieved by the following parameterization (to be revised below):

- (40) a. STRONG: the [i $\pi$ :\_] of  $pron_{DF}$  is valued by a c-commanding [u $\pi_{val}$ ]
  - b. WEAK: the [i $\pi$ :\_\_] of (multiple)  $pron_{DF}$  is valued in SpecXP in a SpecHead configuration with a [u $\pi_{val}$ ] feature present on the X<sup>0</sup> of XP

Under (40), STRONG PCC results from Agree (i.e. agreement in a Probe-Goal relation) and WEAK PCC results from agreement in a Spec-Head relation. The split in (40) then appears to require two distinct operations: Agree and Spec-Head agreement. This may be problematic in view of recent arguments against the Spec-Head relation as an operation distinct from Agree (Chomsky 2000; 2001), but actually there is no need for a distinct Spec-Head operation under the current approach. The STRONG/WEAK split can also be captured while employing Agree for both STRONG and WEAK variants. In particular, I propose the STRONG/WEAK PCC split follows from the following difference in the status of  $pron_{DF}$  itself: (a) with STRONG PCC  $pron_{DF}$  acts as a Goal for the v Probe, and (b) with WEAK PCC  $pron_{DF}$  acts as a Probe with v as its Goal. Recall that only unvalued features can be Probes, so the  $[i\pi:\_]$  of  $pron_{DF}$  should be a Probe that needs a c-commanded  $[\pi_{val}]$  to Agree with.

<sup>&</sup>lt;sup>27</sup> I do not argue against Multiple Agree as a possible operation, I simply show it is not needed to derive the WEAK PCC. See Haegeman and Lohndal (2010) though for explicit arguments against its existence.

The only reason why this is not how the valuation of  $[i\pi:\_]$  is achieved with the STRONG PCC is because the  $[u\Gamma:\_]$  on v first enters Agree with  $[i\Gamma_{val}]$  on the closest  $pron_{DF}$ , enabling parasitic valuation of  $[i\pi:\_]$  on the same  $pron_{DF}$  as part of the same Agree chain. This is due to the condition on valuation (37), repeated here.

(37) If Agree is established between heads  $X^0$  and  $Y^0$  for a feature  $[\alpha]$ , then *all*  $[F:\_]$  features on  $X^0$  and  $Y^0$  must receive the value of any matching  $[F_{val}]$  on the opposing head in the Agree chain regardless of the direction of valuation.

The lack of parasitic valuation is what gives rise to the WEAK PCC, since  $[i\pi:\_]$  must then function as a Probe. I suggest this is because  $[i\pi]$  and  $[i\Gamma]$  features occupy distinct heads within  $pron_{DF}$  in WEAK PCC languages (see Section 4.2 for details). As (37) only applies to feature bundles of a single head, such a configuration blocks the parasitic valuation of  $[i\pi:\_]$  on  $pron_{DF}$ , leaving  $[i\pi:\_]$  an active Probe. Again, the gist of the STRONG/WEAK PCC parameterization is: (a) in STRONG PCC varieties,  $pron_{DF}$  acts as Goal, and (b) in WEAK PCC varieties,  $pron_{DF}$  acts as Probe. This follows from a lexical word internal structural difference (discussed below) in the two variants which amounts to: (a)  $[i\pi]$  and  $[i\Gamma]$  reside on the same node within  $pron_{DF}$  (STRONG PCC), or (b)  $[i\pi]$  and  $[i\Gamma]$  reside on separate nodes within  $pron_{DF}$  (WEAK PCC). The parameterization is summarized in (41) (the underlined features trigger the Agree chain which leads to the valuation of  $[i\pi:\_]$  on  $pron_{DF}$ ).

(41) a. STRONG: 
$$v = [u\pi_{val}; \underline{u\Gamma}:\_]$$
 Probe  $pron_{DF}[i\pi:\_; \underline{i\Gamma}_{val}]$  Goal b. WEAK:  $pron_{DF}[i\pi:\_]$  Probe  $v = [\underline{u\pi}_{val}; \underline{u\Gamma}:\_]$  Goal

A specific proposal regarding the lexical split posited here will be given in Section 4.2. Pending that, it should be noted that framing the split as lexical variation, which is what I propose, already has an advantage over a Multiple Agree parameter. Speaker variation between STRONG and WEAK PCC is notoriously fine-grained (Bonet 1991), which is not characteristic of a parameter restricting a core operation like Agree. Furthermore, Anagnostopoulou (2008) herself observes a striking generalization regarding WEAK PCC, namely: languages with weak pronouns and no clitic pronouns only exhibit the WEAK PCC. I will suggest in Section 4.2 that Anagnostopoulou's observation is tied to the lexical parameterization proposed here.

Let us now take a closer look at the details of the derivation of the WEAK PCC. The derivation of the standard WEAK PCC pattern is given in (42) below, where I assume the same DOC structure as used in (36,39) above.

(42) a. 
$$[v_P \quad DAT \quad v \quad [ApplP \quad t_{dat} \quad Appl \quad [v_P \quad V \quad ACC \quad ]]]$$

$$[i\pi: \underline{1/2/3P}] \leftarrow \underline{v_{alue}} \leftarrow [u\pi:val] \quad [i\pi: \underline{\quad}]$$

b. 
$$[vP \quad DAT \quad [ACC \quad v \quad [ApplP \quad t_{dat} \quad Appl \quad [vP \quad V \quad t_{acc} ]]]]$$
 $[i\pi: 1/2/3P] \quad [i\pi: 1/2/3P] \leftarrow \frac{value}{Agree} \rightarrow [u\pi: val]$ 

In (42a), the  $[i\pi:\_]$  feature on DAT has not been valued parasitically as part of  $[\Gamma]$ -Agree for the reasons discussed above. That makes it an active Probe. As DAT does not c-command a matching Goal for  $[i\pi:\_]$  in its base-position, it must move to

SpecvP, where v has a matching  $[u\pi_{val}]$ . After that,  $[i\pi:\_]$  on DAT probes and Agree is established, allowing  $[i\pi:\_]$  to be valued by  $[u\pi_{val}]$  on v. This kind of valuation driven movement has been proposed independently by Bošković (2007). The  $[i\pi:\_]$  feature on ACC also does not c-command a matching Goal in its in situ position, so it must move to SpecvP as well. It does so, as shown in (42b), by *tucking in* (Richards 1997; 2001) below DAT, where it can successfully probe, enter Agree with  $[u\pi_{val}]$  on v, and be valued. The reason why ACC clitic has to tuck in also follows from the current approach; as valuation does not occur via Spec-Head, but regular Agree, it obeys the same locality restrictions. So in order to be valued, ACC must merge to a Spec closer to v than the Spec already occupied by DAT. If ACC were to move to a higher SpecvP, DAT would act as an intervener for Agree between ACC and v. <sup>28</sup>

With (42) we have successfully derived the possibility of 1/2P × 2/1P combinations, which are grammatical with the WEAK PCC. There is just one configuration that still remains to be ruled out, namely \*3P × 1/2P — recall that Anagnostopoulou (2005) also needs a special mechanism to exclude it. In the current system of valuation we need a mechanism that captures the descriptive generalization in (43).

(43) A  $[F_{val}]$  feature on  $X^0$  can value the  $[F:\_]$  of  $\alpha$  and  $\beta$  in specifiers of XP, iff valuation results in non-conflicting values of [F] on  $\alpha$  and  $\beta$ .

In (43) I use the notion of non-conflicting values assumed also by Anagnos-topoulou (2005), who invokes it to constrain Multiple Agree. But the question is what constitutes a set of conflicting  $[\pi]$  values, and what does it follow from. A possible answer is available with privative approaches to  $\varphi$ -features (Harley and Ritter 2002, McGinnis 2005).<sup>29</sup> An example of a privative person system is illustrated in Table 2.

**Table 2** A sketch of a privative  $[\pi]$  feature value system

1 <sup>st</sup> person (1P)		2 <sup>nd</sup> person (2P)	3 <sup>rd</sup> person (3P)
$[\pi]$ [PARTICIPANT] [AUTHOR]	(= [PART]) (= [AUTH])	[π] [PARTICIPANT]	$\left \begin{array}{c} [\pi] \end{array}\right $

Valuation within such a privative system corresponds to the copying/sharing of [PART] and [AUTH] under Agree between an unvalued  $[\pi]$ -Probe and a valued  $[\pi]$ -Goal. Multiple Probes in an Agree relation with the same Goal both acquire any atomic  $[\pi]$  features the Goal has. For example, since v can either have or not have an atomic [PART] feature as part of its  $[\pi]$  set, if two Probes stand in an Agree relation with it, v cannot share [PART] with one of its Specs (making it 1/2P) while withholding it from the other (making it 3P). As a consequence, all  $pron_{DF}$  in SpecvPs (and

<sup>&</sup>lt;sup>28</sup> An anonymous reviewer asks what prevents  $[i\pi]$  on ACC from being valued by  $[i\pi]$  on DAT. I follow the standard assumption that direct Agree between arguments does not occur. Two ways to actually derive this could be: (a) Agree between arguments is reserved for binding, or (b) Agree is split into Agree-Link (in narrow syntax) and Agree-Copy (in post-syntax) (Arregi and Nevins 2012), so DAT does not have a value to give to ACC at this point in the derivation. Either option will give us the desired result.

<sup>&</sup>lt;sup>29</sup> Approaches to  $\varphi$ -feature geometry of this kind have been employed with great success in the analysis of related syntactic agreement phenomena by Béjar and Řezáč (2009), Preminger (2014).

in an Agree relation with v) will be valued as 1/2P if the  $[u\pi_{val}]$  on v is specified for [PART], while if its  $[u\pi_{val}]$  lacks [PART] they will all be restricted to 3P.

Of course, a 1P value means both [PART] and [AUTH] (see Table 2). But the PCC is at its core a restriction on the distribution of [PART], and within a privative  $[\pi]$  system, [AUTH] is dependent on [PART]. The [PART] atom is a prerequisite for [AUTH], so if the  $[i\pi]$  of a  $pron_{DF}$  already lacks [PART] it cannot be valued for [AUTH]. Consequently (pending the discussion of some 1P/2P asymmetries below), limiting the discussion to the distribution of [PART] will suffice for the issue at hand.

Crucially, this system derives the generalization in (43). The consequence is that combinations of two 1/2P clitics are derivable through valuation in SpecvPs, while combinations of a 1/2P and a 3P clitic are not. Recall though that  $1/2P \gg 3P$  combinations are possible with both STRONG and WEAK PCC (cf. (9,10) in Section 2). And such combinations are derivable in WEAK PCC systems the same way as they are derived for STRONG PCC in (36,39), by having the lower  $pron_{DF}$  object receive a default 3P value. As illustrated in (44b), with the WEAK PCC the top  $pron_{DF}$  (IO) can become 1/2P if it moves to SpecvP and enters Agree with v whose  $[u\pi_{val}]$  hosts at least a [PART] feature. Under the current system of valuation, if the lower  $pron_{DF}$  (DO) were to do the same it could only become 1/2P as well (44c). The lower  $pron_{DF}$  can, however, still surface as 3P by receiving a default value, as illustrated in (44d).

(44) a. [ 
$$v$$
 [  $pron_1$  [  $pron_2$  ]]] c. [  $pron_1$   $pron_2$   $v$  [  $t_1$  [  $t_2$  ]]] b. [  $pron_1$   $v$  [  $t_1$  [  $pron_2$  ]]] d. [  $pron_1$   $v$  [  $t_1$  [  $pron_2$  ]]] [  $pron_1$   $v$  [  $t_1$  [  $pron_2$  ]]] [  $pron_1$  [  $pron_2$  ]] [  $pron_2$  ]] [  $pron_2$  ]]

The unattested \*3P » 1/2P clitic combinations are underivable because receiving a default value is allowed only as a last resort; whenever a  $pron_{DF}$  can receive a  $[\pi]$  value through Agree, it <u>must</u> enter Agree. Thus, as illustrated in (45a), a construction where the top  $pron_{DF}$  surfaces as 3P results from a numeration where v lacks a [PART] feature and no  $[\pi]$  atoms are shared between  $pron_{DF}$  and v under Agree. As shown in (45b), the lower  $pron_{DF}$  is then restricted to 3P as well, but now as the result of a "bare" v. It crucially cannot get 3P as a default value, as in (45c), because a derivation with Agree that results in it acquiring the same value exists. Similarly, because the first  $pron_{DF}$  to move to SpecvP will always have to get its value (either 1/2P or 3P) through Agree, \*3P » 1/2P remains non-derivable, as illustrated in (45d).

$$(45) \quad \text{a.} \quad [ pron_1 \quad v \quad [ \ t_1 \quad [ \ pron_2 \ ] ] ] \\ \qquad [ \varnothing ] \quad [\varnothing ] \quad [ \_ ] \\ \qquad \text{b.} \quad [ pron_1 \quad pron_2 \quad v \quad [ \ t_1 \quad [ \ t_2 \ ] ] ] \\ \qquad [ \varnothing ] \quad [\varnothing ] \quad [\varnothing ] \quad [ d:\varnothing ] \\ \qquad [ d:\varnothing ] \quad [ \text{PART} ] \quad [ \text{PART} ] \\ \end{aligned}$$

A reviewer asks what prevents the lower  $pron_{DF}$  from raising to SpecvP and be valued with STRONG PCC. In canonical PCC languages this would mean a vP internal ACC-over-DAT movement, which must be independently blocked in such languages anyway or there would be no variation between them and languages with the INVERSE PCC. In languages like Slovenian, on the other hand, this alternative is blocked

because ACC-over-DAT movement occurs as early as possible — before  $\nu$  has merged. The existence of a derivation where ACC is valued by moving above DAT early blocks an alternative one where ACC 'waits' until  $\nu$  has merged. The non-existence of the alternative derivation thus follows from *earliness* and the cyclicity of derivations.

This leads us into the derivation of the INVERSE WEAK PCC. As with the INVERSE STRONG PCC (cf. 39), the WEAK version is possible due to a reordering of object pronouns before *v* merges into the structure. The derivation is given in (46).

(46) a. 
$$[vP \quad ACC \quad v \quad [applP \quad t_{acc} \quad [DAT \quad Appl \quad [vP \quad V \quad t_{acc} \,]]]]$$

$$[i\pi: \underline{1/2/3P}] \leftarrow \underbrace{value}_{Agree} \leftarrow [u\pi:val] \quad [i\pi: \underline{\ }]$$
b.  $[vP \quad ACC \quad [DAT \quad v \quad [applP \quad t_{acc} \quad [t_{dat} \quad [vP \quad t_{acc} \,]]]$ 

$$[i\pi: \underline{1/2/3P}] \quad [i\pi: \underline{1/2/3P}] \leftarrow \underbrace{value}_{Agree} \leftarrow [u\pi:val]$$

The top  $pron_{DF}$  (ACC) needs to probe due to its  $[i\pi:\_]$  feature, but as in (42) before, it cannot be valued by v in situ. It therefore moves to SpecvP, where v hosts the matching  $[u\pi_{val}]$ , and probes v (46a). Under Agree, the  $[i\pi:\_]$  on ACC is valued. After this, DAT must also move to SpecvP, tucking in under ACC where it can successfully probe v, and gets valued via Agree with its  $[u\pi_{val}]$  for a value which does not conflict with the value that was assigned to  $[i\pi:\_]$  on ACC (46b).

In this subsection I showed that both standard and corresponding INVERSE WEAK PCC patterns can be derived within the current approach to the PCC. Again, Case valuation does not feature in the derivation, which is a prerequisite for deriving any INVERSE PCC pattern. Also, the STRONG/WEAK PCC variation was derived lexically, by treating the *pronpf* in WEAK PCC systems as (minimally) distinct lexical entries.

#### 4.1.4 Asymmetries in [PART] and [AUTH] restrictions

The derivation in (46) gives us an INVERSE WEAK PCC pattern, and predicts the restrictions with the ACC » DAT clitic order should be completely symmetric to the DAT » ACC restrictions, as illustrated in the first row of Table 3. This is very close to the actual pattern, however person restrictions are not entirely symmetric for Slovenian WEAK PCC speakers with DAT » ACC and ACC » DAT (see footnote 5). With the latter, 2P.ACC » 1P.DAT is possible while \*1P.ACC » 2P.DAT is not — see the second row of Table 3. So there is a 1P versus 2P asymmetry with ACC » DAT, but not DAT » ACC. The rest conforms to the predictions of the derivations in (42,46).

Table 3 Predicted and actual possible clitic combinations with the ACC » DAT order in Slovenian

PREDICTED:	3P.ACC 1P.ACC	» »	3P.DAT 2P.DAT	1/2P.ACC 2P.ACC	» »	3P.DAT 1P.DAT	*3P.ACC	*	1/2P.DAT
ACTUAL:	3P.ACC	<b>»</b>	3P.DAT	1/2P.ACC 2P.ACC	<b>»</b>	3P.DAT	*3P.ACC	*	1/2P.DAT

There is strong independent evidence that the remaining restriction is not PCC-related, i.e. it is independent from restrictions on [PART] valuation. Such 1P/2P asym-

metries can in fact easily be found independently of STRONG or WEAK PCC. In Bosnian/Croatian/Serbian (B/C/S), there is no STRONG or WEAK PCC restriction (Migdalski 2006) and object clitics have a rigid DAT » ACC order. However, B/C/S speakers allow 1P.DAT » 2P.ACC combinations, shown in (47a), but still not \*2P.DAT » 1P.ACC, shown in (47b). So although B/C/S does not restrict 1P and 2P clitics as a class, it does show an asymmetry between 1P and 2/3P clitics, as evidenced also by (48).

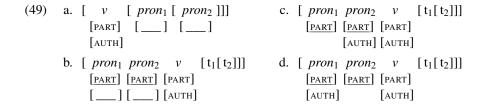
(47)	a.	Toplo <b>mi te</b> preporučujem. warmly 1.DAT 2.ACC recommend.1 'I warmly recommend you to me.'	1P.IO » 2P.DO
	b.	??(*) Toplo <b>ti me</b> preporučuje. warmly 2.dat 1.acc recommend.3 'He warmly recommends me to you.'	*2P.IO » 1P.DO
(48)	a.	Toplo <b>mu te</b> preporučujem. warmly 3.M.DAT 2.ACC recommend.1 'I warmly recommend you to him.'	3p.io » 2p.do
	b.	??(*) Toplo <b>mu me</b> preporučuje. warmly 3.M.DAT 1.ACC recommend.3	*3P.IO » 1P.DO
		'He warmly recommends me to him.'	(B/C/S; Runić 2013)

This provides evidence that restrictions on [AUTH] can be independent of restrictions on [PART], which I argued above is at the core of the PCC (i.e. the failure of [PART] valuation by  $\nu$ ). It should be noted that 1P/2P asymmetries are treated by some as distinct PCC patterns. B/C/S would fit Nevins' (2007) ME-FIRST PCC, which he derives through relativized probing by a single Probe. However, the Slovenian 1P/2P asymmetry is inconsistent with such an approach, as it would require that either: (a) both 2P.DAT » 1P.ACC and \*1P.ACC » 2P.DAT should be ungrammatical (if only the base IO  $\gg$  DO is relevant), or (b) both 1P.DAT » 2P.ACC and \*1P.ACC » 2P.DAT should be ungrammatical (if the serialization of clitics is relevant) — both also constitute a kind of "YOU-FIRST" pattern, where 2P must appear before/higher than 1P, which Nevins (2007) argues to be unattested and non-derivable in his system.

I suggest below that the Slovenian 1P/2P asymmetry does not arise from person valuation, but that nonetheless [AUTH] valuation can be constrained independently of [PART] valuation with other kinds of 1P/2P asymmetries. But before this can be discussed, we need to see how [AUTH] valuation works in the current system.

I propose that valuation of [PART] and [AUTH] is cyclic in that the former must always precede the latter due to a dependency relation: [AUTH] does not occur in the absence of [PART]. Then, after Agree takes place between a  $[\pi]$ -Probe and a  $[\pi]$ -Goal, [PART] is copied first, followed by [AUTH]. So, when multiple Probes are in an Agree relation with one Goal, as with WEAK PCC, *all* Probes must receive [PART] before [AUTH] can be copied. Such a derivation is illustrated in (49), and explained below.

<sup>&</sup>lt;sup>30</sup> Interestingly, some speakers actually judge ACC » DAT clitic orders as slightly improved when the DAT » ACC clitic order would result in a banned combination such as \*2P.DAT » 1P.ACC.



Once the two pronouns have moved to SpecvPs, established Agree with v and received [PART] (49b), v may copy [AUTH] to either  $pron_{DF}$  (49c,49d). This is possible because both already stand in an Agree relation to v. Copying [AUTH] to both is presumably blocked to avoid a Condition B violation (see also (30) above).

This does not capture the \*1P.ACC > 2P.DAT ban in Slovenian, which I suggest may be related to a restriction found in Japanese with the IO-empathy form of 'give', 'kure-ru'. In Japanese, which does not show PCC effects, 'kure-ru' (as opposed to the subject-empathy 'yar-u') must be used when the IO is 1P, mirroring the only grammatical combination of 1P and 2P clitics with ACC » DAT in Slovenian. Following Kuno (1987), this restriction on 'kure-ru', a verb expressing empathy with the IO, follows from 1P being ranked highest in the empathy hierarchy. Charnavel and Mateu (2015) independently argue clitic empathy loci (DAT clitics) as well as discourse participant clitics (1/2P clitics) are licensed via a local relation with a logophoric operator in the left periphery. Thus, the licensing of two 1/2P clitics is blocked as both cannot be local to the operator.<sup>31</sup> But such sequences are allowed in WEAK PCC languages, so I suggest a "backup" strategy must be used then. Namely, if both clitics in a DOC are 1/2P, then: (i) only DAT (empathy locus) must be local to the operator (met with DAT » ACC), and (ii) if the former is not met, DAT must be 1P, because 1P ranks highest in the empathy hierarchy. This correctly excludes only \*1P.ACC > 2P.DAT. Note also that (ii) would not be required if not for the ACC-over-DAT clitic movement, which may be why this particular asymmetry is observed in Slovenian.

There is further evidence that the Slovenian asymmetry is not a sub-type of the PCC, and most likely related to the licensing of perspective or empathy loci. Crucially, the pattern of the 1P/2P asymmetry changes in questions, as shown in (50,51).

- (50) a. **Ti me** je pokazal? 2.dat 1.acc is shown.m 'Has he shown me to you?'
- (51) a. \* **Mi te** je pokazal? 1.DAT 2.ACC is shown.M 'Has he shown you to me?'
- b. \* Me ti je pokazal? 1.ACC 2.DAT is shown.M 'Has he shown me to you?'
- b. **Te** mi je pokazal? 2.ACC 1.DAT is shown.M 'Has he shown you to me?'

In polar questions, both DAT » ACC (50a,51a) and ACC » DAT (50b,51b) clusters are restricted to 2P » 1P. Such declarative/interrogative shifts with 1P or 2P restrictions are not limited to Slovenian, as the restrictions on Japanese 'kure-ru' crucially also

<sup>&</sup>lt;sup>31</sup> Charnavel and Mateu (2015) argue that the PCC should in fact be reduced to this restriction — the DAT clitic intervenes between the operator and the 1/2P clitic. But this excludes both the WEAK PCC and the INVERSE PCC, which shows the PCC should not simply be reduced to logophoric licensing.

change in questions. Another case of this is found in *conjunct-disjunct marking* languages (Pearson 2012, Wechsler to appear), where a special conjunct verbal paradigm is used with 1P subjects in declaratives, but 2P subjects in questions, showing a declarative/interrogative shift. Such 1P/2P asymmetries, unlike the PCC, all appear to be sensitive to the perspective shift between declarative and interrogative clauses. So although a full account of the Slovenian 1P/2P asymmetry goes beyond the scope of this paper, its interaction with the declarative/interrogative split further shows it is independent from the PCC, which results solely from restrictions on feature valuation.

However, as noted above, I do not exclude the possibility of true syntactic restrictions on [AUTH] valuation. In fact, Franks (in press) argues for such an account of the B/C/S restriction based on the proposal in the earlier version of this paper. Another case is the Catalan  $2P \gg 1P$  clitic ordering restriction (see (5)) which acts in parallel to the WEAK PCC. Under most analyses (also Nevins 2007; 2011) it must be treated as an arbitrary restriction on clitics, but in the current approach it can be derived as a syntactic restriction on person valuation — by assuming that, in Catalan, [AUTH] (but not [PART]) valuation is delayed until either ACC or DAT moves from Spec $\nu$ P to a head above  $\nu$ .<sup>32</sup> Due to the two possible structural configurations after [PART]-valuation in Spec $\nu$ P, the clitic that remains in Spec $\nu$ P will intervene for the delayed [AUTH]-valuation of the moved clitic, making \*1P  $\gg$  2P sequences underivable.

### 4.2 Lexico-structural variation in pronouns and how it interacts with the PCC

The basic strategy for voiding PCC violations is to realize at least one of the two clitics in a banned cluster as a strong pronoun (see BR, Anagnostopoulou 2005). BR argue that this due to the presence of an additional structural layer in strong pronouns which licenses 1/2P via Agree between the pronoun and the functional head that projects it — the projection is assumed to be either focus (FocP) or a silent PP layer.<sup>33</sup>

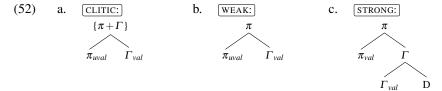
There are at least two empirical issues that arise from this view. The focus licenser analysis predicts that strong pronouns should always be focused, but this does not hold (Cardinaletti and Starke 1994), as strong pronouns can surface as both semantically and prosodically non-focused. Even if the added licenser is not focus, it is unclear why it should only be present with strong pronouns. I will argue here for an approach where the difference in person restrictions between strong and deficient pronouns actually follows from word-internal structural differences, roughly along the lines of Cardinaletti and Starke (1994), who observe a number of distributional, interpretational, and prosodic properties associated with different types of pronominal elements, which require a split into three classes: (i) clitic pronouns, (ii) weak pronouns, and (iii) strong pronouns. Generally, the PCC seems to occur only with

<sup>&</sup>lt;sup>32</sup> See also Ordóñez (2002) for a discussion of IO » DO and DO » IO clitic orders in Romance (including Catalan) in terms of whether both object clitics adjoin to the same head or to two distinct heads. In the current approach only the latter is predicted to result in intervention and blocked [PART/AUTH]-valuation.

<sup>&</sup>lt;sup>33</sup> Anagnostopoulou (2003; 2005) alternatively argues that in such cases strong ACC pronouns simply do not check their features against  $\nu$ , as they do not enter into a Move/Agree relation with  $\nu$ . This means that Case-checking must not be a requirement for strong pronouns, see (Anagnostopoulou 2003:316–321). While this captures the facts, it is difficult to see why strong pronouns should be exempt from Case-checking, especially with cases like Slovenian where clitic and strong forms show the same case contrasts.

so called deficient (clitic/weak) pronouns, which Cardinaletti and Starke take to be structurally deficient — lacking a layer of projection strong pronouns have, which enables strong, but not deficient, pronouns among other things to surface in A-positions, be coordinated, have their own "semantic range", and resist phonological reduction.

I capitalize here especially on the semantic split between strong and deficient pronouns, namely regarding what Cardinaletti and Starke call "range". Strong pronouns always bear their own range-restriction, while deficient pronouns are incapable of bearing their own range restriction; they are either range-less or associated to the range of an element prominent in the discourse. Another way to implement Cardinaletti and Starke's notion of range deficiency is *referential deficiency*. In the current system, referential deficiency is associated with unvalued  $[i\pi]$  features. I assume that D, which is restricted to non-deficient pronouns, has valued  $[i\pi]$  features which make the pronoun fully referential. Like Cardinaletti and Starke, I propose there is a three-way structural split between pronouns, albeit with some differences in the implementation. The proposal is illustrated in (52), and elaborated on below.



Both (52a) and (52b) lack D, but differ in terms of projection. Merging two heads presents an issue for the *Labeling Algorithm* (LA) of Chomsky (2013), where when  $X^0$  and YP merge  $X^0$  projects (determines the label), but when  $X^0$  and  $Y^0$  merge none can project. In Chomsky (2014), the latter can only occur when *roots* merge with category defining heads like  $\nu$ , in which case roots are too weak to project and  $\nu$  projects. But it has been observed, through cross-linguistic patterns of suppletion (Moskal 2015), that pronouns lack both roots and category defining heads, in which case the internal structure of pronouns requires a non-trivial LA resolution. I therefore assume the difference between clitic (52a) and weak pronouns (52b) lies in the strategy used to resolve the LA conflict caused by merging two heads:  $\pi$  and  $\Gamma$ .

In the case of clitic pronouns (52a), both  $\pi$  and  $\Gamma$  project together, resulting in a head bundle, not unlike what was assumed about INFL before Pollock (1989), namely that it was a bundle of T and AGR. Consequently, clitics are not regular heads, which goes along nicely with Chomsky's (1995) conception of clitics as ambiguous XP/X<sup>0</sup> elements (see also Bošković 2002). With weak pronouns, the labeling conflict is alternatively resolved with  $\pi$  determining the label of the complex head (52b).

Strong pronouns (52c) differ from deficient pronouns in that they contain a referential D with a valued  $[i\pi]$ . The valued  $[\pi]$  features on D serve as a pronoun-internal Goal for the  $[i\pi:\_]$  of the  $\pi$ -projection. This is the reason why strong pronouns do not show PCC effects; they do not require external valuation of their  $[i\pi]$  features. I suggest that the valued status of  $[i\pi]$  is a consequence of the referential status of D. Referentiality is inherently incompatible with underspecification of  $[\pi]$ , as having a specific referent requires reference to a particular  $[\pi]$  feature value.

 $<sup>^{34}\,</sup>$  The following, however, does not fully conform to Chomsky's (2013, 2014) conception of the LA.

The structures in (52) also derive the lexical split I proposed above as the source of the STRONG/WEAK PCC variation. Condition (37) (pg. 18) ensures that Agree between  $[u\Gamma:\_]$  on v (also hosting  $[u\pi_{val}]$ ) and a head with both  $[i\Gamma_{val}]$  and  $[i\pi:\_]$  will result in  $[\Gamma]$  and  $[\pi]$  valuation in the same cycle of Agree, yielding STRONG PCC. This in fact follows from the pronoun structure in (52a), where  $\pi$  and  $\Gamma$  are bundled and count as a single node for Agree. Compare now (52a) to (52b). In (52b), Agree between  $[u\Gamma:\_]$  on v and  $[i\Gamma_{val}]$  on a  $pron_{DF}$  cannot result in the parasitic valuation of  $[\pi]$ , as  $\pi$  and  $\Gamma$  are not bundled in (52b). The  $[i\pi:\_]$  on the pronoun must then function as a Probe, resulting in the movement of the pronoun to SpecvP, a position from where it c-commands the  $[u\pi_{val}]$  of v, so it can be valued. This is exactly the configuration proposed for the derivation of the WEAK PCC in Section 4.1.3.

This also explains Anagnostopoulou's (2008) generalization: WEAK PCC is the only PCC variant found in exclusively weak pronoun languages.<sup>35</sup> The structure for weak pronouns in (52b) can in fact only give rise to the WEAK PCC. One a more speculative note, there is also a more interesting possibility offered by this approach, namely that all languages which reportedly conform to WEAK PCC with clitics really lack true clitics and only have weak pronouns instead. Languages where speakers are transitioning from a clitic to an exclusively weak pronoun system might then be expected to display the sort of inter-speaker variation regarding STRONG and WEAK PCC reported in the literature. This kind of speaker micro-variation is also found in Slovenian, and, as noted above, Slovenian clitics display properties not found in other South-Slavic clitic systems. Bošković (2001) observes that Slovenian clitics are among other things: (i) losing a rigid 2nd position requirement in some environments, (ii) clitic clusters can be split by non-clitic material, (iii) can under certain conditions attach both to the right (enclitics) or the left edge (proclitics) of the same host, and (iv) even occur completely stranded. This relaxation of otherwise cross-linguistically very consistent requirements on clitics, which used to be present in Slovenian, may indicate that Slovenian clitics are being reanalyzed by some speakers as weak pronouns (see also Franks in press), bringing along the WEAK PCC pattern. However, a closer examination of how much the presence of these idiosyncratic clitic-placement properties correlates with the presence of WEAK PCC will be left for future work.

The current proposal predicts that pronoun type correlates not only to whether the PCC is active or not (deficient vs. strong pronouns),  $^{36}$  but also to the type of PCC pattern (clitic- $pron_{DF} = STRONG$ ; weak- $pron_{DF} = WEAK$ ). But I have not yet discussed languages with 'true' object agreement, which have also been reported to show PCC restrictions. Thus, Baker (2008) discusses languages with "two and a half agreement", where the IO agrees fully while the DO does not agree for person. It has to be noted, though, that not only is it sometimes very hard to draw the line be-

<sup>&</sup>lt;sup>35</sup> A reviewer suggests English as a potential counterexample, as it appears to have the STRONG PCC (Richards 2008). But it is not entirely clear that English deficient pronouns are not clitics. As Bošković (2004a) points out, at least pronouns that license quantifier float cannot be coordinated and must be unstressed ('\*Mary hates you, him, and her all'; '\*Mary hates THEM all' vs. 'Mary hates them all'), which are properties associated with clitics (see also Lasnik 1999 regarding clitic pronouns in English).

<sup>&</sup>lt;sup>36</sup> One potential exception to the generalization is Icelandic, where strong NOM object pronouns are restricted to 3P in the presence of a DAT subject (Taraldsen 1995). However, as Schütze (2003) argues, there is evidence that this actually results from the ineffability of the agreement marker itself. I discuss the relevance of the difference between the PCC and the Icelandic person restriction in (Stegovec in press).

tween clitics and agreement markers, but also that in a lot of these languages the "half agreement" marker is distinct from other agreement markers. For example, in Cherokee ditransitives (Scancarelli 1987), DO agreement is null if singular, and expressed by a distributive prepositional prefix — distinct from plural agreement — if plural. Similarly, in O'odham (Zepeda 1983), a singular DO is not marked, but the plural marker has special properties, such as being the only agreement marker in the language that can dislocate from the verb stem (Langacker 1977:138).

An even more common pattern with object agreement is that the DO in the presence of an IO is not registered on the verb at all. And crucially, in such cases there are two languages types. Those like Itelmen (Bobaljik and Wurmbrand 2002), where one object agrees and the other object's person value is unrestricted, or those like Tzotzil (Aissen 1987), where only IO agrees, but the person value of DO is nonetheless restricted to 3P. One solution is to say that in Tzotzil, but not Itelmen, DO agrees covertly in ditransitives. But can we tell apart null agreement from a null clitic?

The current proposal actually offers a solution, as it predicts that in order to show PCC effects a marker has to be a  $pron_{DF}$ . This is similar to a claim made by Nevins (2011), but broader as it also predicts PCC with weak pronouns. This explains why DO markers are special in Cherokee and O'odham — they are actually clitics. And as predicted by the current approach, the intervening IO blocks person valuation on the DO clitic, giving rise to a PCC pattern, which is attested in both languages.

### 4.3 Interim summary

I have argued for an analysis of the PCC which divorces it from Case-checking. This move was necessary due to the existence of Slovenian INVERSE PCC. In this approach the PCC arises because deficient pronouns are underspecified for a  $[\pi]$  value, and must receive their value externally from a functional head via Agree, or receive a default 3P value as last resort. As locality restrictions on Agree make the lower object clitic inaccessible for valuation, the clitic must always be 3P, resulting in STRONG PCC. The analysis also extends to the STRONG/WEAK PCC split, which can be derived as lexical variation. I argued that deficient pronouns in STRONG PCC languages act as Goals for Agree, while (due to a different internal structure) deficient pronouns in WEAK PCC languages act as Probes, hence need to move to SpecvP to be valued. Because multiple pronouns can move to SpecvP, the additional clitic combinations allowed with WEAK PCC can be derived. I have also proposed that INVERSE PCC is possible in Slovenian only because of optional DO-over-IO clitic movement before v enters the structure. In the next section, I discuss an additional asymmetry that arises with imperatives in Slovenian, and show that it provides more evidence for the  $\nu P$ internal clitic reordering through its interaction with a post-syntactic clitic switch.

# 5 Another kind of PCC repair and what it tells us about the INVERSE PCC

Slovenian differs from canonical PCC languages in one more way. Namely, person restrictions are not observed in imperatives. Slovenian clitics appear post-verbally in

imperatives to satisfy the  $2^{nd}$  position requirement. Interestingly, in this construction the order of clitics is not constrained by their person value, as (53,54) show (2P clitics are not found with imperatives in Slovenian; they are replaced by reflexive clitics).

- (53) a. Predstavi mu me! introduce.imp.2 3.m.dat 1.acc 'Introduce me to him!'
- b. Predstavi me mu! introduce.IMP.2 1.ACC 3.M.DAT 'Introduce me to him!'
- (54) a. Predstavi **mi ga!**introduce.imp.2 1.dat 3.m.acc
  'Introduce him to me!'
- b. Predstavi **ga mi!**introduce.IMP.2 3.M.ACC 1.DAT
  'Introduce him to me!'

There is also an additional complication, as Slovenian allows imperatives in reported speech. In such cases clitics are pre-verbal; embedded imperatives are introduced by the standard subordinating complementizer, which occupies the 1<sup>st</sup> clausal position in C, hence clitics must surface pre-verbally. Curiously, in this configuration clitics display the same person restrictions observed in declaratives (55,56).<sup>37</sup>

- (55) a. \*? Rekla je, da **mu me** predstavi. \*3P.IO » 1P.DO said is that 3.M.DAT 1.ACC introduce.2P.IMP
  - b. Rekla je, da **me mu** predstavi. 1P.DO » 3P.IO said is that 1.ACC 3.M.DAT introduce.2P.IMP
    'She said that you should introduce me to him!'
- (56) a. Rekla je, da **mi ga** predstavi. 1P.IO » 3P.DO said is that 1.DAT 3.M.ACC introduce.2P.IMP
  - b. \*? Rekla je, da **ga mi** predstavi. \*3P.DO » 2P.IO said is that 3.M.ACC 1.DAT introduce.2P.IMP

    'She told you that you should introduce him to me!'

In the following I give an account of these facts in a theory where clitics leave copies when they move. This allows pronunciation of their lower copies (cf. Bošković 2001), which will be the key in explaining the lack of PCC in matrix imperatives.

### 5.1 The case of the Greek clitic switch

Alternative serializations of object clitics can be restricted in some languages to specific constructions. One such case is Greek, where object clitics allow both DAT » ACC and ACC » DAT orders with imperatives (57), but not with finite clauses (58) (Warburton 1977, Joseph and Philippaki-Warburton 1987, Terzi 1999, Bošković 2004b).

(57) a. Diavase mou to!

read.imp me.dat it.acc

'Read it to me!'

b. Diavase to mou! read.IMP it.ACC me.DAT 'Read it to me!'

<sup>&</sup>lt;sup>37</sup> The PCC violation is perceived as weaker than in declaratives in these cases (it is, however, much stronger with feminine 3P clitics; it is unclear why this is so).

```
(58) a. Mou to diavase.

me.dat it.acc read.3sg

'S/he is reading it to me.'

(Greek; Bošković 2004b:291–293)
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Bošković (2004b) analyses the Greek imperative clitic switch as a consequence of *lower copy pronunciation* (LCP) forced by an adjacency requirement between V and a functional head (Bobaljik 1995, Bošković 2001). Building on Miyoshi (2002), Bošković ties the Greek clitic switch to a particular analysis of the ban on negative imperatives. The ban is at its core a prohibition on negation occurring with a particular verb form. For example, in English, negation is banned with finite main verbs, as in (59a). In such cases, an infinitive verbal form with *Do-Support* must be used (59b).

```
(59) a. *John not laughed. b. John did not laugh.
```

Miyoshi's (2002) insight was to treat the two negation bans as the same phenomenon. In both, negation blocks *affix hopping/PF merger*.<sup>38</sup> The ban on negative imperatives then results from the imperative functional head F<sup>39</sup> requiring affixation to V under PF adjacency (*Stranded Affix Filter*). The presence of negation blocks *PF merger* of F and V, resulting in ungrammaticality (60a). The ban can be voided by using a different verbal form, which does not require *PF merger* (cf. (59b)).

(60) a. \* Den/mi diavase! b. 
$$F[+affix]$$
 \*NEG V

NEG read.IMP  $[+IMP]$  den/mi diaváz $o$  (INF)

'Don't read!' (Greek; Bošković 2004b:288)

This analysis allows a uniform syntax for declarative pre-verbal and imperative post-verbal clitics. In both cases, the head of the chain formed by clitic movement is in the same position (61a), which is the copy pronounced in declaratives (61b), but this copy remains unpronounced in imperatives as the Stranded Affix Filter triggered by F forces LCP (61c). The algorithm for copy pronunciation used here is the one argued for by Bobaljik (1995), Franks (1998/2010), Bošković (2001), where the highest copy of a moved element is pronunced unless a PF violation is induced by such a pronunciation, in which case the next available copy is pronounced (see also Bošković and Nunes (2007) for an overview of arguments for this approach).

```
(61) a. clitic<sub>2</sub> V clitic<sub>1</sub> COPY/INTERNAL MERGE
b. clitic<sub>2</sub> V elitie<sub>1</sub> \Rightarrow pre-verbal (PF)
c. F =  elitie<sub>2</sub> F =  clitic<sub>1</sub> F =  LCP \Rightarrow post-verbal (PF)
```

But how does LCP derive the switch in Greek imperatives? For Bošković (2004b), clitics must left adjoin to V when V moves to a position that c-commands them, and the two orders of object clitics in (57) result from an additional head movement step

<sup>&</sup>lt;sup>38</sup> The account of the English ban is essentially Chomsky's (1957) analysis in terms of affix hopping. The analysis has been revived more recently, in particular by Halle and Marantz (1993), Bobaljik (1995).

 $<sup>^{39}</sup>$  For Miyoshi (2002) the head is an imperative C. But as embedded imperatives do occur cross-linguistically with both overt C and imperative morphology (also in Slovenian), it seems more likely the head is a modal operator (cf. Kaufmann 2012) positioned somewhere above V and below C.

of the complex head  $\{ACC + V\}$  before DAT is merged to it. When the LCP is triggered is by imperative F, this results in the configuration shown in (62a). Conversely, the order preserving derivation involves an additional intermediate step where  $\{ACC + V\}$  moves to  $X^0$  within XP and the order is preserved with LCP (62b). Crucially, this step is *optional* in Greek (see Bošković 2004b: for the details of the analysis).

(62) a. 
$$\mathbf{F} \left[ \left\{ \frac{\mathsf{DAT}}{\mathsf{ACC}} \mathbf{V} \right\} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right\} \right] \left[ \mathsf{DAT} \right] \dots$$
  
b.  $\mathbf{F} \left[ \left\{ \frac{\mathsf{DAT}}{\mathsf{ACC}} \mathbf{V} \right\} \right] \left[ \left\{ \mathsf{DAC} \right\} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right\} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \right] \left[ \left\{ \mathsf{ACC} \mathbf{V} \right] \left[ \left\{ \mathsf{A$ 

As Greek displays the PCC, we can test how the switch interacts with it. (63) shows that unlike clitic reordering in Slovenian, the Greek clitic switch does not void the PCC. This is in fact compatible with the two clitic orders only emerging at PF.

Bošković stipulates that DAT cannot also adjoin to  $X^0$  due to "Dative Sickness": the cross-linguistic tendency of DAT arguments to not tolerate feature checking with TP. In the following section I give a more general account of the delayed clitic movement, which is also explains why the PCC is voided in Slovenian matrix imperatives.

#### 5.2 Interaction between the PCC and the PF clitic switch

Chomsky's (1995) claim about clitics being ambiguous  $XP/X^0$  elements implies that clitics should be able to both XP-move and head-move. Thus, if a clitic CL head-moves to a head  $X^0$ , it can only undergo further movement as part of the complex head  $\{CL + X^0\}$ . But as an  $XP/X^0$  ambiguous element it should also be able to XP-move successive cyclically before head-adjoining to its final landing site. The latter is actually what I assumed in the derivations so far, and is illustrated for DAT and ACC clitics in (64). Heads move successive cyclically forming increasingly larger complex heads, while the clitics move like XPs to SpecvP to use it as an escape hatch on their way to their final landing site, as vP is a phase (Chomsky 2000; 2001).

(64) 
$$[_{vP} \overrightarrow{DAT_1} \overrightarrow{ACC_1} \{ \{ \underline{V} \overrightarrow{Appl} \} v \} [_{ApplP} \overrightarrow{DAT_0} \{ \underline{V} \overrightarrow{Appl} \} [_{VP} \overrightarrow{V} \overrightarrow{ACC_0} ] ] ]$$

So far, clitics were assumed to XP-move within  $\nu P$  in the derivation of the PCC, but crucially the option of head-movement inside of  $\nu P$  does not affect anything in the previous discussion. In the derivation of a Slovenian DOC imperative in (64), the DAT clitic can only move to Spec $\nu P$  (the phase edge) via XP-movement, while ACC can move to Spec $\nu P$  in two ways: (i) by left adjoining to the first asymmetrically c-commanding  $X^0$  or complex head (in this case:  $\{V + Appl\}$ ) and 'piggyback' on it to  $\nu$  (65) (and eventually T), or (ii) XP-move to Spec $\nu P$  directly (64). Crucially, with derivation (i), the head-movement must occur as early as possible, while with derivation (ii) the clitic head-adjoins only to its final landing site  $X^0$  (in this case T), assuming that it must head-adjoin in its final position. Both options still result in ACC having to leave  $\nu P$  without being valued, hence spelling-out with a default 3P value.

$$(65) \qquad [_{VP} \text{ DAT}_{1} \left\{ \underbrace{\{ \text{ACC}_{2} \left\{ \text{V Appl} \right\} \}}_{} V \right\} \left[ ApplP \text{ DAT}_{0} \left\{ \underbrace{\text{ACC}_{1} \left\{ \text{V Appl} \right\} \}}_{} \left[ VP \text{ V ACC}_{0} \right] \right] \right]}$$

The difference between the two options becomes relevant as the derivation continues. If the derivation began with (65), ACC is then adjoined to  $\{V + Appl\}$ , and can only move further as part of the complex head, as in (66). The DAT clitic must then head-adjoin to T directly from SpecvP, resulting in a DAT » ACC order. But if the derivation began with (64), the cyclic head movement of the verbal complex continues all the way to T, which is also where both DAT and ACC directly head-adjoin, resulting in the same final DAT » ACC clitic order we got in (66).

(67) 
$$[TP \{ DAT_2 \{ ACC_2 \{ \underline{\{ V \dots v \}} T \} \} \} [AspP \{ \underline{\{ V \dots \}} Asp \} [vP DAT_1 ACC_1 \{ V \dots \} \} \dots ]]]$$

Both derivations yield the same final clitic order in the syntax, with two different patterns of intermediate copies. The later difference then gives rise to distinct surface orders at PF when the imperative F forces LCP. As illustrated in (68a), the derivation in (66) leads to a clitic switch at PF, while the derivation in (67) results in the order of clitics being the same at PF, even after LCP, as illustrated in (68b).

(68) a. 
$$\mathbf{F}_{[TP \ DAT_2]}[ACC_5[\mathbf{V}]][A_{SpP}[ACC_4][\mathbf{V}]][\nu_P[DAT_1][ACC_3[\mathbf{V}]]...]]]$$
  
b.  $\mathbf{F}_{[TP \ DAT_2]}[ACC_2[\mathbf{V}][A_{SpP}[\mathbf{V}]][\nu_P[DAT_1][ACC_1][\mathbf{V}]...]]]$ 

The lack of PCC effects in Slovenian matrix imperatives now follows because the syntactic clitic reordering (responsible for INVERSE PCC) results in four distinct lower copy configurations in DOCs. As illustrated in (69,70), all four grammatical imperative clitic combinations are derived with the PF-switch from two combinations which are grammatical in narrow-syntax: 1P.DAT » 3P.ACC and 1P.ACC » 3P.DAT.

The clitic switch at PF effectively makes a grammatical sequence look like an ungrammatical one at PF, giving the appearance of the PCC being inactive. This leaves us with the last piece of the puzzle, which is explaining why the PCC is active in embedded imperatives. In embedded imperatives additional clitic movement occurs to satisfy the  $2^{nd}$  clausal position requirement (Bošković 2001, Franks 1998/2010). As the highest copy of a chain must be pronounced if no PF factor interferes (Franks 1998/2010), the clitic copy that intervenes between F and V in (69,70) is not pronounced (not being the highest), so that the Stranded Affix Filter is satisfied without LCP. As this additional movement is also order preserving, the order of clitics at PF will always match their  $\nu$ P-internal order. So, in this context, a PCC-compliant order

at PF also always means a PCC-compliant clitic cluster in the syntax, as shown in (71a). Conversely, a PCC-violating order at PF always corresponds to a true PCC violation, as shown in (71b). The absence of LCP in embedded imperatives thus correctly derives the Slovenian matrix/embedded imperative PCC asymmetry.

(71) a. 
$$[CP \ C \ [ \ ] P_3 \ [ \ ] P_6 \ [ \ V ]]] \mathbf{F} \ [TP \ 1P_2 \ [3P_5 \ [\mathbf{V}]] \ [AspP \ [3P_4 \ [\mathbf{V}]] \ [vP \ 1P_1 \ [3P_3 \ [\mathbf{V}]] \dots]]]$$
  
b.  $*[CP \ C \ [ \ ] P_2 \ [\mathbf{V}] \ [P_2 \ [\mathbf{V}]] \mathbf{F} \ [TP \ 3P_2 \ 1P_2 \ [\mathbf{V}] \ [AspP \ [\mathbf{V}] \ [vP \ *3P_1 \ *1P_1 \ [\mathbf{V}] \dots]]]$ 

It is crucial for the current analysis that the option for clitics to head-adjoin early (or late) is not case-discriminating, as it is for Bošković (2004b). The descriptive generalization that holds for Slovenian is given below in (72).

(72) If two clitics, CL<sub>1</sub> and CL<sub>2</sub>, XP-move and head-move respectively, it is always the XP-moving CL<sub>1</sub> that asymmetrically c-commands the head-moving CL<sub>2</sub>.

This generalization in fact follows from a specific view on syntactic linearization. The derivations in (73) provide all the logical combinations for clitic movement from vP to T, assuming clitics can either head-move or XP-move as long as a clitic head-adjoins either: (i) as soon as possible, or (ii) as late as possible (as proposed above).

```
(73) a. [_{TP} \{CL_1 \{CL_2 \{\{v ...\} T\}\}\} ... [_{vP} CL_1 CL_2 \{v ...\} [...]]]
b. [_{TP} \{CL_1 \{\{CL_2 \{v ...\}\} T\}\} ... [_{vP} CL_1 \{CL_2 \{v ...\}\} [...]]]
c. [_{TP} \{\{CL_1 \{CL_2 \{v ...\}\}\} T\} ... [_{vP} \{CL_1 \{CL_2 \{v ...\}\}\} [...]]]
d. *[_{TP} \{CL_2 \{\{CL_1 \{v ...\}\}\} T\}\} ... [_{vP} \{CL_1 \{v ...\}\}] [CL_2 [...]]]]
```

The derivation where both clitics only head-adjoin to T after XP-moving to Spec $\nu$ P (as late as possible) is given in (73a), the derivation in which only the lower clitic (CL<sub>2</sub>) head-adjoins to the verbal complex in  $\nu$ P (as soon as possible) is shown in (73b),<sup>40</sup> and the derivation where both head-adjoin to the verbal complex in  $\nu$ P (as soon as possible) is given in (73c). These derivations are all attested and conform to what we have seen above. Only the derivation in (73d) must be ruled out.

Note that in (73d),  $CL_1$  head adjoins to vP to the exclusion of  $CL_2$ . As the derivation proceeds to the CP phase,  $CL_1$  moves to T via successive cyclic head-movement, while  $CL_2$  head adjoins directly to T, resulting in a reverse order of clitics at the vP and CP phases. This is exactly the kind of reordering banned by Fox and Pesetsky's (2005) approach to linearization. For them, linearization is determined at the phase level: a linearization established at a phase XP cannot contradict a pre-existing one. Consequently, a linearization established at the vP-phase cannot be contradicted at the CP-phase. This is exactly what occurs in (73d), where the ordering of clitics at the CP-level is  $CL_2 \times CL_1$ , which conflicts with  $CL_1 \times CL_2$  at the vP level.

<sup>&</sup>lt;sup>40</sup> See Anagnostopoulou (2003) for a discussion of why tucking in only occurs when both elements are head-moving or XP-moving, but never with disparate kinds of movement, regardless of the order of the two movement operations. I assume, as does she, that when an element head-moves to X<sup>0</sup>, and another element XP-moves to SpecXP, the latter must precede the head-moved element, and cannot tuck in.

<sup>&</sup>lt;sup>41</sup> The approach of Fox and Pesetsky (2005) also provides a reason for why default 3P clitics also move through Spec $\nu$ P. If the final position of clitics is T, where they surface as pre-verbal, then the only way they can move to T without creating a conflicting linearization at CP is if they are ordered CL<sub>1</sub> » CL<sub>2</sub> »V at  $\nu$ P. This can only be achieved without early head movement if CL<sub>2</sub> moves to Spec $\nu$ P first.

The discussion in this section provided an explanation for the lack of PCC effects in Slovenian matrix imperatives, also providing additional motivation for the  $\nu$ P-internal ACC-over-DAT movement, as the absence of PCC effects can only be derived if the syntactic ACC-over-DAT movement and PF clitic switch act in concert. What seems at PF to be a cluster banned by the standard PCC may then be a grammatical cluster of the INVERSE PCC in the syntax, and vice versa.

The analysis also led us to adopt a specific view of linearization, which for all intents and purposes restricts any non-order preserving (clitic) movement to the first phase — vP (modulo post-syntactic reordering, like the PF switch). This of course includes the proposed vP internal ACC-over-DAT movement. In the following section, where I discuss the cross-linguistic presence of the INVERSE PCC and other non-canonical PCC patterns, we will see that this assumption allows us to explain why the options for clitic movement to interact with person valuation are rather limited.

### 6 A note on the interaction of the PCC and clitic order cross-linguistically

The PCC was initially conceived as a restriction on DO clitics in the presence of IO clitics, not as a more general structural restriction, partly due to the existence of languages where the ACC » DAT clitic order does not yield the INVERSE PCC as it does in Slovenian. This is reflected in the early name for the constraint — \*me lui, where the banned French clitic cluster has the ACC » DAT order. ACC » DAT has been argued to be the default order in French, as it occurs when both clitics are 3P, as in (74).

(74) Paul **la lui** présentera. ACC » DAT Paul 3.F.DO 3.DAT will introduce 'Paul will introduce her to him.' (French; Anagnostopoulou 2008:39)

However, ACC » DAT is not found outside examples like (74). In grammatical combinations of 3P and 1/2P clitics, only DAT » ACC is possible, as seen in (75). 42

```
(75) a. Il { me / te } l' envoya.

he 1.10 / 2.10 3.M.DO sent.

b. * Il le { m' / t' } envoya.

he 3.M.DO 1.10 / 2.10 sent.

'He sent him to me/you.'

(French; Nicol 2005:142–143)
```

Crucially, languages with 'true' default DO » IO do exist. And as we will see, a subset of those languages also allow IO » DO in special cases, namely as a repair for the PCC which then results in an INVERSE PCC pattern with IO » DO. But before we move to that, let us see some other examples of INVERSE PCC outside Slovenian.

As reported by Comrie (1979) and Mel'čuk (1988), in Chukchi DOCs either object may be doubled on the verb, which results in only one object marker, but also restricts the other object to 3P. Recall from Section 4.2 that this occurs when the

<sup>&</sup>lt;sup>42</sup> Another indication that ACC clitic movement and hence ACC » DAT, is subject to special restrictions in French (unlike ACC-over-DAT movement in Slovenian) comes from the observation that whenever DAT pronouns are clitics in French, ACC pronouns must also be clitics (for details, see Kayne 1975:174).

unexpressed marker is a null  $pron_{DF}$ , which means that Chukchi in effect has both a standard and INVERSE PCC pattern — the DO is restricted when the IO is marked (standard PCC), and the IO is restricted when the DO is marked (INVERSE PCC).

Another interesting case is Maasai (Lamoureaux 2004:19–20), where agreement is typically referenced by different inverse markers on the verb, which in DOCs can lead to subject/IO ambiguity, as in (76a), or IO/DO ambiguity, as in (76b).

- (76) a. **ki**-ishó εn-kitéŋ
  3>2.sg/2>1.sg-give F-cow.acc
  '<u>They</u> will give <u>you</u><sub>sg</sub> a cow.'
  'You will give me a cow.'
- b. **ki**-isho(r) ol-payián
  3>2.sg-give m-man.acc
  '<u>They</u> will give <u>you</u><sub>sg</sub> the man.'
  'They will give the man you<sub>sg</sub>.'

Crucially, whenever the IO is referenced by the inverse marker the DO can't be 1/2P (standard PCC), and when the DO is referenced the IO can't (INVERSE PCC).<sup>43</sup>

We also find languages (other than Slovenian) where the INVERSE PCC is found with two overt markers. An interesting example is Haya (Duranti 1979:40), where the default order of markers is DO » IO, but may be reanalyzed as IO » DO if the DOC is interpreted as having a 1/2P.DO and a 3P.IO, a combination banned under the standard PCC. With the two examples in (77) we see that Haya is a mirror picture of Slovenian; person is always restricted on the first marker, whether it marks the DO or IO.<sup>44</sup>

- (77) a. A- ka- **mu- n**deetela.

  SM.C1 PAST.3 OM.C1 OM.1.bring.APPL

  'He brought him to me.'

  %'He brought me to him.'
- b. \*A- ka- **n- mu-** leetela.

  SM.C1 PAST.3 OM.1 OM.C1 bring.APPL

  int.: 'He brought him to me.'

  or.: 'He brought me to him.'

In the related Sambaa (Riedel 2009), we only find a standard WEAK PCC pattern with no option of object order reanalysis. This parallels very closely the availability of the INVERSE pattern with ACC » DAT in Slovenian, compared to languages with only a DAT » ACC linearization and standard PCC pattern like Greek.

A closer parallel to Slovenian is found in Czech (Sturgeon et al. 2012) and Zürich German (Werner 1999). In both languages two clitic orders are allowed (DAT » ACC; ACC » DAT), the choice being constrained by person values. In (78), we see a PCC violating sequence<sup>45</sup> banned with DAT » ACC (78a), but possible with ACC » DAT (78b).

<sup>&</sup>lt;sup>43</sup> Other languages parallel Maasai and Chukchi in allowing either IO or DO as the only marker. One such example is Itelmen (see Section 4.2). But in Itelmen the unmarked object is not restricted in person, which I took as evidence for true object agreement as opposed to clitics. A more detailed study is needed to determine which languages where either object can be marker pattern with Maasai and Chukchi and conform to (INVERSE) PCC, and which pattern with Itelmen, and have no PCC at all.

<sup>44</sup> A similar pattern can be found in (standard) German. As Anagnostopoulou (2008) reports, WEAK PCC occurs with weak object pronouns in the Wackernagel position of embedded clauses. But she also adds:

<sup>[...]</sup> German, where the order of pronouns is strictly DO-IO for most speakers, I have found that speakers attempt to resort to the alternative IO-DO serialization in order to rescue combinations that would otherwise yield a PCC effect. Furthermore, when the IO and DO are both 1st and 2nd person in German, serialization of pronouns in the Wackernagel position becomes freer: speakers tend to accept the IO-DO serialization along with the DO-IO one. (Anagnostopoulou 2008:29)

This passage describes a restriction that amounts to an INVERSE PCC pattern like the one we find in Haya.

45 As far as I could gather, Werner (1999) uses '??' to mark unacceptability in (78a) because the speakers he consulted tend to replace the weak pronoun forms with strong ones to ameliorate the construction.

```
(78) a. ?? De Max hät em mi voorgschtellt.
the Max has 3.m.dat 1.acc introduced
'Max has introduced me to him.'
```

b. De Max hät mi em voorgschtellt.
 the Max has 1.ACC 3.M.DAT introduced
 'Max has introduced me to him.' (Zürich German; Werner 1999:81)

The other side of the pattern is seen with (79). Now the DAT » ACC order is needed because of a 1P.IO and a 3P.DO (79a), and the ACC » DAT equivalent is banned (79b).

```
(79) a. ... das d' mer en halt morn bringsch.

that 2.NOM 1.DAT 3.M.ACC PRTCL tomorrow bring

'... that you just bring him to me tomorrow then.'

b. *... das d' en mer halt morn bringsch.

that 2.NOM 3.M.ACC 1.DAT PRTCL tomorrow bring

'... that you just bring him to me tomorrow then.' (Werner 1999:81)
```

The difference between Zürich German/Czech and Slovenian is that both orders do not occur with two 3P objects. <sup>46</sup> That aside, the pattern fits standard PCC with the DAT » ACC order (78a,79a) and INVERSE PCC with the ACC » DAT order (78b,79b).

There is also another pattern reported for Swiss German (Bonet 1991:188, ftn. 12) that I will call MIXED PCC, where a combination of a 1P/2P.IO and a 3P.DO may yield either DAT » ACC or ACC » DAT with weak pronouns, as illustrated in (80), while a combination of a 3P.IO and a 1P/2P.DO is limited to a ACC » DAT order, as in (81).

- (80) a. D' Maria zeigt **mir en**. the Maria shows 1.DAT 3.M.ACC 'Maria shows him to me.'
- (81) a. D' Maria zeigt **mi em**. the Maria shows 1.ACC 3.M.DAT 'Maria shows me to him.'
- b. D' Maria zeigt en mir. the Maria shows 3.M.ACC 1.DAT 'Maria shows him to me.'
- b. \*D' Maria zeigt **em mich** the Maria shows 3.M.DAT 1.ACC 'Maria shows me to him.'

Interestingly, a small number of consulted speakers of Slovenian, also had similar judgments to those in (80) and (81), which like the two patterns reported for Swiss/Zürich German indicates that a minor parametric change is at play here. In (82-84) I sketch out the derivation of the PCC/clitic-order combinations we have encountered so far, including the MIXED PCC (details to be elaborated below).

```
(82) a. [_{VP} v^0 [ IO [_{VP} DO ]]] PCC; base IO » DO b. [_{VP} DO [ v^0 [ IO [_{VP} DO ]]]] PCC; base DO » IO (83) a. [_{VP} v^0 [ DO_{\#2} [ IO [_{VP} DO_{\#1}]]]] PCC + INV.; base IO » DO b. #1 [_{VP} DO [ v^0 [ IO [_{VP} DO ]]]] PCC + INV.; base DO » IO #2 [_{VP} IO [ v^0 [ DO [ IO [_{VP} DO ]]]]]
```

<sup>&</sup>lt;sup>46</sup> From the data provided by Werner (1999) it is impossible to discern whether the restriction is STRONG or WEAK or some other type of PCC. Czech conforms to WEAK PCC with an additional 1P » 2P restriction.

(84) 
$$[_{vP} \mid DO_{\#3} \mid [_{v^0} \mid DO_{\#2} \mid [_{IO} \mid [_{VP} \mid DO_{\#1} \mid ]]]]]$$
 MIXED PCC; base IO » DO

The possible patterns are the following: (i) the core PCC, where the universal IO  $\gg$  DO configuration of DOCs is conserved with no syntactic reordering of clitics (Greek), illustrated in (82a); (ii) PCC with a reordering of IO and DO after  $[\pi]$  valuation by  $v^0$  (Sambaa), illustrated in (82b); (iii) optional syntactic DO-over-IO movement prior to  $[\pi]$  valuation by  $v^0$  (Czech, Slovenian-A, Zürich German), illustrated in (83a); (iv) an obligatory order flip of IO and DO after  $[\pi]$  valuation by  $v^0$ , accompanied by optional DO-over-IO movement prior to  $[\pi]$  valuation (Haya), illustrated in (83b); and finally (v) optional DO-over-IO movement either prior to  $[\pi]$  valuation or after  $[\pi]$  valuation by  $v^0$  (Slovenian-B, Swiss German), illustrated in (84).

This shows that all attested patterns are derivable within the current approach through very limited variation in clitic movement within  $\nu P$ ; recall from Section 5.2 that all non-order-preserving movement is restricted to the first phase, following Fox and Pesetsky (2005). The INVERSE PCC is only attested when DO-over-IO movement is not obligatory. The one exception is the MIXED PCC, where two kinds of DO movement must be optional. Because combinations of 1P/2P.IO and 3P.DO may appear with two distinct serializations in such systems, understanding when speakers chose one over the other may help us determine what motivates 'late' DO-over-IO movement as opposed to 'early' DO-over-IO movement, and in turn why such operations are possible to begin with. While I have left this question open, the approach laid out in this paper sets the stage for future discussion of the different ways in which movement may interact with syntactic person restrictions.

### 7 Conclusion

I have presented a new analysis of the PCC that divorces it from inherent/structural case or similar asymmetries between arguments (contra Anagnostopoulou 2003; 2005, Béjar and Řezáč 2003). With special focus on Slovenian, I showed that this is necessary because of the existence of PCC patterns where object clitics alternate between the standard PCC and the INVERSE PCC, where the person restriction, crucially, applies to the IO, not the DO — as with the standard PCC. This pattern is not predicted by standard approaches. I proposed instead that the PCC arises because deficient pronouns are inherently unspecified for a person value and need to receive one externally from a functional head via Agree (cf. Kratzer 2009). The configuration of two deficient object pronouns then blocks the structurally lower one from receiving a person value, which gives rise to the PCC effect. The difference between the Slovenian and the canonical PCC pattern can then be stated solely in terms of the presence of optional DO-over-IO movement in Slovenian prior to person valuation. I also showed that the approach allows a straightforward derivation of the STRONG/WEAK PCC split in terms of lexical variation in the deficient pronouns themselves.

Within contextual approaches to phasehood (see, among others, Bobaljik and Wurmbrand 2005, Bošković 2014) this may also include (under right conditions) any projections immediately above vP.

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