Personality Disorders and Missing Persons Deriving the Person-Case Constraint without Case

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Abstract

The Person-Case Constraint (PCC) is a ban on co-occurrence of different case and person feature combinations of phonologically weak elements such as clitics, agreement affixes and weak pronouns, which is observed in many languages. In recent literature it has received a number of syntactic treatments in terms of feature-checking. This paper presents a previously unattested PCC pattern from Slovenian, where the freedom in the linear order of clitics gives rise to both standard Weak and Strong PCC patterns as well as "inverse" PCC patterns in which the restrictions on the accusative (DO) and dative (IO) clitic are reverse from the one in the standard PCC patterns. It is shown that the PCC is unrelated to Case assignment, contrary to what most current syntactic accounts assume. To deal with this and a new approach to the PCC is proposed, which based on valuation of person features on clitic and weak pronouns through Agree with a functional head. It as also shown that this approach extends rather straightforwardly to PCC patterns in other languages.

Keywords: Agree \cdot clitic movement \cdot deficient pronouns \cdot Person-Case Constraint \cdot Slovenian \cdot unvalued interpretable features

1 Introduction

The Person-Case Constraint (PCC) (Perlmutter 1971; Bonet 1991) is a generalization concerning possible combinations of co-occurring phonologically weak elements (clitic and weak pronouns, agreement markers). Specifically, it concerns the particular person and case feature values they bear and arises most commonly with object clitics in ditransitives. Different iterations of the PCC have been observed cross-linguistically, but the most prevalent paradigm for the PCC is the so called *Strong PCC*, where the descriptive generalization is the following:

STRONG PCC: In a combination of a weak direct object and an indirect object, the direct object has to be 3rd person. (cf. Bonet 1991:182)

The prototypical case can be illustrated by Greek. In Greek, clitics have a rigid ordering restriction where the indirect object (IO) clitic always precedes the direct object (DO) clitic, 1st and 2nd clitic combinations are impossible (1b); with a combination of 1st/2nd and 3rd person clitics, the DO must be 3rd person (1a,1c).¹

¹In Modern Greek DAT and GEN are fused, so I mark IO clitics as DAT, despite the GEN morphology.

(1) a. The **mu/su to** stilune. 1/2.IO » 3.DO FUT me/you.dat it.acc send.3.pl 'They will send it to me/you.'

b. * Tha **mu/su se/me** sistisune. *1/2.IO » 2/1.DO

FUT me/you.dat you/me.acc introduce.3.pl

'They will introduce you/me to me/you.'

c. * Tha **tu me/se** stilune. *3.IO » 1/2.DO

FUT him.dat me/you.acc send.3.PL

'They will send me/you to him.' (Greek; Anagnostopoulou 2005:202)

Cross-linguistically there is at least another prominent pattern of a person-based clitic co-occurrence restriction, usually referred to as *Weak PCC*. The term 'weak' is due to the fact that the pattern allows more combinations than Strong PCC, and also because speakers of this pattern seem to vary more in their judgments, perhaps even on an idiolectal level (cf. Bonet 1991). The generalization for Weak PCC is:

WEAK PCC: In a combination of a weak direct object and indirect object, if there is a 3rd person it has to be the direct object. (cf. Bonet 1991:182)

An example of this pattern can be presented in Catalan with (2,3). The key difference between Strong and Weak PCC patterns is that the latter does not ban the co-occurrence of 1st and 2nd person object clitic combinations, as (3a,b) show.

(2) * A en Josep, **me/te li** va recomenar la Mireia. *1/2.DO » 3.IO to the Josep, me/you.acc him.dat recommended the Mireia 'She (M) recommended me/you to him (J).' (Catalan; Bonet 1991:178–179)

(3) a. **Te m'** ha venut el mercader més important.
you.acc medat has sold the merchant most important
'The most important merchant has sold you to me.'

b. Vi ci manderá. 2.IO » 1.DO you.pl..dat us.acc send.fut.3.sg 'S/he will send us to you (pl).' (Catalan; Anagnostopoulou 2005:203)

In all the examples of the PCC examined so far it appears that the key factor is an asymmetry between IO and DO clitics, and the general consensus in the literature seems to be that, whatever the exact syntactic or morphological mechanism behind the PCC is, a difference in the inherent grammatical properties of IO and DO crucially factors in the PCC effect. This is also why most recent minimalist syntactic literature on the PCC, most notably Béjar and Řezáč (2003) and Anagnostopoulou (2003; 2005), sees the phenomenon as a confirmation of the direct connection of Case and φ -feature checking as proposed by Chomsky (2000; 2001).

The existing literature on the PCC, with one notable exception — Anagnostopoulou (2003; 2008), is limited to the discussion of languages where weak pronominal elements exhibit rigid and predictable relative orders. This is why discussion of a language like Slovenian, where pronominal clitics are very free with respect to their relative order and syntactic position (cf. Bošković 2001), and where the PCC is active, is of great importance. I will argue, based on Slovenian data presented below, that the restricted order of weak pronominal elements in most languages obscures a broader generalization regarding φ -syntax, specifically person feature valuation. Namely, what is typically seen as a case of defective intervention — an element with inherent case intervenes between an element with structural case and its Case assigner (cf. Béjar and Řezáč 2003; Anagnostopoulou 2003; 2005; a.o.), is actually a locality restriction on the

valuation of person features independent of Case assignment. Specifically, I will argue that deficient pronouns are underspecified for person feature values, and require valuation via Agree with a head specified for particular person features; the PCC effect can still be derived as a type of intervention effect, but crucially without relying on Case assignment or valuation, which is necessary to derive the previously unattested Slovenian PCC pattern. This paper thus also contributes to the recent debate on the nature of the connection between the syntax of Case and the syntax of φ -features (cf. Bobaljik 2008; Preminger 2011; 2014; Baker 2012, a.o.).

The paper is organized as follows: Section 2 presents the Slovenian PCC paradigm. Section 3 reviews existing analyses of the PCC and shows why the Slovenian paradigm is problematic for them. In Section 4 a new account of the PCC, based on $[\pi]$ feature valuation dissociated from Case checking, is proposed, which accounts for both the Slovenian and traditional PCC paradigm. Section 5 offers an analysis of the lack PCC effects in Slovenian matrix imperatives, which is shown to follow from the copy theory of movement. Section 6 presents an extension of the new analysis to the PCC pattern of French. Section 7 concludes the paper.

2 The Slovenian PCC pattern

In Slovenian, object clitics are part of the clitic cluster in the 2nd clausal position, with some notable exceptions which will be discussed later. In ditransitive constructions, the direct object clitic bears accusative (ACC), and the indirect object clitic bears dative case (DAT). As in the languages discussed in the introduction, it is in this combination that the PCC arises. The Slovenian example in (4) parallels Greek (1a) and Catalan (2) in that it shows a ban on 3rd person DAT clitics co-occurring with a 1st/2nd person ACC clitics consistent with both Strong and Weak PCC.

(4) * Mama **mu me/te** bo predstavila. *3.IO » 1/2.DO mom him.dat me/you.acc will introduce 'Mom will introduce me/you to him.'

But the relative order of DAT and ACC clitic is not fixed to DAT » ACC in Slovenian, as it is in Greek. Both DAT » ACC and ACC » DAT orders are possible, and most speakers do not find any of the two options marked. Both orders are presented for 3rd person objects in (5). Interestingly, the clitic reordering interacts with the ban on *3.DAT » 1/2.ACC clitic combinations as seen in (4). The equivalent of (4) occurring with an ACC » DAT clitic order, illustrated in (6), is completely grammatical.

- (5) a. Mama **mu ga** je opisala.

 lady him.dat him.acc is described

 b. Mama **ga** is opisala.

 ACC » DAT » ACC
 - b. Mama **ga mu** je opisala. ACC » DAT lady him.acc him.dat is described 'Mom described him to him.'
- (6) Mama **me/te mu** bo predstavila. 1/2.ACC » 3.DAT mom me/you.ACC him.DAT will introduce 'Mom will introduce me/you to him.'

The ACC » DAT clitic order is, however, not completely devoid of person restrictions. As illustrated in (7a), there is a restriction on *1/2.ACC » 3.DAT combinations which are otherwise grammatical in the DAT » ACC order (7b).

(7)	a.	* Mama	ga	mi/ti	bo	predstavila.	*3.ACC » 1/2.DAT
		mom	him.acc	me/you.dat	will	introduce	

b. Mama **mi/ti ga** bo predstavila. 1/2.DAT » 3.ACC sister me/you.dat him.acc will introduce 'Mom will introduce him to me/you.'

In Slovenian the combinations of 3rd person and 1st/2nd person clitics with a DAT » ACC order show a patern identical to Strong PCC. However, with a ACC » DAT order we observe an "inverse" Strong PCC pattern,² the complete opposite of what the PCC traditionally describes. But I have not yet discussed exclusively local person combinations (1st and 2nd), and these are the combinations involved in the Strong/Weak PCC variation. In fact, Slovenian speakers display dialectal variation with respect to local person combinations, again displaying either a traditional Strong (8) or Weak (9) PCC pattern with the DAT » ACC order, and with the ACC » DAT order either a Strong inverse pattern (10) or a Weak inverse pattern (11), where the reversal in the grammaticality of 3rd and 1st/2nd person clitic combinations with the clitic switch (9,11) is identical to the inverse pattern discussed above, repeated in (8,10).³

(8)	a.	* Mama mi/ti/mu te/me bo predstavila. mom me/you/him.dat you/me.acc will introduce 'Mom will introduce you/me to me/you/him.'	<u>STRONG</u> *1/2/3.DAT » 2/1.ACC
	b.	Mama mi/ti/mu ga bo predstavila. mom me/you/him.dat him.acc will introduce 'Mom will introduce him to me/you/him.'	1/2/3.DAT » 3.ACC
(9)	a.	Mama mi/ti ga/te/me bo predstavila. mom me/you.dat him/you/me.acc will introduce 'Mom will introduce him/you/me to me/you.'	WEAK 1/2.dat » 3/2/1.acc
	b.	* Mama mu me/te bo predstavila. mom him.dat me/you.acc will introduce 'Mom will introduce me/you to him.'	*3.dat » 1/2.acc
(10)	a.	* Mama me/te/ga ti/mi bo predstavila. mom me/you/him.acc you/me.dat will introduce 'Mom will introduce me/you/him to you/me.'	INVERSE STRONG *1/2/3.ACC » 2/1.DAT
	b.	Mama me/te/ga mu bo predstavila. mom me/you/him.acc him.dat will introduce 'Mom will introduce me/you/him to him.'	1/2/3.ACC » 3.DAT
(11)	a.	Mama me/te mu/mi bo predstavila. mom me/you.acc him/me.dat will introduce 'Mom will introduce me/you to him/me.'	INVERSE WEAK 1/2.ACC » 3/1.DAT
	b.	* Mama ga mi/ti bo predstavila. mom him.acc me/you.dat will introduce 'Mom will introduce him to me/you.'	*3.acc » 1/2.dat
	c.	* Mama me ti bo predstavila. mom me.acc you.dat will introduce 'Mom will introduce you/me to me/you.'	*1.ACC » 2.DAT

²An account of why the default ACC » DAT object clitic order in French does not also give rise to this "inverse" pattern like in Slovenian will be given in Section 6.

³Note that all 1 » 1 and 2 » 2 combinations are always independently impossible for binding reasons.

Note there is a contrast for Weak PCC speakers between 2.ACC » 1.DAT and *1.ACC » 2.DAT combinations. I argue in Section 4.1.3 that this asymmetry is independent of the PCC, but observed only with Weak PCC speakers as all local person clitic combinations are impossible with Strong PCC speakers of Slovenian, as (8a,10a) show. For this reason I ignore this issue in most of the discussion below. 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 a PCC pattern in the DAT » ACC clitic order, but that it also exhibits variation exactly in the same way as it can be observed between Strong and Weak PCC observing systems.

To clarify the main point, the full Strong Slovenian pattern is summarized below.

(12)	3.DAT » 3.ACC *1/2.DAT » 2/1.ACC	1/2.DAT » 3.ACC *3.DAT » 1/2.ACC
(13)	3.ACC » 3.DAT *1/2.ACC » 2/1.DAT	1/2.ACC » 3.DAT *3.ACC » 1/2.DAT

What matters for the clitic combinations in question is the relative order in which they appear, not the particular case they bear. This is of course something that can only be observed in a language like Slovenian, which exhibits freedom in the order of clitics within a clitic cluster not found with languages with "traditional" PCC patterns. As we shall see below, analyzing the Slovenian restrictions on person-feature co-occurrence patterns and the traditional PCC patterns as the same phenomenon offers explanations for certain properties of clitic/weak pronoun restrictions in traditional PCC languages that have so far remained largely unexplained.

2.1 PCC in Slovenian imperatives

Slovenian differs from other canonical PCC languages in one more important way. The person restrictions on clitics seem to be sensitive to sentence type, namely the PCC is not observed in imperatives. We shall see, however, the issue is not as straightforward as it seems and brings even more complexity into the Slovenian PCC pattern.

In Slovenian imperatives clitics appear post-verbally to satisfy the 2nd position requirement. Interestingly, clitics in this position do not exhibit the same PCC restrictions observed in declaratives; clitics are again possible with both DAT » ACC and ACC » DAT orders, but do not exhibit any person restrictions, as (14,15) show.⁴

(14)	a. Predstavi mu me! introduce.IMP him.DAT me.ACC	3.dat » 1.acc
	b. Predstavi me mu! introduce.IMP me.ACC him.DAT 'Introduce me to him!'	1.ACC » 3.DAT
(15)	a. Predstavi mi ga! introduce.IMP me.DAT him.ACC	1.DAT » 3.ACC
	b. Predstavi ga mi ! introduce.IMP him.ACC me.DAT 'Introduce him to me!'	3.ACC » 1.DAT

Slovenian is not the only language exhibiting an asymmetry in terms of the presence/absence of PCC effects in declaratives versus imperatives. Ciucivara (2009) observes a similar asymmetry, with a different PCC pattern, in Romanian (see Section 5). Slovenian, however, displays

⁴In Slovenian imperatives, 2nd person pronouns must be substituted with reflexive clitics.

an additional level of complexity to this phenomenon, as it also allows imperatives to be fully embedded. With embedded imperatives clitics are pre-verbal; embedded imperatives are introduced by the standard subordinating complementizer, which occupies the 1st clausal position in C^0 , hence the clitics surface pre-verbally. Curiously, object clitics in this configuration appear with both orders, displaying the PCC effects observed in declaratives (16,17).⁵

a. *? Rekla je, da **mu** predstavi. *3.DAT » 1.ACC said is that him.dat me.acc introduce.imp predstavi. b. Rekla je, da **me** mu 1.ACC » 3.DAT said is that me.acc him.dat introduce.IMP 'She said that you should introduce me to him!' (17)a. Rekla je, da **mi** predstavi. 1.DAT » 3.ACC said is that me.dat him.acc introduce.imp b. *? Rekla je, da ga predstavi. *3.ACC » 1.DAT mi

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

Once again, here we see a pattern more complex than canonical PCC patterns, which is observable in Slovenian only due to an independent syntactic phenomenon, in this case the

2.2 The status of Slovenian PCC with respect to traditional PCC

said is that him.acc me.dat introduce.IMP

contrast between matrix and embedded imperatives.

So far, the Slovenian clitic restrictions have been assumed to be the same phenomenon as the PCC in languages like French, Greek or Catalan. But due to the seeming cross-linguistic robustness of the generalization that PCC is case-sensitive, and the fact that recent syntactic approaches are mostly built around the case or θ -role the weak pronominal elements bear, one might conclude the Slovenian pattern, at least with the ACC» DAT order, is not a case of the PCC but an accidental surface similarity.

In its weakest form, such a view would have to see the DAT » ACC and ACC » DAT patterns as separate phenomena: the former as the PCC while in ACC » DAT, the PCC would have to be inactive; the clitic restrictions being the result of an independent restriction on clitics. A stronger form of this view would do away with the PCC completely and treat all Slovenian clitic restrictions as distinct from the PCC. But the similarities between the Slovenian pattern and the PCC seem too many to ignore. If the two phenomena were independent, the fact that they manifest identical patterns with the DAT » ACC order, and that the ACC » DAT order displays an inverse pattern would be a puzzle that would beg for an explanation. Furthermore, speaker variation patterns that parallel the Strong/Weak PCC variation observed in other languages would again have to be considered just an accidental surface similarity.

It seems more desirable to analyze the two clitic restrictions as manifestations of the same phenomenon. I will propose, in fact, that traditional PCC patterns are actually a subset of the Slovenian pattern, and that the traditional PCC and inverse ACC » DAT PCC patterns in Slovenian result from the interaction of person licensing on weak elements and independent differences between the languages in question. I argue that in the case of Slovenian, it is actually the word order freedom of object clitics that allows us to see the full pattern which is otherwise obscured by clitic order restrictions. Under this view the term Person-Case Constraint is a misnomer, but

⁵The PCC violation is perceived as weaker than in declaratives in these cases (it is, however, much stronger with feminine 3rd person clitics; it is unclear why this is so).

I maintain it as a cover term for all person feature restrictions throughout the paper due to it being so ubiquitous and well established in the existing literature.

To summarize, what we observe in Slovenian is a complex PCC pattern that has not been noted in the literature before. The person co-occurrence restrictions are interacting with both word order and sentence type. The facts discussed so far already indicate that a reference to special properties of case morphology, or even simply assuming an inherent asymmetry between IO and DO clitics, will not be enough to explain the full paradigm. This is precisely why the Slovenian PCC pattern is problematic for existing approaches, as discussed in the next section.

3 A syntactic approach / PCC as an intervention effect

The PCC was first brought to attention as the *me-lui constraint by Perlmutter (1971), taking its name from the impossible clitic cluster in French. As the phenomenon concerns phonologically weak exponents of person and case morphology, it was until recently viewed as a morphological/surface restriction. We have seen, however, that in Slovenian case does not play a decisive role; rather, the relative order of the clitics does. As the two orders of clitics correspond to two distinct structural configurations (see below), a syntactic approach is more promising. In this section I review an existing syntactic approach to the PCC, evaluating it with respect to the Slovenian PCC pattern. The most prevalent syntactic approach to the PCC is stated in terms of two arguments entering into a syntactic relation with a single head. The PCC pattern arises due to a locality restriction coupled with specific licensing requirements of particular person features. One of the first such approaches was Béjar and Řezáč (2003), which is still the basis for most current syntactic analyses of the PCC.

3.1 Two arguments against one head

The main innovation of Béjar and Řezáč's (2003) influential proposal is a fully syntactic approach to the PCC couched within the minimalist framework. They propose that the PCC arises in the so called *two arguments against one head* configuration, that is, a configuration where two Goals compete to enter Agree (see Chomsky 2000; 2001) with a single Probe. With the PCC, the factor limiting the possible weak element combinations in *double-object constructions* (DOC) is a difference in the licensing requirements between 1st/2nd and 3rd person features. Béjar and Řezáč (2003) formalize the licensing requirement for 1st and 2nd person features with (18).

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

It is crucial that 3rd person is exempt from the PLC, as the PCC concerns specific person feature configurations and not only specific clitic constructions. Béjar and Řezáč also assume that *inherent/lexical* Case bearing arguments are not accessible for Agree with external functional heads like v^0 or T^0 (see the discussion below).

The second key component of Béjar and Řezáč's (2003) account of the PCC is a particular view on Agree, an elaboration of an idea proposed by Chomsky (2000) and Anagnostopoulou (2003), namely *Cyclic Agree* (CA) (further developed in Béjar and Řezáč (2009)). The core idea behind CA is that individual φ -features enter Agree cyclically: person (π) features must probe and Agree first, only then followed by number (#) features. Having introduced the necessary technology, we can now look at Béjar and Řezáč's (2003) derivation of PCC effects more closely, using the Greek examples in (19); see Table 1 for the φ -features of the relevant elements in (19).

Table 1: Feature specifications of the heads and arguments in examples (19a,19b)

v^0		IO		DO	
$[u\pi]$	= Probe #1	[iπ]	= 3rd	[iπ]	= 3rd [for (19a)] / 2nd [for (19b)]
[u#]	= Probe #2	[i#]	= sG	[i#]	= SG

Béjar and Řezáč propose DOCs like (19) have the structure in (20), where v^0 hosts the split φ -Probe with an uninterpretable $[\pi]$ ($[u\pi]$) and an uninterpretable [#] feature ([u#]), both of which probe for matching interpretable features in their c-command domain. Both arguments also have interpretable $[\pi]$ ($[i\pi]$) as well as interpretable [#] features ([i#]), which gives (20) the two arguments against one head configuration. The $[u\pi]$ on v^0 probes first due to CA, and matches with the closest Goal, which is the $[i\pi]$ on DAT. But Agree cannot take place at this point in (20), as Béjar and Řezáč follow Chomsky (2000) and assume that for Agree to take place the Goal must not have been previously assigned Case (i.e. the *Active Goal Hypothesis*, cf. Řezáč 2003). Because DAT is an inherent Case, the DAT object is not an active Goal and v^0 cannot establish Agree with it, which also means that any 1st/2nd person ($1/2\pi$) features on DAT cannot be licensed via Agree with v^0 (cf. PLC in (18)). Béjar and Řezáč must therefore assume the presence of $1/2\pi$ features on inherent Case marked arguments is licensed by inherent Case assignment. This ensures the DAT argument can have any person feature value despite Agree being blocked between v^0 and DAT.

Note also that all φ -features on DO are inaccessible for Agree with v^0 in (20) due to the presence of matching intervening features on DAT, i.e. DAT in (20) induces an intervention effect for the v^0 -DO Agree relation, also observed in constructions like (21a), where a DAT argument blocks Agree between T^0 and the THEME.

- (21) a. Nelson₁ semble (*à Mari-Jo) [t₁ être intelligent.]

 Nelson seems (*to.dat Mari-Jo) to be intelligent
 'Nelson seems to Mari-Jo to be clever.'
 - b. $Nelson_1 lui_2$ semble t_2 [t_1 être intelligent.] Nelson her. dat seems to be intelligent 'Nelson seems to her to be clever.' (French; Béjar and Řezáč 2003:51–52)

Béjar and Řezáč propose that the intervention in (21a) can be resolved by the cliticization of the DAT argument, as illustrated by (21b), the grammatical counterpart of (21a). They assume the same resolution is available for DOCs like (20); the DAT IO can cliticize, as in (22), leaving behind a trace, traces not counting as interveners for Agree (Chomsky 2000; Anagnostopoulou 2003; Bošković 2011b). This also means that the $[u\pi]$ on v^0 is not checked, so Béjar and Řezáč assume it gets a default value.

⁶For Béjar and Řezáč, such Case is assigned by Agree with a silent P⁰ (see the discussion below).

(22)
$$\begin{bmatrix} v_P & \text{DAT} & v^0 & \begin{bmatrix} v_P & t_{dat} & \begin{bmatrix} v' & V & \underline{ACC}_{DO} \end{bmatrix} \end{bmatrix} \\ [i\pi] & [\mathbf{u}\pi] & *[i\pi] \end{bmatrix}$$
 $[i\#] & [\mathbf{u}\#] - - - - - - + [i\#]$

The PCC effect potentially arises during the next cycle of Agree, depicted in (22). As the DAT trace is not an intervener, the [u#] on v^0 can Agree with the [i#] on DO and be checked, assigning the DO ACC Case. However, the DO must be 3π to avoid a crash caused by not satisfying the PLC (18) — $1/2\pi$ features on DO need to be licensed through Agree, but as Agree is only established for [#] in this cycle, the PLC is not satisfied, and only 3π features are allowed on the ACC object. This is why (19a), where the DO is 3π , is grammatical and (19b), where the DO is 2π , is not.

The derivation in (20,22) is ultimately driven by Case checking: all DPs must have their Case features checked, which occurs as a reflex of establishing Agree between a DP and a functional category (Chomsky 2000; 2001). For Béjar and Řezáč, the structural ACC Case of the DO is checked by Agree with v^0 , while the inherent DAT Case of the IO is checked by Agree with a silent applicative P^0 selected by the ditransitive verb. The P^0 and IO crucially constitute a PP with a [PP DPPO] structure, which means that, unlike with V^0 and DO, breaking up Agree between P^0 and IO by an intervening DP is impossible. Béjar and Řezáč therefore predict that the traditional Strong PCC pattern arises when the following condition is met: in a φ -Probe » DP $_1$ » DP $_2$ configuration, where » stands for asymetric c-command, DP $_1$ must have inherent Case, while DP $_2$ must have structural Case.

The authors argue this is desirable as it unifies the PCC and a similar pattern found in Icelandic (Taraldsen 1995; Sigurðsson 1996; Boeckx 2000) into one phenomenon (see also Anagnostopoulou 2003; 2005). In Icelandic, only nominative (NOM) arguments control agreement, but they must be 3π in the presence of a DAT subject.⁷

- (23) a. Henni leiddust Peir she.dat was bored by.3.pl they.nom 'She was bored by them.'
 - b. * Henni leiddumst við she.dat was bored by.1.pl us.nom 'She was bored by us.'

(Icelandic; Anagnostopoulou 2005:205)

The gist of the account of the PCC in DOCs is that ACC can only be 3π when DAT intervenes for ([π]) Agree between the DO and v^0 , since then (18) is not satisfied. With the IO, the PLC is satisfied inherently through inherent Case marking, so DAT can have any person value, crucially, even if ACC were to intervene between v^0 and DAT. Béjar and Řezáč thus successfully derive the basic 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 the analysis faces a problem with the Slovenian *inverse* PCC pattern (which was not known at the time).

Let us consider the issue in more detail. A possible derivation of the Slovenian pattern is to assume that the ACC » DAT clitic order is underlyingly DAT » ACC with Béjar and Řezáč's (2003) structure for DOC, given in (24a). A clitic reordering must then take place before v^0 probes (24b), while inherent DAT Case is still assigned to IO by the silent P^0 ; recall that this also licenses the presence of $1/2\pi$ features on IO.

(24) a.
$$[_{vP} \ v^0 \ [_{VP} \ [_{PP} \ P \ IO \] \ [_{V'} \ V \ DO \]]]]$$
 (DOC) b. $[_{vP} \ v^0 \ [_{VP} \ DO \ [_{PP} \ P \ IO \] \ [_{V'} \ V \ t_{DO} \]]]]$ (DOC + clitic reordering)

⁷The new analysis proposed in Section 4 is also compatible with Icelandic (see Section 4.2 for details).

This predicts that with the ACC » DAT order all person combinations should be possible; the licensing of $1/2\pi$ features on the IO is guaranteed by inherent Case marking, and with no intervener for Agree between v^0 and DO, $1/2\pi$ features on the DO can also be licensed; see (18). But this is not borne out in Slovenian, whose Strong PCC pattern is summarized again in (25,26); the restriction to 3π is consistently on the lower clitic, so the DAT clitic cannot be $1/2\pi$ with the ACC » DAT order (26c,d).

(25) a. 3.DAT » 3.ACC b. 1/2.DAT » 3.ACC c. *1/2.DAT » 2/1.ACC d. *3.DAT » 1/2.ACC

(26) a. 3.ACC » 3.DAT b. 1/2.ACC » 3.DAT c. *1/2.ACC » 2/1.DAT d. *3.ACC » 1/2.DAT

A second option is to take the ACC » DAT order to be an instance of a *prepositional dative* construction (PDC) with a silent P^0 , which (following Béjar and Řezáč 2003) would have the structure given in (27). But note that like in (24b) there is no intervener for Agree between v^0 and the DO, and that the IO must be inherently Case marked by P^0 , which again makes the wrong prediction regarding person restrictions, namely: there should not be any person restrictions on any of the two object clitics.

$$(27) \quad [_{vP} \quad v^0 \quad [_{VP} \quad DO \quad [_{V'} \quad V \quad [_{PP} \quad P \quad IO \quad]]]]$$
 (PDC)

Working narrowly within the assumptions of Béjar and Řezáč (2003) the inverse PCC pattern seems not to be derivable. The only way the Slovenian PCC pattern can be derived within their framework is to stipulate that exclusively with the ACC » DAT clitic order, the DO bears inherent ACC Case, and the IO bears structural DAT Case, assigned by v^0 . Apart from the lack of conceptual appeal of such an assumption, and the fact that the authors also explicitly assume that in ditransitives ACC is structural and DAT inherent, this also makes empirically wrong predictions regarding other processes, such as the derivation of ditransitive passives in Slovenian.

In Slovenian canonical ditransitives, ACC alternates with NOM in passives, but DAT never does. The examples in (28a,b) show not only that DAT never alternates with NOM, but also that the GOAL is never the passive subject, as it cannot bind the subject oriented anaphor 'svoj', which is always bound by the THEME in ditransitive passives. Even if the linear order of GOAL and THEME is changed, as in (28b), the facts are 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 Stegovec in preparation).

- (28) a. Sestra je bila predstavljena Roku / svojemu_i bratu. sister.f.nom is was.f.sg introduced.f.sg Rok.dat / self's brother.m.dat 'The sister_i was introduced to Rok / her_i brother.'
 - 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 was.f.sg introduced.f.sg sister.f.nom / self's sister.f.nom 'The sister / His; sister was introduced to Rok;'

Furthermore, some Slovenian ditransitive verbs, such as 'expose', select a default ACC » DAT order of arguments (29) (Marvin and Stegovec 2012).⁸ In passives of such verbs, the restriction on the subject is identical to that of canonical ditransitives discussed above; the THEME is always

⁸See Marvin (2009; 2012) for the description of some other consequences of different Slovenian ditransitive verb classes selecting alternative ditransitive dative constructions (and restrictions brought about by different object orders), particularly with respect to the availability of "high applicative" interpretations.

the subject (30,31), and a reversal of the order of arguments does not change this restriction (31). This shows that even if one would argue that the ACC » DAT clitic order consistently has a different underlying structure, similar to the one instantiated in Slovenian by ACC » DAT selecting verbs discussed here, the status of DAT as inherent and ACC as structural does not change with such structures.

- (29) Vodič je izpostavil Ano smradu. guide.m.nom is exposed.m.sg Ana.acc stench.f.dat 'The guide exposed Ana to the stench.'
- (30) Ana je bila izpostavljena smradu / posledicam svojih_i dejanj.

 Ana.nom is was.f.sg exposed.f.sg stench.m.dat / consequences.f.dat self's actions 'Ana_i was exposed to the stench / the consequences of her_i actions.'
- (31) Eksploziji so bil<u>i</u> izpostavljen<u>i</u> civilist<u>i</u> /*svoj<u>i</u>, povzročitelj<u>i</u>. explosion.f.dat are were.m.pl exposed.m.pl civilians.m.nom / self's causers.m.nom 'Civilians / Its causers, were exposed to the explosion_i.'

Despite the issues that arise with Béjar and Řezáč's (2003) analysis of PCC when faced with the inverse PCC pattern of Slovenian, we will see in Section 4.1 that a variant of their approach can in fact be used to derive the inverse Strong PCC pattern, as well as Weak PCC; if certain assumptions made by the authors are modified.

3.2 Weak PCC and Multiple Agree

Independently of the issues raised by Slovenian, the nature of the Béjar and Řezáč's cyclic Agree approach also makes impossible the derivation of Weak PCC patterns. This is because the second cycle of Agree is only for [#] features, which forces the ACC clitic to always be 3π in order not to violate the PLC, and recall that with the Weak PCC pattern, $1/2\pi \approx 2/1\pi$ clitic combinations are grammatical.

This issue is resolved by Anagnostopoulou (2005), who shows a syntactic derivation of 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 variation by assuming a parameterization of Multiple Agree.⁹ With Strong PCC, Agree for $[\pi]$ features is established only with the higher pronoun, while with Weak PCC, Agree is established with both pronouns at the same time. By allowing $[u\pi]$ on v^0 to Agree with both IO and DO, $1/2\pi \times 1/2\pi$ combinations can be licensed. However, the ungrammaticality of *3.DAT × 1/2.ACC still needs to be explained. For that Anagnostopoulou (2005) proposes the condition in (32).

(32) A 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 3π and $1/2\pi$ constitute a set of conflicting feature specifications, so Multiple Agree will not be possible when clitic pairs have this person feature combination due to (32). In that case single Agree takes place, the IO acting as an intervener between $[u\pi]$ on v^0 and $[i\pi]$ on DO, making the licensing of $1/2\pi$ features on DO impossible. This correctly predicts the standard Weak PCC pattern also found with the DAT » ACC order with some Slovenian speakers. However, this approach keeps Béjar and Řezáč's assumption that $1/2\pi$ is

⁹Anagnostopoulou's (2005) proposal is important as Bonet (1991) originally argued the *me-lui constraint/Strong PCC is universal, only noting the existence of two patterns without attempting to offer an explanation for them, and Béjar and Řezáč (2003) likewise also set aside the Weak PCC pattern.

independently licensed on inherent case clitics and incorrectly predicts no person restrictions with the Slovenian ACC » DAT order. ^{10,11} But we will see in Section 4.1.2 that Weak PCC can also be derived without reference to Case and parameterization of Multiple Agree.

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

The main insight from the Slovenian PCC pattern is that the PCC must arise due to a particular structural configuration of weak elements, and not inherent features or properties of DAT versus ACC or IO versus DO clitics. But before proposing an analysis, I present additional arguments for divorcing the PCC from case assignment.

Béjar and Řezáč (2003) treat the PCC as *defective intervention*; an argument with inherent Case intervening for Agree between a Probe and an argument with structural Case. But the defective intervention hypothesis is not uncontroversial (cf. Bobaljik 2008; Bruening 2014), so a different analysis might be needed independently. And lastly, there are examples outside Slovenian of languages where the PCC effect can be observed in environments which do not constitute as defective intervention.

One such example is given by Kalin and van Urk (2015) with Neo-Aramaic languages where the PCC occurs with subject and object, and the two are NOM and ACC respectively. An example is Christian Barwar, where subject agreement is marked by an L-suffix, while object agreement is marked by an S-suffix. A PCC pattern is observed in perfective sentences, illustrated by (33), where $1/2\pi$ object agreement is impossible (33a), while 3π agreement on the verb is possible (33b). Kalin and van Urk (2015) show that object agreement is an inflectional suffix, while subject agreement is actually a clitic. The contrast is seen in (33c), where subject agreement is dislocated from the verb, while the object agreement suffix must be adjacent to it.

(33) a. * griš-an/at-le.
pull.perf-S.1p.f.sg/S.2p.f.sg-L.3p.m.sg
'He pulled me/you.'

b. griš-**í-le**. $3\pi \times 3\pi$

pull.perf-**S**.3p.pl-**L**.3p.m.sg 'He pulled them.'

c. 'an-šədle šalx-i-wa-la mən-tama.

DEM-seedlings uproot.PERF-S.3P.PL-PST-L.3P.PL from-there

'They uprooted the seedlings from there.'

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

 $*3\pi > 1/2\pi$

Kalin and van Urk (2015) capture (33) by assuming T^0 is the only φ -probe in perfective sentences. The derivation is given in (34). Due to Cyclic Agree, T^0 Agrees first for $[\pi]$ with the subject DP_1 and clitic-doubles it, leaving behind a clitic-doubled DP which is not an intervener

 $^{^{10}}$ Note that Anagnostopoulou (2005) does not make use of the PLC or Cyclic Agree. She assumes IO is defective for [#] and 3π DO is defective for [π], deriving Cyclic Agree in DOCs. This nonetheless does not capture the inverse PCC pattern of Slovenian ACC » DAT; if ACC is $1/2\pi$ and DAT is 3π , the lower DAT does not enter Agree for [#] or [π], causing a crash due to unchecked Case, thus banning $1/2\pi$.ACC » 3π .DAT.

¹¹Nevins (2007) also presents a rather interesting analysis of the PCC with Multiple Agree which does not appeal to Case checking; the PCC arises only from feature mismatches (cf. (32)) on multiple Goals due to relativized probing for $[\pi]$ primitives. With no relevant mismatch between Goals, Agree can occur with both, triggering clitic-doubling. Crucially, Agree cannot occur with 3π ; the Probe then receives a default value. But clitic-doubling of 3π Goals must nonetheless occur, differing thus from clitic-doubling of $1\pi/2\pi$ Goals, triggered only by a successful Agree. This is at odds with Preminger's (2009) insight that a failed Agree never results in the kind of default clitic-doubling which Nevins must tacitly assume.

(Anagnostopoulou 2003). In the next cycle of Agree, [#] probes and Agrees with the object DP_2 , marking it with an agreement suffix on V. As this cycle of Agree is for [#] only, DP_2 can only be 3π due to the PLC (18).

(34)
$$[TP \ \{ T^0 \ CL_1 \} \ [XP \ DP_1 \ [X' \ X \ DP_2]]]$$
 $[u\#] - - - - - + [i\pi] \ *[i\pi]$
 $[u\#] - - - - + [i\#]$

Crucially, Christian Barwar has a *nominative-accusative* alignment, and the subject in (34) should not, and does not, trigger defective intervention. But there is also a larger issue: Agree with φ -features *cannot* be associated with Case assignment. If the type of Case on a DP is determined by the type of head entering into Agree with it (Chomsky 2000; Béjar and Řezáč 2003), then the two DPs in (34) should receive the same case, namely NOM. Due to the lack of Agree with v^0 , no DP should be ACC, but this is not borne out. The nominative-accusative alignment in Christian Barwar can therefore only be derived if Case assignment is separated from φ -agreement.

On the exact opposite side of the spectrum are Digor and Iron Ossetic, which Erschler (2014) observes have PCC patterns occurring with 2nd position clitics outside the standard DAT » ACC frame, namely with combinations of different non-structural case clitics. In (35), we see a PCC effect with *ablative* (ABL) and *superessive* (SUP) pronominal clitics, which in Iron Ossetic pattern according to Strong PCC.¹²

- (35) a. eme=myl=še Medine jetteme niči ewwendy. $1\pi \gg 3\pi$ and=sup.1p.sg=ABL.3p.pL Madina besides nobody believes 'No one of them believes me, but Madina.'
 - b. * eme=jyl=ne Medine jetteme niči ewwendy. *3 π » 1 π and=sup.3p.sg=abl.1p.pl Madina besides nobody believes 'No one of us believes them, but Madina.' (Iron Ossetic; Erschler 2014:6)

Person restrictions on clitics in fact also occur with inherent case clitic pairs in some cases in canonical PCC languages such as French. In (36a), 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 $1/2\pi$. Crucially, the effect is only observed with clitic climbing, as when the embedded DAT object clitic remains in the embedded clause, there is no restriction, as illustrated in (36b).¹³

- (36) a. * Cette nouvelle **nous lui** a fait téléphoner.

 this news us.dat him/her.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 us.dat has made him/her.dat telephone.inf 'This news made us phone him/her.' (Bonet 1991:196)

Note also that since clitic climbing involves both clitics co-occurring in the matrix clause, we have the two arguments against one head configuration required for the PCC. Bonet (1991) noted the existence of such examples, expressing doubt that explaining the PCC in terms of syntactic Case is possible (cf. Bonet 1991:196).

¹²Further examples of the case-insensitivity of the PCC are found in O'Odham and Warlpiri, see Stegovec (to appear). Their PCC patterns, as well as those discussed above, can be accounted with the analysis in Section 4.1.

¹³Although some caution should be taken with these examples, as Kayne (1975) notes they might not be equivalent to the canonical PCC examples in French.

It thus seems that the syntax of φ -valuation and Case should be separated also for reasons independent of the Slovenian inverse PCC effect. In the following section I will develop an approach that does exactly that, and show further that it correctly derives the whole Slovenian PCC paradigm, including the inverse PCC. Such an approach can be easily extended to languages with traditional PCC patterns, as their person-restriction paradigms present only a subset of the Slovenian pattern due to their more limited options of object clitic displacement.

4.1 PCC as a valuation fail on interpretable features

I will follow the general *two arguments against one head* logic, but depart from approaches such as Béjar and Řezáč (2003) and Anagnostopoulou (2005) by divorcing φ -feature valuation from Case licensing. The key difference from the aforementioned approaches is the assumption that $[\pi]$ features on weak pronominal elements are *not licensed* through Agree, but directly valued through Agree. This idea is inspired by the treatment of bound pronouns in Kratzer (2009), and a similar approach to subjects of jussive clauses in Korean by Zanuttini et al. (2012). In both analyses pronouns can enter the derivation without being specified for particular values of their φ -features, and must have their φ -features valued by a matching set of valued φ -features on a functional head. The analysis of PCC I will argue for combines the intuition behind Kratzer (2009) and Zanuttini et al. (2012) with the approaches to feature valuation explored in Pesetsky and Torrego (2007) and Bošković (2007; 2011a).

In the approach to feature valuation of Pesetsky and Torrego (2007); Bošković (2007; 2011a), interpretable fratures can enter the derivation unvalued and likewise uninterpretable features can enter the derivation already specified for a value (contra Chomsky 2000; 2001). This means that although pronouns must bear interpretable φ -features, the 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 and weak pronouns, in fact must enter the derivation with unvalued $[i\pi]$ features which must be valued via Agree by a functional head with valued $[u\pi]$ features. As a result, a failure to value the $[i\pi_{uval}]$ of a clitic via Agree will result in it receiving a default 3π value. This in effect derives the PLC of Béjar and Řezáč (2003) from independent existing assumptions on feature valuation and without reference to Case.

The intuition behind the $[i\pi]$ deficiency is that the restricted distribution and interpretation of clitics and weak pronouns (cf. Cardinaletti and Starke 1994) is at least partly due to their $[\pi]$ underspecification. The connection with Kratzer's (2009) "minimal pronouns" and Zanuttini et al.'s (2012) subject pro in jussives (imperatives, exhortatives, and promissives) can also be seen with the patterning 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 (37a). However, if the bound pronoun is an object it must be a clitic pronoun, as illustrated in (37b). This suggests that, as argued by Cardinaletti and Starke (1994), clitics and null pro form a natural class; following Kratzer's (2009) analysis of bound pronouns, such pronouns enter the derivation partially underspecified for φ -features, which is what I argue holds for all deficient pronouns like clitic and weak pronouns.

- (37) a. Nihče_i ne misli, da $\langle pro_i \rangle$ je neumen. no one not thinks, that \langle he \rangle is stupid.MASC.SG. 'No one_i thinks that he_i is stupid.'
 - b. Nihče $_i$ ne misli, da ga $_i$ bo strela udarila. no one not thinks, that him. ACC will lightning strike 'No one $_i$ thinks that he $_i$ will be hit by lightning.'

The analysis I argue for does not make any reference to the structural/inherent Case asymmetry, but crucially it still derives the PCC as an intervention effect, preserving the main insight of Béjar and Řezáč (2003); Anagnostopoulou (2003; 2005). The analysis which will capture both traditional and inverse Strong and Weak PCC patterns, relies on the specific assumptions summarized below:

- [A1] Deficient pronouns have unvalued interpretable $[\pi]$ features that require valuation before Spell-Out; $[i\pi_{uval}]$ is illicit at LF (cf. Pesetsky and Torrego 2007);
- [A2] Valuation of $[\pi]$ occurs: (a) via Agree with a valued $[\pi]$ feature, or (b) by receiving a default $[\pi]$ value ($[d:_]$) iff Agree with a valued $[\pi]$ is impossible before Spell-Out where 3π (3rd person) is the default $[\pi]$ value;
- [A3] *Unvalued* features act as Probes, and matching *valued* features act as their Goals (Bošković 2011a);
- [A4] Agree does not occur between a Probe and Goal in the presence of a matching intervener *X* which asymmetrically c-commands the Probe/Goal *Y* and the corresponding Goal/Probe *Z* asymmetrically c-commands *X* (Chomsky 2000);
- [A5] Traces (= copies that do not head a chain) and clitic-doubled DPs do not count as interveners (Chomsky 2000; Anagnostopoulou 2003; Bošković 2011b).

Crucially, I take [A1–5] to be universal, with the different PCC patterns emerging due to independent processes interacting with $[\pi]$ valuation. In the case of Slovenian, the presence of the inverse PCC patterns is tied only to the option of ν P-internal object clitic reordering that is not available in languages with only traditional PCC patterns. This clitic order permissiveness of Slovenian can be tied to the overall permissiveness clitic placement in Slovenian, which has been noted, a.o., by Bošković (2001) — Slovenian clitics can be both proclitics and enclitics, and the clitic cluster can even be split under special conditions, as shown by (38) (see also Section 4.2).

```
(38) ? So včeraj ga pretepli?
did.pl yesterday him.acc beat.pl
'They beat him yesterday?' (Slovenian; Bošković 2001:162)
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In the following sections I demonstrate how this system derives both standard and inverse Strong PCC patterns (Section 4.1.1) and standard and inverse Weak PCC patterns (Section 4.1.2). The approach will also be shown to have implications for the fine grained structure of deficient pronominal elements (Section 4.2).

4.1.1 Deriving standard and inverse Strong PCC

The account of both standard and inverse Strong PCC patterns presented here follows a canonical GOAL» THEME base order, with Slovenian having the option of ACC clitic movement before v^0 is merged in the structure. However, the account of the Slovenian inverse pattern is also compatible with free base-generation of the two orders.

The derivation of the standard Strong PCC, which holds for both Greek PCC and Slovenian with the DAT » ACC order, is presented in (39) (to be spelled out below).

(39)
$$[v_{P} \quad v^{0} \quad [A_{pplP} \quad DAT \quad Appl^{0} \quad [v_{P} \quad V \quad ACC \quad]]]$$

$$[u\Gamma:_] - - - - - \bullet [i\Gamma_{val}] \quad [i\Gamma_{val}]$$

$$[u\pi_{val}] - - - \frac{A_{gree}}{v_{alue}} - \rightarrow [i\pi:1/2/3] \quad [i\pi:_] \Rightarrow [d:3\pi]$$

I assume essentially the same structure for double object constructions as Anagnostopoulou (2005), with V introducing the DO as a complement, the applicative head Appl⁰ introducing the IO in SpecApplP, and the ApplP as the complement of v^0 . I assume that the φ -features of v^0 do not all have the same status regarding valuation; the $[u\pi]$ component of the φ -feature set on v^0 is valued (cf. Kratzer 2009), while other φ -features on v^0 distinct from $[\pi]$ (henceforth $[\Gamma]$) are unvalued, hence still function as Probes (cf. [A3]). Similarly, only the $[i\pi]$ on deficient pronouns is unvalued, the remaining φ -features $[i\Gamma]$ are valued. This means that when v^0 enters the derivation its $[u\Gamma_{uval}]$ must probe for and trigger Agree with the closest available c-commanded matching Goal, which is $[i\Gamma_{val}]$ on DAT. Once Agree is established, the $[u\pi_{val}]$ on v^0 can also value $[i\pi_{uval}]$ on DAT as $1/2/3\pi$ (39). I assume, crucially, that the condition in (40) holds for feature valuation between two heads.

(40) If Agree is established between heads X^0 and Y^0 for a feature $[\alpha]$, then *all* $[F_{uval}]$ 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 intuitive idea behind this assumption is essentially a version of Řezáč's (2004) *Maximize Agree* given in (41). A similar assumption regarding feature valuation has also been invoked to deal with other φ -Agree phenomena, such as the analysis of Serbo-Croatian first and last conjunct agreement in Bošković (2009), which also uses the option of valued uninterpretable and unvalued interpretable features.

(41) *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)

Returning to the derivation of Strong PCC in (39), after $[u\Gamma]$ on v^0 has entered Agree with $[i\Gamma_{val}]$ on DAT, it is now valued and no longer a Probe. At this point even if DAT were to move above v^0 , leaving behind an inactive trace and removing DAT as an intervener for v^0 and ACC, v^0 would not trigger Agree with ACC, as it has been satisfied as a Probe. As a consequence the $[i\pi_{uval}]$ feature on ACC can no longer be valued through Agree with $[u\pi_{val}]$ on v^0 , which means that the ACC clitic can only get default 3π value as a last resort, thus yielding the Strong PCC pattern.

Regarding inverse Strong PCC, this pattern is possible in Slovenian but not Greek due to the clitic reordering within ν P, which is not an option in Greek. The derivation of the inverse Strong PCC pattern is given in (42).

(42)
$$[v_P \quad v^0 \quad [A_{PPlP} \quad ACC \quad DAT \quad Appl^0 \quad [v_P \quad V \quad t_{acc}]]]$$
 $[u\Gamma:] ----- [i\Gamma_{val}] \quad [i\Gamma_{val}]$
 $[u\pi_{val}] ----- [i\pi: 1/2/3] \quad [i\pi:] \Rightarrow [d:3\pi]$

In (42) ACC moves across DAT before v^0 is merged.¹⁴ This means that when v^0 enters the derivation, ACC and not DAT (cf. (39)) is the closest Goal for any Agree operation triggered by v^0 . At this point the $[u\Gamma_{uval}]$ on v^0 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^0 also values $[i\pi_{uval}]$ on ACC as $1/2/3\pi$, due to the condition on valuation in (40). The $[u\Gamma]$ on v^0 is now valued and no longer a Probe, so even if ACC moved above v^0 , creating an inactive trace, $[i\pi_{uval}]$ on DAT can no longer be valued through Agree with v^0 , which means that DAT must get a default 3π value before Spell-Out.

 $^{^{14}}$ Another possibility is to assume that ACC is optionally base generated above DAT.

The derivations in (39,42) show how both the standard and inverse Strong PCC can be derived with the $[i\pi]$ underspecification approach. Crucially, both derivations are possible without any reference to (particular) Case. The PCC arises due to a mismatch between the number of deficient pronouns and $[\pi]$ valuating heads; Appl⁰ only introduces a second object, but not a new $[u\pi_{val}]$ feature to value it.

4.1.2 Deriving Weak PCC

I turn now to the Weak PCC. Recall that the only difference between Strong and Weak PCC is that with the latter, $1/2\pi \times 2/1\pi$ combinations are possible. In Section 3.2 it was discussed how Anagnostopoulou (2005) derives Weak PCC by parameterizing Multiple Agree (Multiple Agree being available only for Weak PCC); both DAT and ACC clitics can then enter Agree for $[\pi]$ features with v^0 . However, as discussed above, the approach faces the same issue as Béjar and Řezáč (2003) with respect to person restrictions on DAT clitics found with Slovenian inverse PCC patterns.

In the previous section it was assumed that the unvalued $[i\pi]$ features on deficient pronouns are valued via Agree with a c-commanding head with valued $[u\pi]$ features. This excluded $1/2\pi \times 2/1\pi$ combinations due to a locality restriction on Agree which made the lower of two clitics inaccessible for valuation. But such combinations can in fact be derived within the same system of $[i\pi]$ underspecification without a Multiple Agree parameter. If I propose that with Weak PCC, object clitics (pro_{def}) first move to Specs of vP and only then get valued by the $[u\pi]$ on v^0 (see below for details). The $1/2\pi \times 2/1\pi$ combinations can then be derived via valuation of $[i\pi]$ of both clitics in a Spec-Head configuration with the $[u\pi_{val}]$ on v^0 . The Strong/Weak PCC split is then achieved by the following parameterization (to be revised below):

- (43) a. STRONG: $[\pi_{uval}]$ on pro_{def} is valued via Agree by a c-commanding $[\pi_{val}]$
 - b. WEAK: $[\pi_{uval}]$ on (multiple) pro_{def} is valued in SpecXP in a Spec-Head configuration with a $[\pi_{val}]$ feature on the X^0 of XP

Under (43), Strong PCC is a result of Agree (i.e. agreement in a Probe-Goal relation) and Weak PCC is a result of agreement in a Spec-Head relation. The split in (43) then appears to require two distinct operations: Agree and Spec-Head agreement. This is problematic in view of recent arguments against the Spec-Head relation as a separate operation from Agree (cf. Chomsky 2000; 2001). But note that under the proposal in Section 4.1, there is actually no need for a distinct Spec-Head operation here. The Strong/Weak difference can 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 pro_{def} : (a) with Strong PCC prodef acts as Goal, and (b) with Weak PCC prodef acts as Probe (the functional head being the Goal with the latter and the Probe with the former). Recall I assume that only unvalued features can be Probes ([A3] in Section 4.1), which means an unvalued $[i\pi]$ feature on pro_{def} is also a Probe which requires a c-commanded valued $[\pi]$ in order to trigger Agree with it and be valued. The reason why this is not how the valuation of $[i\pi]$ is achieved with Strong PCC is because the $[u\Gamma_{uval}]$ on v^0 first enters Agree with $[i\Gamma_{val}]$ on the closest pro_{def} , enabling parasitic valuation of $[i\pi_{uval}]$ on the same pro_{def} in the same cycle of Agree, given the condition in (40), repeated as (44).

¹⁵Note that I am not arguing against Multiple Agree as an operation available in UG, I am simply showing that it is not required for the derivation of Weak PCC. See Haegeman and Lohndal (2010) though for arguments against Multiple Agree as a core grammatical operation.

(44) If Agree is established between heads X^0 and Y^0 for a feature $[\alpha]$, then *all* $[F_{uval}]$ 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 proposal is that this option is blocked with Weak PCC, where pro_{def} functions as Probe. I suggest the reason for this is that the $[i\pi]$ and $[i\Gamma]$ features occupy distinct heads in the internal structure of pro_{def} with Weak PCC (see Section 4.2 for a more detailed account of this). As condition (44) only applies for features occupying the same head, such a configuration inhibits "parasitic" valuation of $[i\pi_{uval}]$ on pro_{def} , leaving pro_{def} to function as a Probe. The gist of the account of the Strong/Weak PCC parameterization is then: (a) in Strong PCC varieties, pro_{def} acts as Goal, and (b) in Weak PCC varieties, pro_{def} acts as Probe. This follows from a lexical word internal structural difference in the two varieties which amounts to: (a) the $[i\pi]$ and $[i\Gamma]$ features reside on the same node within the structure of pro_{def} (Strong PCC), or (b) the $[i\pi]$ and $[i\Gamma]$ features reside on separate nodes within the structure of pro_{def} (Weak PCC). The parameterization is summarized in (45) (note that no variation on v^0 is required).

(45) a. STRONG:
$$v^0$$
 $[u\pi_{val}]; \underline{[u\Gamma_{uval}]}$ Probe $|pro_{def}[i\pi_{uval}]; \underline{[i\Gamma_{val}]}$ Goal b. WEAK: $pro_{def}[i\pi_{uval}]$ Probe $|v^0|[u\pi_{val}]; \underline{[u\Gamma_{uval}]}$ Goal

A specific proposal on what is responsible for the lexical split posited here will be given in Section 4.2. Pending that, it should be noted that the Strong/Weak distinction requires some parameterization/variation. Framing the split as lexical variation, which is what is done here, already has an advantage over the parameterization of Multiple Agree as the mechanism behind the Strong/Weak PCC split. Speaker variation between Strong and Weak PCC is notoriously fine-grained (Bonet 1991), which would be rather unexpected from a parameterization of a core grammatical operation like Agree. Furthermore, Anagnostopoulou (2008) herself observes a striking generalization regarding Weak PCC, namely: languages with weak pronouns and no clitics only exhibit Weak PCC. I will in fact suggest in Section 4.2 a way of tying Anagnostopoulou's observation to the lexical split proposed here.

Let us now take a closer look at the derivation of the Weak PCC pattern itself, which is given in (46) below, assuming the same structure as (39,42) above.

(46) a.
$$[v_P \text{ DAT} \quad v^0 \quad [A_{pplP} \quad t_{dat} \quad Appl^0 \quad [v_P \quad V \quad ACC \quad]]]$$

$$[i\pi: \underline{1/2/3}] \leftarrow \underbrace{\overset{\text{value}}{A_{\text{gree}}}} \leftarrow [u\pi_{val}] \quad [i\pi: \underline{\hspace{1cm}}]$$
b. $[v_P \quad DAT \quad ACC \quad v^0 \quad [A_{pplP} \quad t_{dat} \quad Appl^0 \quad [v_P \quad V \quad t_{acc} \quad]]]$

$$[i\pi: \underline{1/2/3}] \quad [i\pi: \underline{1/2/3}] \leftarrow \underbrace{\overset{\text{value}}{A_{\text{gree}}}} \leftarrow [u\pi_{val}]$$

In (46), the $[i\pi_{uval}]$ feature on DAT is not valued parasitically as part of the Agree cycle established with v^0 for $[\Gamma]$ for reasons discussed above, which means it is an active Probe. As it needs to probe, and in its base-position does not c-command a matching Goal, it must move to SpecvP, v^0 hosting a matching $[u\pi_{val}]$ (46a). After $[i\pi_{uval}]$ on DAT probes and Agree is established, $[i\pi_{uval}]$ is valued by $[u\pi_{val}]$ on v^0 . This type of valuation driven movement is in fact exactly what has been proposed independently by Bošković (2007). Note that after this, the $[i\pi_{uval}]$ feature on ACC also needs to probe, and it also has no matching c-commanded Goal in its in situ position. The ACC clitic must then also move, *tucking in* (Richards 1997; 2001) in a lower SpecvP under DAT, where it can probe, enter Agree with $[u\pi_{val}]$ on v^0 , and be valued (46b). That the ACC clitic has to tuck in actually follows from the current approach; as the valuation does

¹⁶I remain agnostic regarding which distinct φ -features which I refer to with [Γ] (number, gender, ...) can reside on the same node as $[\pi]$. The key point is that as long as any of the unvalued φ -features comprising [Γ] reside on the same node as $[\pi]$; this will result in a parasitic valuation of $[i\pi_{wal}]$ on pro_{def} .

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

$[\pi]$ value:	1st person		2nd person	3rd person
	$[\pi]$		$[\pi]$	$[\pi]$
	[PARTICIPANT]	(=[PART])	[PARTICIPANT]	
	[AUTHOR]	(= [AUTH])		

not occur through 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 ν^0 than the Spec already occupied by DAT. If ACC were to move to a higher Spec ν P position, DAT would act as an intervener, making the required valuation of $[i\pi_{uval}]$ on ACC by ν^0 impossible.

With (46) we can thus successfully derive the possibility of $1/2\pi \times 2/1\pi$ combinations, which are grammatical with Weak PCC. There is just one pattern that still remains to be ruled out, namely $*3\pi \times 1/2\pi$. Recall that Anagnostopoulou (2005) also needs a special mechanism to exclude this combination. In the current system of valuation we need a mechanism that captures the descriptive generalization in (47).

(47) Multiple specifiers X_1 and X_2 can be valued in YP, iff the $[F_{uval}]$ features on X_1 and X_2 are valued by a $[F_{val}]$ feature on Y^0 for non-conflicting values.

In (47) I am using the notion of non-conflicting values (features) assumed by Anagnos-topoulou (2005), who needs it in her case to constrain Multiple Agree. But the crucial question is what constitutes a conflicting set of $[\pi]$ feature values, and what does it follow from. A possible answer is available within privative approaches to φ -feature values (cf. Harley and Ritter 2002; McGinnis 2005).¹⁷ An example of possible values for $[\pi]$ within a privative feature system is illustrated in Table 2.

Valuation within a privative system comprises of copying/transferring feature atoms such as [PART] and [AUTH] under Agree between an unvalued $[\pi]$ -Probe and a valued $[\pi]$ -Goal. A $[\pi]$ -Probe is then devoid of any $[\pi]$ -feature atoms, which are transferred from the valued $[\pi]$ -Goal once Agree is established between them. Multiple Probes valued by the same Goal must then be valued for the same set of features present on the Goal. v^0 can either have or not have the [PART] atomic feature present as part of its $[\pi]$ set, so v^0 cannot value one of its Specs as 3π and the other as $1/2\pi$, meaning that within a derivation, all pronouns are valued by $[u\pi_{val}]$ on v^0 as either 3π (if $[u\pi_{val}]$ lacks [PART]) or $1/2\pi$ (if $[u\pi_{val}]$ is specified for [PART]).

Of course, 1π decomposes into both [PART] and [AUTH] in a privative system, while 2π lacks [AUTH], predicting an additional step in the derivation of $1\pi \times 2\pi$ and $2\pi \times 1\pi$ patterns. I assume, however, that v^0 can only host [PART] features, and that the PCC effect arises only as a consequence of the locality restrictions on [PART] assignment. Independent evidence for this is provided in the next section, where I discuss 1π and 2π asymmetries in Slovenian and Bosnian/Croatian/Serbian (B/C/S), which show that [AUTH] assignment is independent from [PART] assignment by v^0 .

Crucially, this view of $[\pi]$ -valuation derives the restriction on multiple specifiers in (47). The consequence is that the configurations of clitics in (48a,b) are impossible to derive via valuation in SpecvP, while the configurations in (48c,d) are possible.

(48) a.
$$*[_{vP} \ 1/2\pi \ [_{vP} \ 3\pi \ v^0 \ [\dots]]]$$
 b. $*[_{vP} \ 3\pi \ [_{vP} \ 1/2\pi \ v^0 \ [\dots]]]]$ c. $[_{vP} \ 1/2\pi \ v^0 \ [\dots]]]$ c. $[_{vP} \ 3\pi \ [_{vP} \ 3\pi \ v^0 \ [\dots]]]$

¹⁷ Approaches to φ-feature geometry of this kind are employed with great success in the analysis of agreement phenomena in the syntax by Béjar and Řezáč (2009); Preminger (2011; 2014).

Recall, however, that $1/2\pi \gg 3\pi$ combinations are possible in Slovenian for both Strong and Weak PCC speakers (cf. (8b,10b) in Section 2). Such combinations are, in fact, derivable for Weak PCC speakers the same way they are derived for Strong PCC in (39,42). The difference is only that the higher clitic is valued $1/2\pi$ after moving to SpecvP. The lower clitic cannot then also move to SpecvP and be valued 3π due to the restriction on valuation discussed above. However, the combination in question is possible with an alternative derivation, namely the lower clitic can receive a default 3π value. Crucially, this cannot be an option for the higher clitic in order to derive $*3\pi \gg 1/2\pi$, as receiving a default 3π value is a last resort operation. This means that whenever a clitic *can* be valued via Agree, it *must* be valued via Agree. And the first clitic to move to SpecvP can always be valued via Agree.

Moving now to inverse Weak PCC, like the inverse Strong PCC (cf. 42), it can be derived via clitic reordering within ν P. The derivation is illustrated in (49) below.

(49) a.
$$[v_P \text{ ACC} \quad v^0 \quad [a_{PPlP} \quad t_{acc} \quad DAT \quad Appl^0 \quad [v_P \quad V \quad t_{acc} \]]]$$

$$= [i\pi: \underline{1/2/3}] \leftarrow \frac{v_{ace}}{Agree} \leftarrow [u\pi_{val}] \quad [i\pi: \underline{\hspace{1cm}}]$$
b. $[v_P \quad ACC \quad DAT \quad v^0 \quad [a_{PPlP} \quad t_{acc} \quad t_{dat} \quad Appl^0 \quad [v_P \quad V \quad t_{acc} \]]]$

$$= [i\pi: \underline{1/2/3}] \quad [i\pi: \underline{1/2/3}] \leftarrow \frac{v_{ace}}{Agree} \leftarrow [u\pi_{val}]$$

The topmost clitic (ACC) needs to probe due to its $[i\pi_{uval}]$ feature, but as in (46) before, it cannot get valued by v^0 in situ, therefore it must move to SpecvP, where v^0 hosts the matching $[u\pi_{val}]$ (49a), and probe v^0 . Under Agree, the $[i\pi_{uval}]$ on ACC is valued. After this, DAT must also move to SpecvP, tucking in under ACC where it can successfully probe v^0 , and gets valued via Agree with its $[u\pi_{val}]$ for a value which does not conflict with the value that was assigned to $[i\pi_{uval}]$ on ACC (49b).

Both standard and corresponding inverse Weak PCC patterns can thus be derived within the same approach to $[i\pi]$ underspecification. Again, Case valuation does not feature in the derivation, which is a prerequisite for deriving any inverse PCC pattern.

4.1.3 Person restrictions on clitics independent of the PCC

The derivation in (49) now derives the inverse Weak PCC pattern for the ACC » DAT clitic order, which means the full Slovenian Weak PCC pattern is predicted to be the one in (50), which is very close to the actual pattern.

(50) a.
$$3\pi$$
 » 3π b. $1/2\pi$ » 3π c. $1/2\pi$ » $2/1\pi$ d. *3 π » $1/2\pi$

As noted in Section 2, clitic restrictions are not entirely identical for Slovenian Weak PCC speakers with DAT » ACC and ACC » DAT clitic orders (cf. 9,11). Namely, with the ACC » DAT order, 2.ACC » 1.DAT is possible (51e) while *1.ACC » 2.DAT is not (51d). So there is an additional 1π versus 2π asymmetry with ACC » DAT, but not DAT » ACC. The rest conforms to the predictions of the derivations in (46,49).

(51) a.
$$3\pi$$
.ACC » 3π .DAT b. $1/2\pi$.ACC » 3π .DAT c. * 3π .ACC » $1/2\pi$.DAT d. * 1π .ACC » 2π .DAT e. 2π .ACC » 1π .DAT

There is, however, strong independent evidence indicating that this kind of restriction should not be ruled out by a PCC related mechanism. In Bosnian/Croatian/Serbian (B/C/S), where both Strong or Weak PCC is inactive, as Migdalski (2006) shows, and object clitics have a rigid DAT » ACC order, speakers allow 1.DAT » 2.ACC, shown in (52a), but crucially they do not allow

*2.DAT » 1.ACC combinations (Runić 2013), shown in (52b).¹⁸ This restriction is an <u>exact</u> word order mirror picture of the Slovenian (51d) versus (51e) contrast. This means that although B/C/S lacks the PCC, there is an asymmetry between 1π and $2/3\pi$ licensing, as evidenced also by (53a,b). There is thus a 1π versus $2/3\pi$ asymmetry in B/C/S that is independent of PCC effects.

(52) a. Toplo **mi te** preporučujem. 1.DAT » 2.ACC warmly me.dat you.acc recommend.1.sg 'I warmly recommend him to you.'

b. ??(*) Toplo **ti me** preporučuje. *2.DAT » 1.ACC warmly me.DAT you.ACC recommend.3.sg 'He warmly recommends me to you.'

(53) a. Toplo **mu te** preporučujem. 3.DAT » 2.ACC warmly him.DAT you.ACC recommend.1.sg 'I warmly recommend you to him.'

b. ??(*) Toplo **mu me** preporučuje. *3.DAT » 1.ACC warmly him.DAT me.ACC recommend.3.sg

'He warmly recommends me to him.' (B/C/S; Runić 2013)

This pattern provides strong evidence that restrictions on [AUTH] assignment are truly independent of the [PART] feature assignment, which I argued above is at the core of the PCC (i.e. the failure of [PART] valuation by v^0). ¹⁹

There is further evidence from Slovenian indicating that [AUTH] is assigned or licensed independently of [PART]. In Slovenian polar questions clitics can be sentence initial, but crucially for Weak PCC speakers, only $2\pi \times 1\pi$, and not $1\pi \times 2\pi$, object clitic combinations are possible, as illustrated in (54,55).

(54) a. **Ti me** je pokazal? 2.DAT » 1.ACC you.dat me.acc is shown.3ps.sg.masc

b. * Me ti je pokazal? *1.ACC » 2.DAT me.ACC you.DAT is shown.3ps.sg.masc 'Has he shown me to you?'

(55) a. * Mi te je pokazal? *1.DAT » 2.ACC me.DAT you.ACC is shown.3ps.sg.masc

b. **Te** mi je pokazal? 2.ACC » 1.DAT you.ACC me.DAT is shown.3ps.sg.MASC 'Has he shown you to me?'

This asymmetry is similar to *conjunct-disjunct* agreement systems (see Wechsler 2012; Pearson 2012), where *conjunct* marking occurs with 1π declaratives and 2π interrogatives. There is also a growing body of work dealing with similar 1π versus $2\pi/3\pi$ asymmetries which links them to *de selde re* asymmetries, logophoricity, and shifting indexicality (cf. Pearson 2012;

¹⁸Interestingly, 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 *2.DAT » 1.ACC.

 $^{^{19}}$ It should be noted that asymmetries between 1π and 2π are treated by some as distinct PCC patterns (cf. Nevins 2007). The B/C/S restriction is referred to as Ultra-Weak PCC by Runić (2013), who derives it with Nevins' relativized probing. But the Slovenian $1\pi/2\pi$ asymmetry is inconsistent with a relativized probing approach, which incorrectly predicts either: (a) both 2.DAT » 1.ACC and 1.ACC » 2.DAT to be ungrammatical (w.r.t. the case/base position of clitics), or (b) both 1.DAT » 2.ACC and 1.ACC » 2.DAT to be ungrammatical (w.r.t. the relative order of clitics). The latter also constitutes a "You-First" pattern, argued to be non-existent and non-derivable via relativized probing by Nevins (2007).

Wechsler 2012; Sudo 2012; Messick 2015). In particular, Messick (2015) proposes the implicational scale in (56), which captures that if a language has hearer-denoting logophors then the language will have speaker-denoting logophors but not necessarily hearer-denoting ones. If Slovenian patterns with the latter, and only deficient pronouns with [AUTH] features are logophors, it makes sense that 1π , but not 2π clitics, are subject to additional restrictions.

(56) SPEAKER (=
$$[AUTH] + [PART]$$
) > HEARER (= $[PART]$)

Even looking only at Slovenian, it is clear that whatever is responsible for the emergence of the Weak PCC pattern is independent from the additional $1\pi/2\pi$ asymmetries. As seen in (54,55), the asymmetry seems to be interacting with the type of C^0 (declarative vs. interrogative), the syntactic position of particular deficient pronouns, as seen with the $1\pi/2\pi$ asymmetry with the ACC » DAT order. This follows in the current approach from the fact that v^0 is only responsible for [PART] valuation. Elaborating on the exact conditions, and source of, [AUTH] valuation, however, goes beyond the scope of this paper, and will have to be explored in future work.

4.2 The nature of lexical variation in pronouns and the Strong/Weak PCC split

One of the strategies of voiding PCC effects in canonical PCC languages like French and Greek is to realize at least one of the two clitics in a banned cluster as a strong pronoun (cf. Béjar and Řezáč 2003; Anagnostopoulou 2005). This is argued by Béjar and Řezáč (2003) to be the result of an additional functional head which licenses both the use of the strong pronoun and $1/2\pi$ features on it. This additional licenser is typically assumed to be either a *focus projection* Foc⁰, or a silent preposition P⁰.²¹

There are, however, at least two clear empirical issues that arise with this view. The focus F⁰-licenser analysis predicts that strong pronouns should always be focused. But this generalization does not hold (cf. Cardinaletti and Starke 1994), in fact strong pronouns can surface as both semantically and prosodically non-focused. Even if the additional licenser is not associated with focus, it is unclear why the Strong PCC pattern arises in Icelandic with strong pronouns.²² I will argue here for an approach where the difference in the licensing requirements between strong and deficient pronouns is derived from word-internal structural differences, roughly along the lines of Cardinaletti and Starke (1994). I further argue that the PCC pattern arises in both clitic-PCC languages and in Icelandic with strong pronouns in the same structural configuration, but not as a violation of the same interface requirement.

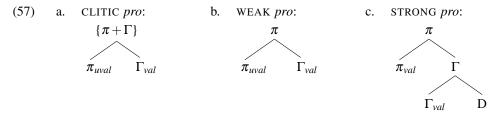
Cardinaletti and Starke (1994) observe a number of distributional, interpretational, and prosodic properties associated with different types pronominal elements, which require a split into three classes: (i) clitic pronouns, (ii) weak pronouns, and (iii) strong/full pronouns. Setting aside Icelandic for now, PCC seems to occur only with 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 reduction.

 $^{^{20}}$ For an overview of the phenomena as such from the semantic side see Schlenker (2011).

²¹Anagnostopoulou (2003; 2005) argues that in such cases strong ACC pronouns simply do not check φ (and Case) features against v^0 , as they do not enter into a Move/Agree relation with v^0 . A radically different version of Case checking is then needed for deficient and strong DP pronouns, see (Anagnostopoulou 2003:316–321) for discussion. I will not entertain this option here, as it faces the same issue as Béjar and Řezáč (2003) when it comes to explaining the PCC voiding strategy in Icelandic discussed below.

²²See also Nevins (2011) for the observation that strong pronouns and affixes are not subject to the PCC.

I capitalize here especially on the semantic split between strong and deficient pronouns, namely with respect to what Cardinaletti and Starke (1994) call "range", which covers a number of semantic properties, among them referentiality; 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 possible way to simplify Cardinaletti and Starke's notion of range deficiency is *referential deficiency*. In the system presented here, referential deficiency corresponds to unvalued $[\pi]$ features, and the lack of referentiality associated with D^0 , which deficient pronouns lack, while the second split between weak pronouns and clitic pronouns corresponds to a difference in terms of the label of the pronoun's projection. This gives us the three-way structural split illustrated in (57), which is elaborated on below.²³



As discussed by Chomsky (2013; 2014), the merger of two X^0 elements presents an issue for the *Labeling Algorithm* (LA) — when an X^0 and YP are merged, X^0 projects (determines the label of the phrase marker), but when X^0 and Y^0 merge, none can project. Chomsky (2014) assumes this only occurs when a *root* merges with a category defining head like ν , in which case the root is "too weak" to project and ν projects. But it has been observed, through crosslinguistic patterns of suppletion (cf. 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 (57a) and weak pronouns (57b) is in the strategy used for resolving the LA conflict caused by the merging of two heads: π^0 and Γ^0 . 24

In the case of clitic pronouns (57a), both π^0 and Γ^0 heads project together, resulting in a head bundle, not unlike what was assumed about INFL⁰ before Pollock (1989), namely that it was a bundle of Γ^0 and AGR⁰. As a consequence of this shared projection, clitics are still not regular heads, which goes along nicely with Chomsky's (1995) conception of clitics as ambiguous XP/X⁰ elements. In the case of weak pronouns, however, the labeling conflict is resolved via the projection of π^0 (57b).²⁵

Strong pronouns (57c) differ from deficient pronouns in two important respects: (i) the presence of a referential D^0 , and (ii) the $[i\pi]$ features on them are valued. I assume that the latter is why strong pronouns are not subject to PCC effects, as they do not require external valuation of their $[i\pi]$ features. I further assume that the valued status of $[i\pi]$ is in fact a consequence of the referential status of D^0 . Referentiality is inherently incompatible with underspecification of $[\pi]$, as having a specific referent requires a direct reference to a particular $[\pi]$ feature value. The structure (57c) in fact also allows the possibility to encode this syntactically; if D^0 has a set of valued $[\pi]$ features they can serve pronoun-internally as a Goal for the $[i\pi_{uval}]$ Probe.

The proposed structures for the three pronoun types illustrated in (57) also provides us with a possibility to encode the lexical split which I proposed above is responsible for the Strong/Weak

 $^{^{23}}$ As stated above, I use $[\Gamma]$ for ϕ -features distinct from $[\pi]$: Number, Gender, or Animacy and Class, where relevant for morpho-syntactic processes. The split is not entirely arbitrary, as Sudo (2012) observes that Person information, unlike semantic information conveyed other ϕ -features, is not a presupposition.

²⁴The following, however, does not fully follow Chomsky's (2013; 2014) conception of the LA.

²⁵For the purposes of the proposal of this paper, it would not make a difference if Γ^0 projected instead of π^0 . What is crucial is the fact that in weak pronouns, π^0 and Γ^0 count as separate heads for Agree.

PCC variation. The condition on valuation (40) proposed in Section 4.1.1 ensures that Agree triggered by $[u\Gamma_{uval}]$ on v^0 (also hosting $[u\pi_{val}]$), with a head that hosts both $[i\Gamma_{val}]$ and $[i\pi_{uval}]$ will result in the valuation of both $[\Gamma]$ and $[\pi]$ sets within the same Agree cycle — resulting in a Strong PCC pattern. This follows straightforwardly from the pronoun internal structure in (57a), where π^0 and Γ^0 are bundled and thus count as a single node/head for Agree. But if the structure of the pronoun is that in (57b), Agree between $[u\Gamma_{uval}]$ on v^0 , and $[i\Gamma_{val}]$ on the pronoun will not result in the parasitic valuation of the $[\pi]$ set, as π^0 and Γ^0 do not constitute a bundle in (57b). The $[i\pi_{uval}]$ on the pronoun must then function as a Probe, triggering movement of the pronoun to SpecvP, a position where it c-commands the $[u\pi_{val}]$ of v^0 , so it can be valued. This is exactly the configuration proposed for the derivation of the Weak PCC in Section 4.1.2.

This allows a straightforward explanation of Anagnostopoulou's (2008) generalization about the Weak PCC being the only PCC pattern found in exclusively weak pronoun languages, as the structure for weak pronouns in (57b) can only give rise to a Weak PCC pattern. One a more speculative note, there is also a more interesting possibility offered by this approach, namely that all languages which reportedly have a Weak PCC with clitics really lack true clitics and only have weak pronouns. 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 with respect to Strong and Weak PCC reported in the literature. This kind of speaker micro-variation is also observed in Slovenian. In addition, it has been observed that Slovenian clitics display properties not typical of most clitic systems. Bošković (2001) observes, that Slovenian clitics are among other things: (i) loosing a rigid 2nd position requirement in some environments, (ii) clitic clusters can be split up 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 in enclitic-proclitic pairs without a host at all. This relaxation of otherwise cross-linguistically very consistent requirements on clitics might actually be indicating Slovenian clitics are being reanalyzed by some speakers as weak pronouns, bringing along the Weak PCC pattern. However, a detailed analysis of the correlation will have to be left for future work.

I return now to the issue discussed in the opening of this section, the fact that Icelandic seems to be showing PCC effects with strong pronouns. The restriction in question concerns NOM objects, which can only be 3π (Strong PCC). But strong pronouns are not subject to PCC effects in canonical PCC languages, which is why Béjar and Řezáč (2003) posit that strong pronouns in PCC languages other than Icelandic enter Agree with an additional functional head (P⁰ or Foc⁰), licensing $1/2\pi$ features. I will argue, building on Schütze (2003), that the Icelandic restriction is fundamentally different from the PCC, but nevertheless follows from the system of $[\pi]$ feature valuation argued for here. Schütze (2003) cites Sigurðsson (1990–1991; 1996), who observes that the 3π restriction on NOM objects, illustrated in (58a), is lifted for some speakers when agreement on the verb is syncretic for $1\pi/2\pi/3\pi$ (58b,c).

(58) a. * Henni leiddumst við. ger.dat bored.at.1.pl we.nom 'She found us boring.'

b. (?) Henni leiddist ég / Þú. bored.at.3.sg = leiddist her.dat bored.at.1.sg I.nom / you.sg.nom 'She found me/you boring.' (Icelandic; Schütze 2003:300)

It is unclear why a particular agreement suffix should lift the PCC if, as assumed by Béjar and Řezáč, the 3π restriction follows from NOM here only entering Agree with T^0 for [#] features. Schütze's (2003) insight is that the syncretism resolves ineffability: agreement must spell-out the φ -features of both the NOM object and subject, but if NOM is $1/2\pi$ and the subject is DAT, which never controls agreement in Icelandic and triggers default 3π agreement, the clash is

only resolvable if the agreement suffix is syncretic for all three $[\pi]$ values. When there is no such exponent available the conflicting requirements result in a crash at Spell-Out to PF. I take Schütze's intuition to be essentially correct and compatible with the approach presented here.

In the present system, agreement on the verb is a PF realization of the value of the φ -features on T^0 . I assume, following Řezáč (2003) and Béjar and Řezáč (2003), that $[\pi]$ probes first, followed by [#]. As illustrated in (59), 26 the DAT subject cannot value the $[u\pi_{uval}]$ Probe on T^0 , 27 so it must get a default 3π value. But after DAT moves to subject position in SpecTP, 28 the $[u\#_{uval}]$ Probe in T^0 probes and enters Agree with $[i\#_{val}]$ on NOM. But as both $[i\#_{val}]$ and $[i\pi_{val}]$ are also on the same node (D^0) within the strong NOM pronoun, 29 T^0 will also have to be valued for whatever the value of $[i\pi_{val}]$ on NOM is, resulting in a conflicting feature set if the object is $1/2\pi$.

(59)
$$[_{TP} \text{ DAT} \quad T^0 \quad [_{ApplP} \quad t_{dat} \quad Appl^0 \quad [_{VP} \text{ V NOM} \quad]]]$$

$$[u\pi: \underline{*d3}] \xrightarrow{*Agree} [i\pi_{val}] \quad [i\pi: \underline{1/2/3}]$$

$$*1/2/3\pi + [u\#: \underline{SG/PL}] \xleftarrow{*Agree} \xrightarrow{Agree} [i\#: \underline{SG/PL}]$$

The uninterpretable $[u\pi]$ features on T^0 do not cause a crash at LF if valued (Pesetsky and Torrego 2007; Bošković 2011a), so a set of conflicting values on a $[u\pi]$ is not an issue for LF. At PF, on the other hand, two sets of values for the same feature will present an issue for vocabulary insertion (cf. Halle and Marantz 1993; Halle 1997). This issue can be avoided if: (i) the NOM object is 3π , where there is no conflict, or (ii) the exponent of agreement is syncretic for $1/2/3\pi$. This analysis explains why PCC seemingly occurs in Icelandic with strong pronouns. The approach to pronominal typology introduced in this section predicts that canonical PCC effects strong pronouns will always void the PCC effect, as it is essentially an LF phenomenon, while the Icelandic pattern is actually the result of a PF conflict, explaining why the repairs are radically different for the two phenomena.

4.3 Summary

In this section I presented an analysis of the PCC which divorces φ -feature valuation from Case checking. This move is necessary due to the Slovenian inverse PCC pattern, presented in Section 2. The proposed analysis relies on the existence of interpretable unvalued $[i\pi_{uval}]$ person features on deficient pronouns. Such features require valuation before Spell-Out, which can be obtained either through Agree with a feature bundle containing a $[u\pi_{val}]$ feature, or as a last resort, by receiving a default 3π value. In applicative constructions, locality restrictions on Agree force the lower of the two object clitics to receive a default $[\pi]$ value, resulting in Strong PCC. But Slovenian also has an inverse counterpart to the traditional Strong PCC due to an optional reordering of the DAT and ACC clitics before v^0 (specified for $[u\pi_{val}]$) enters the derivation. The analysis also extends to Weak PCC, where the Strong/Weak PCC split is

 $^{^{26}}$ The Icelandic NOM object agreement pattern occurs with ditransitive passives or psych verbs with DAT subjects. I simplify matters by assuming the DAT argument is introduced by Appl⁰ in both. The key factor in these cases is that the ACC assigning property of v^0 is blocked. The agreement restriction crucially does not occur in Faroese, where such constructions are realized with ACC objects (Schütze 2003).

 $^{^{27}}$ This is due to the so-called "case discrimination" of agreement, which is essentially a parameter set within every language regarding which arguments, based on morphological case, can establish Agree with φ -Probes in a particular language. Originally formulated in terms of a post-syntactic system of agreement by Bobaljik (2008), it was adapted by Preminger (2011; 2014), who modifies the Bobaljik's (2008) system to work within narrow syntax. I assume the latter version for the purposes of this paper.

 $^{^{28}}$ I assume, like Holmberg and Hróarsdóttir (2004) do, that the EPP feature on T^0 attracts DAT (in this construction the closest phonologically overt argument) after $[u\pi_{uval}]$ probes.

²⁹Recall that in strong pronouns D⁰ has a full set of φ -features by virtue of being fully referential.

derivable as a lexical difference. I argued that deficient pronouns in Strong PCC languages act as Goals, while due to a lexico-structural difference deficient pronouns in Weak PCC languages act as Probes, and need to move to SpecvP to be valued. In the next section the vP internal clitic reordering, which I argued gives rise to the inverse PCC patterns in Slovenian, will be shown to be also one of the main reasons behind the absence of PCC effects in Slovenian matrix imperatives.

5 Explaining the imperative paradigm

As discussed in Section 2, neither canonical nor inverse PCC effects are observed in Slovenian matrix imperatives, as (60-61) show. Like the inverse pattern, this asymmetry found in Slovenian seems to not follow from standard analyses of the PCC.

mu!

- a. Predstavi Predstavi mu me! introduce.IMP him.DAT me.ACC introduce.IMP me.ACC him.DAT 'Introduce me to him!' 'Introduce me to him!'
- (61)a. Predstavi mi b. Predstavi ga introduce.IMP me.DAT him.ACC introduce.IMP him.ACC me.DAT 'Introduce him to me!' 'Introduce him to me!'

One possibility to analyze the lack of PCC in imperatives would be to tie it to some version of Burzio's Generalization (Burzio 1986) by which imperatives could not license an external argument, and consequently could have a defective v^0 head. A different head (or set of heads) could then interact with the two objects. But imperatives do in fact have overt external arguments (62a), and even when the external argument is not overt its presence can be shown through binding (62b).³⁰

a. Everybody get out! b. $\langle IMPpro_i \rangle$ Predstavi ii! se_i ⟨ you.sg ⟩ introduce.imp self.acc her.dat 'Introduce yourself to her!' (Slovenian)

Ciucivara (2009) observes a similar pattern in Romanian: in declarative sentences, where pronominal clitic clusters are preverbal, 1π clitics must always precede other pronominal clitics. This restriction is lifted in imperatives, where clitics are, like in Slovenian, post-verbal. Ciucivara (2009) accounts for the asymmetry by assuming imperatives lack a TP layer. Because of this, clitics do not move to TP where they would occupy a preverbal position and potentially give rise to the ordering restriction.

Ciucivara argues for the lack of TP based on Zanuttini's (1997) proposal regarding the lack of TP in imperatives, which is concerned with the correlation between the presence of negation and TP: she suggests that in languages where negative imperatives are banned this is a result of the lack of a TP projection in imperatives. But Slovenian imperatives can occur with negation, both in matrix (63) and embedded environments (64) — recall that the PCC is observed in embedded imperatives.

³⁰See Zanuttini (2008); Zanuttini et al. (2012) for an overview of different approaches to the syntax and semantics of imperative subjects, as well as a proposal for a specific approach.

- (64) a. Rekla je, da **mu ga** <u>ne</u> pokaži! said.f.sg is that him.dat it.acc not show.imp
 - b. Rekla je, da **ga mu** <u>ne</u> pokaži! said.f.sg is that it.acc him.dat not show.imp 'She said that you should *not* show it to him!'

This either shows that Slovenian entirely lacks true imperatives, hence TP is present in both matrix and embedded surrogate imperatives (in Zanuttini's (1997) terminology), or that a different analysis of the presence of negation in imperatives is needed (see Section 5.1 below). Regardless of which is correct, the examples in (63,64) show us that the matrix/embedded imperative PCC asymmetry cannot be explained by invoking a split in terms of absence versus presence of TP.

The analysis of the imperative PCC pattern I develop in this paper is framed within a theory in which clitics can move leaving copies of themselves behind, as opposed to them being base generated on a Probe (see the discussion of Nevins (2007) above). This will make possible pronunciation of lower copies for clitics (cf. Bošković 2001), which will be the key to explaining the imperative asymmetry.

5.1 The case of the Greek clitic switch

The freedom in relative order of object clitics is not a phenomenon entirely limited to Slovenian, although in most other languages it seems to be limited to particular constructions, or (as we shall see later) to particular feature specifications. One such case is Greek, where object clitics allow both DAT » ACC and ACC » DAT orders with imperatives (65), but not with finite clauses (66) (Warburton 1977; Joseph and Philippaki-Warburton 1987; Terzi 1999; Bošković 2004).

- (65) a. Diavase mou to! read.IMP me.DAT it.ACC 'Read it to me!'
- (66) a. **Mou to** diavase. me.dat it.acc read.3sg 'S/he is reading it to me.'
- b. Diavase to mou! read.IMP it.ACC me.DAT 'Read it to me!'
- b. * To mou diavase. it.acc me.dat read.3sg 'S/he is reading it to me.'

(Greek; Bošković 2004:291–293)

Bošković (2004) analyses the Greek ACC and DAT clitic switch in imperatives as a consequence of *lower copy pronunciation* (LCP) forced by an adjacency requirement between V and a functional head (cf. Bobaljik 1995; Bošković 2001). Building on work by Miyoshi (2002), Bošković (2004) ties the Greek clitic switch to a particular analysis of the ban on negative imperatives in Greek (68a). The ban is at its core a prohibition of negation occurring with a particular verb form. In English, for example, negation is banned with finite main verbs, as illustrated by (67a). In such cases English must make use of an infinitive verbal form with *Do-Support* (67b).

(67) a. *John not laughed.

b. John did not laugh.

Miyoshi's (2002) insight is to treat the Greek and English ban on negation as essentially the same phenomenon. In both cases, the presence of negation is blocking *affix hopping/PF merger*.³¹ Under this analysis the ban on negative imperatives results from the functional

³¹The 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).

head F^0 , ³² responsible for imperative formation, requiring affixation to V under PF adjacency (*Stranded Affix Filter*) in order for F^0 and V^0 to spell-out as a single word. The presence of negation blocks *PF merger* of F^0 and V^0 , resulting in ungrammaticality, illustrated in (68b). The ban can be voided by using a different verbal form, which does not require *PF merger*, as in (67b).

```
(68) a. * Den/mi diavase!

NEG read.IMP

'Don't read!'

b. F [+affix] *NEG V

[+IMP] den/mi diavázo ('read')

(Greek; Bošković 2004:288)
```

Such an analysis of Greek imperatives allows a uniform syntax for both declarative preverbal and imperative post-verbal clitics. In both cases, the head of the chain formed by clitic movement is in the same position (69a), which is the copy pronounced in declaratives (69b), but this copy remains unpronounced in imperatives as the Stranded Affix Filter triggered by F⁰ forces LCP (69c). The algorithm for copy pronunciation used is the one argued for by Bobaljik (1995); Franks (1998; 2010), where the highest copy is pronunced unless there is a PF violation triggered by the position of the highest copy, in which case the next available copy in the chain must be pronounced (see also Bošković and Nunes (2007) for an overview of additional phenomena and arguments for this approach to movement and copy pronunciation).

(69) a. clitic₂ V clitic₁ COPY/INTERNAL MERGE
b. clitic₂ V clitic₁
$$\Rightarrow$$
 pre-verbal (PF)
c. F= clitic₂ =V clitic₁ LCP \Rightarrow post-verbal (PF)

For Bošković (2004), clitics left adjoin to V when V moves to a c-commanding position, and the two orders of object clitics in the Greek imperatives in (65) are taken by Bošković (2004) to be the result of an additional head movement of the complex head {ACC + V} before DAT is merged to it, where the LCP triggered by F^0 results in the configuration illustrated in (70a). The order preserving derivation has an additional intermediate step where {ACC + V} moves to X^0 within XP, while DAT cannot, and the order is preserved with LCP (70b). Crucially, this is an *optional* step in Greek, and the nature of X^0 is not clearly stated even by Bošković (2004).

(70) a.
$$\mathbf{F}^0$$
 [$\{ \frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \} \}$ [$[\frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \} \}]$ [$[\frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \} \}]$ [$[\frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \} \}]$ [$[\frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \} \}]$ [$[\frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \} \}]$ [$[\frac{1}{2} \text{DAT} + \{ \frac{1}{2} \text{CC} \mathbf{V} \}]]$ [$[\frac{1}{2} \text{CC} \mathbf{V}] \}$ [$[\frac{1}{2} \text{CC} \mathbf{V}]]$ [$[\frac{1}{2} \text{CC} \mathbf{V}$

The reason given by Bošković (2004) for why the DAT clitic cannot adjoin to X^0 within XP is essentially stipulated, and it is supposed to follow from "Dative Sickness" or the cross-linguistic tendency of dative arguments to not tolerate feature checking with TP. In the following section I derive a more general and principled account of this that derives the delayed clitic movement. At this point it suffices to say that the relevant generalization is not that the DAT clitic movement must be delayed, but that early head-movement of the linearly first of two clitics is consistently banned. This generalization is put to use in the following section, where the lack of PCC in Slovenian matrix imperatives is derived through a PF-switch analysis.

 $^{^{32}}$ For Miyoshi (2002) the head is an imperative C^0 . But as embedded imperatives do occur cross-linguistically with both overt C^0 and imperative morphology (also in Slovenian), it seems more likely the head is a modal operator (cf. Kaufmann 2012) positioned somewhere above V^0 and below C^0 .

5.2 Interaction between the PCC and the PF clitic switch

If Chomsky's (1995) observation about clitics being ambiguous XP/X^0 elements is correct, it implies that clitics should be able to both XP-move or head-move. Thus, if a clitic head-moves to a head X^0 , it can only undergo further movement as part of the complex head {clitic + X^0 }. But as an XP/X^0 ambiguous element it can also XP-move successive cyclically before adjoining to its landing site. The latter has actually been assumed in all derivations so far, and is illustrated for ditransitive clitics in (71). Heads move successive cyclically forming larger complex heads along the way, while the two clitics move like XPs to SpecvP essentially to use it as an escape hatch on their way to their final landing site, as vP is a phase (Chomsky 2000; 2001).

(71)
$$[_{vP} \ \text{DAT}_1 \ \text{ACC}_1 \{ \{ \underline{\text{V Appl}}^0 \} \ v^0 \} \ [_{ApplP} \ \text{DAT}_0 \{ \underline{\text{V}} \ \text{O} \ \text{Appl}^0 \} \ [_{VP} \ \text{V} \ \text{ACC}_0 \]]]$$

So far, the clitics were assumed to XP-move within νP in the derivation of Strong PCC. But crucially, as we shall see, the option of head-movement of clitics inside νP will not affect anything in the previous discussion. In the derivation of a Slovenian ditransitive DAT » ACC imperative, illustrated in (71), the DAT clitic can only move to Spec νP (the phase edge) via XP-movement, while ACC can move to Spec νP in two ways: (i) by left adjoining to the first asymmetrically c-commanding X^0 or complex head (in this case: $\{V + Appl^0\}$) and "piggyback" on it to ν^0 (72) (and eventually T^0), or (ii) XP-move to Spec νP directly (71). 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^0), assuming that it must head-adjoin in its final position. Both options will still result with the ACC clitic having to leave νP without being valued, hence Spelling-Out with a default value.

(72)
$$[_{vP} \ DAT_{1}\{\{\underline{ACC_{2} \{V \ Appl^{0}\}}\} \ v^{0}\} \quad [_{ApplP} \ DAT_{0} \{\underline{ACC_{1} \{V \ Appl^{0}\}}\} \ [_{VP} \ V \quad ACC_{0}]]]$$

The difference between the two movement options becomes relevant as the derivation continues. If the derivation began with (72), ACC is adjoined to $\{V + Appl^0\}$, so it can only move as part of the complex head, as illustrated in (73). The DAT clitic must then adjoin to T^0 directly from Spec ν P, resulting a DAT » ACC order. But if the derivation began as in (71), the cyclic head movement of the verbal complex continues all the way to T^0 , where both DAT and ACC also directly head-adjoin to T^0 , resulting in the same DAT » ACC clitic order as in (73).

(73)
$$[TP \{DAT_{2}\{\{\underline{ACC_{5} \ V \dots v^{0}}\} \ T^{0}\}\} \ [\underline{AspP} \{\{\underline{ACC_{4} \ V \dots}\} \cap Asp^{0}\} \ [\underline{vP} \ DAT_{1} \ \{ACC_{3} \ V \dots\} \dots]]]]$$
(74)
$$[TP \{DAT_{2} \{ACC_{2}\{\{\underline{V \dots v^{0}}\} \ T^{0}\}\}\} \ [\underline{AspP} \{\{\underline{V \dots}\} \cap Asp^{0}\} \ [\underline{vP} \ DAT_{1} \ ACC_{1} \ \{V \dots\} \dots]]]]$$

Both derivations result in the same final clitic order in the syntax, but the two derivations give rise to distinct surface forms at PF if the imperative F^0 forces LCP. As illustrated in (75a), the derivation in (73) leads to the clitic switch, while the derivation in (74) leads to order preservation even under LCP, as illustrated in (75b).

(75) a.
$$\mathbf{F}^0$$
 [$_{TP}$ $_{DAT_2}$ [$_{ACC_5}$ [\mathbf{V}]] [$_{AspP}$ [$_{ACC_4}$ [\mathbf{V}]] [$_{vP}$ [$_{DAT_1}$ [$_{ACC_3}$ [\mathbf{V}]] ...]]] b. \mathbf{F}^0 [$_{TP}$ $_{DAT_2}$ $_{ACC_2}$ [\mathbf{V}] [$_{AspP}$ [\mathbf{V}] [$_{vP}$ [$_{DAT_1}$] [$_{ACC_1}$ [\mathbf{V}] ...]]]

This analysis makes a prediction regarding Greek imperatives and the PCC. As only the ACC clitic will ever get default 3π in Greek due to the rigid DAT » ACC order inside ν P, the banned combinations of clitics should also be ungrammatical in imperatives even with the clitic switch. And as illustrated in (76), this is borne out.

Crucially, the imperative clitic switch in Slovenian voids the PCC. This follows from an independent property of Slovenian: the two νP internal clitic orders. We saw in Sections 4.1.1 and 4.1.2 that this is behind the inverse PCC patterns. Including the two options for unvalued clitic movement there are four distinct derivations, where the LCP triggered by F^0 obscures the order of clitics in their highest position, which is the same as the νP internal order. As illustrated in (77,78), all four grammatical imperative clitic combinations can be derived with the PF-switch from the two grammatical νP internal combinations: $1\pi.DAT \gg 3\pi.ACC$ and $1\pi.DAT \gg 3\pi.ACC$.

(77) a.
$$\mathbf{F}^{0}$$
 [$_{TP}$ $_{1\pi.\text{DAT}_{2}}$ [$_{3\pi.\text{ACC}_{5}}$ [V]] [$_{AspP}$ [$_{3\pi.\text{ACC}_{4}}$ [V]] [$_{vP}$ [$_{1\pi.\text{DAT}_{1}}$ [$_{3\pi.\text{ACC}_{3}}$ [V]] ...]]]

b. \mathbf{F}^{0} [$_{TP}$ $_{1\pi.\text{DAT}_{2}}$ $_{3\pi.\text{ACC}_{2}}$ [V] [$_{AspP}$ [V] [$_{vP}$ [$_{1\pi.\text{DAT}_{1}}$] [$_{3\pi.\text{ACC}_{1}}$ [V] ...]]]

(78) a. \mathbf{F}^{0} [$_{TP}$ $_{1\pi.\text{ACC}_{2}}$ [$_{3\pi.\text{DAT}_{5}}$ [V]] [$_{AspP}$ [[$_{3\pi.\text{DAT}_{4}}$ [V]] [$_{vP}$ [$_{1\pi.\text{ACC}_{1}}$ [3 $_{\pi.\text{DAT}_{3}}$ [V]] ...]]]

b. \mathbf{F}^{0} [$_{TP}$ $_{1\pi.\text{ACC}_{2}}$ 3 $_{\pi.\text{DAT}_{2}}$ [V] [$_{AspP}$ [V] [$_{vP}$ [1 $_{\pi.\text{ACC}_{1}}$] [3 $_{\pi.\text{DAT}_{1}}$ [V] ...]]]

The last piece of the puzzle is the presence of PCC effects in embedded imperatives. We have seen is (63,64) that both matrix and embedded negative imperatives are possible, ³³ but the position of the negation is different with respect to the object clitics — negation precedes the verb and clitics in matrix imperatives, and comes after the clitics and before the verb in embedded ones. I take this to indicate that further clitic movement in embedded imperatives satisfies the 2nd clausal position requirement (cf. Bošković 2001). As the highest copy must be pronounced if no PF factor interferes (cf. Bobaljik 1995; Franks 1998; 2010), the clitic copies that intervene between F⁰ and V in (77,78) remain unpronounced, trivially satisfying the Stranded Affix Filter. As this further movement is order preserving, the order of clitics at PF also matches the ν P internal order. This means that if the derivation begins with a possible clitic combination, as in (79a), the final PF order will have to match it, but also that a PCC violating order at PF has to match a PCC violating ν P internal clitic order, thus correctly deriving the Slovenian matrix/embedded imperative PCC asymmetry.

(79) a.
$$[_{CP} C^0 [[1\pi_3] [3\pi_6] [V]]] F^0 [_{TP} 1\pi_2 [3\pi_5] [V]] [_{AspP} [3\pi_4] [V]] [_{vP} 1\pi_1 [3\pi_3] [V]] ...]]]$$

b. $*[_{CP} C^0 [[3\pi_2] [1\pi_2] [V]] F^0 [_{TP} 3\pi_2 1\pi_2] [V] [_{AspP} [V] [_{vP} *3\pi_1 *1\pi_1] [V] ...]]]$

The PF approach presented here enables us to explain the asymmetry in question without resorting to a distinct syntax for imperative clitic constructions, which is an advantage. It is crucial for the analysis, though, that the possibility of a clitic to head-adjoin early (or late) is not case discriminating, as it is for Bošković (2004). The generalization regarding when the two object clitics can undergo different types of movement pertains to structural positions; it is only possible if the XP-moving CL_1 c-commands the head-adjoining CL_2 , and not the other

³³Note that the *affix hopping* analysis of the ban on negative imperatives (Miyoshi 2002; Bošković 2004) does not require a bidirectional correlation between the lack of negative imperatives and LCP driven post-verbal clitics. In fact Macedonian, just like Slovenian, allows both negative imperatives and post-verbal clitics derived through LCP. See Bošković (2001) for an analysis of the Macedonian constructions.

way round. I will show below that this effectively follows from a particular view on syntactic linearization.

The derivations illustrated in (80) show all the logical combinations for clitics to move from vP to T^0 , assuming that clitics can either head-move or XP-move according to the rules laid out above, namely: a clitic head-adjoins either: (i) as soon as possible, or (ii) as late as possible. The derivation in which both clitics only head-adjoin to T^0 after XP-moving to SpecvP (as late as possible) is illustrated in (80a), the derivation in which only the lower of the two clitics (CL₂) head-adjoins to the verbal complex in vP (as soon as possible) is illustrated in (80b),³⁴ and the derivation in which both clitics head-adjoin to the verbal complex in vP (as soon as possible) is illustrated in (80c). All these derivations are possible and lead to correct predictions regarding the PF clitic switch, only the derivation in (80d) must be ruled out.

```
(80) a. [_{TP} \{CL_1 \{CL_2 \{\{v^0 ...\} T^0\}\}\}] ... [_{vP} CL_1 CL_2 \{v^0 ...\} [...]]]

b. [_{TP} \{CL_1 \{\{CL_2 \{v^0 ...\}\} T^0\}\}] ... [_{vP} CL_1 \{CL_2 \{v^0 ...\}\} [...]]]

c. [_{TP} \{\{CL_1 \{CL_2 \{v^0 ...\}\}\} T^0\}] ... [_{vP} \{CL_1 \{CL_2 \{v^0 ...\}\}\} [...]]]

d. *[_{TP} \{CL_2 \{\{CL_1 \{v^0 ...\}\}\} T^0\}\}] ... [_{vP} \{CL_1 \{v^0 ...\}\}] [CL_2 [...]]]]
```

Notice that in (80d), CL_1 head adjoins to νP to the exclusion of CL_2 . As the derivation proceeds at the CP level, the CL_1 clitic moves to T^0 via successive cyclic head-movement, while CL_2 head adjoins directly to T^0 , resulting in a reverse order of clitics at the νP and CP levels. This is precisely the kind of reordering banned by Fox and Pesetsky's (2005) approach to linearization. For Fox and Pesetsky (2005), ordering statements are determined at the phase level. As a consequence every subsequent new set of ordering statements cannot contradict an existing one, so an ordering statement at the νP level cannot be contradicted at the CP level. This is exactly what we are observing in (80d), where the ordering of clitics at the CP level is $CL_2 \gg CL_1$, which conflicts with the $CL_1 \gg CL_2$ order already established at the νP level.

The discussion in this section provided us with an explanation for the lack of PCC in Slovenian matrix imperatives, which also gives us additional motivation for the presence of the ν P internal clitic reordering argued for in Section 4.1.1. Precisely because this reordering takes place, the post-syntactic PF switch in imperatives appears as a repair for the PCC, as it masks the actual order of clitics in the narrow syntax. We also saw that because of the absence of the syntactic reordering inside ν P in Greek, the same PF clitic switch in imperatives does not repair the PCC, and that when the PF clitic switch does not occur in Slovenian — with embedded imperatives — the PCC is not voided, exactly as predicted by this approach. This also means that very specific conditions are required to give rise to the inverse PCC pattern and the absence of PCC effects in imperatives, which could potentially also be the reason why the Slovenian pattern is so rare and has not been encountered before.

 $^{^{34}}$ 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^0 , and another element XP-moves to SpecXP, the latter must precede the head-moved element, and cannot tuck in.

 $^{^{35}}$ The cyclic linearization approach of Fox and Pesetsky (2005) also offers a straightforward explanation for why "default 3π " clitics must also move through SpecvP. If the final landing site of pronominal clitics is T^0 , where they surface as pre-verbal, then the only way for them to move to T^0 and not create a conflicting ordering statement at the CP level, is if they are ordered $CL_1 \gg CL_2 \gg V$ at the ν P level. This can only be achieved without early head movement if CL_2 moves to Spec ν P in spite of not entering Agree with ν^0 .

6 Extensions: French

There are historical reasons for why the PCC was conceived of as a restriction on particular case and person values, and not, as I argued above, a restriction on person features alone. This is mostly due to languages with a default ACC » DAT clitic order like French having traditional PCC patterns and not the inverse ones found in Slovenian with the ACC » DAT clitic order. Clitics in French ditransitives pattern according to the Strong PCC, despite the fact that the ACC » DAT seems to be the default clitic order, as illustrated by sentences where both clitic objects are 3π , like (81).

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

But note that the ACC » DAT order is in fact impossible with grammatical $3\pi+1/2\pi$ clitic combinations, as illustrated in (82). If the default order is truly ACC » DAT, why should it be blocked with these combinations? And as combinations of 3π .DAT and $1/2\pi$.ACC are ungrammatical, we cannot know what their surface order would be.

(82) a. Il me / te l' envoya. he me.dat / you.dat him.acc sent.
b. * Il le m' / t' envoya. he him.acc me.dat / you.dat sent. 'He sent him to me/you.' (French; Nicol 2005:142–143)

I will argue that this ordering restriction is independent of $[\pi]$ valuation and arises due to additional licensing requirements, as proposed in Section 4.1.3 for 1π versus 2π asymmetries in Slovenian and B/C/S. This view fits well with Charnavel and Mateu (in press), who propose that both 1π and 2π clitics in French are logophors that require binding by a logophoric operator in the CP-field. I assume that logophoric binding respects the same locality restrictions as canonical binding constructions, requiring the operator that binds $1/2\pi$ clitics to c-command the bound clitics. As a result, any pronominal clitic between $1/2\pi$.DAT and the operator will act as an intervener for logophoric binding, correctly predicting the absence of *3.ACC » 1/2.DAT independently of the Strong PCC restriction in French which already bans both *1/2.ACC » 2/1.DAT and *1/2.DAT » 2/1.ACC combinations.

But why can the ACC » DAT clitic order in French not yield a 1/2.ACC » 3.DAT combination, as in Slovenian? I propose this is because the clitic reordering in French is radically different from the one in Slovenian. Namely, it does not feed the $[\pi]$ valuation of clitics, which means that it must occur after v^0 enters the derivation. Recall that the inverse Strong PCC analysis presented in Section 4.1.1 required that the ACC clitic occupy a position above the DAT clitic at the moment v^0 enters the derivation. This allowed the ACC movement to feed the $[\pi]$ valuation of ACC, and consequently intervene for the $[\pi]$ valuation of DAT, resulting in the inverse Strong PCC pattern. But note that if ACC only moved above DAT after v^0 had entered the derivation, DAT would still be the closest Goal to v^0 at the point of valuation, predicting a traditional Strong PCC pattern with ACC » DAT, which is what we get in French.

Evidence that ACC clitic movement is truly different in French comes also from the observation that when DAT pronouns are clitics, ACC pronouns must also be clitics (Kayne 1975:174). Consider the PCC violation in (83) and the repair in (83b); DAT can realize as a strong pronoun in PP while retaining ACC as a clitic in order to void PCC (83b), but crucially it is impossible for ACC to be a strong pronoun when DAT is a clitic (83c). In Slovenian, any of the two clitics can surface as a strong pronoun.

(83) a. * Paul **me lui** présentera.

Paul me. ACC him. DAT will introduce

b. Paul **me** présentera <u>à</u> <u>lui</u>.

Paul me.ACC will introduce to.DAT him

PCC

c. * Paul **lui** présentera <u>moi</u>. ACC clitic obligatory
Paul him.dat will introduce me.acc

'Paul will introduce me to him.' (French; Kayne 1975:173–174)

While the French clitic reordering remains without a good principled explanation, we have seen in this section that the French PCC pattern is analyzable within the proposed new approach to the PCC. Furthermore, this approach leaves the door open to explore the interaction between clitic placement and logophoricity discussed by Charnavel and Mateu (in press), which seems to be a welcome outcome.

7 Conclusions

In this paper I have presented a previously unattested pattern of clitic person restrictions. In Slovenian, the person restriction is manifested on either the accusative, as in the canonical PCC, or the dative clitic, depending on the relative order of the clitics. The restriction on the dative clitic cannot be accounted for in the standard approaches to the PCC, like Béjar and Řezáč (2003), which are stated in terms of Chomsky's (2000) Case checking. As an alternative, I proposed that the PCC effect results from a locality restriction on the valuation of the interpretable person features of the clitics themselves, by a functional head with valued person features (v^0). This allowed us to state the difference between the Slovenian and canonical PCC patterns solely in terms of the presence versus absence of an optional process which in Slovenian allows object clitics to reorder within vP. The same approach also allows for a straightforward derivation of the Strong/Weak PCC split in terms of lexical variation in pronoun structure, and an explanation for the lack of PCC effects in Slovenian matrix imperatives.

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