It's not Case, it's Personal! Reassessing the PCC and Clitic Restrictions in O'odham and Warlpiri

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1. Introduction

This paper shows that O'odham and Warlpiri, two unrelated languages, have a strikingly similar restriction operating on object clitics in ditransitives. While some of the relevant data were analyzed before, most accounts were stated either as a type of a surface restriction interacting with the Case filter (Jelinek 1984), or as a templatic morphological restriction (Simpson 1991). I will argue that the phenomenon should be unified with another clitic restriction, the Person-Case Constraint (Bonet 1991).[1] I will show, based on additional data from Slovenian, that analyzing the PCC and the clitic restriction in O'odham/Warlpiri as case-sensitive obscures a broader generalization about person feature valuation. I argue that both the PCC and the restriction in O'odham/Warlpiri arise due to a locality restriction on the valuation of person features. Specifically, I argue deficient pronouns are underspecified for person feature values, requiring valuation via Agree with a functional head. The unified account sees both phenomena as an intervention effect, but crucially unrelated to Case.

The paper is organized as follows: Section 2 presents the clitic restriction in O'odham and Warlpiri. Section 3 presents the traditional PCC pattern, arguing that it should be unified with the O'odham/Warlpiri restriction, and shows, based on Slovenian, that case plays no role in the PCC. Section 4 modifies an account of the PCC in terms of intervention effects (cf. Béjar and Řezáč 2003) by divorcing it from Case checking, thus making possible a unified account of the relevant clitic phenomena. Section 5 is the conclusion.

2. Person restrictions in O'odham and Warlpiri

O'odham,[2] a Uto-Aztecan language of southern Arizona and northern Sonora, Mexico, displays freedom of word order and the presence of most arguments is optional. In (1), we see that the auxiliary clitic *'o* agrees with the subject (SU) and is always in 2nd position, regardless of the position of the subject and main verb. The clitic is *'o* with singular and plural 3rd person (3P) subjects, but it inflects for both person and number with 1st (1P) and 2nd person (2P) subjects, as in (2,3).[3] Note also in (2,3) that the subject itself is optional.

1) a. 'I:da 'o'odham **'o** ñeok.
this person.SU AUX.3.SG.SU speaking.SG
'This person is/was speaking.'

b. Ñeok **'o** 'i:da 'o'odham.
speaking.SG AUX.3.SG.SU this person.SU
'This person is/was speaking.' (Zepeda 1983:8)

2) a. S-ba:bigĭ **'añ** ñeok ('a:ñi).
slowly AUX.1.SG.SU speaking.SG (I.SU)
'I am/was speaking slowly.'

b. S-hottam **'ap** cipkan ('a:pi).
quickly AUX.2.SG.SU working.SG (you.SU)
'You are/were working quickly.'

3) a. Ganhu **'ac** wo:po'ŏ ('a:cim).
over.there AUX.1.PL.SU running.PL (we.SU)
'We are/were running over there.'

b. 'I:ya **'am** cicwi ('a:pim).
right.here AUX.2.PL.SU playing (you.PL.SU)
*'You (*PL*) are/were playing right here.'*
(Zepeda 1983:18–19)

Not all clitics in O'odham are 2nd position clitics. Object clitics, which clitic-double the direct object (DO) in transitives, occur as proclitics on the main verb. This is illustrated with the examples in (4), where the

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[1] See also Perlmutter (1971) on Warlpiri.

[2] Formerly referred to as Papago or Papago-Pima. It is also sometimes referred to as Tohono O'odham.

[3] The plural form of the verb is not an instance of agreement, but *pluractionality*: information indicating that the action or participants of a verb are plural, which does not always correspond to the number of the argument.

proclitics on the main verbs co-vary with the person and number of the optional DO. Crucially, 3rd person singular DOs are not (overtly) clitic-doubled with a proclitic on the main verb (4a), like all other DOs are.

4) a. A:cim ’ac g wisilo ceposid.
we.SU AUX.1.PL.SU ART calf.DO (3.SG.DO-)branding.SG
‘We are/were branding the calf.’

b. Cehia ’o **ha-**wapkon g mamgina.
girl.SU AUX.3.SU 3.PL.DO-washing.PL ART cars.DO
‘The girl is/was washing the cars.’

c. Ceoj ’o (’a:ñi) **ñ-**ceggia.
boy.SU AUX.3.SU (me.DO) 1.SG.DO-fighting
‘The boy is/was fighting me.’

d. Klisti:na ’o (’a:pi) **m-**cendad.
Christina.SU AUX.3.SU (you.DO) 2.SG.DO-kissing
‘Christina is/was kissing you.’

e. Hegai ’ali ’o (’a:cim) **t-**kuḍut.
that child.SU AUX.3.SU (us.DO) 1.PL.DO-bothering
‘That child is/was bothering us.’

f. Hegai ’uwĭ ’o (’a:pim) **’em-**ñu:kud.
that woman.SU AUX.3.SU (you.PL.DO) 2.PL.DO-taking.care
*‘That woman is/was taking care of you (*PL*).’* (Zepeda 1983:33,35–36)

Note that there is no overt case marking in O’odham, and the pronominal forms are identical for both SU and DO functions. They are only distinguished by the type of the clitic doubling them. But even this distinction is lost in canonical *double object constructions* (DOC), illustrated in (5), where only the indirect object (IO) is seemingly doubled by an agreeing object proclitic (identical in form to the DO clitic) on the main verb. Although there are two plural 3P objects in (5), there is only one matching proclitic on the main verb.

5) **Ha-**mamk ’añ (’a:ñi) (hegam) g mimsa.
3.PL.IO-giving.PL AUX.1.SG.SU (I.SU) (them.IO) ART tables.DO
‘I am/was giving them the tables.’ (Zepeda 1983:38)

But this is not always the case. Langacker (1977) notes that when one of the clitics is *ha-* (3P.PL), verbs may host two proclitics, cf. (6). This also means that combinations of 1P and 2P object clitic pairs are banned and consequently, due to the obligatoriness of object clitics, so are 1P and 2P person IO and DO combinations.

6) **Ha-m-**wapkon ’o.
3P.PL.DO-2P.SG.IO-washing.PL AUX.3P
‘He/she/they is/are/was/were washing them for you.’ (Langacker 1977:138)

There seems to also be an additional restriction, which was not observed before, namely that in such combinations of 3P and 1P/2P clitics, the latter always corresponds to the IO and the former to the DO.[4] If we set aside the seeming lack of singular 3P clitics, and assume instead that they are present but phonologically null (= ∅-), two generalizations emerge: (i) in object clitic pairs, the DO clitic must be 3P, and (ii) 3P plural DOs are never registered on the verb in the presence of a 3P IO. I will argue below that the two are fundamentally different, and that (i) is identical to the so called *Person-Case Constraint* (PCC) (cf. Bonet 1991), while (ii) is an additional constraint specific to O’odham. The full pattern is given in Table 1.

I turn now to Warlpiri (the Pama-Nyungan language family), which is similar in its grammatical properties to O’odham. The main difference is that in Warlpiri, all pronominal clitics are 2nd position clitics and, unlike O’odham, it has overt case marking on strong pronouns and full NPs with an *ergative-absolutive* allignment. But agreement, instantiated by subject and object clitics, is *nominative-accusative*, just as in O’odham.

[4]While I have not yet confirmed this through elicitation, these patterns are systematically absent from all the literature as well as O’odham written materials that I have managed to collect and search.

Table 1: O'odham double object proclitic combinations

Possible	∅-	∅- / ha-	∅- / ha-	ñ- / t-	∅- / ha-	m- / 'em-
	3.SG.DO	3.SG/PL.IO	3.SG/PL.DO	1.SG/PL.IO	3.SG/PL.DO	2.SG/PL.IO
Impossible	ha-	∅-	ñ- / t-	∅- / ha-	m- / 'em-	∅- / ha-
	3.PL.DO	3.SG.IO	1.SG/PL.DO	3.SG/PL.IO	2.SG/PL.DO	3.SG/PL.IO
Impossible	ha-	ha-	ñ- / t-	m- / 'em-	m- / 'em-	ñ- / t-
	3.PL.DO	3.PL.IO	1.SG/PL.DO	2.SG/PL.IO	2.SG/PL.DO	1.SG/PL.IO

In Warlpiri DOCs, the underlying structure and case of arguments is the following (cf. Legate 2002): a dative (DAT) IO asymmetrically c-commands an absolutive (ABS) DO in applicative constructions (henceforth DAT » ABS). As in O'odham, agreement with 3P DOs is not overt, so in the DOCs in (7), only the SU and IO clitics are visible. With no lexical DO, the DO can be any 3P singular argument from the relevant context.

7) a. Punta-rni kapi-**rna-ngku**-∅.
take.away-NONPAST FUT-1.SG.SU-2.SG.IO-(3P.SG.DO)
'I will take him/her/it away from you.'

b. Yi-nyi kapi-**rna-rla**-∅.
give-NONPAST FUT-1.SG.SU-3.DAT-(3.SG.DO)
'I will give it to him/her/it.' (Hale 1983:19)

c. Ngaju-ku ka-∅-**ju**-∅ karli jarnti-rni.
I.IO-DAT PRES-(3.SG.SU)-1.SG.IO-(3.SG.DO) boomerang.ABS trim-NONPAST
'He's making me a boomerang.' (Simpson 1991:150)

Note that only 3P clitics have a special DAT form (*-rla*), while 1P (*-ju*) and 2P (*-ngku*) IO and DO clitics have the same form when marking either object type. Interestingly, the person combinations in (7) are also the only possible ones. As noted by Simpson (1991), DAT and ABS objects cannot both be registered as object clitics, as illustrated in (8a,b), and the two registered objects cannot both be 1P or 2P, as shown in (8c).

8) a. *Ngarrka-ngku kapi-∅-**ji-rla** punta-mi.
Man-ERG FUT-(3.SG.SU)-1.SG.DO-3.DAT take.away-NONPAST
'The man will take me away from him.' (Simpson 1991:339)

b. *Japanangka-rlu ka-∅-**ju-rla** ngaju karanta-ku yirri-pura.
Japanangka.SU-ERG PRES-(3.SG.SU)-1.SG.DO-3.DAT I.DO.ABS woman-DAT keep.an.eye.on-NONPAST
'Japanangka is keeping an eye on me for the woman.' (Simpson 1991:313)

c. *Wati-ngki ka-∅-**ju-ngku** punta-rni.
man.SU-ERG PRES-(3.SG.SU)-1.SG-2.SG take.away-NONPAST
'He is taking you/me away from me/you.' (Simpson 1991:149)

Note, however, that a single generalization can also be made for Simpson's (1991) data, namely: in all constructions where a DAT object c-commands an ABS object, the latter cannot be 1P or 2P. This generalization is possible, because I assume, as for O'odham, that singular 3P DOs are clitic-doubled, albeit by a phonologically null (∅) clitic akin to little *pro*. This gives us the object clitic pattern summarized in Table 2.[5]

Interestingly though, the person restriction is not limited to DAT » ABS constructions. In fact, in so called *double-dative* (DAT » DAT) constructions (9), there is also both a ban on 1P and 2P object clitic combinations, as well as the restriction on the Theme DAT being 3P.[6] The possible object clitic combinations for DAT » DAT

[5] Due to limited space and ease of exposition I ignore plural and dual clitics, which are subject to additional morphological restrictions (cf. Hale 1973), but nonetheless pattern identically to singular ones w.r.t. person values. Note also that both *-ju* and *-ngku* are subject to vowel harmony alternations, becoming *-ji* and *-ngki* respectively, cf. (8a) vs. (8b).

[6] *"When it is the speaker ('for me') or addressee ('for you') for whom an action is carried out, the speaker or addressee ending can only combine with the* ***-rla*** [= 3P.DAT] *ending . . . "* (Laughren and Hoogenraad 1996:116).

Table 2: Warlpiri DAT » ABS *object clitic combinations*

Possible	-rla	-∅	-ju	-∅	-ngku	-∅
	3.SG.IO	3.SG.DO	1.SG.IO	3.SG.DO	2.SG.IO	3.SG.DO
Impossible	-ju / -ngku	-ngku / -ju	-rla	-ju	-rla	-ngku
	1/2.SG.IO	2/1.SG.DO	3.SG.IO	1.SG.DO	3.SG.IO	2.SG.DO

constructions are summarized in Table 3 (with the Theme DAT argument glossed as DO for consistency).[7]

9) a. Kurdu-ngku ka-∅**-ju-rla** ngapa-ku warri-rni ngaju-ku.
child.SU-ERG PRES-(3P.SG.SU)-1P.SG.IO-3P.DAT water.DO-DAT seek-NONPAST me.IO-DAT
'The child is looking for water for me.'

b. Ngajulu-rlu ka-rna**-ngku-rla** karli-ki warri-rni nyuntu-ku.
I.SU-ERG PRES-1P.SG.SU-2P.SG.IO-3P.DAT boomerang.DO-DAT seek-NONPAST you.IO-DAT
'I am looking for a boomerang for you.' (Laughren and Hoogenraad 1996:115)

Table 3: Warlpiri DAT » DAT *object clitic combinations*

Possible	-rla	-jinta	-ju	-rla	-ngku	-rla
	3.SG.IO	3.SG.DO	1.SG.IO	3.SG.DO	2.SG.IO	3.SG.DO
Impossible	-ju / -ngku	-ngku / -ju	-rla	-ju	-rla	-ngku
	1/2.SG.IO	2/1.SG.DO	3.SG.IO	1.SG.DO	3.SG.IO	2.SG.DO

The observation that the restrictions on object clitics in DAT » ABS (cf. Table 2) and DAT » DAT constructions (cf. Table 3) are most likely the result of a single constraint was already made by Jelinek (1984):

10) *Clitic Sequence Constraint:* A sequence of three clitic pronouns is excluded, unless one of the two object clitics is third person, and therefore (a) DATIVE, or (b) phonologically null. (Jelinek 1984:56).

However, she did not address the fact that the clitic which must be 3P, regardless of its case, is always the one corresponding to the Theme/DO, and not the IO. This additional factor will be addressed in the following section where the person restrictions found in O'odham and Warlpiri object clitics will be compared to the PCC. I will then argue that the two restrictions are underlyingly the same phenomenon.

3. The Person-Case Constraint

The PCC is descriptively a ban on the co-occurrence of specific case and person feature combinations on phonologically weak pronominal elements such as clitics and weak pronouns. The restriction arises most commonly with object clitics in ditransitives, with the two most prevalent paradigms being the so called *Strong PCC*, summarized in (11a), and *Weak PCC*.[8] The Strong PCC is illustrated by the example in (12).

11) Strong PCC: In a combination of a weak DO and IO, the DO has to be 3rd person (cf. Bonet 1991:182)

12) a. *Tha **mu/su** **se/me** sistisune.
FUT 1/2.SG.IO 2/1.SG.DO introduce.SU.3.PL
'They will introduce you/me to me/you.'

b. *Tha **tu** **me/se** stilune.
FUT 3.SG.M.IO 1/2.SG.DO send.SU.3.PL
'They will send me/you to him.'
(Greek; Anagnostopoulou 2005:202)

[7] Note that 3P.DAT+3P.DAT clitic combinations do not surface as **rla-rla-*, but as *rla-jinta-* due to a morphological constraint similar to the "spurious *se*" in Spanish. See also Section 4.3.1.

[8] The Weak PCC pattern is not discussed in this paper. For a description see Anagnostopoulou (2005); Bonet (1991). Unless noted otherwise, PCC is used to mean the Strong PCC pattern throughout the paper.

Crucially, the person restriction in both cases applies to the DO, not the IO. This is also the pattern observed for O'odham and Warlpiri. The difference is that with the PCC in Greek, IO and DO clitics are morphologically distinct and always overt. Because of this, and similar patterns in other languages (e.g. French, Spanish), the PCC is generally analyzed as occurring only in constructions where inherent case elements (DAT, GEN) co-occur with structural case ones (ACC, NOM, ABS), with the restriction always applying on the latter. I will show in the next section with PCC in Slovenian (Slavic), that the case generalization in fact does not hold.

That the PCC and the Warlpiri/O'odham person restrictions are the same phenomenon can also be seen through the repairs that void the two restrictions. In Warlpiri, 1P/2P DO clitics are allowed in a corresponding *allative* ditransitive construction, illustrated in (13), where the IO is not clitic-doubled (Simpson 1991:324–325). Legate (2002) equates this construction with the English *Prepositional-Dative Construction* (PDC).

13) Yu-ngu-**ju**-lu Jakamarra-kurra.
give-PAST-1.SG.DO-3.PL.SU Jakamarra-ALL
'They gave me to Jakamarra.' (Legate 2002:173)

Realizing the IO as a prepositional object is also a method of voiding the PCC. This is illustrated for French in (14), where the PCC violation in (14a) is lifted when the IO is a prepositional object (14b).

14) a. *Je **te** **lui** ai presenté.
1.SG.SU 2.SG.DO 3.SG.IO have introduced
'I introduced you to him/her.'

b. Je **te** ai presenté à **lui**.
1.SG.SU 2.SG.DO have introduced to.DAT 3.SG.IO
'I introduced you to him/her.'
(Béjar and Řezáč 2003:49–50)

Clitic restrictions in ditransitives are similarly lifted in O'odham when ditransitives are realized with a *postpositional* IO. In such constructions, the DO argument is doubled by a proclitic on the verb, while the IO argument is doubled by a proclitic on the postposition itself (Zepeda 1983:37–38).

3.1. The Slovenian PCC pattern

Slovenian clitics generally cluster in the 2nd position. In ditransitive clitic constructions, the DO clitic is ACC, and the IO clitic is DAT. As in Greek, the PCC effect arises in such combinations. Slovenian (15) thus parallels canonical PCC languages by excluding 3P DAT clitics co-occurring with 1P/2P ACC clitics.

15) *Sestra **mu** **me/te** bo predstavila. *3.IO » 1/2.DO
sister.SU.NOM 3.SG.M.IO 1/2.SG.DO will introduce.SU.SG.FEM
'The sister will introduce me/you to him.'

But the relative order of the DAT and ACC clitics is not fixed to DAT » ACC in Slovenian as it is in Greek. Both DAT » ACC and ACC » DAT orders are possible and unmarked for most speakers. Both orders are presented for 3P objects in (16). Interestingly, the clitic reordering interacts with the ban on *3.DAT » 1/2.ACC clitic combinations as seen in (15). The equivalent of (15) with an ACC » DAT clitic order is grammatical (17).

16) a. Gospa **mu** **ga** je opisala. DAT » ACC
lady.SU.NOM 3.SG.M.IO 3.SG.M.DO is described.SU.SG.FEM

b. Gospa **ga** **mu** je opisala. ACC » DAT
lady.SU.NOM 3.SG.M.DO 3.SG.M.IO is described.SU.SG.FEM
'The lady described him to him.'

17) Sestra **me/te** **mu** bo predstavila. 1/2.DO » 3.IO
sister.SU.NOM 1/2.SG.DO 3.SG.M.IO will introduce.SU.SG.FEM
'The sister will introduce me/you to him.'

Person restrictions are, however, not completely absent with the ACC » DAT order. Combinations which are otherwise grammatical with the DAT » ACC order, like (18a), are banned with ACC » DAT, as shown in (18b).

18) a. Sestra **mi/ti** **ga** bo predstavila. 1/2.DAT » 3.ACC
sister.SU.NOM 1/2.SG.IO 3.SG.M.DO will introduce.SU.SG.FEM

b. *Sestra **ga** **mi/ti** bo predstavila. *3.ACC » 1/2.DAT
sister.SU.NOM 3.SG.DO 1/2.SG.IO will introduce.SU.SG.FEM
'The sister will introduce him to me/you.'

Combinations of 3P and 1P/2P clitics with the DAT » ACC order thus give rise to a PCC pattern. With the ACC » DAT order, however, we observe the exact opposite: a person restriction on the DAT clitic, an *inverse* PCC pattern. Slovenian thus exhibits a restriction consistent with a canonical PCC pattern with the DAT » ACC order, while for the ACC » DAT order it displays the previously unattested inverse PCC pattern. So what matters in Slovenian is the relative order of clitics, not the particular case clitics bear.[9]

The person restriction in Warlpiri is also independent of case, in that the restriction occurs with clitic doubles of both ABS and DAT arguments. Assuming Legate's (2001; 2002) treatment of Warlpiri to be correct, there is a stage in the derivation of the final surface word order of both DAT » ABS and DAT » DAT ditransitives where the DAT IO asymmetrically c-commands the DAT/ABS DO. The correct generalization for Warlpiri is then that the structurally lower clitic is the locus of the person restriction. I assume this is also true in Slovenian, i.e. the ACC clitic can optionally be structurally below DAT at the point in the derivation where the person restriction potentially arises. In Section 4.1. I propose an account which captures this generalization and also unifies both traditional and inverse PCC, as well as the clitic restrictions in Warlpiri and O'odham.

4. A syntactic analysis — PCC/person restrictions as an intervention effect

One of the most prevalent syntactic accounts of the PCC sees it as a consequence of a single syntactic head attempting to establish a long distance dependency with two arguments. In terms of Chomsky (2000), this corresponds to Agree in a configuration of one Probe and two Goals. For Béjar and Řezáč (2003) (B&R) the factor limiting the distribution of multiple pronominal weak elements in DOCs is a difference in the licensing requirements between 1P/2P and 3P features in (19), which becomes apparent in such syntactic configurations.

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

B&R assume *Cyclic Agree*, where φ-features trigger Agree in a cyclic fashion: *Person* ([π]) first, followed by *Number* ([#]). Their derivation of the PCC is given in (20), where v^0 has an uninterpretable [π] ([uπ]) and an uninterpretable [#] feature ([u#]), both of which will act as Probes for matching interpretable features in their c-command domain. The IO and DO also both have interpretable [π] ([iπ]) as well as interpretable [#] features ([i#]), which gives the structure in (20) the aforementioned one Probe and two Goals configuration.

20) a. $[_{vP}$ v^0 $[_{VP}$ DAT $[_{V'}$ V DO]]]
[uπ] ← match → [iπ] [iπ]
[u#] ← *Agree → [i#] → *match [i#]
*Agree

b. $[_{vP}$ DAT v^0 $[_{VP}$ t_{dat} $[_{V'}$ V $\underline{\text{ACC}_{DO}}$]]]
[iπ] [uπ] *[iπ]
[i#] [u#] → [i#]
Agree

In the first cycle of Agree (20a), the [uπ] on v^0 probes and matches the closest [iπ], which is on DAT. However, for B&R an inherent Case like DAT blocks Agree with outside Probes, so the [uπ] on v^0 cannot establish Agree with the [iπ] on DAT, and must receive a default value. The IO itself can still have 1P/2P features, since B&R assume that they can be licensed by the inherent Case assigner itself.[10] Note also that any φ-features on DO are inaccessible for Agree with v^0 in (20a) due to matching intervening features on DAT. The second cycle of Agree can only be successful if, as shown in (20b), DAT moves above v^0 leaving behind a trace, which is not an intervener (Anagnostopoulou 2003; Chomsky 2000). The [u#] on v^0 can then enter Agree with the [i#] on DO, assigning it ACC Case (Chomsky 2000). But as Agree is only for [#] features in this cycle, the PLC cannot be satisfied for 1P/2P features on DO. This derives the PCC, as the DO clitic can then only be 3P.

The PCC pattern is thus predicted by B&R to arise only in cases where an intervening clitic blocks Agree for [π] features between v^0 and a structural ACC Case clitic; which then must be 3P or the PLC would not be satisfied. But recall that in Slovenian the person restriction actually occurs on the DAT clitic with the ACC » DAT

[9]Some speakers of Slovenian have a Weak PCC pattern, including an inverse Weak PCC pattern with the ACC » DAT order. See Stegovec (2015) and Stegovec (to appear) for the description of the pattern and analysis.

[10]For B&R inherent Case assignment is parallel to structural Case checking, albeit via Agree with a silent applicative preposition P^0, but for the purpose of this paper the issue of the inherent Case assigner is not crucial.

clitic order, and that for B&R, 1P/2P features on DAT can be licensed by the inherent Case assigner itself, hence no person restriction should arise on DAT due to blocked Agree with v^0. This makes the inverse PCC pattern problematic for their approach,[11] as well as other approaches focusing on the structural/inherent Case asymmetry such as Anagnostopoulou (2003). The same problem arises with Warlpiri DAT » DAT, where the restriction also occurs on a DAT clitic. The low DAT in Warlpiri is lexically determined by specific verbs, as seen with the transitive example of *warri-rni* ('seek'), which assigns DAT case to the DO.

21) Ngarrka-ngku ka-∅-rla karli-ki warri-rni.
Man-ERG PRES-(3P.SG.SU)-3P.DAT boomerang-DAT seek-NONPAST
'A man is looking for a boomerang.' (Simpson 1991:326)

The person restriction in Warlpiri thus occurs with objects which have inherent DAT Case, an issue for B&R, as they assume inherent Case assignment can license 1P/2P features. But we will see below that their intuition that PCC is an intervention effect can be kept if we divorce φ-Agree from Case checking, thus opening the door for a unified analysis of all the relevant person restriction phenomena.

4.1. Clitic person restrictions as failed valuation

In order to derive PCC effects, including the Slovenian inverse PCC, Warlpiri, and O'odham paradigms, I will follow the "one Probe/two Goals" logic, but depart from B&R by divorcing φ-feature valuation from Case licensing. The key difference is the assumption that $[\pi]$ features on deficient (clitic and weak) pronominal elements are valued via Agree. This is inspired by the treatment of bound pronouns in Kratzer (2009), where certain pronouns have some of their φ-features valued during the derivation. The proposed analysis of PCC combines this intuition with the approaches to feature valuation of Pesetsky and Torrego (2007) and Bošković (2011). The specific assumptions I either adopt or propose are listed below:

[A1] Defective (= clitic or weak) pronominal elements have unvalued interpretable $[\pi]$ features, which require valuation before Spell-Out to LF (cf. Bošković 2011; Pesetsky and Torrego 2007);

[A2] Valuation of $[i\pi_{uval}]$ occurs: **(a)** via Agree with a valued $[\pi]$ feature, or **(b)** by receiving a default $[\pi]$ value ($[d{:}\_]$), but only when option (a) is impossible — 3rd person is the default $[\pi]$ value;

[A3] *Unvalued* features are Probes, and matching *valued* features act as their Goals (Bošković 2011);

[A4] Agree cannot occur between Probe and Goal in the presence of a matching intervener (Chomsky 2000);

[A5] Traces and clitic-doubled DPs do not count as interveners (Anagnostopoulou 2003; Chomsky 2000).

The assumptions above will derive the effect of B&R's PLC, as well as the intuition that the restricted distribution and interpretation of clitics and weak pronouns (cf. Cardinaletti and Starke 1994) is partly due to their φ (specifically $[\pi]$) underspecification. I take **[A1–5]** to be universal, with the different PCC patterns emerging due to independent processes interacting with $[\pi]$ valuation. For Slovenian, I propose that the inverse PCC exist due to the option of *v*P-internal clitic reordering not available in languages with only the standard PCC. The clitic reordering can be tied to the overall permissiveness of clitic placement in Slovenian, noted, a.o., by Bošković (2001); they can be proclitics or enclitics, and the clitic cluster can even be split under special conditions, as in (22). In the next section I show how this derives both standard and inverse PCC.[12]

22) ?**So** *včeraj* **ga** pretepli?
did.PL yesterday him.ACC beat.PL
'They beat him yesterday?' (Bošković 2001:162)

4.2. Deriving standard and inverse PCC

The derivation of both the standard and inverse PCC patterns assumes a GOAL » THEME base order, with Slovenian allowing optional ACC over DAT clitic movement before v^0 enters the derivation.[13] The derivation

[11] See also Stegovec (in preparation) for evidence that DAT is indeed inherent in Slovenian ditransitives.

[12] See Stegovec (2015) and Stegovec (to appear), where it is shown that apart from both the inverse and standard Strong PCC patterns, this approach also straightforwardly derives the Weak PCC, including the inverse Weak PCC pattern found with Slovenian Weak PCC speakers with the ACC » DAT clitic order.

[13] The derivation of the inverse PCC is also compatible with a free base-generation approach.

of the standard PCC, observed also in canonical PCC languages like Greek and French, is given in (23), for which I assume the same DOC structure as Anagnostopoulou (2005); the DO is the complement of V and the IO is in SpecApplP, and ApplP is the complement of v^0. Crucially, I propose that the φ-features of v^0 do not all have the same status regarding valuation; the [uπ] component of the φ-feature set on v^0 is valued, while other φ-features on v^0 distinct from [π] (henceforth [Γ]) are unvalued, hence still function as Probes (cf. **[A3]**).

23) $[_{vP}\ v^0 \quad [_{ApplP}\ \text{DAT} \quad \text{Appl}^0 \quad [_{VP}\ \text{V} \quad \text{ACC} \quad]]]$
$[\text{u}\Gamma{:}\_\_] \xrightarrow[\text{Agree}]{} [\text{i}\Gamma_{val}] \qquad [\text{i}\Gamma_{val}]$
$[\text{u}\pi_{val}] \xrightarrow[\text{value}]{} [\text{i}\pi{:}\underline{1/2/3}] \qquad [\text{i}\pi{:}\_\_] \Rightarrow [d{:}\underline{3\pi}]$

At the point v^0 enters the derivation in (23), the [uΓ_{uval}] on v^0 is unvalued and must probe, entering Agree with the closest available Goal, the [iΓ_{val}] on DAT. After Agree is established, the [uπ_{val}] on v^0 can also value [iπ_{uval}] on DAT. This follows from the assumption in (24), similar to Řezáč's (2004) *Maximize Agree*.

24) If Agree is established between X^0 and Y^0 for feature [α], *all* [F_{uval}] features on X^0 and Y^0 receive the value of matching [F_{val}] on the opposing head in the Agree chain regardless of the direction of valuation.

After this step, the [uΓ] on v^0 is now valued, hence no longer a Probe. The [iπ_{uval}] on ACC can then no longer be valued via Agree with [uπ_{val}] on v^0. ACC can thus only get a default 3π value, resulting in a standard PCC pattern. Canonical PCC languages like Greek or French only have this pattern, but the inverse pattern is also possible in Slovenian due to the clitic reordering before v^0 is merged. The derivation is given in (25).

25) $[_{vP}\ v^0 \quad [_{ApplP}\ \text{ACC} \quad \text{DAT} \quad \text{Appl}^0 \quad [_{VP}\ \text{V} \quad t_{acc}\ ]]]$
$[\text{u}\Gamma{:}\_\_] \xrightarrow[\text{Agree}]{} [\text{i}\Gamma_{val}] \quad [\text{i}\Gamma_{val}]$
$[\text{u}\pi_{val}] \xrightarrow[\text{value}]{} [\text{i}\pi{:}\underline{1/2/3}] \quad [\text{i}\pi{:}\_\_] \Rightarrow [d{:}\underline{3\pi}]$

Since in (25) ACC c-commands DAT before v^0 is merged, the [uΓ_{uval}] on v^0 must enter Agree with [iΓ_{val}] on ACC, causing the [uπ_{val}] on v^0 to also value [iπ_{uval}] on ACC. As [uΓ] on v^0 is now valued and no longer a Probe, the [iπ_{uval}] on DAT can no longer be valued via Agree, which means DAT must get a default 3π value, yielding the inverse PCC pattern. Crucially, both (23) and (25) are possible without reference to Case.

4.3. Clitic restrictions in Warlpiri and O'odham

Turning now to Warlpiri and O'odham, the derivation of the person restrictions in these languages requires no additional assumptions regarding pronominal clitic valuation. The derivation is parallel to the derivation of the PCC pattern in DAT » ACC constructions discussed in (23) above, and is illustrated in (26).

26) $[_{vP}\ v^0 \quad [_{ApplP}\ \{\ pro_{IO} \quad (\text{NP}_{IO})\ \}\ \ \text{Appl}^0 \quad [_{VP}\ \text{V} \quad \{\ pro_{DO} \quad (\text{NP}_{DO})\ \}\ ]]]$
$[\text{u}\Gamma{:}\_\_] \xrightarrow[\text{Agree}]{} [\text{i}\Gamma_{val}] \qquad [\text{i}\Gamma_{val}]$
$[\text{u}\pi_{val}] \xrightarrow[\text{value}]{} [\text{i}\pi{:}\underline{1/2/3}] \qquad [\text{i}\pi{:}\_\_] \Rightarrow [d{:}\underline{3\pi}]$

I assume DOCs are applicatives (cf. (23,25)) in both O'odham and Warlpiri, and that strong pronoun/NP doubles can optionally occur as complements to the clitics in a construction akin to the "Big DP" proposed for clitic-doubling in Romance (cf. Boeckx 2003; Nevins 2011; Uriagereka 1995). Since in O'odham there is no object case distinction, and in Warlpiri the DO can be either ABS or DAT, the derivation in (26) abstracts from case completely. The pro_{IO} c-commands pro_{DO}, so once v^0 is merged, the [uΓ_{uval}] feature on v^0 enters Agree with [iΓ_{val}] on pro_{IO}. Once Agree is established, the [uπ_{val}] on v^0 also values [iπ_{uval}] on pro_{IO}. The [uΓ] on v^0 is now valued and no longer a Probe, so the [iπ_{uval}] on pro_{DO} can no longer be valued via Agree. The pro_{DO} must thus get a default 3π value, correctly predicting the clitic patterns of Warlpiri and O'odham.

Early generative analyses of O'odham and Warlpiri assumed them to be non-configurational languages (cf. Hale 1983). But the non-configurationality hypothesis has been challenged recently, also due to Warlpiri itself (cf. Legate 2001, 2002). The analysis above can also be viewed as additional evidence for a configurational analysis of Warlpiri and O'odham, as an applicative structure where IO asymmetrically c-commands DO is needed to account for the intervention effect which gives rise to the person restriction.

4.3.1. The O'odham plural marking restriction

The analysis so far can account for all the person-sensitive clitic restrictions in O'odham. But there are also independent restrictions on the distribution of 3P plural object clitics. These additional clitic restrictions are fundamentally different from the person restriction, as they only disallow specific clitics to surface in particular constructions, and do not ban the arguments themselves from bearing specific φ-feature values.

Recall that in combinations of two 3P arguments, at most one *ha-* (3.PL.DO/IO) clitic can surface, and it can only refer to the DO (cf. (5) & Table 1). I propose the restricted distribution of *ha-* (27) is the result of an interaction of the constraints in (27a,b) which are both voided via the application of the impoverisment rule in (27c) which affects the application of *Distributed Morphology* vocabulary insertion rules at PF (Halle and Marantz 1993), without affecting the syntax or LF. The rule (27c) deletes [PL] features on DO clitics during Spell-Out to PF, thus blocking lexical insertion of *ha-*. This allows the [PL] feature of *ha-* to be present at LF, and derives why, unlike the 1P/2P clitics that are absent due to person clitic restrictions, it remains interpreted.

27) Distribution of O'odham *ha-*: 3.PL DOs are never registered on the verb in the presence of a 3P IO:

a. CONSTRAINT #1: Sequences of identical overt proclitics are dissalowed (= **ha-ha-*);

b. CONSTRAINT #2: The presence of a non-3.SG IO cannot remain morphologically unmarked;

c. IMPOVERISHMENT RULE: [PL] $\rightarrow \varnothing$ / [$_{DO}$ ___; 3P] [3P]

The **ha-ha-* constraint (27a) is reminiscent of other constraints on homophone or nearly homophone clitics: **rla-rla-* in Warlpiri, **je je* (= 3.SG.F.ACC+3.SG.SU) in Bosnian/Croatian/Serbian (Bošković 2001:103), and the "spurious *se*" (**le lo*) in Spanish (Perlmutter 1971). In all of them, the constraint is independent of other person restrictions, and is voided by morphological readjustment of one of the clitics. The constraint in (27b) might be needed in O'odham to help disambiguate elided DO and IO objects in 3.SG+3.PL pairs. In (28a,b), the *pluractionality* marked on the verb via reduplication of the stem (*ma:k* $\rightarrow$ *mamk*) can help mark the presence of a plural DO despite the lack of a plural DO clitic. But note that if the IO *ha-* were to be deleted instead of the DO *ha-*, the hypothetical agreement pattern in (28c) would be indistinguishable from (28a).

28) a. **Ha-**mamk 'añ.
3.PL.IO-giving.PL AUX.1.SG.SU
'I am/was giving them those.'

b. **Ha-**ma:k 'añ.
3.PL.IO-giving.SG AUX.1.SG.SU
'I am/was giving them it.'

c. ***Ha-**mamk 'añ.
3.PL.DO-giving.PL AUX.1.SG.SU
'I am/was giving him/her those.'

The distribution of *ha-* is also distinct from other object clitics in another way. Namely, *ha-* is the only object clitic which is allowed to occur separated from the main verb, as illustrated in (29).

29) **Ha** at ñei g Panco hegam.
3.PL.DO AUX.PERF.3.SG.SU see.PERF ART Pancho them.
'*Pancho saw them.*' (Langacker 1977:138)

This property of *ha-* might be the reason behind the fact that when it occurs with 1P/2P IO clitics as a DO, it precedes them, yielding a DO » IO surface clitic order, despite the underlying IO » DO argument structure. This could be indicating that 1P/2P clitics are more like "true" agreement prefixes than 3P clitics, and consequentially phonologically more integrated in the verbal morphological complex. A similar argument for a 1P/2P vs. 3P split has also been made for DO clitics in Spanish by Ormazabal and Romero (2013). For them 3P DO clitics in Spanish are determiner-like clitic elements, while 1P/2P DO clitics are actually agreement elements. Interestingly, the O'odham *ha-* clitic was historically also a determiner (Langacker 1977:137), but exploring such similarities and their theoretical implications in more detail will have to be left for future work.

5. Conclusion

I have argued that person-sensitive clitic restrictions in O'odham and Warlpiri are in fact instances of the PCC, despite the fact that in Warlpiri the restriction occurs with both dative and absolutive objects. I have shown, based on a previously unattested PCC pattern found in Slovenian, that independently of O'odham and Warlpiri the PCC is, contrary to its name, case-insensitive. I then proposed a new analysis where the PCC arises as a locality restriction on the valuation of the person features of the clitics themselves, by a functional head

with valued person features. This allowed us to state the difference between the Slovenian and canonical PCC patterns in terms of the presence vs. absence of an optional process which in Slovenian allows object clitics to reorder within *v*P, and to treat the clitic restrictions in O'odham and Warlpiri as the same phenomenon.

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