

The Syntax of the Person Case Constraint Drives Morphological Impoverishment of Clitics

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1. Two Kinds of Person Restrictions in Catalan

Catalan and a number of other Romance languages show two kinds of restrictions on combinations of direct and indirect object clitics. On the one hand, the *Person Case Constraint* (PCC, Bonet, 1991, 1994) bans combinations of local person direct and indirect object/dative clitics (DO and IO). On the other there are restrictions on the morphological expression of person and number discussed under the heading of *Clitic Opacity* (Bonet, 1991, 1995). For example, Baix Camp Catalan (BAC Bonet, 2002:961) bans multiple exponents of third person and plural in combinations of direct and indirect object clitics. Both third person DO and IO clitics are marked plural by /z/ and third person by /l/ (§2.1), /l(ə)(z)/ and /l(z)i/ respectively, but in combinations of the two only one third person and one plural marker appears, (1).

- (1) Les llibretes, a les nenes, [l-ə-z – i] vaig deixar ahir
the book.F.PL to the children.F.PL [3-F-PL – DAT] PST.1SG lend yesterday
'I have lent the books to the children yesterday' (Bonet, 2002:961)

Initially, both PCC and restrictions on person/number morphology were treated as morphological (Bonet, 1991, 1993, 1994, 1995; Noyer, 1997), but more recently syntactic analyses of the PCC have been pursued (e.g. Anagnostopoulou, 2003, 2005; Béjar & Řezáč, 2003; Řezáč, 2008b; Nevins, 2007) that treat the PCC as a syntactically conditioned failure of person agreement. I will show here that given the syntactic tools developed for the PCC, restrictions on person/number morphology can also be accounted for in the syntax. I will demonstrate this for two instances of clitic opacity, a ban on third person and one on plural morphology, in two dialects of Catalan that have to my knowledge not been discussed in the generative literature. The restrictions target different arguments in the two dialects, but consistently affect the clitic that is rightmost in the string. The syntactic account provides an explanation for why clitic opacity arises, which argument it affects, and why the affected argument is rightmost in the clitic string.

2. Two Restrictions on Clitic Morphology

Many dialects of Catalan show two restrictions on the morphological realization of third person clitics in combinations of direct and indirect objects clitics. First, in combinations of third person direct and indirect object clitics, only one of them surfaces with third person morphology, (2). I call this restriction the *3-3-Effect*. Second, when two plural third person clitics are combined, only one of them surfaces with plural morphology, (3). I will call this *Unique Plural Exponence* (UPE).

- (2) *3-3-Effects*: In combinations of a third person DO and a third person IO clitic, only one of them surfaces with third person morphology.
- (3) *Unique Plural Exponence* (UPE): In combinations of third person plural DO and IO clitics, only one of them surfaces with plural morphology.

Both 3-3-Effects and UPE are discussed for the Barceloní dialect of Catalan in Bonet (1995). I will discuss data from two dialects of Catalan that show 3-3-Effects and UPE, but differ on whether DO or IO surfaces without person or number. In the Baix Camp dialect (BAC, Bonet, 2002:961, §2.1), which

*I would like to thank Rajesh Bhatt, Seth Cable and Kyle Johnson for their support with this work, and Karlos Arregi, Eulàlia Bonet, Andrew Nevins, and the audiences at Stuttgart, LSA 2011, WCCFL 29 and GLOW 34 from helpful discussion of earlier versions of this work. All remaining faults are my own.

is closely related to Barceloní, 3-3-Effects and UPE affect the morphology of the indirect object. In combinations of direct and indirect object clitics, the direct object has person and plural morphology, but the indirect object does not. One dialect of the Marina Baixa (MJ, Colomina i Castanyer 1985, 1991; Todolí 1992, §2.2) on the other hand shows the reverse pattern: Indirect objects are realized with normal third person and plural morphology, and direct objects without it.

Though 3-3-Effects and UPE affect direct or indirect objects in different dialects, there is still a consistent pattern about ‘where’ they apply (§2.3). Across different dialects, the lefthand clitic surfaces with person/number morphology, and the righthand one without them, (4).

- (4) *Order and Opacity* (in Catalan): If a clitic is missing person or number morphology, it is the rightmost clitic.

3-3-Effects and UPE have the same logic: When both DO and IO are specified for the same feature, that feature is realized morphologically only once, on the left hand clitic. An account of clitic opacity on Catalan should capture these similarities. The rest of this section will present the data from the two different dialects in detail.

2.1. Opaque Indirect Objects: Baix Camp Catalan

The dialect of Baix Camp (BAC) systematically realizes DO with and IO without third person and plural features. With slight variations, the facts reported here hold for a number of Western Catalan dialects (Bonet, 2002) like the Barceloní dialect discussed in Bonet (1995). I first give an overview of the morphology of third person clitics in isolation and then show how person and number morphology fails to be expressed when the clitics are combined.

Table 1 shows the inventory of 3-clitics (Bonet, 2002). The language distinguishes two genders, masculine and feminine, on direct objects, and two numbers on direct and indirect objects. In addition, there are inanimate direct and indirect object clitics /u/ and /i/ respectively (see Rigau 1982 on the inanimate dative /i/). /u/ is traditionally called the *neuter* clitic, hence the ‘N’ in Table 1. Inanimate clitics do not show number distinctions. The morphology of Catalan third person clitics is very transparent. All dative clitics bear the marker /i/. All plural clitics are marked with /z/. Feminine is marked by [ə]. Mascaró (1986) and Bonet (1991, 1995) interpret /l/ as the morphological marker of third person.

Opacity arises when the clitics in Table 1 are combined. Combinations of third person plural DO and IO clitics, (5a) (=1)), show 3-3-Effects and UPE. The clitic string contains only one instance of the third person marker /l/ and one instance of the plural marker /z/. Instead of a transparent form like [ləz-əlzi], we find [ləz-i]. While DO appears to surface in its transparent form [ləz], IO surfaces as a bare dative case marker /i/. The clitic order is DO-IO. The presence of feminine and plural marking on DO also makes an analysis as DO deletion (like Pescarini 2005 for Barceloní) implausible.

- (5) Baix Camp:

- a. 3PL-DO+3PL-IO: 3-3-Effects+UPE.

Les llibretes, a les nenes, [ləz - i] vaig deixar ahir
 the book.F.PL to the children.F.PL [3.F.PL - DAT] PST.1SG lend yesterday
 ‘I have lent the books to the children yesterday’

- b. 3SG-DO+3PL-IO: 3-3-Effects.

La llibreta, a les nenes, [əl - zi] vaig deixar ahir
 the book.F.S to the children.F.PL [3 - PL.DAT] PST.1SG lend yesterday

‘I have lent the book to the children yesterday’ ((5a) = (1) Bonet, 2002:961)

3-3-Effects in the absence of UPE, (5b), show that the person and number features of IO can be lost separately. In combinations of a singular 3-DO and a 3PL-IO we find [əl-zi] ([ə] is epenthetic) with only one 3-marker /l/, instead of a transparent combination of DO /l/ and IO /lzi/ like [l-əlzi]. IO surfaces as [zi] with number and case marking, missing only the third person marker /l/.

	DO:			IO:
	M	F	N	
SG:	/l/	/lə/	/u/	/li/
PL:	/lz/	/ləz/	/u/	/lzi/
/l/=3, /z/=PL, /ə/=F, /i/=DAT				

Table 1: Isolate forms of 3-clitics in BAC.

Table 2 shows all clitic-combinations involving third person DOs and IOs, abstracting away from certain irrelevant allomorphy. The cells a. through h. give the transparent form to the left of the arrow, and the observed form to the right. 3-3-Effects are found throughout the clitic combinations, there is only ever one third person marker. Likewise UPE is found in both combinations of plural DOs and IOs, Table 2g/h. They contain only one plural marker /z/.

The lefthand clitic surfaces with third person and plural marking in 3-3-Effects and UPE, and the righthand one without them. This can be shown for the plural marker /z/ by examining the pattern of feminine marking. When DO is singular, feminine marking is lost, Table 2b. and f. Comparing d., f. and h. shows where the plural marker is realized in UPE. Example d. shows that when the plural marker is unambiguously associated with DO, gender marking surfaces. Conversely, f. shows that when the plural marker is unambiguously associated with IO, gender marking is absent. The presence of feminine marking in the UPE context h. indicates that the plural marker is that of DO, rather than that of IO.¹ The fact that the string /ləz/ in Table 2d. and h. also looks like the isolate form of the feminine DO clitic suggests that person is also realized on DO.

Additional support for person marking being lost on IO comes from comparing the forms in Table 2 to contexts that show the Person Case Constraint, see §3. In combinations of 3-IOs and local person DOs, Western Catalan varieties realize IO as a bare dative case marker /i/ (Bonet, 1991, 1994, 2008), similar to 3-3-Effect contexts (see Walkow t.a. for similarities and differences between PCC and 3-3-Effects). Example (6) gives an example from the Barceloní dialect. When DO is a local person clitic, it is clearly IO that surfaces without person features while DO surfaces in its normal form.

- (6) **Me** { ***li**, /i/ } ha recomanat la senyora Bofill
 me.ACC { 3.DAT, DAT } has recommended the Mrs. Bofill
 ‘Mrs Bofill has recommended me to him/her.’ (composite of Bonet, 1994:33, 48)

Taken together, the data from BAC show that the clitic order is DO-IO, and IO loses its 3- and plural-marking when both DO and IO are third person and plural.

2.2. Opaque Direct Objects: Marina Baixa Catalan

The dialect of the Marina Baixa, in particular the town of La Villa Joiosa (MJ, Colomina i Castanyer 1985, 1991, Todolí 1992:146, 155) is the mirror image of BAC: 3-3-Effects and UPE affect DO, and the clitic order is IO-DO. Again I will first discuss the clitic inventory, and then the pattern of opacity.

Table 3 shows the inventory of 3-clitics in MJ. As in BAC, DO and IO clitics share the markers for 3 and plural, /l/ and /z/. IO-clitics additionally have the dative marker /i/. Facts about gender marking are not reported in the literature. The neuter clitic is /o/ instead of /u/, and is realized as [w] in onsets and codas (Colomina i Castanyer, 1985:166). MJ lacks an inanimate IO clitic /i/.

Combinations DO and IO clitics in contexts like (5) are shown in Table 4. In combinations of a singular 3-IO and a plural 3-DO, IO surfaces transparently with a 3-marker [l], Table 4b. DO surfaces as [wz], a form found nowhere else in the language (Todolí, 1992:146), but transparently composed of the neuter clitic [w] and the plural marker /z/. Like in BAC, 3-3-Effect contexts show that the lefthand clitic surfaces in its normal morphological form, while the righthand one doesn't.

¹This pattern of preserving gender marking in clitic combinations is absent in the Barceloní dialect discussed in Bonet (1995), making it harder to discern the internal structure of the clitic cluster on the basis of that dialect.

IO:	SG:		PL:	
DO↓ Order:	DO-IO		DO-IO	
SG: M: a.	/l-li/→	[l-i]	e.	/l-lzi/→ [l-zi]
F: b.	/lə-li/→	[l-i]	f.	/lə-lzi/→ [l-zi]
PL: M: c.	/lz-li/→	[lz-i]	g.	/lz-lzi/→ [lz-i]
F: d.	/ləz-li/→	[ləz-i]	h.	/ləz-lzi/→ [ləz-i]

Table 2: Clitic combinations in BAC (/l/=3, /z/=PL, /ə/=F, /i/=DAT).

	DO:	IO:
SG:	/l/	/li/
PL:	/lz/ /o/	/liz/

Table 3: Isolate 3-clitics in MJ.

IO:	SG:		PL:	
DO↓ Oder:	IO-DO		IO-DO	
SG: a.	/li-l/	→ [li-w]	c.	/liz-l/ → [liz-o]
PL: b.	/li-lz/→	[lí-wz]	d.	/liz-lz/→ [liz-o]

Table 4: Clitic Combinations in MJ.

Table 4d. shows UPE. When both DO and IO are plural, only IO surfaces with a plural marker /z/. DO surfaces as a bare [o], without either person or number marking. Table 4 shows 3-3-Effects and UPE for all combinations of DOs and IOs. There is only ever one 3-marker /l/ and it is realized on IO as shown by dative marking. There is only ever one plural marker and it is realized on IO. The completely transparent realization of IO combined with the appearance of the DO clitic /o/ on the right shows that the clitic order is IO-DO.

While the interpretation of the opaque clitic /i/ in BAC as an exponent of dative is straight forward, it is less clear what [o]/[w(z)] in Table 4 is an exponent of. Todolí (1992) argues that the DO clitic is simply replaced by the neuter /o/. This identification is problematic, as she notes, because neuter /o/ doesn't have a plural form /oz/, the putative source of [wz] in Table 4b. If the appearance of /o/ in 3-3-Effects were the substitution of neuter /o/ for an /l/-marked clitic, one would rather expect plural marking to be absent entirely on DO. Todolí proposes that the plural [wz] was innovated by analogy to the plural /lz/. An account of [wz] as neuter /o/+ [PL], however, leads to an odd generalization about when neuter /o/ can be plural marked: Neuter /o/ can be plural marked in the context of a singular 3-IO.

I take 3-3-Effects in BAC as a role model for the interpretation of /o/ and the possibility of plural marking in 3-3-Effects. We saw in the discussion of BAC that IOs in 3-3-Effect contexts surface as the dative case marker /i/, possibly accompanied by the plural marker /z/. Analogously, I propose that the use of /o/ for opaque DOs in MJ is a reanalysis of the morph /o/ as an exponent of DO case. This exponent surfaces in two contexts: (i) as the sole exponent of the neuter clitic, and (ii) as the exponent of a normal 3-DO that has failed to check its person features. When /o/ is the exponent of the neuter clitic, it never bears number marking, presumably because the neuter clitic lacks the structure associated with number. When /o/ is the exponent of a DO that has failed to check its person features it can be plural marked, because normal DO clitics have the syntactic structure associated with plural marking. The form [wz] surfaces when a clitic that has the syntactic structure corresponding to plural and third person fails to realize third person allowing /o/ to surface. The analysis will become clearer in §4. Under this explanation of /o/, the repairs of opaque clitics are also consistent between MJ and BAC. When person and number are lost, an exponent that marks only case appears.

2.3. Clitic Order and Opacity

Despite affecting different arguments in MJ and BAC there is an important similarity between the two opacity patterns: The opaque clitic is on the right, while the transparent one is on the left. This section shows that this is stable across dialects with different, fixed clitic orders (i.e. MJ vs. BAC), across alternations in clitic orders within a single dialect, and in historical change. An account of clitic opacity in Catalan should capture this consistent transparent-opaque order of the clitics.

BAC and MJ illustrate the righthand position of opaque clitics for dialects with fixed orders of DO and IO. In all combinations of gender and number, the order is DO-IO in BAC and IO-DO in MJ, and 3-3-Effects and UPE affect the realization of person and number on the righthand clitic. In this respect, BAC is representative of a number of Western Catalan dialects (Bonet, 2002), the Barceloní dialect in Bonet (1995) being one of them.

The rightward position of opaque clitics can also be seen in dialects with alternating clitic orders, in particular certain dialects of Majorca (MA, Bonet, 1993). In these dialects clitic order alternates depending on the number specification of IO. When IO is singular, the clitic order is DO-IO. When it is plural the order is IO-DO. Opacity patterns alternate accordingly, as shown in Table 5. When IO is singular, it is IO that is realized opaquely like in BAC, Table 5a/b. DO surfaces transparently as /l(z)/, while IO surfaces without person marking as /i/. When IO is plural, it is DO that is opaque like in MJ, Table 5c/d. DO surfaces

IO:	SG:	PL:
DO↓ Order:	DO-IO	IO-DO
SG:	a. /l-li/ → /l-i/	c. /liz-l/ → /lz-o/
PL:	b. /lz-li/ → /lz-i/	d. /liz-lz/ → /lz-o/

Table 5: Clitic combinations in MA (/l/=3, /z/=PL, /i/=DAT, /o/=NEUT).

as the neuter clitic [o], whereas IO surfaces as [lz] with plural and third person marking (this dialect does not have dative case marking in 3PL-IOs). MA illustrates within one dialect what MJ and BAC demonstrate across different ones: irrespective of the order of DO and IO, the righthand clitic surfaces

without person/number features.

A third kind of evidence for the relevance of order for clitic opacity comes from historical change. Colomina i Castanyer (1991:62) reports that prior to the 18th century, MJ had the same pattern of opacity as BAC and the same clitic order. The clitic order changed to IO-DO in the 18th century, and so did the repair pattern to the forms we see in Table 4. There is thus a pressure for languages to maintain the order of transparent-opaque even across historical change.

The transparent-opaque order of clitics is a constant fact about clitic order in Catalan, and thus should be captured by an account of clitic opacity in Catalan. This constant pattern of clitic order is somewhat surprising. Bonet (1991:74) shows that the order of local person clitics and the third person reflexive/impersonal clitic *se* varies idiosyncratically from dialect to dialect. She takes this as evidence that in some languages clitic order is an essentially stipulated, morphological property. While this seems true of local person clitics and *se*, the opacity patterns show that there are consistent ordering patterns for non-reflexive third person clitics, which I argue below reflect syntactic structure in ν P. If correct, this indicates that two different factors determine the clitic order in Catalan. While the order among third person clitics reflects syntactic structure, the order of local person clitics is determined by purely morphological factors. Noyer (1997) argues that such systems where factors from different modules of the grammar determine clitic order are to be expected.

The transparent-opaque order demonstrated above is a fact about Catalan only. Clitic opacity processes also exist in Spanish (the *Spurious se Effect* of Perlmutter, 1971) and Italian (Pescarini, 2005). In both of these languages, however, the order is opaque-transparent. I will return to this in §6.

3. From the Person Case Constraint to Clitic Opacity

§3.1 lays out the assumptions that go into syntactic analyses of the PCC that treat it in terms of competition of DO and IO for the ϕ -features of ν . The part of these proposals that will drive the analysis here is that in a syntactic configuration [ν [IO [.. DO]]], IO blocks AGREEMENT between ν and DO as a function of the feature content of IO. DO will fail to AGREE with ν in the features that it shares with IO. §3.2 adapts the assumptions about the syntactic representation of third person and plural on DO and IO from PCC analyses to allow them to interact syntactically, and introduces the idea that failure of syntactic AGREE leads to absence of morphological realization. In the resulting system, syntactic structure and the syntactic representation of ϕ -features determines when arguments AGREE, and thereby when their ϕ -features are spelled out or not.

3.1. The Person Case Constraint

The PCC (Bonet, 1991, 1994) was originally observed in combinations of weak direct and indirect objects, like clitics, weak pronouns and agreement markers. In clitic systems like Catalan, the PCC bans first and second person direct object clitics in the presence of dative clitics. This is illustrated for Barceloní Catalan in (6) above for a combination of third person dative and the first person direct object.

Anagnostopoulou (2003, 2005) argues that the PCC also underlies the restriction on dative-nominative constructions in Icelandic (Taraldsen, 1995) where only third person nominatives are allowed. Like in (6), first and second person arguments in a lower position are banned in the presence of a higher dative. This led to a more general conception of the constraint as in (7). The syntactic domain α of interest for Catalan is ν P. The person probe is ν , the oblique DP₁ is IO, and DP₂ is DO.

(7) *Person Case Constraint* (PCC)

In [α Agr ... DP₁-oblique ... DP₂ ...], where α includes no other person Agr, DP₂ cannot have a marked person feature (1st/2nd, sometimes 3rd animate). (Béjar & Řezáč, 2009:46)

There are different proposals for why the structure in (7) gives rise to the PCC. The starting point for my analysis are the proposals developed by Anagnostopoulou (2003, 2005) and Béjar & Řezáč (2003) that attribute the PCC to the interference of the dative with person licensing between ν and DO. These analyses build on the proposal in Chomsky (2000 et seq.) that case licensers ν and T hosts ϕ -features (person and number), and that ϕ -AGREEMENT licenses case. Dative-nominative constructions in Icelandic, where the nominatives overtly agree with T, show that number agreement is possible across datives. The disruptive effect of the dative must then lie in the interference with person AGREEMENT:

Local person arguments are banned below datives because they fail to enter person agreement. These analyses assume that datives are visible for person, but not number agreement. To allow third person but not local person to be licensed in the absence of person agreement, these analyses give third person a special syntactic status. Béjar & Řezáč (2003) locate the special status in the licensing needs of local and third person features, (8). Third person features, they propose, can fail to be licensed without causing a crash. Instead third person arguments can be licensed by number agreement.

(8) Person Licensing Condition (PLC):

An interpretable 1st/2nd person feature must be licensed by entering into an agree relation with a functional category. (Béjar & Řezáč, 2003:53)

The derivation of PCC and its absence is illustrated in (9). The analyses assume an applicative analysis of datives (e.g. Pyllkänen, 2002; Anagnostopoulou, 2003; Cuervo, 2003), where datives are introduced in applicative phrases (APPLP) that are the complements of V. APPL⁰ also licenses case on the dative in languages like Spanish (Cuervo, 2003), which I adopt for Catalan. The absence of PCC when DO is 3 is demonstrated in (9a). *v*'s [PER] AGREES with IO's [PER], because IO is closer to *v* than DO. IO does not intervene with probing for NUM, as its NUM feature is inaccessible. NUM is checked on DO, thus licensing DO's case. Since the person feature on DO is valued as 3, it does not run afoul of (8) by not AGREEing.

- (9) a. [$v\{\text{NUM}, \text{PER}\}$ [V⁰ [IO{DAT_✓, PER:…} [APPL DO{NUM:S/P_✓, PER:3}]]]]
- b. *[[$v\{\text{NUM}, \text{PER}\}$ [V⁰ [IO{DAT_✓, PER:…} [APPL DO{NUM:S/P_✓, PER:1/2~~X~~}]]]]]]

The PCC context in (9b) differs in only one respect. DO has a [PER:1/2] feature which does not AGREE due to the presence of IO. The structure fails (8), and is ruled out.

3-3-Effects and UPE share a number of properties with the PCC. They arise in the same syntactic context, clitic pronouns in *v*P and they show a split between number and person agreement. Other similarities are in the way PCC structures are realized. Often PCC structures can be realized by changing the properties of one of the arguments. Spanish and Catalan mostly change the properties of IO, as seen in (6), but Greek (Anagnostopoulou, 2005:203) and Georgian (Bonet, 1994) change the properties of DO. Likewise, 3-3-Effects and UPE can affect the realization of IOs or DOs. Another strategy of overcoming the PCC is to move the lower argument above the dative (Anagnostopoulou, 2005; Řezáč, 2008b). I argue below that this happens in BAC. Finally, the division between local and third person that we see in the PCC aligns with a division in clitic opacity. While opacity of third person marking is well attested, opacity of local person marking is at least rare. If opacity of third person arises from failure of syntactic licensing, (8) explains this difference, as local person cannot fail to be licensed without causing a crash.

3.2. A More Granular Representation of Person and Number

The account of the PCC laid out in the previous section needs to be extended in two areas to account for 3-3-Effects and UPE: The representation of ϕ -features, and the relation between syntactic AGREEMENT and morphological realization.

The first aspect of the PCC accounts that needs to be refined is the representation of person. There are two issues: (i) the representation of third person and (ii) the representation of person on datives. Anagnostopoulou (2003, 2005) assumes that 3-DOs have no person features. In that system, 3-DOs don't trigger PCC because they have no features that could fail to be licensed. Such a system does not offer a way of accounting for the presence and absence of person morphology on DO in terms of person AGREEMENT. Instead, I follow Béjar & Řezáč (2003, 2009) and assume that third person is syntactically represented by a feature [π] on DO. Point (ii) concerns the representation of person on datives. The person features on datives have an unusual status in many languages. Datives behave like they are person marked when triggering the PCC, but are unable to value person agreement on T in Icelandic (Anagnostopoulou, 2003:270). This behavior is furthermore common to all datives independent of their actual person values. This is sometimes encoded as a *zero person*, a syntactic person feature

without a value. This unusual status is not universal though. Anagnostopoulou (2003:270) and Řezáč (2008a) argue that the accessibility of datives to agreement varies crosslinguistically pointing towards agreement with datives in Georgian and Basque. Anagnostopoulou (2005) and Nevins (2007) make similar arguments based on PCC phenomena in a variety of languages. In Walkow (t.a.), I argue based on PCC phenomena in Barceloní Catalan that the person features of datives are syntactically accessible at least to the point of distinguishing third and local person. I assume the same here for BAC and MJ.

The parallelism between UPE and 3-3-Effects suggests that they should be derived in the same way. In current terms much of this parallelism resides in the accessibility of the features on DO and IO to agreement with *v*. Accordingly, I assume that number features are accessible on IO as well as DO unlike what is assumed in (9). Below, I will refine the representation of number to a privative representation where only plural is represented similar to Nevins (2010).

The final ingredient is the link between person AGREEMENT, *licensing* in the terms of (8), and morphological realization. The link comes from Chomsky’s (1995) proposal that the syntactic relations between features make them visible to the interfaces. Thus AGREEMENT with *v* makes the ϕ -features of pronouns visible to PF-processes like lexical insertion. Conversely, ϕ -features on pronouns that fail AGREE will not be visible to lexical insertion and won’t be morphologically expressed. For convenience and to make the close relation between syntactic AGREE and lexical insertion clear, I state the lexical insertion rule in (10) in terms of syntactic features.

- (10) Lexical insertion rules for MJ:
- | | | | |
|-----------------------------------|----------------|-----------------------------------|------------------|
| a. $[\pi] \rightarrow /l/$ | (third person) | c. $[\text{PL}] \rightarrow /z/$ | (plural) |
| b. $[\text{DAT}] \rightarrow /i/$ | (dative) | d. $[\text{ACC}] \rightarrow /o/$ | (accusative, MJ) |

4. Deriving Opaque Direct Objects

Combining the assumptions about features in §3.2 and the syntactic structure in (9) gives the first attempt at deriving 3-3-Effects and UPE as in Figure 1 (‘✓’ marks licensed features). The lexical verb is omitted here and below to reduce clutter. Both DO and IO are plural as well as third person, as in Table 4d, where both 3-3-Effects and UPE obtain. *v* AGREES with IOs $[\text{PL}]$ - and $[\pi]$ -features because IO c-commands DO. IO’s features are spelled out according to the rules in (10), giving the correct form /liz/. DO’s ϕ -features fail to AGREE and remain without spell-out. The structure in Figure 1 is a first approximation to the opacity pattern in MJ. When both DO and IO are 3 and plural, the clitic string surfaces as [liz-o], Table 4d., where IO has both person and number features and DO lacks both.

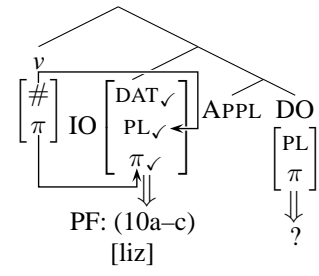


Figure 1: Derivation for Table 4d. first attempt.

While Figure 1 correctly predicts the absence of person and plural marking on DO, it raises problems in the syntax as well as at PF. In the PCC proposals I started from, checking number on DO licenses DO’s case. If DO AGREES in neither person nor number, something else needs to do the work of syntactically licensing DO. The problem at PF is related: if none of DO’s features AGREE, nothing can be spelled out. This leaves open why we see [o]. These problems are connected, as I argued above that [o] on MJ is the realization of DO case.

What I propose then is that ϕ -agreement and case licensing happen independently of one another in this context. Similar to Koizumi (1995) and Cuervo (2003:98), I assume that there is a case assigning head (H) different from *v* above IO but below *v*: [*v*... H... IO... DO]. This allows a derivation of [liz-o], Table 4d., as in Figure 2. H is merged above IO, and assigns case to DO. IO does not intervene with this relation because it has inherent dative. This solves the two problems from above: DO’s case is licensed in the syntax, which provides a feature that can be realized at PF as [o]. The relation between *v* and IO is unaffected.

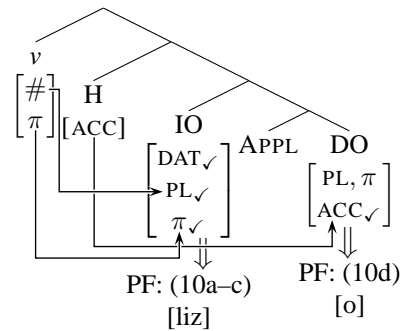


Figure 2: Derivation for Table 4d. second attempt.

The derivation in Figure 2 provides an account of UPE, but raises questions about locality interactions of number when IO is singular. Table 4b., [lí-wz], shows that DO can be marked plural as long as IO is singular. If number were a binary feature, say [\pm PLURAL], a singular feature [$-$ PLURAL] on IO should block AGREEMENT with plural DOs in the same way [PL] does in Figure 2. DO should never bear plural marking, contrary to fact. This problem can be resolved by representing number by a privative feature [PL(URAL)], and giving singular no syntactic representation (for the similar proposals based on different facts see Kratzer, 2008; Nevins, 2010). This allows ν to probe past singular IOs and check [PL] on DO. This analysis treats UPE as an instance of *Omnivorous Number* (Nevins, 2010).

5. Deriving Opaque Indirect Objects

An analysis of BAC based on the system in §4 has to account for two things: the reversed clitic order and the changed pattern of opacity. Both of these can be effected by a single change to the system: case related movement of DO to H.

Which argument is opaque is determined by which argument is closest to ν when ν is merged. To give ν access to DO before IO, DO needs to be above IO when ν is merged. I propose that this is the case in BAC and dialects like it as the result of case related movement of DO to H. Case related movement of DO above IO is independently supported by the word order outside the clitic domain. Cuervo (2003) shows that Spanish double object constructions underlyingly have [IO [APPL DO]]-structure, but DO-IO surface order. She proposes the surface order is brought about by case related movement of DO. BAC is similar in that DO-IO is the basic order of non-pronominal arguments. It seems plausible then to assume that the DO-IO order in the clitic domain also arises from such movement.

With these assumptions in place, the BAC patterns in Table 2g/h. can be derived as in Figure 3. The first relevant step in the derivation is that H moves DO into its specifier and assigns it [ACC]. In the next step, ν AGREES with the [π]- and [PL]-features on DO. Since all of ν 's features have AGREED in this step, neither [π] nor [PL] on IO can AGREE. When the structure is shipped off to the morphology, 3- and plural markers are inserted for DO but only a dative-marker for IO. 3-3-Effects and UPE arise on IO due to case driven movement of DO.

The interaction of case-driven movement and person licensing in Figure 3 extends to the PCC in BAC and other dialects like it. Case driven movement of DO derives the DO-IO order in (6), and Walkow (t.a.) shows how a system where the person probe accesses DO before IO accounts for the realization of 3-IOs as /i/ in PCC contexts. Like in Figure 3, all of ν 's person features AGREE with DO, leaving none for IO. In combination with (8), this correctly constrains the realization of IO as /i/ to contexts where it is third person. In effect, case related movement of DO affords BAC a way of overcoming the PCC. Its strategy of moving DO closer to the person licenser ν resembles the strategy in Icelandic of moving nominative objects closer to T.

6. Deriving Transparent-Opaque Order

The syntactic structure combined with c-command as a locality condition on AGREE (Chomsky, 2000:122) predicts that if a clitic is c-commanded by another clitic with the same features at the point that ν is merged it will fail to license its ϕ -features. Following the proposal in Kayne (1994) and much subsequent work, c-command in the syntax translates into linear precedence once linear order is imposed on the structure in the post-syntactic component. The transparent-opaque order then reflects the syntactic structure in ν P as derived in Figures 2 and 3. In other languages, later syntactic, morphological or phonological operations might change the order of the clitics (Noyer 1997, see §2.3). Such operations

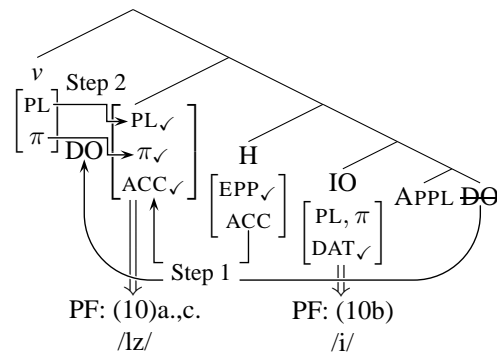


Figure 3: Derivation for Table 2g/h.

would have to explain the opaque-transparent orders found in Spanish and Italian.

References

- Anagnostopoulou, Elena (2003). *The Syntax of Ditransitives, Evidence from Clitics*. Mouton de Gruyter, Berlin.
- Anagnostopoulou, Elena (2005). Strong and weak person restrictions, a feature checking analysis. Heggie, Lorie & Francisco Ordóñez (eds.), *Clitic and Affix Combinations*, John Benjamins, Amsterdam, 199–235.
- Béjar, Susana & Milan Řezáč (2003). Person licensing and the derivation of PCC effects. Pérez-Leroux, Ana-Teresa & Yves Roberge (eds.), *Romance Linguistics: Theory and Acquisition*, John Benjamins, Amsterdam, 49–61.
- Béjar, Susana & Milan Řezáč (2009). Cyclic agree. *Linguistic Inquiry* 40:1, 35–73.
- Bonet, Eulàlia (1991). *Morphology After Syntax: Pronominal Clitics in Romance*. Ph.D. thesis, MIT, Boston, Mass.
- Bonet, Eulàlia (1993). 3rd person pronominal clitics in dialects of Catalan. *Catalan Working Papers in Linguistics* 3:1, 85–111.
- Bonet, Eulàlia (1994). The person-case constraint: A morphological approach. *The Morphology-Syntax Connection*, no. 22 in MIT Working Papers in Linguistics, MIT Press, Boston, Mass. 33–52.
- Bonet, Eulàlia (1995). Feature structure of Romance clitics. *Natural Language & Linguistic Theory* 13, 607–647.
- Bonet, Eulàlia (2002). Clitització. Solà, Joan, Maria-Rosa Lloret, Joan Mascaró & Manuel Pérez Saldanya (eds.), *Gramàtica del Català contemporani*, Editorial Empúries, Barcelona, vol. 1, 933–989.
- Bonet, Eulàlia (2008). The person-case constraint and repair strategies. D’Alessandro, Roberta, Susann Fischer & Gunnar Hrafnbjargsson (eds.), *Agreement Restrictions*, Mouton de Gruyter, Berlin, 103–128.
- Chomsky, Noam (1995). *The Minimalist Program*, vol. 28 of *Current Studies in Linguistics*. MIT Press, Cambridge, MA.
- Chomsky, Noam (2000). Minimalist inquiries. Martin, Roger, David Michaels & Juan Uriagereka (eds.), *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, MIT Press, Cambridge, MA, 89–155.
- Colomina i Castanyer, Jordi (1985). Alguns casos de variació morfològica en valencià meridional alacantí. *L’Alacantí, un estudi sobre la variació lingüística*, Institut d’Estudis ‘Joan Gil-Albert’, Alacant.
- Colomina i Castanyer, Jordi (1991). *El valencià de la Marina Baixa*. Estudis del Valencià Actual, Generalitat Valenciana, València.
- Cuervo, María Cristina (2003). *Datives at Large*. Ph.D. thesis, MIT, Cambridge, MA.
- Kayne, Richard S. (1994). *The Antisymmetry of Syntax*, vol. 25 of *Linguistic Inquiry Monographs*. MIT Press, Cambridge, MA.
- Koizumi, Masatoshi (1995). *Phrase Structure in Minimalist Syntax*. Ph.D. thesis, MIT.
- Kratzer, Angelika (2008). One the plurality of verbs. Dölling, Johannes, Tatjana Heyde-Zybatow & Martin Schäfer (eds.), *Event Structures in Linguistic Form and Interpretation*, de Gruyter, Berlin, New York.
- Mascaró, Joan (1986). *Morfologia*. Enciclopèdia Catalana, Barcelona.
- Nevins, Andrew (2007). The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25, 273–313.
- Nevins, Andrew (2010). Multiple agree with clitics: Person complementarity vs. omnivorous number. MS, UCL.
- Noyer, Rolf (1997). *Features, Positions and Affixes in autonomous morphological structure*. Garland Publishing, New York and London.
- Perlmutter, David M. (1971). *Deep and surface structure constraints in syntax*. Holt, Rinehart and Winston, New York.
- Pescarini, Diego (2005). Types of syncretism in the clitic system of Romance. *International Journal of Basque Linguistics* 285–300.
- Pylkkänen, Liina (2002). *Introducing Arguments*. Doctoral dissertation, Massachusetts Institute of Technology.
- Rigau, Gemma (1982). Inanimate indirect object in Catalan. *Linguistic Inquiry* 13:1, 146–150.
- Taraldsen, Knut Tarald (1995). On Agreement and Nominative Objects in Icelandic. Haider, Hubert, Susan Olsen & Sten Vikner (eds.), *Studies in Comparative Germanic Syntax*, Kluwer Academic Press, Dordrecht, 307–327.
- Todolí, Júlia (1992). Variants dels pronoms febles de 3^a persona al País Valencià: regles fonosintàctiques i morfològiques subjacents. *Zeitschrift für Katalanistik/ Revista d’estudis catalans* 5, 136–160.
- Řezáč, Milan (2008a). Phi-agree and theta-related case. Harbour, Daniel, David Adger & Susana Béjar (eds.), *Phi-Theory: Phi features across interfaces and modules*, OUP, Oxford, chap. 4, 83–129.
- Řezáč, Milan (2008b). The syntax of eccentric agreement: The person case constraint and ansolutive displacement in basque. *Natural Language & Linguistic Theory* 26, 61–106.
- Walkow, Martin (t.a.). Person effects and the representation of third person. An argument from Barceloní Catalan. *Selected proceedings of Going Romance* 23.