Contrastive Specification of Person on Syntactic Arguments

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In modeling the effects of the Person-Case Constraint (PCC), a common claim is that 3rd person "is not a person". However, while this claim does work in the syntax, it creates problems in the morphology. For example, characterizing the well-known "spurious *se* effect" in Spanish simply cannot be done without reference to 3rd person. Inspired by alternatives to underspecification that have emerged in phonology (e.g. Calabrese 1995), a revised featural system is proposed, whereby syntactic agreement may be relativized to certain values of a feature, in particular, the contrastive and marked values. The range of variation in PCC effects is shown to emerge as a consequence of the parametric options allowed on a Probing head, whereas the representation of person remains constant across modules of the grammar and across languages.

1. Introduction: Third Person is a Person, too!

This study is an attempt to provide featural commensurability between syntactic researchers working on Person-Case effects (Bonet 1991) and morphological researchers working on syncretisms and paradigm structure. A simple example illustrates the problem: Modern Greek and Catalan do not tolerate two 1/2 arguments of a ditransitive verb (the strong PCC), and Spanish does not tolerate a 3rd person dative along with a 1/2 accusative. Taking Anagnostopoulou's (2004) account (to which this paper owes enormous intellectual debts) as an exemplar, we can model the PCC effects as the result of a difference in the featural representation between 1/2 and 3rd person arguments. A common claim is that 3rd person "is not a person" Kayne (2000). However,

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while this claim does work in the syntax, it creates problems in the morphology. For example, characterizing the well-known "spurious *se* effect" in Spanish (Bonet 1995, Perlmutter 1971) simply cannot be done without reference to 3rd person. We must therefore seek a featural characterization of 3rd person that does not rob it of its ability to condition ***le lo*** effects. Moreover, as Bianchi (2004) points out, French 3rd person pronouns differ sharply from non-pronominal DPs in that, like all pronouns, they can be clitic doubled; removing 3rd person of a person feature renders this distinction uncharacterizable.

We will henceforth call proponents/analyses based on the "3rd person has no person feature" view the **3noP** view (see Adger and Harbour (2004), Anagnostopoulou (2004), Bejar and Rezac (2003), Harley and Ritter (2002).[1] In the next section, I will provide a demonstration, based on evidence from Spanish clitic interactions, that 3noP cannot be upheld.

2. Spurious *se* in Spanish: ***me lui*** meets ***le lo***

Spanish has a system of pronominal clitics that may be marked for case, person, number, and gender. These clitics occur in a cluster that is usually immediately preverbal, except in imperatives, in which case it is immediately postverbal. A partial inventory is given below:

(1) Partial Clitic inventory:
me: 1st person dat/acc
te: 2nd person dat/acc
lo: 3rd acc masc
la: 3rd acc fem
le: 3rd dat masc/fem
-s: plural on any 3rd person, e.g. los, las, les

Clitic doubling of left-dislocated arguments may occur for both accusative (2) and dative (3) arguments:

(2) El premio, lo dieron a Pedro ayer
the prize, 3rd-acc gave-pl to Pedro yesterday
"The prize, they gave to Pedro yesterday"

(3) A Pedro, le dieron el premio ayer
to Pedro, 3rd-dat gave-pl the prize yesterday
"To Pedro, they gave the prize yesterday"

However, there is an important constraint. 3rd dat and 3rd acc cannot occur together (4). When a dative and an accusative argument require clitic doubling, the first clitic (the dative) undergoes morphological change, resulting in an opaque form **se** (an existing clitic used for reflexive, reciprocal, impersonal, and a variety of other constructions). Hence, instead of the expected sequence *le lo* (4), what results instead is the sequence *se lo* (5). This effect has been called "the spurious se" by Perlmutter (1971), since the repair to the disallowed 3rd-3rd sequence is substituion of a clitic which doesn't otherwise belong (*se* is probably chosen because it bears some phonological similarity to *le*, and preserves the clitic status of the original position while only minimally altering the morphosyntactic contribution. See Bonet (1991) for extensive discussion).

(4) *A Pedro, el premio, le lo dieron ayer
to Pedro, the prize, 3rd-dat 3rd-acc gave-pl yesterday

(5) A Pedro, el premio, se lo dieron ayer
to Pedro, the prize, se 3rd-acc gave-pl yesterday

Though there are a variety of proposals for modeling the structural change of this rule (e.g., insertion of the "least marked" clitic, feature deletion, etc.), our focus here is on the *structural description* of the rule: the triggering environment. We can view this essentially as a dissimilation rule:

(6) Delete/alter the features corresponding to 3rd person on a dative when it precedes another 3rd person

We may briefly note and dismiss here the possibility of alternative formulations that do not refer to third person.[2]

(7) "Always delete/alter dative realization in a clitic cluster, except when there is a participant feature somewhere in the clitic cluster":

This won't work, because a lone 3rd person dative is fine (cf. (3)).

(8) "Always delete/alter dative realization when there is *more than one* clitic in a sequence, except when there is a participant feature elsewhere in the clitic cluster"

This won't work, because when the dative 3rd clitic is second in a cluster (e.g., following an impersonal *se*), nothing happens: *Se les da los honores a los generales*, '(Somebody) gives honors to the generals' (Perlmutter 1971:33).

(9) "Always delete/alter dative realization when there is *more than one* clitic in a sequence and it is *the first clitic* in the sequence, except when there is a participant feature elsewhere in the clitic cluster"

This works. However, due to the fact that 3rd person clitics always follow 1st person, 2nd person, and impersonal/reflexive *se* clitics, the **only** time that a 3rd person clitic will be first in a sequence of two or more clitics will be when it precedes an accusative 3rd person clitic, which is precisely the environment for the rule in (25). In other words, the quantifier "always" in the statement in (9) is deceptive, as it makes it look like this is a general deletion rule of Spanish, subject to the exceptions stated. However, given all of the exceptions that are needed to make it accurate, (9) becomes nothing more than a cumbersome restatement of a deletion rule that applies only in the exact same environment as (25). (9) is thus

rephrased as (10):

(10) Delete/alter the features corresponding to 3rd person on a dative when it precedes another clitic, and there is no participant feature in the clitic it precedes, i.e. $\neg\exists$ [Participant] in the second clitic

(Incidentally, one cannot rephrase (10) as "*le* only occurs when immediately preverbal, otherwise it is spelled out as *se*", because clitic ordering remains the same even in imperatives and in infinitives, when all clitics are postverbal. Thus, it is not true that *le* is immediately adjacent to the verb, either, as *¡escapa te le!* 'escape from him!' and *¡entregatele!* 'give yourself up to him!' are grammatical.) Thus, the negative existential quantification in (10) becomes almost equivalent to saying "Delete when there is a [-Participant] feature in the neighboring clitic". However, it is couched as a sort of "licensing statement" which is somewhat bizarre: why should deletion of 3rd person be "saved" by the presence of [Participant] later in the cluster? On the other hand, the dissimilation rule in (25) is straightforward: the presence of two identical adjacent person feature specifications is illicit. The dissimilation rule falls into line with a number of formally identical rules in natural language, such as those identified by the Obligatory Contour Principle (Leben 1973), the Double-ing filter (Ross 1972), and, most importantly, the set of clitic constraints on p.44 of Perlmutter 1972 for Spanish that generally ban adjacent person specifications in a clitic cluster (recall that dative and accusative are syncretic for 1st & 2nd person in Spanish, and note that *nos* is the 1st plural clitic):

(11) *te te, *me me, *nos nos, *me nos, *nos me

Returning to our focus here, the **le lo* constraint, we repeat its structural description below:

(12) Delete/alter the features corresponding to 3rd person on a dative when it precedes another 3rd person

Perlmutter 1971 (p.22) formulates a general set of co-occurrence filters based on the prohibition of adjacent 3rd person clitics[3]:

(13) *le lo, *les lo, *le los, *le la, *le las, *les lo, *les los, *les la,*les las

The importance of (12) for the present discussion is that it clearly requires reference to 3rd person, and cannot be formulated if 3rd person has no representation in the grammar.

At this point I will make a brief diversion to address one other alternative analysis for the *spurious se* condition, which I will show to be untenable. An inspection of reveals that only 3rd person clitics are contrastive for Case; both 1st and 2nd person clitics have syncretic forms for Dative and Accusative. Thus, an interesting possible alternative dissimilation rule to (25) would be the following:

(14) Delete/alter the Case (and possibly other) features on a clitic with contrastive Case-marking when it precedes another clitic with contrastive Case-marking

The formulation in (14) does not refer to 3rd person at all; only to the facts of Case contrastiveness (see Laenzlinger (1998:151-156) for a related idea).[4] However, the problem is that we can find dialects of Spanish in which *Case is not contrastive among 3rd person clitics for animate arguments*: namely, the *leísmo* dialects of Northern Spain. For *leístas*, sentences such as (15), in which the clitic *le* is used to double an accusative argument, are perfectly grammatical.

(15) Le/*lo mataron a Pedro
Le/*lo killed-3pl A Pedro
"They killed Pedro" (Leísta Spanish)

(16) Le/*lo vi a-l professor ayer
Le/*lo saw A-the professor yesterday
"They saw the professor yesterday" (Leísta Spanish)

Thus, in the words of Franco and Huidobro (2004:p.219), "Mainstream *leísta* dialects involve a neutralization of the Accusative-Dative clitic Case distinction when the referent is animate". In addition, these speakers obey the standard specificity restriction on clitic doubling of an accusative argument that holds for direct objects in Spanish (Bleam 1999). Thus, *le* cannot double a negatively-quantified direct object, nor cannot it double a bare plural.

(17) Juan no (*le) conoció a nadie
Juan neg (*3rd) met-past.3rd A nobody
"Juan didn't meet anyone" (Bleam 1999: p.49)

(18) Juan (*les) ha conocido a lingüistas
Juan (*3rd) has met A linguists
"Juan has met linguists" (Bleam 1999: p.49)

However, for these same speakers, when *le* is doubling an indirect object, the specificity restriction does not hold.

(19) Marta no le envió su tesis a nadie
Marta neg 3rd send-past.3rd her thesis A nobody
"Marta didn't send her thesis to anybody" (Bleam 1999:p.49)

Thus, it seems that the correct conclusion is that *leísmo* Spanish has an identical syntax to Standard Spanish with respect to the syntax of clitic doubling. When a direct object is doubled, it must be specific, whereas indirect object clitics do not require specificity of their doubled argument. Thus, the *syntax* of clitic doubling in *leísmo* Spanish is identical to Standard Spanish; the only difference lies in the morphological features specified in the clitics. In (20), I provide a partial list of the Vocabulary Items of *leísmo* Spanish:

(20) *L eísmo* Partial Clitic inventory:
me: 1st person dat/acc

te: 2nd person dat/acc
le: 3rd person dat/acc lo: 3rd acc [-animate] masc
la: 3rd acc [-animate] fem
-s: plural on any 3rd person, e.g. los, las, les

A brief note is required on the above table. I have suggested that *lo* is specified for [-animate] arguments, while *le* is underspecified for animacy. This is because even in *leísmo* dialects, *le* can double an inanimate argument when it is the indirect object:

(21) Le pusé azucar a-l pastel
3rd put-past.1sg sugar A-the cake
"I put sugar on the cake"

Thus, it is arguably only *lo* and *la*, which are specified as being both [-animate] and accusative, that make gender distinctions in *leísmo* Spanish. Having gone to all of these lengths to establish the clitic inventory of *leísmo* Spanish and demonstrate that dative and accusative are syncretic for 3rd person [+animate] arguments, it remains to show that *leísmo* Spanish still shows the *spurious se* effect. And indeed, it does:

(22) *A Pedro, el premio, le lo dieron ayer
to Pedro, the prize, 3rd-dat 3rd-acc gave-pl yesterday
(Leismo Spanish; judgements due to S. Huidobro, I. Ortega-Santos)

(23) A Pedro, el premio, se lo dieron ayer
to Pedro, the prize, se 3rd-acc gave-pl yesterday
(Leismo Spanish; judgements due to S. Huidobro, I. Ortega-Santos)

Thus, the Case-contrastiveness hypothesis (repeated below) cannot be maintained, as speakers for whom *le* is not contrastively specified for Case still show the *spurious se* effect.[5]

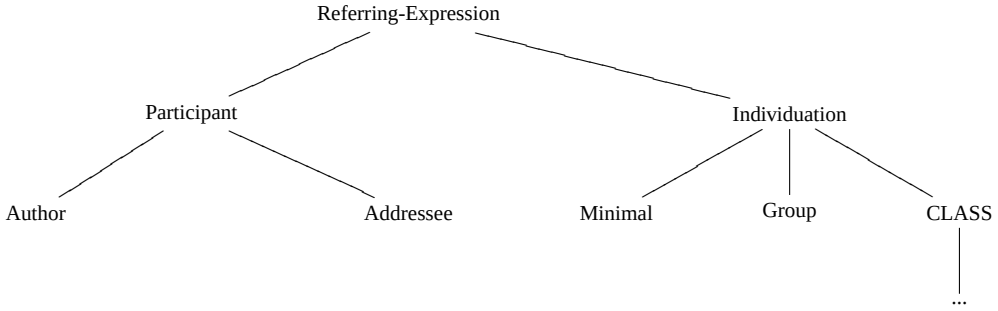
(24) Delete/alter the Case (and possibly other) features on a clitic with contrastive Case-marking when it precedes an-

other clitic with contrastive Case-marking

Instead, the rule for *leísmo* Spanish seems to be the same as that for Standard Spanish, repeated below.

(25) Delete/alter the features corresponding to 3rd person on a dative when it precedes another 3rd person

Having empirically established the importance of reference to 3rd person, we return to its theoretical implications. One of the most recent instantiations of the "3noP" view within an explicit representational proposal is the geometry of Harley and Ritter (2002):



Harley & Ritter's geometry has been widely adopted due to the important formalization of implicational relations represented by the geometry: that dual number (represented by activation of both [Minimal] and [Group]) requires the presence of singular and plural in the number inventory, and that inclusive-we (represented by activation of both [Author] and [Addressee]) requires the presence of both 1st and 2nd person in the number inventory. These and other of Greenberg's generalizations (e.g., that gender agreement implies number agreement) are captured by the structure of the geometry (where vertical lines represent dominance relations which can essentially be traced upwards to form implicational statements). The geometry is one in which features are privative rather than binary, and hence, there is no explicit representation of the negative value of a feature. Thus, rather than a representation

of 3rd person as, say, [-Participant], the geometry encodes this through literal absence of a Participant node. This representation of featural contrasts follows the "underspecification" approach to the unmarked member of a contrast, which is widely encountered in the phonological literature (e.g., Archangeli (1984), Avery and Rice (1989)).

The representation of two adjacent 3rd persons in this sort of feature geometry (or in fact, any among the 3noP view, although H&R are the most explicit) is as follows. Note that [Referring-Expression] is the feature that roots any pronominal or agreement node, and hence is not unique to 3rd person – in fact, the representation below, of two adjacent [Ref-Exp] nodes, will be present in every sequence of adjacent clitics.

(26) H&R Representation of two adjacent 3rd persons:
[Referring-Expression] [Referring-Expression]

The immediate question that thus arises is, how can one state a dissimilation rule (or a context-sensitive impoverishment rule) on (26) that will cause feature-alteration of the first clitic **only** when the second clitic is "3rd person"? (Moreover, how to distinguish 3rd person from "se" and other reflexives/impersonals? We return to this issue at the end of the paper.).

There is one other recent demonstration of the fact that 3rd person must be referred to by the morphology, due to Trommer (2004). Trommer presents an analysis of agreement morphology in Menominee. Briefly, there is a set of morphemes in the independent order (the main paradigm) that are crucially sensitive to whether there is a 3rd person argument or not. If there is no third person argument, then the morpheme *-m* is inserted (e.g. *ke-pose-**m***, 'you embark'); but if there is at least one third person argument, then the morpheme *-w* is inserted (e.g. *pose-**w***, 'he embarks'; *ne-nan-ek-**w***, 'he fetches me'; *ne-nan-a-**w***, 'I fetch him'). Summarizing the pattern:

(27) *Menominee Independent Order suffix*:
Both arguments [+Participant]: *-m*
One argument [+Participant], one argument [-Participant]: *-w*
Both arguments [-Participant]: *-w*

As *-m* occurs in the mixed case of a [+Part] and [-Part] argument, there is no way to make it the "elsewhere" suffix and avoid specification for it. Rather, it looks like *-m* is specified as the suffix if there is a [-Participant] argument, and *-w* is the elsewhere suffix (I am operating within standard assumptions here in holding that morphological realization has the ability to match features by existential quantification, but does not have access to predicates like "exactly one" instance of a feature).

As the Person Case effects are often called **me lui* effects, and seem to require that 3rd person lack representation of person, while the spurious *se* effects are, in effect, a ban on **le lo* that requires reference to 3rd person, I call this the "**me lui* meets **le lo*" problem (note that both effects can be found in the same language, as Spanish has PCC effects). The general question that all proponents of the 3noP view must face, then, is the following: if the feature defining "3rd person" is literally **absent** from the representation, how can one state a morphological rule that crucially depends on its presence?

Here, it may be useful to draw on a quotation by Will Rogers: "Nothing you can't spell will ever work". The conclusion that the *spurious se* facts inevitably yield is that 3rd person must have a featural representation of Person beyond "nothing".

3. Contrastive Visibility: Phonological Parallels

This problem has reared its head before in the study of phonological representations. Much like in syntax, underspecification was pursued as an attempt to "make invisible" or render deficient those objects which behaved differently (Archangeli 1984). How-

ever, immediate problems arose. Consider the plight of coronal underspecification: many researchers attempted to treat coronals as underspecified for place, due to their transparency in assimilation phenomena. However, McCarthy and Taub (1992), Mohanan (1991) and Steriade (1995) pointed out a number of problems for underspecification in phonology, exactly parallel to the dilemma above: while underspecification made a feature F invisible for process X, it turns out that feature F is *required* to state the environment for some other process Y. The solution to this problem came with Calabrese (1995), who proposed that it is not F which is underspecified, but X and Y which are relativized in their domain of visibility. More specifically, Calabrese proposed that rules may be parametrized to include reference to *all values, only contrastive values, or only marked values*. Calabrese's idea is that the invisibility of non-contrastive values on certain segments is part of the *conditions of a particular rule*, but *not part of the inherent representation of those segments*, since *other rules may in fact have to refer to the presence of those values*. Let's consider a case study, based on the behavior of Finnish vowels. Finnish has the inventory in (28), for both short and long vowels.

(28) Finnish inventory

[-back,-rd]	[-back, +rd]	[+back, +rd]	[+back,-rd]	
i	ü	u		[+high, -low]
e	ö	o		[-high, -low]
ä			a	[-high,+low]

Finnish is famous for its vowel harmony, whereby suffixes must agree in [± back] with the root vowels (see, e.g. Ringen (1975). However, a well-known exception is the transparency of [-low,-back,round] vowels in harmony. Thus, in a word such as ***k*o*ti*-n*a*** 'home-essive', the essive suffix takes the [+back] form *-na* (rather than *-nä*), because of the [+back] root vowel *o* in the first syllable of the root. The high front vowel *i* is ignored for the purposes of computing the harmonic value of the suffix. Based on (28), some researchers have proposed that /i/ is underspecified for

[back] throughout the phonology, hence literally invisible at the point at which harmony applies. This solution achieves the goal of making all harmony essentially local, as the representation by hypothesis does not contain a [-back] value for *i* until after harmony is computed.

A problem is caused by depriving /i/ of its [-back] feature, however: the well-known rule of Finnish assibilation (Kiparsky (1973)) turns a coronal stop into a fricative before *i*, as shown in (29) (This rule is subject to further conditions, as discussed extensively by Anttila (2003), who points out the important role of metrical conditioning.):

(29) a. t → s / _ [-round,-back,+high]
b. /tilat-i/ 'order-PAST' → [tilasi]

The process in (29) can be understood as having a phonological basis in the fact that [+high, -back] vowels often cause palatalization and lenition of obstruents, in particular, *t* to *s*, with *president*∼*presidency* as a well-known example of spirantization in English, beside a host of other crosslinguistic examples, e.g., affrication of coronal stops before high front vowels in Brazilian Portuguese. However, if Finnish /i/ literally lacks [-back], assibilation cannot be characterized in these terms, because the conditioning feature is (by hypothesis) literally absent from the representation. Thus, while depriving /i/ of [-back] does work in making it invisible for harmony, such a representation leaves it puzzling why that same vowel should trigger assibilation. The proper solution, then, is one in which /i/ is fully specified for [-back] *throughout* the phonology, but different processes (e.g. harmony) are sensitive to what values of a feature will participate in the process. In this case, as /i/ is noncontrastive for the feature [back] (since there is no other [+high,-round] vowel in the inventory to distinguish it from by backness), one can understand Finnish suffixal harmonic alternations as restricted to conditioning by contrastive values of [back][6]; see Nevins (2004) for an application of this proposal to

Finnish, based on Calabrese's original (1995) proposal that, given full specification of segments, syntagmatic processes may still be restricted/relativized in their access to certain values of a feature.

A similar case in which underspecification of a feature for one process leads to analytic problems in understanding a separate process which relies on that feature can be found in relation to "coronal underspecification" in English. Coronal underspecification was proposed to account for phenomena such as postlexical assimilation (e.g. *hot cakes* → *hock kakes*). But coronals must be referred to in **early** levels of phonology, to rule out e.g. **tl* sequences, and to state a constraint on *ju* nuclei in stressed syllables in American English (e.g. *butte, cute, mute, 'tute, tune* → [bjut, mjut, kjut, *tjut,*tjun]). Thus, whatever the correct understanding is of why coronals allow postlexical place assimilation, it is not to be found in depriving them of the feature [coronal] in their representation. A possible solution within Calabrese's parametrized approach to feature values is that postlexical assimilation cannot alter *marked* values of [coronal] (by hypothesis, negative values of coronal), whereas morpheme structure constraints refer to all values of [coronal].

Thus, the **le lo* meets *me lui* problem is, in some sense, familar from other areas of the grammar: while it is tempting to underspecify a given grammatical object, e.g., 3rd person, in explaining its apparent exclusion from person agreement in Multiple Agree configurations, it is nonetheless needed to condition a dissimilation rule in morphology. The proposed solution for 3rd person then, is to adopt Calabrese's model of parametrized visibility for person features in the syntax. One immediate consequence, however, of adopting this model is that person and number features must be binary (contra Harley and Ritter (2002); see Trommer (2004) for a similar conclusion), given any formulation of a definition of contrastiveness in a system without underspecification Nevins (2004).

4. Person Features, Representations, and Definitions

In this section, we move towards an alternative to the 3noP view that will still allow for a syntactic and morphological distinction between 1/2 person on the one hand, and 3rd on the other.

4.1 Person Representations

Given the binary feature [Participant], where a positive value denotes that the referring expression contains one of the discourse participants, and the binary feature [Author], where a positive value denotes that the referring expression contains the author, person features will be represented as follows (I adopt these features from Halle (1997)):

(30) 1st person = [+Auth,+Part]
2nd person = [-Auth,+Part]
3rd person = [-Auth, -Part]
"4"/excl.we = [+Auth, -Part] (when found)

These featural assignments represent the possibilities for natural language. Nonetheless not all languages have identical pronoun inventories (this was one of Harley & Ritter's original motivations). Thus, in a language that does not have a "4th person" (the term is due to Hale (1973), who uses it for pronouns which mean "I and someone else, but not you"), the feature [-Auth] ceases to play a distinctive role *within* 3rd person. Thus, in a language without the inclusive/exclusive distinction, the feature [-Part] alone is sufficient on 3rd person to create a contrast with all other pronouns in the inventory. Nonetheless, as the presence of [-Auth] within 3rd person still may play an active role in the grammar (e.g., when syncretisms arise between 2nd and 3rd person), we maintain here that the feature is always specified. However, an important definition to establish here, one that I will argue becomes relevant for certain aspects of the syntactic computation, is that of whether or

not a particular feature is contrastive within a given set of other features.

(31) A pronoun S with specification αF is *contrastive* for F if there is another pronoun S' in the inventory that is featurally identical to S, except that it is -αF

Or, alternatively (and equivalently)[7]:

(32) An instance of the feature F is contrastive within a set of other features S if both features of F may occur in S

The notion of contrastiveness is paradigmatically-based (i.e. on static properties of the inventory), but what is interesting about its application here is that it will be directly used in syntagmatic configurations (i.e. where more than one person feature interact in a structured representation).

As mentioned above, one of the direct consequences of this definition is that, in languages without a 4th person, such as Greek, Germanic, and the Romance languages we are considering here with Person-Case effects, [Auth] is not Contrastive within the feature bundle [-Part,-Auth] (since there is no pronoun specified [-Part, +Auth]).

By adopting a binary-valued (as opposed to privative) feature system, markedness is not read off by structural complexity. For each binary feature, it must be indicated which value of the feature is the marked one. There are a variety of diagnostics for what makes a given value of a feature marked. One of these is that syncretisms for other features tend to occur more in the marked category; for example, as noted by Noyer (1992), gender features are often impoverished in the context of [+Auth] but not [-Auth], e.g. in Semitic; similarly, for Germanic and Romance, gender features are impoverished in the context of [+Part] but not [-Part]. Another source of evidence comes from conjoined noun phrases, in which each conjunct contains a different binary value; in these cases, verbal agreement for person is inevitably with the marked category,

e.g., when "he" and "I" are conjoined, the result is [+Auth] agreement on the verb. For the person features we are considering here, the following markedness statements hold:

(33) a. + is the marked value of [Part]
b. + is the marked value of [Auth]

4.2 Value-Relativized Parametrization

The key idea to be adopted here is that certain syntagmatic processes may be restricted in their access to all values of a given feature. Calabrese's proposal for phonological processes such as vowel harmony, which across languages seem to have differing locality conditions and to involve different sets of participating segments, was that the core grammatical principle was the same, but that the search for a feature may be restricted to, for example only contrastive values of a feature:

(34) For a feature F, a search may be relativized to a domain which includes **all** values of F, only the **contrastive** values of F, or only the **marked** values of F

This parametric variation in which values of a feature are included in a search turns out to be very useful in understanding microvariation between languages that have the same inventories, but different participants in a given grammatical process. In Nevins (to appear), I attempt to demonstrate how microvariation in the harmony systems of Standard Yoruba vs. Ifẹ Yoruba (which have the same inventories, but different locality conditions) and in Sanjiazi Manchu vs. Sibe (which have the same inventories, but different locality conditions) can be modeled by a parametric system of this sort. Within this paper, I will extend the general approach to cases of microvariation within Person-Case effects in clitic clusters.

4.3 Conditions on Multiple Agree

The general approach that I will take to person-case effects is that they arise when both pronouns/clitics are within the same agreement domain. I will adopt the insight of Adger and Harbour (2004), Anagnostopoulou (2004), Bejar and Rezac (2003) that the PCC is a result of two DPs within the domain of a single probing head. Thus, within the framework for agreement proposed in Chomsky (2001) and subsequently refined by Hiraiwa (2004), Agree is a featural relation between a Probe and a set of one or more Goals.

The following two conditions on Multiple Agree will be crucial to the account. These are inspired by Anagnostopoulou (2004) and Hiraiwa (2004), but formalized differently here. The first pertains to locality within an agreement domain: that, once the visibility parameter is set for a given domain, the highest argument within that domain must fall within the scope of that visibility parametrization. The second pertains to featural identity for elements within that domain: they must match in value with each other. Both of these conditions are crucial to the present understanding of the PCC.

(35) Contiguous Agree: For a relativization R of a feature F on a Probe P, and x $\in$ Domain(R(F)),
$\neg\exists$y, such that y $>$x and p$>$y and y $\notin$ Domain(R(F))
"There can be no interveners between P and x that are not in the domain of relativization that includes x"

(36) Matched Values: For a relativization R of a feature F, $\exists\ \alpha$, $\alpha \in \{+,-\}$,
$\forall$ x, x $\in$ Domain(R(F)), val(x,F) = α
"All elements within the domain of relativization must contain the same value"

These conditions are inviolable and not ranked; they must be met in every language.

5. Varieties of PCC

In this section we explore a variety of person-case effects that have been investigated throughout the literature. Bonet (1991) and Anagnostopoulou (2004) discuss the "weak" and "strong" versions of the PCC, which involve different constraints on licit clitic combinations.[8] I will differ in my analytic approach here, however, in that the crucial aim is to adopt *the same syntactic mechanism* (namely, the conditions on Multiple Agree in (36) and (35)) in understanding both the weak and strong PCC, as well as what I call the "me-first!" PCC .

The first constraint to be examined is the "me lui" version, so named because, in French, it amounts to a prohibition on the clitic sequence *me lui* (1-acc 3-dat), where it is assumed these clitics double an underlying argument structure where the indirect object c-commands the direct object. This is also called the "Weak PCC". It effectively bans configurations of the form: *3 1 and *3 2, where linear order here reflects underlying dominance relations. In other words, a [-Participant] dative cannot dominate a [+Participant] dative within the same domain.

(37) *A en Josep, me li va recomenar
to the Josep, 1st-acc 3rd-dat recommended the
la Mireia
Mireia
"She (Mireia) recommended me to him (Josep)" (Catalan; Bonet 1991:178)

(38) *A en Josep, te li va recomenar la
to the Josep, 2nd-acc 3rd-dat recommended the
Mireia
Mireia
"She (Mireia) recommended you to him (Josep)" (Catalan; Bonet 1991:179)

Incidentally, the contrast in (37)-(38) cannot be handled by claim-

ing that 3rd person is not a person, for reasons internal to Catalan. Bonet (1991: 209) points out that (37) is grammatical when the dative clitic is replaced by the locative clitic:

(39) A en Pere, m'hi va recomenar la Mireia
to the Josep, 1st-acc hi recommended the Mireia
"Josep recommended me to him (Pere)" (Catalan; Bonet 1991:209)

Interestingly, such a strategy can only be pursued in clitic left-dislocation environments, and cannot rescue a clitic-doubling structure:

(40) *M'hi ha presentat a la Maria
1st-acc hi introduced to the Maria
"s/he has introduced me to Maria" (Catalan; Bonet 1991:212)

This strongly suggests a syntactic analysis, in which the locative *hi* can be generated to resume a left-dislocated goal, under a "feature compatibility" requirement for coindexation (Bonet 1991:213). If this account is on the right track, it shows that a locative clitic does not participate at all in Multiple Agree (similarly to the invisibility of prepositional phrases to the phi-feature system). This contrast between locative *hi* and 3rd-person *li* is further suggestive of the fact that 3rd-person must have a representation that is distinct from "no person".[9]

Next, we examine the "Strong PCC", which bans all of the configurations of the weak PCC above, as well as additionally excluding configurations in which there are two [+Participant] arguments in the same domain that bear different values for the feature [Author]. In other words, the excluded person-case combinations are: *1 2 and *2 1 within the same domain, where linear order reflects underlying dominance relations.

(41) *O Kostas mu se sístise
the Kostas 1st-dat 2nd-acc introduced

"Kostas introduced you to me" (Greek; Bonet 1991: 178)

(42) *O Kostas su me sístise
the Kostas 2nd-dat 1-acc introduced
"Kostas introduced me to you" (Greek; Bonet 1991: 178)

Finally, we turn to the "me-first!" PCC, which is intermediate in restrictiveness between the weak and strong PCC, and less widely encountered than either. This version of the PCC includes weak PCC configurations, in which a [-Part] argument dominates a [+Part] argument. In addition, however, it disallows configurations in which a [-Auth] argument dominates a [+Auth] argument; in other words, if there is a first person argument, it must be first in the domain (hence the name "me-first!"). However, unlike the strong PCC, the "me-first" PCC admits configurations of the form 1 2. Summarizing, the "me-first" PCC specifically excludes person-case combinations of the form *2 1 (as well as * 3 1), where linear order reflects underlying dominance relations.

(43) *Me te escapé
1-refl 2-dat escaped-1.pst
"I escaped from you" (Spanish (some speakers); Perlmutter 1971:26)

(44) Te me escapaste
2-refl 1-dat escaped-2.pst
"You escaped from me" (Spanish (some speakers); Perlmutter 1971:25)

Turning to a syntactic account, then, I will adopt Anagnostopoulou's (2004) idea: the strong and weak (and, I claim, the "me-first!") PCC arise in the same configuration: when two weak DPs are in the domain of the same head. An interesting challenge here is to understand and explain how there can be so much microvariation reported for dialects of Spanish/Catalan; in the words of Bonet (1991:179): "The judgements concerning combinations of first and second person clitics vary considerably from speaker to

speaker". Ideally, this microvariation is best understood in terms of a very small microparameter on the head that facilitates such configurations (and not in terms of the way "1st person" is represented in the language as a whole!).

The crucial idea that I will adopt here is that the locus of variation is in the search domain as set by the Probing head in charge of agreement within this domain (the proposal here is consistent with this head being identified either as *v* or Appl, and no commitment is made here). I will thus adopt an idea that is inspired by Bejar (2003): variation in the agreement "preferences" of a given multi-argument configuration are due to the featural requirements for agreement *set by the Probe*.

Thus, rather than viewing PCC effects as arising from the nature of the representations specified on arguments (e.g. "3rd person datives have no person feature in Spanish"), what I will pursue here is the idea that the variation and "strength" of PCC depends on how many values are excluded by the relativization domain as set on the agreeing head that controls the domain.

Once the parametric choice of value-relativization of the domain is chosen, the conditions on an Extended Agree domain (with no interruptions/interveners in the domain) and on Matched Values (with agreeing values for the chosen feature) must be met. They are repeated below.

(45) Contiguous Agree (CA): For a relativization R of a feature F on a Probe P, and x $\in$ Domain(R(F)),
$\neg\exists$y, such that y $>$x and p$>$y and y $\notin$ Domain(R(F))
"There can be no interveners between P and x that are not in the domain of relativization that includes x"

(46) Matched Values (MV): For a relativization R of a feature F, $\exists\ \alpha$, $\alpha \in \{+,-\}$,
$\forall$ x, x $\in$ Domain(R(F)), val(x,F) = α
"All elements within the domain of relativization must contain the same value"

Let us proceed to see how varying relativizations of the search domain will yield the varieties of the PCC. In the first scenario to consider, the search has been relativized to the marked values of [Participant], i.e., positive values, as in (33). For a convergent derivation to occur, therefore, the following condition must be met (CA): there cannot be any unmarked values of [Participant] that intervene between the Probe and elements within the featural specifications it is looking for. Note that the second condition, MV, is trivially met when there is marked relativization to a single value of a binary feature (i.e., in this case), as there cannot be elements within this domain that have differing values for the feature in question. The possibilities for clitic ordering (with left-to-right indicating dominance, i.e. dative on the left and accusative on the right) are given below, and, in each case, an 'x' indicates that the configuration fails to meet a condition on Multiple Agree.[10] Bullets (•) will be used in the table to indicate convergent derivations.

(47) Weak PCC: If Acc is 1/2, then Dat is 1/2.
Probe's Value-Relativization: Marked [Part].

		CA	MV
•	1 3		
•	1 2		
•	2 1		
•	2 3		
	3 1	x	
	3 2	x	

To summarize the intuition behind the weak PCC within the current syntactic implementation: the Probe is searching for Marked values of Participant. Configurations such as <3 1> and <3 2> constitute violations of the Contiguous Agree domain, because a non-marked value of [Participant] interrupts the Agreement span.

Turning now to the strong PCC, it results from a Probe that is specifically looking for contrastive values of [Author]. Recall from the definition of contrastiveness given in (31) that in languages

without exclusive-we, [Author] is not contrastive in the context of [-Part], i.e., in 3rd persons. Given this relativization on the Probe, the condition on Continuous Agree will be contravened when a noncontrastive value of [Auth] intervenes in the agreement span, i.e., when a 3rd person dominates a 1st or 2nd person in the domain. Moreover, given this relativization, as Multiple Agree can potentially apply within combinations of 1st and 2nd person, the condition on Matched Values for Multiple Agree will lead to an illicit derivation when there are conflicting contrastive values for [Auth], i.e., [+Part,+Auth] and [+Part,-Auth]. The possibilities for clitic ordering (with left-to-right indicating dominance, i.e. dative on the left and accusative on the right) are given below, and, in each case, an 'x' indicates that the configuration fails to meet a condition on Multiple Agree. Bullets (•) will be used in the table to indicate convergent derivations.

(48) Strong PCC: Acc must be 3rd.
Relativization: Contrastive [Auth]

		CA	MV
•	1 3		
	1 2		x
	2 1		x
•	2 3		
	3 1	x	
	3 2	x	

Summarizing the strong PCC intuition, since the Probe is searching for contrastive values of Auth, configurations such as <3 1> and <3 2> constitute violations of the Contiguous Agree domain, because a non-contrastive value of [Auth] interrupts the Agreement span, while configurations of 1 & 2 constitute violations of the Matched Value condition. Note that the relativization to contrastive [Auth] makes a falsifiable prediction: strong PCC effects will never arise in languages with an exclusive 'we', as this would fill the featural gap that makes [Auth] noncontrastive in 3rd

person.[11]

Finally, we turn what I have identified as the "Me-first!" PCC, which has received little analytical attention in the literature. The constraint is that if Dat is 2/3, Acc cannot be 1st person. This holds of Arabic, according to Fassi-Fehri (1986) as reported in Bonet (1991, note 8, p.184), and for some speakers of Spanish; see also Perlmutter (1971:p.26). This constraint arises when there is a relativization on the Probe to agree with marked values of [Author], which are the positive values according to (33). For a convergent derivation to occur, therefore, the following condition must be met (CA): there cannot be any unmarked values of [Author] that intervenes between the Probe and elements within the featural specifications it is looking for. Note that the second condition, MV, is trivially met when there is marked relativization to a single value of a binary feature (i.e., in this case), as there cannot be elements within this domain that have differing values for the feature in question. The possibilities for clitic ordering (with left-to-right indicating dominance, i.e., dative on the left and accusative on the right) are given below, and, in each case, an 'x' indicates that the configuration fails to meet a condition on Multiple Agree. Bullets (•) will be used in the table to indicate convergent derivations.

(49) Me-first PCC. Relativization: Marked [Auth].

		CA	MV
•	1 3		
•	1 2		
	2 1	x	
•	2 3		
	3 1	x	
	3 2	x	

To summarize the ultrastrong PCC intuition, the Probe is searching for marked values of Auth. Configurations such as <3 1> and <2 1> constitute violations of the Contiguous Agree domain, because a non-marked value of [Auth] interrupts the Agreement

span. There is an important note to add here. The relativization to marked [Auth] does not rule out the configuration 3 2, since both of these are [-Auth]. Since <3 2> is also out for me-first speakers, we may assume that the Probe contains an *additional* relativization of Marked [Participant], as in the weak PCC cases shown in (47), which adds the restrictions afforded by the weak PCC. Note that this is somewhat of a welcome result: the "me-first" PCC requires *two* separate relativizations, one for marked [Author] and one for marked [Participant], and this may go towards explaining its relative rarity.

We can thus reconsider the typology of PCC effects according to the parametric options of *all*, *contrastive*, *marked* values of {[Part],[Auth]}. Relativization to *all* values is the most permissive, and a language in which the probe allows all values of both [Part] and [Auth] has no PCC effects. Relativization to marked values is more restrictive than relativization to contrastive values, as it admits less potential arguments in the agreement domain. Finally, in considering the "weak" versus "strong" PCC, we may conclude that a Probe relativization of [Auth] is more restrictive ("stronger") than a relativization of [Part].

The various combinatorial possibilities of parametric visibility specifications of [Participant] and [Author] on the Probe are shown in the following table.

(50) Combinatorial possibilities yielding a PCC typology

	All [Auth]	Contrastive [Auth]	Marked [Auth]
All [Part]	No PCC	Strong PCC	Me-First with <3 2> ok
Contrastive [Part]	"Me-Last"	Impossible	Impossible
Marked [Part]	Weak PCC	Strong PCC	Me-First with *<3 2>

A brief comment will be made here on the appearance of strong PCC twice in the table. Note that in (48), we formulated a relativization to Contrastive [Author] as responsible for the Strong PCC. The effect of adding, in addition, a relativization to Marked [Part] will yield no additional restrictions.

There is one more aspect of the typology that requires discussion. It appears that the set of possible relativizations within the languages we are considering might not include contrastive values of [Participant], for the following reasons. Given a pronoun inventory that lacks a 4th person, [Participant] turns out not to be contrastive for 1st person. A relativization to contrastive [Participant] would thus exclude 1st person from the Probe's agreement possibilities. This relativization is logically incompatible with marked [Author], as this specification requires 1st person agreement, so the combination of contrastive [Part] and marked [Auth] is excluded, as it will result in no possible convergent derivations. Consider the combination of contrastive [Part] with contrastive [Auth]. By the CA condition, this will rule out any 3-first (not contrastive for [Auth]) and any 1-first (not contrastive for [Part]) clitic combinations. By the MV condition, this will rule out <2 1> and <2 3> combinations, as the former will disagree in contrastive values for [Auth] and the latter will disagree in contrastive values for [Part]. Finally, consider contrastive [Part] on its own, with all values of [Auth] visible. This will only allow the clitic sequences <2 1> and <3 1>. I will call this system a "me-last" system: if there is a direct object, then it must be 1st person; and if there is a 1st person, it must be the direct object. This system is unattested at present, but predicted to exist (though admittedly, it does seem a bit strange).

To summarize the typological possibilities, the two person features we have considered here, and the three relativization possibilities, yield all of the attested range of PCC effects, and seem perhaps to overgenerate mildly in predicting one additional, as yet unattested case of PCC effects.

We have thus considered an account of the range of crosslinguistic PCC effects that does not rely upon the 3noP view, and contains full specification of features for all clitics/pronouns, yet allows for flexibility and variation in the functional heads that control agreement, which may bear varying degrees of parametriza-

tion as to the values it will allow in Multiple Agree scenarios when there are two arguments within the domain. In the next sections, we explore related questions that arise given a proposal of this nature.

6. Why [±Hearer] probably doesn't exist

The definitions of contrastiveness and markedness and how they are used to single out particular combinations of features here depend very heavily on the featural specifications I have adopted for person, namely [Participant] and [Author]. It is therefore important to explore what would happen with a different feature system. In particular, one might wonder about a binary feature that specifically creates an opposition between 2nd person and non-2nd person.

One of the few morphologically-motivated arguments for such a feature is syncretism between 1st and 3rd person, which share the putative value [-2nd]. I have argued in Nevins (2003) that the Germanic instantiation of this syncretism should be handled by an impoverishment rule, rather than being the consequence of idiosyncratic vocabulary items specified for [-2]. A markedness-based impoverishment rule which renders 1st person featurally identical to 3rd enforces the rigidity of this syncretism and disallows innovation of a new 1st-specific vocabulary item.[12] Therefore no appeal to [± 2] is needed for this case.

Despite the paucity of morphologically-based motivation for the feature [Hearer] (or at least, its independent necessity, given [Participant] and [Author]), it is important to explore how it would interact within the current system of value-based relativization.

First, suppose we were to completely replace the feature [Author] with [Hearer] instead, and simply invert the values, so that 1st was [-Hearer], 2nd was [+Hearer], and 3rd was [-Hearer]. In addition, of course, [+Hearer] would need to be the *marked* value of [Hearer], otherwise this would simply become a notational variant

of what I have already adopted here.

(51) Person specifications using [±Participant], [±Hearer]:
1st person = [-Hear,+Part]
2nd person = [+Hear,+Part]
3rd person = [-Hear, -Part]
"4"/excl.we = [-Hear, +Part] (when found)

Under this system, the prediction is that there would be no "me-first" system of clitic ordering, counter to fact (cf. (49)), and that there would be "you first!" systems of clitic ordering, which I have never come across.[13] Thus, this system undergenerates (and possibly overgenerates).

The second possibility to explore is one in which there were three separate person features, namely [± Part], [± Auth] *and* [± Hearer]. Under such a system, there would be the following person specifications:

(52) Person specifications using [±Participant], [±Author], [±Hearer]:
1st person = [+Auth,-Hear,+Part]
2nd person = [-Auth,+Hear,+Part]
3rd person = [-Auth,-Hear, -Part]
"4"/excl.we = [+Auth, -Hear, +Part] (when found)

The problem with this system is that the definition of contrastiveness in (31) cannot be applied at all here, as there are no featural specifications that minimally contrast in the binary value of one feature. Thus, the only relativization that could be used here is Marked [Part] (yielding weak PCC) and Marked [Auth] (yielding "me-first), as well as Marked [Hear] (yielding the unattested but potentially existing "you first" system), but there is no combination that would yield the strong PCC given the existing conditions on Multiple Agree, i.e., there is no way to rule out $<2\ 1>$ *and* $<1\ 2>$ using parametrization to marked features only.

Finally, we may consider a system that replaces [Participant]

altogether with [±Hearer]. Clearly such a system cannot straightforwardly capture 1/2 versus 3 patterns in the morphology, though it is of course possible using alpha notation (cf. for example Noyer 1992, who explores [α Author, $-\alpha$ Hearer] as a means to group 1/2 versus 3).

(53) Person specifications using [±Author], [±Hearer]:
1st person = [+Auth,-Hear]
2nd person = [-Auth,+Hear]
3rd person = [-Auth,-Hear]
"4"/incl.we = [+Auth, +Hear] (when found)

In systems without a 4th person (which must be inclusive, given these features, i.e., on this view, the more basic category of "we" in natural language would thus be exclusive *we*), given the definition of contrastiveness in (31), the following values are contrastive. 1st person is contrastive for [Author] but not [Hearer], 2nd person is contrastive for [Hearer] but not [Author], and 3rd person is contrastive for both features. Finally, it is perhaps more difficult to define markedness on features in a context-free way in this system (i.e. to follow the intuition that 1st person is doubly marked, hence subject to many more syncretisms in its environment), but we can tentatively assume that the positive values of both features are marked.

We would thus expect the following PCC effects:

(54) *Multiple Agree in a [±Author] and [± Hearer] system*:
Contrastive-[Hearer]: *1 2 (by CA), *1 3 (by CA), *2 3 and *3 2 (by MV)
Contrastive-[Author]: *2 3 (by CA), *2 1 (by CA), *3 1 and *1 3 (by MV)
Marked-[Hearer]: *1 2 (by CA), *3 2 (by CA)
Marked-[Author]: *2 1 (by CA), *3 1 (by CA)

Note that the weak PCC would, at minimum, requires a conjunction of two relativizations (since none of the single restrictions in

(54) rules out both <3 2> and <3 1>). The strong PCC likewise requires a conjunction (since none of the single restrictions in (54) rules out both <1 2> and <2 1>).

(55) Combinatorial possibilities yielding a PCC typology

	All [Auth]	Contrastive [Auth]	Marked [Auth]
All [Hear]	No PCC	You-last	Me-first with <3 2> ok
Contrastive [Hear]	Me-last	Impossible	Impossible
Marked [Hear]	You-first with <3 1> ok	Impossible	strong PCC

The cells marked Impossible rule out all 6 possible clitic orders. Regarding the other cells, recall that since 1st is not contrastive for [Hearer], a contrastive relativization for [Hearer] allows only 3 1 and 2 1, effectively yielding a "me-last" system. There are other PCC possibilities that this system predicts, such as "you-last" and "you-first", which are not attested, but may be possible. However, the most striking thing about these combinations is that none of them yield the weak PCC. That is, no combination rules out <3 2>, <3 1> *and allows all other combinations*. This thus is the major shortcoming of such a system. It arises because there is no way to group 1/2 as having to precede 3, which can be straightforwardly done with Marked [Participant] relativization, if one admits such a feature, as I have done here.

To conclude this subsection, we have considered three possible alternative person feature systems that involve the putative feature [Hearer]. A system in which [Hearer] replaces [Author] undergenerates: as it cannot refer to the marked [Author] feature characterizing 1st person alone, it fails to yield the attested "me-first" PCC. A system in which [Hearer] accompanies the existing [Author] and [Participant] undergenerates: as it is overly featurally rich, 1st and 2nd person no longer are contrastive for [Author], it fails to yield the attested strong PCC. Finally, a system in which [Hearer] replaces [Participant] undergenerates: as it cannot refer to the marked [Participant] feature, it fails to yield the attested weak PCC. These results are summarized in the table below.

(56) PCC effects as captured by varying Person feature systems

Person feature inventory	captures weak PCC	captures strong PCC	captures me-first PCC
{[±Auth],[±Part]}	⋆	⋆	⋆
{[±Hear],[±Part]}	⋆	⋆	⊗
{[±Auth],[±Hear]}	⊗	⋆	⋆
{[±Auth],[±Part],[±Hear]}	⋆	⊗	⋆

The feature [Hearer] thus receives no support from PCC effects. Its inclusion in any system of person features yields a basic inability to predict the typology of attested PCC effects within the syntactic approach developed here.

7. The Representation of Reflexives and Impersonals

Given the distinction above, all existing grammatical analyses that posit that "3rd person has no person" simply need to replace this statement with *the Probe's search is relativized to contrastive values of [Author]*. As there is no [-Part,+Auth] pronoun in the inventory, [Part] is not contrastive for 3rd person. When two contrastive values of [Author] are found, Anagnostopoulou's constraint on Multiple Agree can apply and correctly rule out PCC configurations; at the same time, the features [-Part,-Auth] *are* present on 3rd person arguments, and this will avoid the problem noted in Section 1. Thus, as noted above, we can distinguish the 'weak' and 'strong PCC' by relativization of the search domain, placing the locus of variation within the lexical properties of the Probe, rather than in wholly different syntactic mechanisms. If the contrastiveness approach is on the right track, it invites a number of questions as to whether PCC effects are predictable based on the featural distinctions framed by the pronominal inventory. The important question now, however, is the featural difference between 3rd person and impersonals/reflexives. This question arises in any feature-based system of person representation, though it does not figure into the proposals of Noyer (1992), Halle (1997), or Harley

and Ritter (2002), the most influential person-feature proposals to date. My own remarks on the topic will be rather preliminary here. First, it is important to distinguish between impersonals and reflexives. I will assume that impersonals have *disjunctive* specifications, i.e., they syntactically bear all feature specifications simultaneously, as proposed by D'Alessandro (2004).

(57) Representation of Impersonal pronouns:
{[+Participant,+Author] ∩ [+Participant,-Author]
∩ [-Participant,+Author] ∩ [-Participant,-Author]}

Impersonal pronouns can be anaphoric with any pronominal antecedent, and can in principle refer to any person specification, though pragmatics usually strongly favors one over the others. The consequences of the disjunctive specification for the PCC will be explored below.

The representation of reflexives, on the other hand, is subject to a great deal more crosslinguistic variation. When reflexives do not participate in PCC effects and do not differentiate person (e.g., Bulgarian Rivero (2004)), they can clearly become assimilated to the above statement (57); they are disjunctive, like impersonals.

There are, however, languages, which differentiate reflexives for person; in Spanish, the same 1st/2nd clitic pronouns *me* and *te* which are used for dative/accusative are used for reflexives. In line with the current proposal, person-distinguished reflexives bear the *same person features* as their non-reflexive counterparts in the syntax (although they differ in their Case features; cf. Bonet 1991).[14] Thus, in terms of the PCC, person-marked reflexives are expected to pattern just like person-marked clitics with other Case features.

Thus, on the assumption that the Dative is higher than the reflexive in the underlying syntax of the clauses that contain a dative and a reflexive, an intervening 3rd-reflexive (which is [-Part,-Auth]) will fall prey to the same violation of the Contiguous Agree condition as an intervening 3rd dative: both lack contrastive values for [Author]. As Rivero (2004) demonstrates, this prediction

is upheld: <3 2> and <3 1> sequences, in which the underlying leftwards dative c-commands the 1st/2nd reflexive, result in weak PCC violations[15] that are identical to those encountered by 3rd datives that c-command a 1st/2nd accusative.

(58) A Ana siempre se le antojan los mismos chicos
to Ana always refl dat-3rd fancy-3pl the same guys
'Ana always takes a fancy to the same guys' (Spanish; Rivero (2004:496))

(59) *A Ana siempre nos le antojamos nostros
to Ana always 1pl-refl dat-3rd fancy-1pl us
'Ana always takes a fancy to us' (Spanish; Rivero (2004:496))

(60) *A Ana siempre os le antojais vosotros
to Ana always 2pl-refl dat-3rd fancy-2pl you-pl.
'Ana always takes a fancy to y'all' (Spanish; Rivero (2004:496))

Clearly, person-marked reflexives behave identically to person-marked datives and accusatives. Returning to the representation of all-purpose reflexives and impersonals, however, we may note that by virtue of its disjunctive specification, an all-purpose reflexive will allow for a convergent derivation under Multiple Agree. An example comes from Bulgarian, which has the PCC (61)

(61) *Az im te preporâchvam
I 2-acc 3-dat recommend-prog
"I am recommending you to them" (Rivero 2004: 500)

Though we do not know on the basis of this example whether it is the weak or strong PCC, let us assume it is the weak one. In that case, given a relativization of the Probe to marked values of [Participant], a downstairs all-purpose reflexive need not be included in the domain of Multiple Agree: by bearing all values of [Participant] and [Author], the reflexive's featural specification may

remain [-Participant]. Thus, the Contiguous Agree condition is trivially met, as neither argument is within the domain.[16] Thus, all-purpose reflexives, even when coreferent with 1/2 arguments, never give rise to PCC effects, by virtue of their disjunctive specification:

(62) Na Ivan mu (se) xaresvat tezi momicheta
to Ivan dat (refl) like-3pl these girls
'Ivan likes these girls.' (Bulgarian; Rivero (2004:500))

(63) Na Ivan mu (se) xaresvame nie.
to Ivan dat-3rd (refl) like-1pl us
'Ivan likes us.' (Bulgarian; Rivero (2004:500))

(64) Na Ivan mu (se) xaresvate vie.
to Ivan dat-3rd (refl) like-2pl 2pl
'Ivan likes y'all.' (Bulgarian; Rivero (2004:500))

Concerning reflexives and impersonals, then, there is no general answer as to how they will behave with respect to the PCC: it depends on whether they are person-specific reflexives or not. The present remarks have been admittedly preliminary, however. The more global conclusion to take away from this discussion, in sum, is the following:

(65) While underspecification may indeed reside in the phonological form of *vocabulary items*, terminal nodes in the syntax *cannot* be underspecified, in virtue of their participation as conditioning environments for syntactic, semantic, and morphological phenomena.

Notes

[1]Proponents of the 3noP view are often rather keen on attributing it to Emile Benveniste; however, as far as I know, Benveniste did not propose it in the context or service of syntactic explanations.

[2]I owe many thanks here to Seth Cable and Daniel Harbour for their insistence in exploring these alternatives.

[3]See also Grimshaw (1997), who captures the intuition that this is a language-particular dissimilation rule driven by the constraint "*XX".

[4]I thank Jim Harris for suggesting exploration of this alternative, and Susana Huidobro for extensive discussion of the *leísmo* phenomena that I employ in ultimately refuting this possibility. Ivan Ortega-Santos confirmed the *leísta* judgements as well.

[5]There is a very interesting side issue to pursue: when both goal and theme are animate in *leísmo* Spanish, the theme is realized as *lo*, yielding a spurious *se* output of *se lo* even where *se le* would be expected (Landa 1995:149). There seems to be an additional dissimilation rule on animacy that affects the second clitic in such sequences. Independent support for such a rule comes from Ormazabal and Romero (2004), who note the following contrast for *leísmo* Spanish:

(66) Te lo di
Cl-2p Cl-3.inanim gave-1st.
"I gave it to you *or* I gave him to you"

(67) *Te le di
Cl-2p Cl-3-anim gave-1st.
"I gave him to you"

I suggest a context-sensitive feature-deletion rule here: the [+animate] feature on clitic is deleted when it follows a [+animate] indirect object clitic. Following Harbour (2003), the default unmarked [-animate] feature is re-inserted on the syntactic terminal prior to vocabulary insertion. Thus, even though in *leísmo* Spanish, *le* is the less-specified *vocabulary item*, [-animate] still remains the less marked *feature value*.

[6]An interesting cognitive parallel arises in Sedivy *et al*. (1999), who made use of the real-time eye-tracking paradigm in an experiment with spoken language and visual contexts. Given a scene

with a pink comb, a yellow comb, and a yellow bowl, subjects were given instructions such as *Pick up the yellow comb*. Sedivy *et. al* found that at the onset of the word *yellow*, subjects looked much faster and more frequently at the yellow **comb**, even before they had heard the head noun. The only logical explanation is that subjects understood that, given spoken instructions, their interlocutor would be more inclined to use the predicate *yellow* when it was *contrastive* for the object to be manipulated. That is, even though the predicate *yellow* was true of both the comb and the bowl, the subjects preferred to interpret it in a contrastive use.

[7]Note that both of these formulations depart from Calabrese's definition, which is stated in terms of deactivated filters.

[8]There are other researchers who have worked on the PCC, often restricting their attention to the weak PCC, where the 3noP view is employed in the implementation; clearly the 3noP view, in addition to its empirical shortcomings described here, is of little avail in understanding strong and "me-first!" PCC effects

[9]Eulàlia Bonet brought this argument to my attention.

[10]This is purely for presentational purposes; readers who see an affinity with optimality-theoretic tableaus are reminded that these conditions are inviolable and unranked.

[11]I have not looked into this thoroughly. Daniel Harbour informs me that in Kiowa, "The inclusive/exclusive 1pl distinction breaks down precisely in those contexts where PCC effects kick in," which is at least consistent with what I have said here

[12]As this was somewhat earlier in my understanding of these matters, I had pursued a privative feature theory there; however, a revision within the current system is straightforward. In particular, assume that in the marked environment of Past tense, the doubly-marked combination [+Auth,+Part] is deleted, resulting in insertion of the elsewhere [-Plural] item (e.g. *was*).

[13]Note that Algonquian seems to show a preference for realizing 2nd person morphologically, but there is no evidence to my knowledge that the sequence $<2\ 1>$ is *syntactically* illicit.

[14]Thus, *le* in its 3rd dative use and *se* in its 3rd reflexive use bear identical syntactic person features. Hence the spurious *se* change may be seen as *post*syntactic deletion of the Case features of a 3rd dative when preceding a 3rd accusative, yielding *se* as a *morphological* result.

[15]Rivero's data are consistent with the weak PCC, but they are also consistent with stronger versions of the PCC. Further investigation is needed with speakers to reveal if dative-reflexive combinations differ from dative-accusative combinations.

[16]Consider the scenario in which this is a strong PCC effect. In this case, there would be relativization to the contrastive value of [Author]. If the upstairs dative were 1st *or* 2nd person, by virtue of its disjunctive specification, the downstairs reflexive would be able to agree in either value of [Author], and thus meet the condition on Matched Values. If the upstairs dative were 3rd person, the downstairs reflexive could assume an essentially 3rd person specification and also escape the relativization domain, thus trivially satisfying Continuous Agree.

References

Adger, David and Daniel Harbour (2004). The Syntax and Syncretisms of the Person Case Constraint. Ms., Queen Mary University of London.

Anagnostopoulou, Elena (2004). Strong and Weak Person Restrictions: A Feature-Checking Analysis. Ms., University of Crete.

Anttila, Arto (2003). Finnish Assibilation. In *The Proceedings of NELS 33*, Amherst, MA: GLSA, pp. 13–24.

Archangeli, Diana (1984). *Underspecification in Yawelmani Phonology and Morphology*. Ph.D. thesis, MIT.

Avery, Peter and Keren Rice (1989). Segment structure and coronal underspecification. *Phonology* 6: 179–200.

Bejar, Susana (2003). *Phi-Syntax: A Theory of Agreement*. Ph.D. thesis, University of Toronto.

Bejar, Susana and Milan Rezac (2003). Person Licensing and the

Derivation of PCC Effects. In *Romance Linguistics: Theory and Acquistion*, John Benjamins, pp. 49–62.

Bianchi, Valentina (2004). On the Syntax of Personal Arguments. Ms., Università da Siena.

Bleam, Tonia (1999). *Leísta Spanish and the Syntax of Clitic Doubling*. Ph.D. thesis, University of Delaware.

Bonet, Eulalia (1991). *Morphology after Syntax: Pronominal Clitics in Romance*. Ph.D. thesis, MIT.

Bonet, Eulalia (1995). Feature Structure of Romance Clitics. *Natural Language and Linguistic Theory* 13: 607–647.

Calabrese, Andrea (1995). A constraint-based theory of phonological markedness and simplification procedures. *Linguistic Inquiry* 26: 373–463.

Chomsky, Noam (2001). Minimalist Inquiries: The Framework. Distributed by MITWPL.

D'Alessandro, Roberta (2004). *Impersonal si constructions: Agreement and Interpretation*. Ph.D. thesis, Universität Stuttgart.

Franco, Jon and Susana Huidobro (2004). Experiencer Datives and Belleti's and Rizzi's second class of Psych Verbs. In *Proceedings of the 36th Linguistic Colloquium, Ljubljana, 2001*, Sonderdruck, pp. 219–229.

Grimshaw, Jane (1997). The Best Clitic: Constraint Interaction in Morphosyntax. In *Elements of Grammar*, Kluwer, pp. 169–196.

Hale, Kenneth (1973). Person Marking in Warlbiri. In *A Festschrift for Morris Halle* , Holt, Rinehart and Winston, pp. 308–344.

Halle, Morris (1997). Impoverishment and Fission. *PF: Papers at the Interface, MITWPL* : 425–450.

Harbour, Daniel (2003). The Kiowa Case for Feature Insertion. *Natural Language and Linguistic Theory* 21.3: 543–578.

Harley, Heidi and Elizabeth Ritter (2002). Person and Number in Pronouns: A Feature-Geometric Analysis. *Language* 78.3: 482–526.

Hiraiwa, Ken (2004). Dimensions of Agreement. In *Complex Agreement Systems*, (in preparation).

Kayne, Richard S. (2000). *Parameters and Universals*. Oxford University Press.

Kiparsky, Paul (1973). Phonological Representations. In *Three Dimensions of Linguistic Theory*, Tokyo: TEC.

Laenzlinger, Christopher (1998). *Comparative Studies in Word Order Variation*. John Benjamins.
Landa, Alazne (1995). *Conditions on Null Objects in Basque Spanish and Their Relation to Leismo and Clitic Doubling*. Ph.D. thesis, USC, Los Angeles.
Leben, William (1973). *Suprasegmental Phonology*. Ph.D. thesis, MIT.
McCarthy, John and Alison Taub (1992). Review of Paradis & Prunet (eds.), The Special Status of Coronals. *Phonology* 9: 363–370.
Mohanan, K. P. (1991). On the Bases of Radical Underspecification. *Natural Language and Linguistic Theory* 9: 285–325.
Nevins, Andrew (2003). Do Person/Number Syncretisms Refer to Negative Values? Paper presented at the 77th LSA Meeting, Atlanta.
Nevins, Andrew (2004). *Conditions on (Dis)Harmony*. Ph.D. thesis, MIT.
Nevins, Andrew (to appear). Microvariations in Harmony and Value-Relativized Parametrization. In *Linguistic Variation Yearbook 5*, Amsterdam: John Benjamins.
Noyer, Rolf (1992). *Features, Positions and Affixes in Autonomous Morphological Structure*. Ph.D. thesis, MIT.
Ormazabal, Javier and Juan Romero (2004). Agreement Restrictions. *Natural Language and Linguistic Theory* to appear.
Perlmutter, David (1971). *Deep and surface structure constraints in syntax*. Holt, Rinehart, and Winston, New York.
Ringen, Catherine (1975). *Vowel Harmony: Theoretical Implications*. Ph.D. thesis, Indiana University.
Rivero, Maria-Luisa (2004). Quirky subjects, person restrictions, and the person case constraint. *Linguistic Inquiry* 35.3: 494–502.
Ross, John R. (1972). Doubl-ing. *Linguistic Inquiry* 3: 61–86.
Sedivy, Julie C., Michael K. Tanenhaus, Craig G. Chambers and Gregory N. Carlson (1999). Achieving incremental semantic interpretation through contextual representation. *Cognition* 71: 109–147.
Steriade, Donca (1995). Underspecification and markedness. In John Goldsmith (ed.), *The Handbook of Phonological Theory*, Blackwell, pp. 114–174.
Trommer, Jochen (2004). Third-Person Marking in Menominee. Paper presented at the Phi-Workshop, Montreal.

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