

## **A note on the status of bound variable pronouns and agreement features**

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On the basis of observations regarding the possible interpretations of phi-feature mismatch under VP-ellipsis we argue that the notion of feature valuation, which plays a central role in current minimalist work, may be a reflex of a PF requirement rather than an LF one. We show that, in certain elliptical contexts, LF tolerates pronouns which cannot have been valued for certain features. A natural conclusion to draw is that this is driven by morphology: one might think that a feature will need valuing just where a value is required in order to determine PF form, and hence that if, for example, no number distinction is formally made, then no number feature needs to be valued. In fact, we will see that the reality is more complex than this, although morphology does play a role. We show that the morphological manifestation of a feature which can in some contexts have real content (such as a value of a phi-feature) does not necessarily have real content in all occurrences. Conversely, a morphologically visible feature whose value is formal in some contexts does not have only a formal value in all occurrences. A further consequence of our observations is that bound variable pronouns and referential pronouns are distinct kinds of syntactic object.

**KEYWORDS:** bound variable, ellipsis, features, interfaces, interpretability, pronouns, valuation

### **1 Introduction**

Chomsky (1995:277f.) makes an influential distinction between interpretable and uninterpretable formal features. The phi-features of DPs (i.e. person, number and gender features) are interpretable, while the phi-features of verbs and adjectives, for example, are uninterpretable. Uninterpretable features must be eliminated before the derivation reaches the A-P (Articulatory-Perceptual) and C-I (Conceptual-Intentional) interfaces. As such, they provide a mechanism triggering movement for feature-checking and thereby elimination of uninterpretable features in the version of the

theory developed in Chomsky (1995, Chapter 4). More recent versions of the theory (Chomsky (2000, 2001, forthcoming)) have refined this picture somewhat, in that checking is replaced by the Agree relation, which is in principle independent of movement (movement is triggered by Agree in combination with a further property of the target, its EPP feature). Nonetheless, the Agree relation depends on the presence of uninterpretable features: Agree is a relation between a Probe P and a Goal G in a particular structural configuration (P c-commands G and must be local to G in a specific sense) where at least P has uninterpretable features (Chomsky 2001:4). In this approach as in the earlier one, then, uninterpretable features play a central role. The goal of this paper is to argue that certain facts about the construal of bound variable pronouns (BVPs) in elliptical contexts of various kinds imply that some features may be uninterpretable only at the A-P interface. We also show that there is considerable, and rather interesting, microvariation as regards feature detail in the lexicon. The kind of data we will consider was last discussed by Kitagawa (1991), but as well as investigating the implications within the Minimalist framework, we have new data to add.

Before looking at the data, we need to clarify further some details of the Agree relation. Chomsky (2001:5) proposes that “uninterpretable features, and only these, enter the derivation without values, and are distinguished from interpretable features by virtue of this property”. Thinking of uninterpretable features as unvalued/unspecified features provides a natural rationale for their uninterpretability on their own and hence for why they trigger Agree. To illustrate, if it is true that T bears uninterpretable person/number-features while D has interpretable features of these types, we can construe Agree between T and a subject DP in SpecTP for these features as copying the values associated with DP in (1) into the blank slots associated with T where the uninterpretable/unvalued features of the Probe are valued to match the interpretable/valued features of the Goal.

(1) [TP [DP D[Pers: 3, Num: Sg] John ] T[Person:\_, Number: \_] ... ]

Here T is the Probe and DP the Goal (DP moves into SpecTP because T has an EPP feature triggering this operation, not indicated in (1)). With some complexities

relating to the position of V in English which we will gloss over here this relation is morphophonologically realised as subject-verb agreement.

What we will be concerned with is the morphological agreement of a bound variable pronoun (BVP) with its c-commanding antecedent. The analysis of pronouns, and in particular bound variable pronouns which share phi-features with a c-commanding antecedent, is still under development within the Minimalist Program (Heinats (2003), Kayne (2002), Zwart (2002)). Although agreement in a pretheoretical sense (i.e. sharing of phi-features) is crucially involved in the relation, there are problems in attempting to make the relation between bound pronoun and antecedent, and the associated morphological agreement, fall under Agree as defined in Chomsky (2001). First, the pronoun is naturally the Probe, as its features are naturally thought of as being valued by the antecedent, but is c-commanded by the Goal. Second, as far as we are aware, the relation is never instantiated by Move; which can be seen as least a parametrised concomitant of Agree (technically, Agree is a suboperation of Move). Third, the putative Goal (i.e. the antecedent of the pronoun) does not check any feature in virtue of its relation with the pronoun. Fourth, the quantifier-BVP relation is not subject to locality, as the following examples, from Rizzi (2000:91), show:

- (2) a. No candidate can predict how many people will vote for him.
- b. Every politician is worried when the press starts attacking him.
- c. Which politician appointed the journalist who supported him?

In all these examples, the quantifier binds a BVP which is inside an island (a wh-island, an adjunct and a relative clause, respectively). The notion of phase in Chomsky (2000, 2001, forthcoming) corresponds roughly to that of “cyclic node” or “bounding node” in earlier theories of locality (Chomsky 1973, 1986), in that it defines the largest domain in which a single step of movement can take place and thereby plays a role in defining islands: these are domains out of which movement cannot take place at all (they are in a sense larger than the largest domain in which a single step of movement can take place). Agree, which is a subcomponent of movement, must take place internally to a single phase, and hence cannot take place

into an island from outside that island. In addition, as (3) shows, a suitable intervening antecedent (subscripted  $k$  here) does not act as a locality boundary for the binding and associated agreement of the pronoun subscripted  $j$ .

- (3) [Every master] <sub>$j$</sub>  expects that [each boy] <sub>$k$</sub>  knows he should obey him <sub>$j$</sub>

Nevertheless, the antecedent-pronoun relation does involve valuing of phi-features and c-command, two central facets the Agree relation. For this reason, we assume that we are dealing here with a relation significantly similar to Agree. For concreteness, we will call this relation phi-Agreement. Phi-Agree, like Agree, involves feature valuation, necessitated by the requirement that uninterpretable features must not reach the Interfaces. This accounts for the BVP *him* in (3) surfacing at PF as *him* rather than *her* or *them*. The fundamental similarity between phi-Agree and (standard) Agree is that both operations are interface-driven; they exist owing to the need to eliminate unvalued features at the interfaces. Two of the differences we have observed may be related: the fact that Probe-Goal relation is “inverted” and the fact that phi-Agree is not subject to locality together suggest that locality conditions may be a property of “downward-looking” relations only, while the relation we are concerned with here is “upward-looking.” We continue to use Chomsky’s metaphor of Probes and Goals, with the BVP as the Probe.

What we wish to show here is that the requirement for valuing of features which underlies phi-Agree is not necessarily a requirement imposed by LF (whether this is true also of Agree remains unknown). We will see that LF tolerates pronouns which cannot have been valued for certain features, in certain elliptical contexts, i.e. where the pronoun is not spelled out. This implies that the interpretability/valuing requirement may be driven by the PF interface alone. A natural conclusion to draw is that this is driven by morphology: one might think that a feature will need valuing just where a value is required in order to determine PF form, and hence that if, for example, no number distinction is formally made, then no number feature needs to be valued. In fact, we will see that the reality is more complex than this, although morphology does play a role.

## 2 Agreement in English bound variable pronouns

English possessive pronouns have at least the following formal features:

- (4) +D, +POSS,  $\alpha$ Person,  $\beta$ Number,  $\gamma$ Gender

The positive values of D and POSS define the class. Here  $\alpha$  ranges over {1,2,3},  $\beta$  over {Sg, Pl} and  $\gamma$  over {M, F, N}. The differing values of  $\alpha$ ,  $\beta$  and  $\gamma$  are spelt out as the various forms of the pronouns, as in Table 1.

**Table 1**

<i>my</i> Pers: 1, Num: Sg	<i>our</i> Pers: 1, Num: Pl
<i>your</i> Pers: 2	
<i>his</i> Pers: 3, Num: Sg, Gen: M	<i>their</i> Pers: 3, Num: Pl
<i>her</i> Pers: 3, Num: Sg, Gen: F	
<i>its</i> Pers: 3, Num: Sg, Gen: N	

We can readily observe implicational relations among these features, for example that Gender only has a morphologically coded value where we have [Pers: 3] and [Num: Sg]. These are simply the morphological oppositions which happen to be encoded by possessive and other pronouns in English. However, we will see that there is more to feature valuing than these rather elementary observations.

### 2.1 Gender

Consider the well-known ambiguity of (5):

- (5) John loves his mother, and so does Bill [<sub>VP</sub> ].

(5) has two readings depending on how we interpret the pronoun in the elided VP. On the “referential” (or “strict”) reading, Bill loves John’s mother; on the “bound-variable” (or “sloppy”) reading, Bill loves Bill’s mother.

Assuming ellipsis takes place via deletion under identity, or, more precisely, non-

distinctness, there are two ways in which we might represent these different readings. On the one hand, we could assign distinct indices to an occurrence of *his* inside the elided VP, as in (6a). On the other hand, we could assume that the fully specified pronoun always has a referential reading while the bound-variable interpretation results from the lack of specification of certain features. The ambiguity would then derive from the differing specification of the features of the pronoun, as roughly indicated in (6b):<sup>1</sup>

(6)a. John loves his<sub>i</sub> mother, and so does Bill<sub>j</sub> [<sub>VP</sub> love his<sub>i/j</sub> mother ]

b. John loves his/D-POSS mother, and so does Bill [<sub>VP</sub> love his/D-POSS mother ]

If we are not allowed the use of referential indices, as proposed by Chomsky (1995:228), then (6a) cannot be the right way of representing the ambiguity of (5).

In (6b), D-POSS indicates the presence of just the valued features [+D, +POSS] on D, with Person, Number and Gender being unvalued (i.e. uninterpretable in terms of Chomsky 2001). Since English has no default morphological form corresponding to D-POSS (see (4)), then we can understand why at least some of these features need to be valued. If D-POSS has unvalued phi-features, it must enter into a phi-Agree relation with something. In the first conjunct, there may be a phi-Agree relation with D-POSS as Probe and the c-commanding *John* as Goal. D-POSS then takes on the values for Person, Number and Gender which are associated with *John*. Thus the phi-Agree relation, triggered by the unvalued features of D-POSS, gives rise to the bound-variable interpretation. The referential interpretation may be thought to arise from the pre-specification of the Person, Number and Gender values of D-POSS, presumably via the direct merge of *his* as indicated in (6b).

We will now argue that the phi-feature valuation takes place only at PF: there is no concomitant necessity for valuation at LF. Consider cases where the gender of the antecedents is different, e.g. (7):

(7) John loves his mother and so does Mary [<sub>VP</sub> ].

The majority of speakers allow the bound-variable interpretation here, implying that

the pronoun in the elided VP is unspecified at least for Gender. Hence here we have a case where there cannot be gender feature valuation at LF. Assuming that all features would be valued together, the LF of the elided VP in (7) must be of the form [ *love* D-POSS *mother* ] in order for non-distinctness with the antecedent VP to hold.<sup>2</sup> If this form contains unvalued phi-features, then this implies that uninterpretable features can survive to LF. With respect to morphological agreement, the survival of uninterpretable LF features might be harmless, but with respect to features such as EPP features or their equivalent, relaxing the interface condition on unvalued features would have undesired effects. Here we take the line that phi-Agree should conform to Agree, so we suggest instead that the pronominal features in question are unvalued only at PF, and are absent at LF. In the first conjunct, a PF form is required, and valuation takes place, giving the *his* that we see. In the second conjunct, LF-non-distinctness of the VP with the preceding VP obtains. We must either assume that LF-non-distinctness is sufficient for the VP to be phonologically null, or take a phonologically null PF to be merged so that no PF-feature valuation is required. We come back to this question in section 2.2.

However, there is variation in native-speaker judgements regarding (7). We will be discussing the differing idiolects of four native speakers, indicated by initials.<sup>3</sup> For some speakers (including AC, NVS), (7) can only be construed with a referential reading for the elided pronoun (i.e. Mary loves John's mother). This indicates that the unvalued D-POSS option is not available; the pronoun must be specified for Gender (and therefore, given the implicational relations discussed in connection with (4), one might think that it must be specified as [Pers: 3, Num: Sg]). This is confirmed by the anomaly of the following example for the same speakers:

(8) Joan lost her temper and so did Bill [<sub>VP</sub> ].

Since one cannot lose another person's temper, the referential reading is necessarily unavailable here. And if the bound-variable reading is unobtainable, the sentence is simply ungrammatical. Many speakers who do accept the bound-variable interpretation of (7) accept it in (8) too (for the others, see section 2.2) There is then, in the grammar of those speakers, a clear instance of a pronoun with a phi-feature

only present in the PF-representation of the BVP.

For the speakers who do not allow (7) or (8) at all we can propose the following: even a Bound Variable pronoun is valued for Gender at LF. In the first conjunct, it must be valued feminine, but in the second conjunct, it will be masculine. Hence the antecedent VP and the elided VP cannot be non-distinct in features and VP-ellipsis therefore impossible. So Gender must be pre-valued at LF for these speakers.

So we have observed two things. First, there is a variety of English in which pronouns can survive to LF without phi-feature checking, which we have argued to arise because the unvalued phi-features are only present at PF, not at LF. Second, there is variation here in that some speakers seem to require the pronoun to be pre-valued for gender at LF. Since there are no morphological differences between the two varieties, i.e. each has the same pronoun inventory, this suggests that morphology is not the only factor at work. Moreover, if morphology were at work, since the value of Gender features depends on the value of Person and Number features (as only 3Sg pronouns require a gender value), we would predict that speakers who require pronouns to be valued for Gender require them to be valued for Person and Number too. Let us now look at what happens when the pronoun in the elided VP differs in person/number from the one in the antecedent.

## **2.2 Person and number**

Consider next Person features. For (9), the bound variable reading (B does wash B's car) is possible for all speakers.<sup>4</sup>

(9) A: I wash my car on Sundays.

B: I do, too.

(10) Fred: I took my wife to the reunion, but Bill didn't.

For (10) we find differing judgements, with most speakers readily obtaining the bound variable reading (Bill didn't take his wife to the reunion), but some others rejecting it ('Bill didn't take Fred's wife to the reunion' being the only reading). From



this we conclude that for some speakers, the Person feature is unvalued at LF, whereas for others, it is pre-valued.

Finally, consider Number features:

- (11) Mary perjured herself, and so did the other girls

Here at least one speaker (AC) allows both the referential and the bound-variable readings, while uniformly disallowing the bound-variable readings with gender mismatch or with person mismatch. For such speakers, then, Person and Gender features are valued at LF on D-PRON, but not Number features. This shows that the implicational relation discussed in connection with (4) above is a purely morphological one. In the narrow syntax, this relation does not have to hold: a pronoun can be specified for Gender without being specified for Number. This is the case in (10), where the availability of the bound-variable reading for the elided pronoun shows that it must not be valued for Number (in order to allow deletion under non-distinctness to take place), whilst it is clearly [Gen: F], given the gender of the antecedent DP and the fact that pronouns are pre-valued for Gender in this variety (as the availability of only the bound-variable reading in (7) shows). It appears then that the pre-valued or unvalued assignment is determined feature by feature, and independently of morphology.

Morphology may nevertheless play a role for some speakers. For example, although AC and NVS reject gender mismatch as it occurs in (7), no such problem occurs in (12).

- (12) The girls wanted to phone their parents, but the boys didn't

This difference can be coded in the lexicon if we assume that Gender at LF for the 3<sup>rd</sup> person plural BVP is neither a pre-valued nor unvalued, but simply lacking. The absence of any morphological gender distinction in this instance does correlate with an absence of a feature distinction in the lexicon.

We have discussed data from four dialects/idiolects of English, concentrating mainly on the maximal contrast occurs between the majority dialect 1, and dialect 4,

as shown in Table 2. In all cases, context will affect how easy it is to obtain the relevant reading.

**Table 2**

<b>Features present at LF for Bound Variable Pronouns in English</b>			
	<b>Person</b>	<b>Number</b>	<b>Gender</b>
dialect 1 (DH)	no	no	no
dialect 2 (IGR)	no/?	some	no/?
Dialect 3 (AC)	yes	some	yes
dialect 4 (NVS)	yes	yes	yes

In dialect 1, there are unvalued features on BVP only in PF. If it is unvalued phi-features that distinguish referential and bound pronouns, as we have suggested, then it follows that in sentences like (5), construed as in (6b), the sloppy reading for the elided VP will only be established if the full PF, including the phi-features, is present at some point in the derivation (for example, the null VP is attained only at the morphological level). However, this solution is incompatible with dialects discussed by Kitagawa (1991:519-24). In these dialects, there is an asymmetry in the acceptability of VP ellipsis, shown in the judgements in (13 a and b), Kitagawa's (60) and (61) as assessed by speakers of his dialects B and D, for the sloppy reading:

(13) a John considers his father intelligent, and Mary does [<sub>VP</sub> ], too.

b \*Mary considers her father intelligent, and John does [<sub>VP</sub> ], too

If both the PFs of both conjuncts are present, the data is inexplicable. If only the LF of the elided VP is present, we can claim that for these speakers, BVP *his* is LF-unvalued for gender, whereas *her* is prevalued for feminine gender. Our assumption of non-distinctness rather than identity of VPs then predicts the data in (13).

In this section, we have seen further evidence that (i) in the lexicon, phi-features may be valued or unvalued, or absent, for LF (ii) phi-features may be present at PF but absent at LF, on a BVP, and (iii) there is complex and interesting microvariation

regarding which features are present. In addition, (iv) it is possible for a feature contrast to be absent at both LF and PF for some pronoun. Further, we have observed (v) that the microvariation is potentially independent of the morphological inventory of the language.

We also see that Bound Variable Pronouns and referential pronouns are distinct kinds of syntactic object, at least for speakers of any dialect with unvalued features in BVP. This follows from the fact that a referential pronoun need not have a linguistic antecedent, still less a c-commanding one, and cannot uniformly obtain its values in syntax. Hence any phi-features must be (syntactically) pre-valued, as we suggested in section 1. But this is not necessarily true of BVPs.<sup>5</sup>

In the next section, we discuss the variability in dialects 2 and 3.

### 3 Inherent anaphors

In this section, our informant judgements relate to examples like those in (14) and (15).

(14) John<sub>j</sub> lost his<sub>j/\*k</sub>/\*Mary's temper

(15) John<sub>j</sub> dropped his<sub>j/k</sub>/Mary's scarf

These differ in that the pronoun in (14) is obligatory, and obligatorily coreferential with the subject, whereas in (15), the pronoun need not be coreferential, and may alternate with a full DP. A similar contrast holds with reflexives:

(16) John<sub>j</sub> perjured himself<sub>j</sub>/\*Mary

(17) John<sub>j</sub> shot himself<sub>j</sub>/him<sub>k</sub>/Mary in the foot

Following Everaert (1986), we call comparable predicates ‘inherent reflexives’; we will refer to the relevant pronouns and reflexives as ‘inherent BVPs’. For the cases like (14) and (16), we might reasonably suppose, that there is a lexical entry of the type *lose x's temper*, *perjure x*, where *x* must be a subject-linked inherent BVP. An inherent BVP might be expected to be realised as a “SE” pronoun, which is unvalued

for Person, Number or Gender (these are valued by the subject or the Infl, and so all the  $\phi$ -features are deleted; see Reinhart and Reuland 1993: 658, Reuland 2001: 456).<sup>6</sup>

We find that a distinction is drawn between inherent and non-inherent BVPs in the dialects of AC and IGR, and this accounts at least for variation indicated by the ‘some’ entries under Number in Table 1.<sup>7</sup> Irrespective of whether the relevant pronominal form is a reflexive (18 a vs. b), or a pronoun (19 a vs. b), for AC, inherent anaphors allow number mismatch in VP sloppy identity ellipsis, whereas non-inherent anaphors are unacceptable with number mismatch. For IGR, the judgements are not quite so categorical.

(18) a Because John perjured himself, the other boys did too

b \* Susie saw herself in the mirror, and so did the other girls [sloppy reading]

(19) a First John lost his temper, and then the other boys did

b \*John loves his children, and so do his brothers [sloppy reading]

Between these extremes, for both speakers there is a cline of acceptability, as one might expect, given that context and the speaker’s view of the events affect whether a predicate is seen as inherently reflexive or not. We thus get judgements such as those in (20):

(20) a ?OK Mary can take care of herself, and so can the other girls [sloppy]

b ?\* Mary can take care of her cats, and so can the other girls [sloppy]

We conclude then that both IGR and AC (dialects 2 and 3) have a category of inherent BVPs, which are formally but not morphologically comparable to SE-pronouns. In particular, in these dialects, inherent but not non-inherent BVP have an unvalued number feature. In dialect 1, every BVP lacks prevalued features, so that no inherent BVP subclass can be distinguished. Given that the distinction is manifest for some dialects even in the face of no morphological evidence, we assume that it is present in all dialects (and is part of UG). It follows that it is not the presence of an unvalued  $\phi$ -feature that syntactically characterises inherent BVPs. Dialect 4 (NVS) is

then unproblematic: inherent and non-inherent BVPs uniformly have all their features pre-valued. The question as to the proper syntactic, semantic and pragmatic characterisation of inherent BVPs remains unanswered.

A final point concerns dialect variation and learnability. The distinction between dialects like dialects 1 to 3 of Table One, where some pronouns are valued for some features, and dialects like dialect 4 of Table One, where all pronouns are valued for all features, is one for which there is apparently no overt evidence whatsoever available to the learner, and which doesn't on the face of it arise from any necessity at an interface. The same is true of the inherent/non-inherent BVP distinction made in dialects 2 and 3. We suggest that the very absence of a morphological correlate may explain what essentially appears to be free variation among individuals. This is perhaps a case where the trigger experience so radically underdetermines the system that free variation in the system is the result (Smith and Cormack 2002). Furthermore, this account predicts the observed mismatch between the implicational relations in PF form and the LF-availability of unvalued features.

#### 4 Implications

There are a number of ways in which this work might be carried further. One of these is with respect to other languages. An interesting case is Dutch, which has a TP ellipsis structure allowing sloppy readings of pronouns. In particular, for both the third person reflexives, *zichzelf* and *zich* ('inherent' reflexive), which show no overt gender or number morphology, there are some speakers for whom examples like (21) and (22) are very bad, while examples like (23) which gives mismatch only on the elided verb are almost perfect (the latter as we would expect if the  $\phi$ -features on the verb are considered to be uninterpretable at LF, and hence deleted under Agree).

(21) Oscar haat zichzelf en zijn broers ook

'John hates himself, and his brothers [do], too'.

(22) Oscar schaamt zich en zijn broers ook

‘John is-ashamed-of himself, and his brothers [are] too.

(23) Jan haat jazz en zijn broers ook

‘John hates jazz, and his brothers [do] too’

As with English, there is a good deal of speaker variation, but it seems to be only number mismatch that ever gives rise to more than marginal unacceptability in Dutch.<sup>8</sup> The point here is that there is no evidence that could lead to these speakers having set the number feature on the reflexives to be pre-valued (or not, for other speakers). It is also interesting that these speakers do not discriminate between *zich* and *zichzelf* in this respect, though other speakers do (with the *zichzelf* examples being somewhat worse, in our small sample of speakers).

Given our arguments above, we have an alternative way of encoding the lack of involvement of  $\phi$ -features on the verb in the ellipsis environments. We may suppose that these features have only the trivial identity value at LF.<sup>9</sup> If we do this, then such features need never be deleted before reaching LF, although there is still an uninterpretable PF-part of the feature, which will serve to drive Agree when the verb is overt (and perhaps PF head-movement of V to T, under the relevant parametric conditions). If this suggestion can be carried through, we may dispense with the apparatus of deleting uninterpretable features altogether — a desirable outcome.

We have proposed a solution to problem of accounting for the data we discuss, but there are interesting questions raised as to whether there should be more radical changes to the rest of the theory of uninterpretable features, in order to unify our phi-Agree with the standard Agree.

## 5 Concluding remarks

We have argued the following, on the basis of our observations regarding the possible interpretations of phi-feature mismatch under VP-ellipsis:

1. Certain features may be present at PF, but not at LF.

2. The implicational relations among features at LF may be distinct from those indicated by morphological distinctions shown at PF.
3. Morphological manifestation of a feature which can in some contexts have real content (such as a value of a phi-feature) does not necessarily have real content in all occurrences. Conversely, a morphologically visible feature whose value is formal in some contexts does not have only a formal value in all occurrences.
4. There is intricate microvariation among native speakers of English as regards which features are pre-valued vs. unvalued. The microvariation may in fact represent free variation in feature assignment in the lexicon.
5. Bound variable pronouns and referential pronouns are distinct kinds of syntactic object.
6. Inherent BVPs are distinct from non-inherent BVPs (paralleling the distinction between SE and SELF anaphors made by Reinhart & Reuland 1993).

We conclude with a relevant quotation from Kayne (2000:9):

Microparametric syntax is a powerful tool, whose growth is perhaps to be compared with the development of the earliest microscopes, that allows us to probe questions concerning the most primitive units of syntactic variation. And since the invariant principles of UG can hardly be understood in isolation from syntactic variation, this tool promises to provide invaluable evidence that will shape our understanding of those principles themselves.

On a (perhaps appropriately) small scale, the observations made above support this view.

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<sup>1</sup>See Chierchia's (1995) analysis of Italian *si* for the idea that lack of specification of features and interpretation as a variable go together.

<sup>2</sup>Kitagawa (1991) invokes LF-copying, in principle this could take place either before or after feature-valuation (Kitagawa does not in fact assume feature-valuation, as he is working with an earlier version of the theory).

<sup>3</sup>AC and IGR are the authors; NVS is Neil Smith, and the majority dialect (DH) is that of Dick Hudson among others. We are grateful to Neil and Dick for patiently answering questions.

<sup>4</sup>Déchaine and Witschko (2002) claim on the basis of the unavailability of the sloppy reading for (i) *I know that John saw me, and Mary does too*, that first and second person pronouns cannot be bound variables. This is incorrect, as also pointed out by Reuland (2001: 464). We put the unacceptability of (i), for those speakers who reject it, down to the pre-valuing of the person-feature. DH accepts variants of this sentence.

<sup>5</sup>Other languages show differentiation of BVP and referential pronouns: see for instance Zribi-Hertz and Mbolatianaivalona (1999: especially 197 ff), Lee (2003).

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<sup>6</sup>SE pronouns like other anaphors may also have logophoric uses (see references in Reuland 2001: 445).

<sup>7</sup> The judgements for gender and person mismatch (relevant only for IGR) are more labile, and we omit discussion here.

<sup>8</sup> We thank Hans van der Koot, Ad Neeleman, and especially Reinier Salverda, and their informants, for supplying data.

<sup>9</sup> The expectation might then be that for some languages, phi-features were valued on the verb, and so might interfere with TP ellipsis when subjects were mismatched for phi-features. We have not looked for such cases.