

What Partial Control Might Not Tell Us About Agreement: A Reply to Landau

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Abstract. Landau (2016b) draws on data from person mismatches in partial control to argue that agreement is (at least sometimes) a PF phenomenon. The argument depends in part on the premise that there is a reading of sentences like *They wanted to prepare themselves and then meet for debate* that corresponds to a structure in which the VP *meet for debate* has a controlled PRO subject that is semantically first-person but morphologically third-person. I argue that according to Landau's own assumptions, PRO in such sentences is not semantically first-person at any level of representation: Landau's premise relies on a problematic conflation between PRO and the output obtained by applying the group operator to PRO in Landau's approach to partial control. Consequently, Landau's argument for the PF status of agreement does not go through.

1. Introduction

Landau (2016b) asks a basic question about the architecture of grammar: Does agreement apply in the (pre-PF) syntactic component of the grammar, thereby possibly having syntactic and semantic effects? Or does agreement apply in the PF component of the grammar and thereby necessarily fail to have syntactic or semantic effects? Landau observes that one of the phenomena that has been taken to be relevant in addressing this question has to do with sentences in which morphologically valued ϕ -features appear to act as though they are invisible to semantic interpretation. Taken at face value, the existence of such a phenomenon supports the PF view of agreement: the ϕ -features in question begin their life in PF and therefore do not figure into the syntactic configuration that feeds (or constitutes) LF, so it is no mystery that they are not interpreted.

One of the best studied examples of this phenomenon concerns sentences like (1), first pointed out by Partee (1989: note 3). On its bound variable reading, the first-person feature on *my* seems not to figure into the interpretation of the sentence.

- (1) Only I did my homework.

Relevant reading: I am the only x such that x did x 's homework.

Consistent with a PF view of agreement, Rullmann (2004); Heim (2008); Kratzer (2009) pursue an analysis of sentences like (1) in which *my* obtains its ϕ -features in PF, too late to be interpreted. But as Landau (2016b) points out, other possibilities that do not entail a PF view of agreement have also been explored: von Stechow (2003); Reuland (2010) propose that the ϕ -features are present in syntax but deleted in LF. In another vein, Spathas (2010); Jacobson (2012) — capitalizing on the distinction between focus values and ordinary semantic values and how that distinction relates to

ϕ -feature interpretation — pursue an approach in which the ϕ -features are in fact interpreted after all. (See also Sudo 2012 for another kind of approach in which ϕ -features are always interpreted.)

Against this backdrop, Landau proposes to lend support for the PF view of agreement by presenting what he calls “decisive evidence” (p. 81). The evidence in question comes from person mismatches in partial control. I begin with a logical reconstruction of the overall shape of Landau’s argument as I understand it (parenthesized page numbers refer to the place in Landau 2016b where the relevant premise or conclusion can be found or in some cases inferred):

- (2) *Premise 1:* If a normally interpretable feature goes uninterpreted, that feature must not have been assigned until PF (p. 81).
- (3) *Premise 2:* Person features on PRO are (at least sometimes) uninterpreted (p. 99).
- (4) *Interim conclusion:* PRO’s person features are (at least sometimes) assigned at PF (p. 100).
- (5) *Premise 3:* “PRO determines agreement on secondary predicates and clausal inflection” (p. 100).
- (6) *Premise 4:* If a feature that determines agreement is itself not valued until PF, then the agreement it triggers must also take not take place until PF (p. 100).
- (7) *Overall conclusion:* Agreement is (at least sometimes) a PF phenomenon (p. 81).

In this reply, I will focus exclusively on how Landau builds his case for Premise 2, which constitutes the crucial empirical groundwork on which the rest of the argument hangs. The empirical basis for Premise 2 is the observation that sentences like (8) have a reading in which the understood subject of *meet for debate* includes the speaker. Landau uses this reading to argue that (8) can correspond to a structure in which *meet for debate* has a PRO subject that is semantically first-person but morphologically third-person.

- (8) They wanted to prepare themselves and then meet for debate.
Relevant reading: They_i wanted that they_i would prepare themselves and then we (= they_i and me/us) would meet for debate.

But as I will show, Landau’s own syntactic and semantic assumptions regarding this sentence are in fact consistent with the view that the relevant PRO subject in (8) is not semantically first-person on any reading at any level of representation. On the contrary, Premise 2 relies on a problematic conflation between PRO and the output obtained by applying the group operator to PRO (the group operator being the mechanism Landau employs to derive partial control readings). Consequently, this particular argument for the PF status of agreement does not go through.

In what follows, I unpack Premise 2 in more detail (section 2), show how Landau’s group operator analysis of partial control is consistent with the view that PRO’s person feature in the relevant example is interpreted (section 3), and then show that even if we were to make different assumptions about the syntax, Premise 2 would remain unsalvageable (section 4). Finally, section

5 concludes.

2. Unpacking Premise 2

Landau analyzes the sentence in (8), repeated here in (9), as having a structure like (10), whereby the CP complement to *want* instantiates coordination of two vPs whose shared [Spec,vP] PRO subject undergo ATB movement to [Spec,TP] of the complement.

(9) They wanted to prepare themselves and then meet for debate.

(10) They_i wanted [_{CP} [_{TP} PRO_i to [_{&P} [_{vP} PRO_i prepare themselves] and [_{vP} then PRO_i meet for debate]]]].

Landau argues that there is a reading of (9)/(10) in which the person feature of the PRO subject of *meet for debate* is demonstrably uninterpreted. (11)–(17) constitutes my attempted logical reconstruction of the argument. As before, page numbers refer to the place in the text where the relevant premise or conclusion can be found or in some cases inferred.

- (11) *Premise a:* There is a reading of (10) in which the understood logical subject of *meet for debate* (i.e., the entity that stands in the relevant thematic relation associated with the predicate: the agent of the meeting event) is a group that includes the speaker (= ‘us’) (p. 96).
- (12) *Premise b:* If the extension of an expression is a group that includes the speaker, then that expression is semantically first-person (p. 97).
- (13) *Interim conclusion 1:* The PRO subject of *meet for debate* is semantically first-person (p. 96).
- (14) *Premise c:* The PRO subject of *meet for debate* in (10) is morphologically third-person (as evidenced by the fact that the PRO subject of *prepare themselves* is detectably third-person and ATB-mates are identical in all respects) (pp. 96, 98, 99).¹
- (15) *Interim conclusion 2:* The PRO subject of *meet for debate* is morphologically third-person but semantically first-person (p. 96).
- (16) *Premise d:* If an expression is semantically first-person but morphologically third-person, then the morphological third-person feature must not be interpreted (p. 93).
- (17) *Conclusion:* The morphological person feature on the PRO subject of *meet for debate* in (10) is not interpreted (p. 100).

¹I use the term ‘ATB-mates’ for the multiple source elements that target a single landing site in ATB movement. Although Landau does not explicitly say that ATB-mates must be identical in all respects, he says that the two conjuncts share the same subject (p. 96) and that this subject undergoes ATB movement in the relevant example (p. 98). So in a sense, the identity follows trivially from the fact that there is only one element involved.

Even if we accept all of these premises, there is a flaw in the leap from Premises a (11) and b (12) to the interim conclusion in (13): just because there is a reading of the relevant sentence in which the understood logical subject of *meet for debate* is a group that includes the speaker, this does not entitle us to conclude that the PRO subject of *meet for debate* denotes a group that includes the speaker. To make that leap, we would have to add an additional premise; call it *Premise b1*:

- (18) *Premise b1*: If there is a reading of (10) in which the understood logical subject of *meet for debate* is a group that includes the speaker, then the extension of the PRO subject of *meet for debate* is a group that includes the speaker.

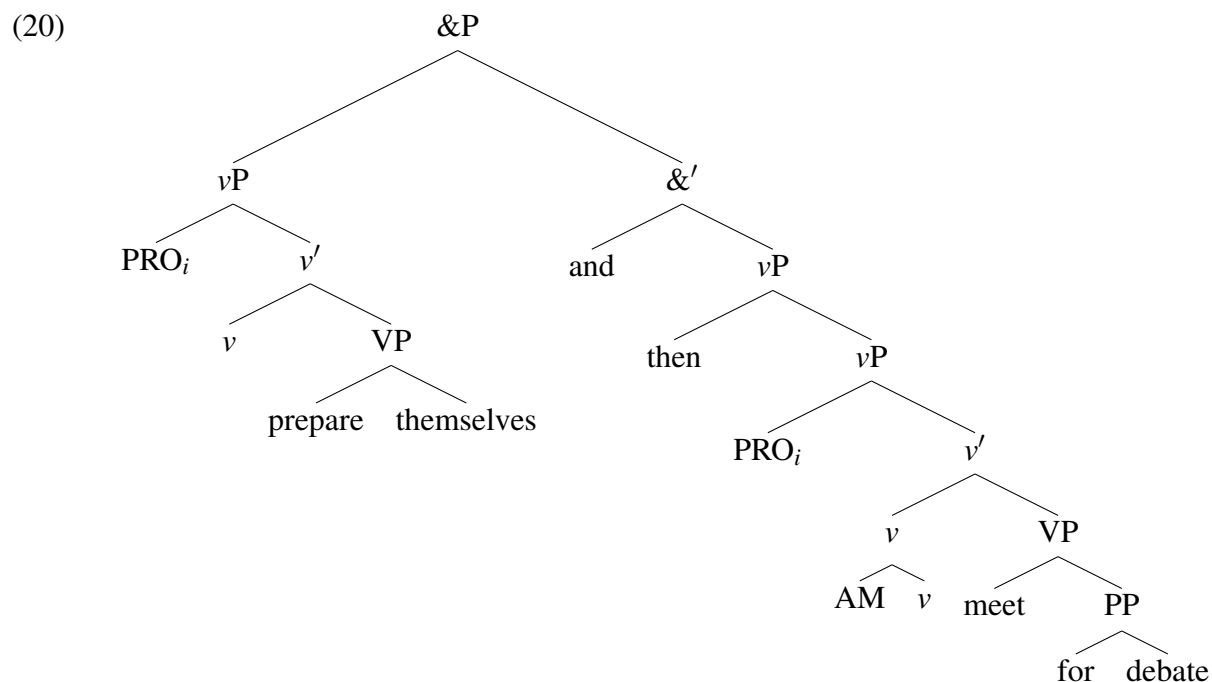
But in fact, Landau's own analysis of partial control tacitly contradicts (18), as we will see in the next section.

3. The group operator analysis of partial control

Landau develops an analysis of partial control that can accommodate the relevant reading of the crucial sentence, repeated again here in (19), in which the understood logical subject of *prepare themselves* is 'they' (i.e., exhaustive control) but the understood logical subject of *meet for debate* is 'us' (partial control).

- (19) They wanted to prepare themselves and then meet for debate.

In particular, Landau proposes that partial control comes about via an associative morpheme "AM" (following Madigan 2008) that affixes to little-*v*, so that the relevant portion of (19) has the structure indicated in (20) (cf. Landau 2016b:99).



Assuming, basically following Landau, that the denotations for the relevant pieces of this structure are as given in (21)–(24), the denotation we arrive at for the second conjunct of the coordinate structure (ignoring *then*) is as given in (25).²

$$(21) \quad [[\text{meet for debate}]]^{g,c} = \lambda e.\text{meet-for-debate}(e)$$

$$(22) \quad [[\text{AM}]]^{g,c} = \lambda Q_{\langle e, \langle \varepsilon, t \rangle \rangle} \lambda x \lambda e. Q(\text{group}(x))(e)$$

where $\text{group}(x)$ = the plural individual consisting of x and contextually salient associates of x

$$(23) \quad [[v]]^{g,c} = \lambda x \lambda e. \text{Agent}(e) = x$$

$$(24) \quad [[\text{PRO}_i]]^{g,c} = g(i)$$

$$(25) \quad [[\text{PRO}_i \text{ AM}+v \text{ meet for debate}]]^{g,c} = \lambda e.\text{meet-for-debate}(e) \wedge \text{Agent}(e) = \text{group}(g(i))$$

Now, let us assume for the sake of argument that the third-person feature on PRO in this structure is interpreted. Following Landau, who follows Heim (2008), when a ϕ -feature is interpreted, it denotes a partial identity function that acts as a presuppositional filter on the range of values a pronoun can take. Person features, for example, have the denotations in (26) (where s_c and h_c denote the contextually determined speaker and hearer of the utterance, respectively).

$$(26) \quad \begin{array}{ll} \text{a.} & [[1st]]^{g,c} = \lambda x: x \text{ includes } s_c.x \\ \text{b.} & [[2nd]]^{g,c} = \lambda x: x \text{ includes } h_c \text{ and excludes } s_c.x \\ \text{c.} & [[3rd]]^{g,c} = \lambda x: x \text{ excludes } s_c \text{ and } h_c.x \end{array} \quad (\text{Heim 2008:37})$$

Consider the toy example in (27). In a sentence like *She left* (concentrating just on person features and ignoring gender and number features), the pronoun is interpreted as an ordinary variable (28a) coupled with the relevant presuppositional filter (28b). The result composes with the predicate (28c) to yield (28d) as the meaning for the whole sentence, preserving the presupposition triggered by the person feature.

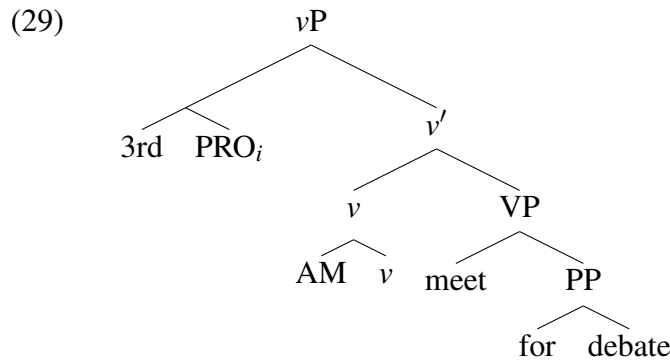
$$(27) \quad \begin{array}{c} \diagup \quad \diagdown \\ 3rd \quad she_5 \quad left \end{array}$$

$$(28) \quad \begin{array}{ll} \text{a.} & [[she_5]]^g = g(5) \\ \text{b.} & [[3rd \ she_5]]^g \text{ defined only if } g(5) \text{ excludes } s_c \text{ and } h_c. \\ & \text{Where defined, } = g(5) \\ \text{c.} & [[left]]^g = \lambda x.x \text{ left} \end{array}$$

²The denotation for AM in (22) is a notational variant on what is found in Landau 2016b:91, 98. I use ε for the semantic type of eventualities. The denotation for v (not explicitly discussed by Landau) in (23) follows Kratzer 1996. All composition in this example proceeds via Functional Application, except for the point where AM+ v composes with VP, which is done via Kratzer's (1996) Event Identification.

- d. $[[3rd\ she_5\ left]]^g$ defined only if $g(5)$ excludes s_c and h_c .
Where defined, $= g(5)\ left$

Returning to the crucial sentence and zooming in on the relevant piece of structure, the assumption that the person feature of PRO is interpreted gives us the following:



The presence of the person feature has the following consequences for the semantic derivation:

- (30) $[[3rd\ PRO_i]]^{g,c}$ defined only if $g(i)$ excludes s_c and h_c .
Where defined, $= g(i)$
- (31) $[[AM+v\ meet\ for\ debate]] = \lambda x \lambda e. meet\text{-}for\text{-}debate(e) \wedge Agent(e) = group(x)$
- (32) $[[3rd\ PRO_i\ AM+v\ meet\ for\ debate]]^{g,c}$ defined only if $g(i)$ excludes s_c and h_c .
Where defined, $= \lambda e. meet\text{-}for\text{-}debate(e) \wedge Agent(e) = group(g(i))$

What is crucial here — and detrimental to Landau’s argumentation — is that the presupposition induced by the person feature on PRO imposes no restriction on the person value of $group(g(i))$; rather, it only imposes a restriction on the person value of $g(i)$. This is consistent with an interpretation in which $g(i)$ is bound by a third-person subject and $group(g(i))$ yields a group consisting of that subject plus contextually salient associates that include the speaker. To assume otherwise would be to assume that AM causes the interpretation of PRO itself to be “rewritten” so as to denote the expanded group of individuals associated with the partial control reading. And this is in fact close to how Landau characterizes AM in prose: “The function of this morpheme [= AM] is to expand the subject argument of the predicate to a group” (Landau 2016b:97). But this is not actually what AM as defined by Landau does, if “subject argument” means “syntactic subject”. Rather, what AM as defined by Landau does is disrupt the identity between a predicate’s syntactic subject (i.e., the element merged into [Spec,vP]) and its logical subject (i.e., the element that stands in the relevant thematic relation with the predicate, which is arrived at by applying the group operator to the denotation of the syntactic subject). And this set-up is fully consistent with the presence of an obligatorily interpretable person feature on the syntactic subject.

Binding of PRO will ultimately be achieved via individual abstraction in a way that preserves the person presupposition as a domain restriction, as schematized in (33) (cf. Heim 2008). Glossing over many orthogonal details, the denotation for the matrix predicate (up to the point in the

structure just before the matrix subject composes with its sister) is as schematized in (34).

$$(33) \quad \lambda x: x \text{ excludes } s_c \text{ and } h_c.[[\dots \text{PRO}_i \dots]]^{g[x/i]}$$

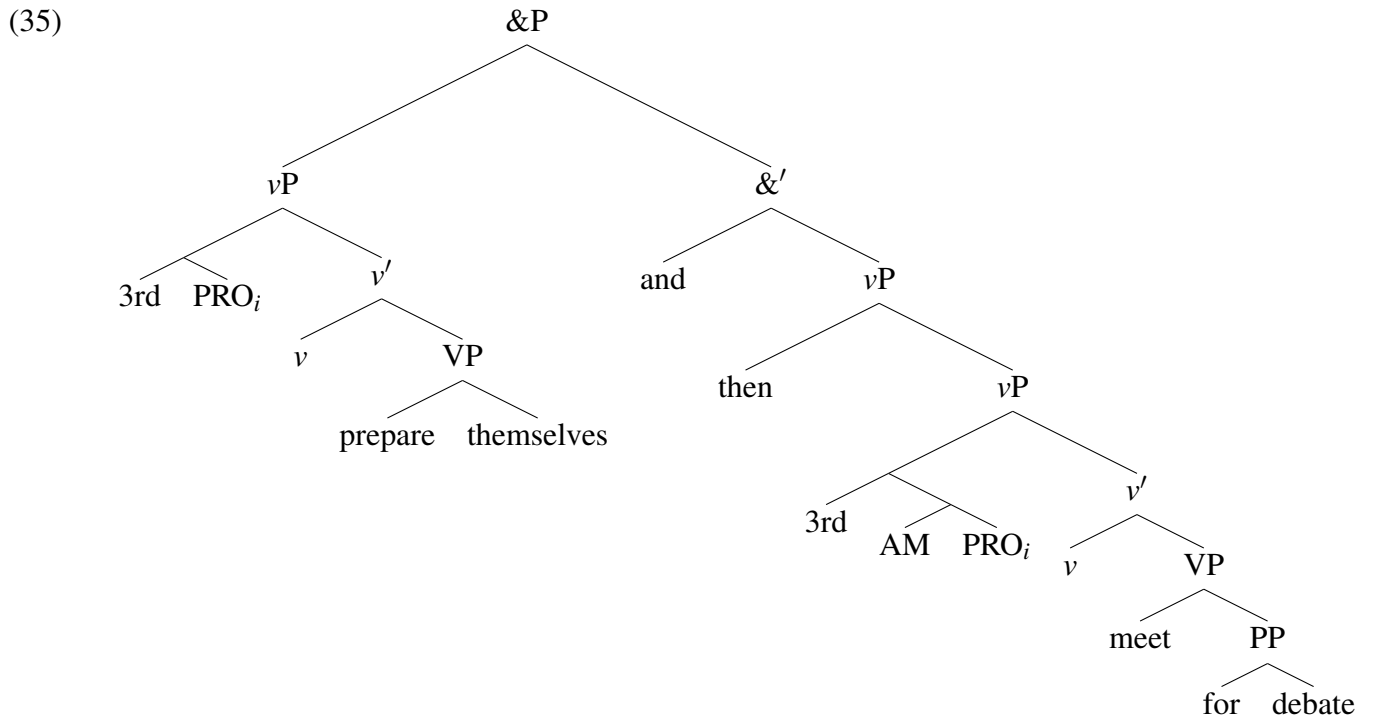
$$(34) \quad [[\text{want PRO}_i \text{ to } v \text{ prepare themselves and then AM+} v \text{ meet for debate}]]^{g,c} = \\ [\lambda x: x \text{ excludes } s_c \text{ and } h_c . \dots \text{meet-for-debate}(e) \wedge \text{Agent}(e) = \text{group}(x) \dots]$$

(34) is equipped to combine with a matrix subject (such as *they* in Landau's example) in a way that generates the presupposition that the denotation of that subject is third-person, but crucially, it does not generate the presupposition that the output obtained by applying the group operator to the denotation of the subject also has to be third-person.

To be sure, (34) glosses over many important details in the interpretation of desire reports. One dimension it ignores is how to account for the obligatory *de se* interpretation of attitude reports expressed by control sentences. One family of proposals seeks to explain this in part by having PRO bound by the attitude predicate itself rather than by the attitude holder (see e.g. Pearson 2016, who builds on Lewis 1979; Chierchia 1990). In another vein, Landau (2015), building on Percus and Sauerland (2003), proposes instead that binding of PRO is done by the attitude holder, but this binding is mediated by complementizer-layer machinery that achieves the *de se* effect. But neither of these potential modifications affect the fundamental point that the person feature on PRO is concerned with the input rather than the output of the group operator.

4. Would different syntactic assumptions rescue the argument?

One might wonder whether the overall argument could be rescued by making different syntactic assumptions. In particular, if we wanted the person feature on PRO to impose a restriction on the *output* of the group operator, then we could entertain a structure in which the person feature takes scope over the hypothesized associative morpheme:



Such a structure would necessitate a trivial rewriting of the denotation for the AM morpheme, as in (36), but the denotations for all the other pieces in the structure would remain as before.

- (36) $[[AM]]^{g,c} = \lambda x.\text{group}(x)$
 where $\text{group}(x)$ = the plural individual consisting of x and salient associates of x

These pieces would work together to give us the following denotation for the second conjunct:

- (37) $[[3\text{rd AM}+\text{PRO}_i \nu \text{ meet for debate}]]^{g,c}$ defined only if $\text{group}(g(i))$ excludes s_c and h_c .
 Where defined, $= \lambda e.\text{meet-for-debate}(e) \wedge \text{Agent}(e) = \text{group}(g(i))$

On this view of things, an interpretable person feature would indeed impose a restriction on the output of the group operator.

And in fact, the “AM+PRO” analysis may even be a somewhat better fit than the “AM+ ν ” analysis with a set of data reported on in another recent paper by Landau (2016a). In particular, Landau (2016a) takes the data in (38)–(39) to indicate that partial control subjects pattern like syntactically singular but semantically plural collective nouns such as *team*, *couple* and *committee* in three respects. First, they are unable to bind singular personal reflexives (38a)/(39a). Second, they are incompatible with semantically singular secondary predicates (38b)/(39b). Third, they are incompatible with a reading of *separately* found in plural comitative contexts whereby *separately* distributes over events and pairs each event with a member of the plural comitative NP (38c)/(39c).³

- (38) a. The **team** – that is, Peter’s_i team — met on Thursday (*himself_i).
 b. This **couple** will meet (*as a free man) tomorrow.
 c. Mary’s **department** is meeting separately.
 (* on relevant reading: ‘Mary is meeting with the members of her department separately.’)
- (39) a. Peter would like [**PRO** to meet on Thursday (*himself)].
 b. Peter told Elaine that he expected [**PRO** to meet (*as a free man) the following day].
 c. Mary told the chair and the dean that she prefers [**PRO** to meet separately before Christmas].
 (* on relevant reading: ‘Mary told the chair and the dean that she prefers to meet with the chair and the dean separately before Christmas.’)

(Landau 2016a:573–574)

³A disclaimer: My own linguistic intuition agrees firmly with the judgments in (38) but not firmly with the judgments in (39). (That being said, judging (39a) is a delicate matter, because as Landau points out, one has to ignore the parse in which *himself* attaches at the matrix level.) Here I will assume for the sake of argument that the data as reported by Landau are correct. But if the facts end up being subject to inter-speaker variation, then the consequences of the data for different theories of control would obviously have to be reassessed.

The facts in (38)–(39) follow straightforwardly on the “AM+PRO” analysis, provided that we analyze the AM+PRO complex as a syntactically singular, semantically plural nominal constituent that the syntax does not have internal access to — in other words, just like a collective noun. On the “AM+v” analysis, by contrast — whereby the PRO subjects of the bracketed clauses in (39a–c) are syntactically and semantically singular throughout — it becomes less clear why the facts in (39a–b) should play out as they do.⁴

But unfortunately for the overall argument, the syntactic assumptions necessitated by the PRO+AM approach undermine another key part of the argument, namely that ATB-mates are identical in all respects (see *Premise c* in (14) above). How is it that the subject of the first conjunct is [3rd PRO_i] whereas the subject of the second conjunct is [3rd AM PRO_i]? If ATB-mates are allowed to mismatch in whether they incorporate AM, then why could they not also mismatch in person features? And if ATB-mates can mismatch in person features, then we no longer have any reason to suppose that the PRO subject of *meet for debate* is morphologically third-person at all. I therefore conclude that the argument cannot be rescued by making different syntactic assumptions.

5. Conclusion

In this reply, I have argued that person mismatches in partial control structures do not constitute decisive evidence in favor of the PF view of agreement, *contra* Landau (2016b). To be sure, this does not mean that agreement is *not* a PF phenomenon⁵ — only that we have one reason fewer for thinking that it is.

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⁴Landau’s (2016a) purpose in presenting the data in (38)–(39) is to argue against the null comitative analysis of partial control, on which see, among others, Hornstein (2003); Rodrigues (2008); Boeckx, Hornstein, and Nunes (2010); Sheehan (2012). Landau does not explicitly discuss the potential relevance of these data to the choice between his 2016b “v+AM” approach to partial control *vs.* a minimal variant thereof in which AM affixes to PRO instead of to *v* (although he does discuss and argue against a variant of the comitative analysis in which the comitative attaches to PRO, which is similar in at least some respects to a “PRO+AM” approach). Instead, Landau (2016a) cites his 2016b approach as one in which PRO in partial control is “semantically plural at LF” (Landau 2016a:572). But for the reasons discussed in section 3 above, this is not actually an accurate characterization of the v+AM approach. The associative morpheme AM ensures that the understood logical subject of the predicate is semantically plural, but PRO itself is not semantically plural unless its controller is.

⁵In this connection, Merchant (2014) proposes that gender features on human-denoting nouns act as presuppositional filters in the same way they do for pronouns. This analytical move gives rise to the same kinds of puzzles we see in the pronominal domain whereby sometimes these features seem to act as though they are not interpreted. While a thorough investigation of these issues would be needed before we could draw any firm conclusion, Merchant (p.c.) suggests that the simplest solution would be one in which PF agreement gives rise to uninterpreted gender features.

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