On Semantic Agreement

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Background: Sauerland & Elbourne 2002 reports an interesting configuration of data with British collective nouns such as *team*. As nominal heads of a DP, call it DP$^{\blacklozenge}$, they license standard (1ai) and nonstandard aka **semantic** agreement (1aii), the latter requiring a spec/head goal/probe relation at LF preventing it in existential constructions (1b), and degrading total reconstruction (1c):

(1) a. A northern team {i. is /ii. are} winning
b. There is /*are a northern team playing — LF spec/head required
c. A northern team are bound to win — LF spec/head required: $\sqrt{}\exists >$ bound / * bound $> \exists$

Furthermore, as discussed in Smith 2017, mixed agreement is asymmetrically possible:

(2) a. A northern team **is** proud of **themselves** b. *A northern team **are** proud of **itself**

All existing treatments assume that *team* is endowed with a lexical property Φ_{plural} (encoding that a team is a plurality of members). DP$^{\blacklozenge}$ is otherwise marked singular and interpreted as singular (there is a single team) but Agree can somehow tap Φ_{plural} to trigger plural agreement. Any account (Sauerland 2004, den Dikken 2001) assuming that DP$^{\blacklozenge}$ can simply be plural can't account for (2a). It is mysterious under any other account (Sauerland & Elbourne 2002, Smith 2017, 2024, i.a.) save for Thoms's 2019: (i) how this tapping is allowed, and (ii) why LF spec/head is required. Re (i), DP$^{\blacklozenge}$ ought to be:

(3) $[_{DP^{\blacklozenge}}\ [_D A]\ [_{NumP}\ [_{Num}\ \Phi_{singular}]\ [_{NP}\ [_N$ team-$\Phi_{plural}]]]]$ (cf. this/*these team)

How can Φ_{plural} be accessed by a probe across $\Phi_{singular}$ (which D can, as shown, never do), and why is LF spec/head required if Agree is derivational? Thoms 2019 assumes in addition to a standard derivation for standard agreement a derivation (invoking external remerge), where only the NP is merged lower than, and is probed by, T, before remerging higher externally augmented by Num and D:

(4) $[[_{DP^{\blacklozenge}}\ [_D A]\ [_{NumP}\ [_{Num}\ \Phi_{singular}]\ [_{NP}\ [_N$ team-$\Phi_{plural}]]]]\ [\ T\ [_{VP}\ \cancel{[_{NP}\ [_N$ team-$\Phi_{plural}]]}$ be…]]]]

This derives how T accesses Φ_{plural}, but not in (1b) due to the intervening Num, and the why of (1c): narrow scope requires merging D lower than T in the reconstruction site, blocking Φ_{plural} access.

Quantified DPs: These proposals do not account for the following French semantic agreement paradigm showing both nonstandard agreement as in (1a), and prohibiting reconstruction as in (1c):

(5) Une majorité d'entre nous est/ sont/sommes toujours là /A majority of us is / are$_{3rd\text{-}pl}$ /are$_{1st\text{-}pl}$ always here

The whole DP is marked singular and is interpreted as denoting a single majority, triggering standard singular agreement on T. With nonstandard 3rdpl or 1stpl agreement, $\exists$ must outscope *always*, illustrating the property of semantic agreement in (1c). With pl agreement, DP$^{\blacklozenge}$ must be understood to denote a plurality of people including the utterance speaker if 1st pers: this is unexpected under any treatment, including Thoms's, which views agreement on T as semantically uninterpretable formal features (a near universal consensus challenged below): it predicts that what is above the N *team* or above *nous* in (5) is interpretively irrelevant, incorrectly given the contrasts (6a/b) due to DP$^{\blacklozenge}$ denoting a singleton in (6a):

(6) a. L'un d'entre nous est/*sont/*sommes là / b. Deux d'entre nous *est/sont/sommes là
One of us is / *are$_{3rd\text{-}pl}$ /*are$_{1st\text{-}pl}$ here — Two of us *is / are$_{3rd\text{-}pl}$ /are$_{1st\text{-}pl}$ here

To account for this paradigm, we propose, as in Charnavel & Sportiche 2024 that semantic agreement on T is meaningful: much like Φ-features on pronouns (Heim 2008), it carries a presupposition, not about T – this would be meaningless – but about what T agrees with, namely DP$^{\blacklozenge}$ as stated in (8) below: plural on T means that DP$^{\blacklozenge}$ must denote a plurality (hence excluding plural agreement in (6a)), 1st person means that in addition, DP$^{\blacklozenge}$'s denotation must include the speaker. This explains why the determiner in (1aii) cannot be plural (a puzzle under accounts postulating that the DP can be syntactically marked plural to trigger plural agreement) as agreement is not about being marked plural but about being allowed to have a plural denotation. This also explains asymmetries such as:

(7) a. This committee (i. is/ii. are tall} / b. This committee { i. was/ ii. *were} founded last year

Where a predicate selecting one or the other reading - *tall* only applies to committee members, *be founded* only to the institution - behaves asymmetrically: singular agreement in (7ai) being syntactic does not preclude the predicate to apply to the subject's possible plural denotation, while plural agreement (7bii) triggering a presupposition precludes a predicate not applying to a plurality. In sum:

(8) When DP$^{\blacklozenge}$ semantically agrees with T, Φ-features on T (extendable to other head probes: A, etc…) carry a presupposition constraining the denotation of DP$^{\blacklozenge}$ (number and person).

(8) handles other quantified structures generalizing (5-6), raising problems for all alternative accounts, and deriving meaning effects not discussed here. The facts in (2) follow if anaphor binding requires referential covaluation rather than a Φ-feature-Agree relation: the semantically agreeing DP$^{\blacklozenge}$ in (2b) must denote a plurality due to (8b) and can't antecede a singular; the syntactically agreeing DP$^{\blacklozenge}$ in (2a) may still denote a plurality (viz. *this team is tall≈ the members are tall*, Barker 1992) and antecede a plural.

Conjunction: Agreement with conjunctions displays the hallmarks of semantic agreement. In (9), it codes how the conjunction is interpreted: as a group in (a), as ambiguous in (b) depending on *and* being cumulative (Schmitt 2019) and on the nature of VP – distributive vs. collective), and as a singleton in (c):

(9) a. [$_{DP}$$^{\blacklozenge}$ A man and a woman] {have/*has} laughed (distributive)/ {have/*has} danced together (collective)
b. [$_{DP}$$^{\blacklozenge}$ Each man and each woman] {?have/has} laughed / {have/*has} danced together
c. [$_{DP}$$^{\blacklozenge}$ A devoted father and an efficient boss] is being celebrated today.

These subjects lacking syntactic differences (and the * in (a) excluding an RNR analysis), this paradigm shows that the number feature value on T triggers a presupposition about the denotation of the agreement trigger, the subject DP$^{\blacklozenge}$. This is consistent with the long-noted lack of plural agreement with conjunctions in existential constructions, paralleling (1b) (note mandatory narrow scope for DP$^{\blacklozenge}$):

(10) There always {a. is / b. *are} [$_{DP}$$^{\blacklozenge}$ a man and a woman] in the house *DP$^{\blacklozenge}$>always / √ always> DP$^{\blacklozenge}$

Now (10b) is excluded for lack of the requisite spec/head relation; (9b) can be interpreted as singular (*each man and each woman =each man or woman*) i.e. as *each* cumulatively (Schmitt, 2019) quantifying over the sum {[[man or woman]]} licensing singular agreement, but not with collective predicates which need plural agreement; in (9a), this is not possible as *a man and a woman* cannot mean `one who is a man or a woman', hence plural agreement; in (9c) when the conjuncts pick out the same individual, agreement must be singular. The contrast between (10b) and the possibility of plural in `*there* ***are*** *two women here*' supports the claim (Farkas and Zec, 1995, Doron 2000, i.a.) that conjunctions lack global syntactic Φ-features: their agreement is always semantic. That conjunction instantiates semantic agreement makes a syntactic treatment of such agreement in (1), (5) and (9) a tall order, given the syntactic complexity of (9). Now conjunction, unlike the previous cases (1c, 6), does allows reconstruction:

(11) [$_{DP}$$^{\blacklozenge}$A man and a woman] are always here √ DP$^{\blacklozenge}$ > always / √ always > DP$^{\blacklozenge}$

We conclude that this is due to an alternative structural analysis of (11) involving reduced clausal coordination (e.g. RNR or backwards Ellipsis, despite plural agreement – see Grosz 2015 on summative agreement), corroborated by the degraded reconstruction possibility in: *[$_{DP}$$^{\blacklozenge}$ A man and a woman] are always dancing together*] (* always> DP$^{\blacklozenge}$), where the collective predicate bars such an analysis.

Why LF Spec/Head: But why, when it does hold, does (8) require an LF spec/head relationship? The LF requirement follows immediately from the presuppositionality of Φ-features, since presuppositions are cashed out at LF. Spec/Head also follows given that presuppositions on X either constrain X (as with pronouns) or (much like s-selection) on X's immediate arguments (subjects and complements as with verb, modifiees as with adverbs). Viewing T as taking DP$^{\blacklozenge}$ as syntactic argument and VP as syntactic and semantic argument, Φ-features on T can only constrain the denotation of DP$^{\blacklozenge}$.

Is (8) theoretically predicted? Yes: Given Chomsky's 1986 Full Interpretation Principle, theories of agreement must somehow state that Φ-features on T are LF invisible, viewed as formal only, due to their entering into standard syntactic agreement with DP$^{\blacklozenge}$ (or, perhaps, being default values). This predicts that in the absence of syntactic agreement, these Φ-features on T should be interpreted the way such features are otherwise interpreted, namely as presuppositional as proposed in (8).

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