AGREE, the Agreement Hierarchy and Late Adjunction
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Overview: We present an account of Agreement Hierarchy (Corbett 1979 *et seq.*) effects that hold within a single sentence, which *prima facie* suggests the Hierarchy operative as a sentential level constraint. However, we show that rather than showing the Agreement Hierarchy being a sentential level constraint (Corbett 1983) the patterns are obtained through a particular instantiation of the operation of AGREE, independently argued to be necessary for handling semantic agreement in Smith (2015), coupled with the Late Adjunction hypothesis of Stepanov (2001). Four cases of agreement mismatches between semantic and morphological agreement are presented, where mismatches are tolerated in only one way, namely in accordance with the Agreement Hierarchy.

The Agreement Hierarchy: Semantic Agreement (SA) refers to an agreement that represents the semantic interpretation of a word, whereas Morphological Agreement (MA) refers to agreement that represents the morphology. Hybrid controllers are words where agreement occasionally shows a divergence between its morphology and semantics, when we can then distinguish SA from MA. British English collective nouns (CNPs) for instance can control plural agreement, even though the morphology of the CNP is singular:

(1)   The committee **are** debating the issue now.

(Corbett 1979 *et seq.*) proposes the Agreement Hierarchy to describe corpus level frequencies of semantic versus morphologically motivated agreement, when both are allowed to be controlled by a single controller. He argues that at a corpus level, the frequency of SA for elements increases monotonically moving rightwards along the hierarchy, whereas MA is more likely for elements on the left (see also Levin 2001). Attributive elements are then more likely to show MA than predicates at the corpus level.

(2)   attributive — predicate — relative pronoun — personal pronoun
       ←-- morphological agreement   semantic agreement -->

Sentence level agreement mismatches: When there are two targets of agreement that agree with a hybrid controller, we expect in principle four configurations regarding agreement on the controllers: (i) matching MA; (ii) matching SA; (iii) MA on target 1, SA on target 2; (iv) SA on target 1, MA on target 2. In this paper, I show numerous cases of 3/4 patterns, where mismatches between the agreements are allowed but only in one direction. First consider British English:

(3)   a. The government has offered itself up for criticism (with this policy).

       b. The government have offered themselves/each other up for criticism.

       c. The government has offered $^?$themselves/each other up for criticism.

       d. *The government have offered itself up for criticism.

Mismatches between the targets are allowed (3c), but only not in (3d). Curiously the illicit mismatch appears to be the configuration the Agreement Hierarchy in (2) would rule out were it operative as a sentential level constraint. The same pattern is found in Hebrew (Landau to appear), where the noun *be'alim* 'owner' is morphologically plural, but can refer to singulars, and control singular agreement. In addition to the matching agreements, we find a contrast between (4a) and (4b):

(4)   a. ? ha-beal-im   ha-kodm-im   maxar   et   ha-makom lifney šana
          the-owner-PL the-previous-PL sold.3.SG ACC the-place   before year

          'The previous owner sold the place a year ago.'

       b. *ha-beal-im   ha-kodem   maxru   et   ha-makom lifney šana
          the-owner-PL the-previous.SG sold.3.PL ACC the-place   before year

          INTENDED: 'The previous owner(s) sold the place a year ago.'

This time, the licit mismatch is found when the attributive element shows MA, but the predicate SA. The converse mismatch is not possible. A parallel pattern is found in Russian (Corbett 1983). Given that the Agreement Hierarchy is only statable at a corpus level, it is surprising to see it active as a sentential level constraint.

The syntax of Semantic Agreement: Smith (2013) shows that when agreement unambiguously involves AGREE, SA is only possible when the controller of agreement c-commands the target at LF. This captures the following from British English, where plural agreement from the CNP is disallowed if it reconstructs for scope (Elbourne 1999):

(5)   a.   A northern team is likely to be in the final. $\exists \gg$ likely / likely $\gg \exists$

       b.   A northern team are likely to be in the final. $\exists \gg$ likely / *likely $\gg \exists$

An AGREE for Semantic Agreement: We follow Smith (2013) in assuming that ϕ-features are split into two halves: a uF that is interpretable by the morphology and an iF that is interpretable in the semantics. Both halves exist in the syntactic derivation, before being split at the point of transfer to the interfaces. AGREE is an operation that is split into two components, AGREE-LINK and AGREE-COPY (Arregi & Nevins 2012, Bhatt & Walkow 2013). For SA to be possible, AGREE-LINK must link the target to the iFs of the hybrid controller. This is only possible when the iFs are active for agreement. AGREE-COPY can happen at the point of transfer or along the PF branch. Since iFs are not present along the PF branch, their values must be copied at the point of transfer. We further assume that if AGREE-COPY happens within the syntax, it must do so in a Reverse Agree configuration (Wurmbrand 2012, Zeijlstra 2012). AGREE-COPY in the PF-branch happens bidirectionally (*cf.* Bobaljik 2008). In sum, we propose the following formulation of AGREE:

(6)   Agreement by Probe Γ with Goal γ proceeds in two steps:

       a.   AGREE-LINK: a Γ has unvalued ϕ-features that trigger Agree with γ (possibly more than one). The result is a link between Γ and the ϕ-features of the γ.

       b.   AGREE-COPY: the values of the ϕ-features of γ are copied onto Γ linked to it by AGREE-LINK.

          i.   if AGREE-COPY happens at transfer, this requires that γ c-command the Γ.

Deriving Agreement Hierarchy based mismatches: Throughout the derivation AGREE-LINK links target and controller at the first derivational step when they are both in the structure. Mismatches happen when one target links to the iFs, but the other target links to the uFs of the controller. In order to understand why not all mismatches are equal, we propose the following condition on SA:

(7) iFs that are active for agreement cannot be ignored by AGREE-LINK.

Per (7), iF agreement must happen when it can. Furthermore, we propose that AGREE-LINK can optionally deactivate an iF, meaning that any further AGREE-LINK operations must target the uFs of the controller. Mismatches are then created when the first target undergoes AGREE-LINK and deactivates the iFs of the controller, rendering them invisible for further iterations of AGREE-LINK.

British English: Since AGREE-LINK happens at the first derivational step that target and controller are in the structure, this has the effect that anaphors undergo AGREE-LINK before verbs. Consider (3). The anaphor merges into the structure complement to V, and undergoes AGREE-LINK with the CNP when that merges in Spec,vP. If at this point the iFs of the CNP are deactivated, then AGREE-LINK will only be able to link T to the uFs of the CNP once T enters the structure. This derives the mismatch in (3c). The illicit mismatch is not possible in (3d) is not able to be generated, since it would require the iFs on the CNP to be active for T, but the anaphor would need to ignore them at the point of AGREE-LINK.

Hebrew: The same explanation is found for Hebrew, if we assume that adjuncts merge late in the structure (Stepanov 2001). As the derivation is being built, *be'alim* is merged into the structure in Spec,vP. Once T is merged into the structure, it undergoes AGREE-LINK with *be'alim* and, provided its features are active, a link is created between T and the iFs of *be'alim*. At the end of the process of cyclic merge, adjuncts are merged counter-cyclically into the derivation. Thus, at the first point that the adjective can undergo AGREE-LINK with the controller, the iFs on the DP are potentially deactivated, allowing for the possibility of a mismatch. However, as with British English, the elements that merge later (in this case adjuncts), must show uF agreement when there is a mismatch.

Conclusion: The Agreement Hierarchy is not a sentential level constraint. Apparent examples of it operating as such are arise from the interaction of the mechanism of AGREE, coupled with the order of which elements are merged into the structure.

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