Antireconstruction as layering[*]

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1.   Antireconstruction and agreement

This paper provides a unified explanation for a number of cases where noncanonical agreement seems to bleed A-reconstruction. One comes from group nouns in British English, such as *team* or *committee*. Although these nouns seem to be syntactically singular, as seen by the requirement that they take singular demonstratives (*this/*these team*), they can control either singular or plural agreement in British English. This is noncanonical in the sense that it marks a (dialect-specific) departure from the standard scenario where T Agrees with syntactic number features. As noted by Sauerland and Elbourne (2002), group noun DPs cannot reconstruct for low scope when there is plural agreement.

(1)   a.   A Spanish team **is** likely to win the Champions League.   *likely* $> \exists$
        b.   A Spanish team **are** likely to win the Champions League.   **likely* $> \exists$

Another set of interactions between noncanonical agreement and reconstruction are to be found in Nevins and Anand (2003). They consider cases of A-movement in Hindi, Greek and Russian where some DP moves to Spec,TP seemingly only to satisfy the EPP: T doesn't agree with it, but rather with some other lower argument (if there is one). In all these cases the subject fails to reconstruct, even though reconstruction is available with regular subject-verb agreement configurations. Thus in Hindi, ergative subjects do not agree with T and they don't reconstruct to scope below quantified objects,[1] while agreeing nominative subjects do reconstruct.

[1]Object>subject scope is known to require subject reconstruction: see Hornstein (1995), Johnson and Tomioka (1998), Fox (2000), as well as Nevins and Anand for further argumentation. There are a number of alternative analyses for these facts which space restrictions precludes me from discussing here: see Thoms (2013) Nevins and Anand (2003) for specifics. On the Hindi data, Rajesh Bhatt (p.c.) informs me that there is variation in the judgments on some of the data which rule out one important alternative analysis, in which case there may be more than one route to frozen scope across Hindi varieties.

(2)   a.   kisii šaayer-ne har   ghazal   lik^{h}ii
              some poet-ERG every song-NOM write.f-PERF
              "Some poet wrote every song." (∃ > ∀, *∀ > ∃)   ergative subject

      b.   koi   šaayer   har   ghazal   lik^{h}taa   hair
              some poet-NOM every song-ACC write.m-IMPF be-PRES
              "Some poet writes every song." (∃ > ∀, ∀ > ∃)   nominative subject

This can be described as noncanonical agreement because it is nonlocal. But why would noncanonical agreement preclude reconstruction? In this paper I develop an explanation in terms of a new approach to (anti)reconstruction which I call *layering*, where functional structure is added to moving nominals in a sideward fashion as they move upwards.

2.   Locality

We can take a first step to an analysis by understanding the noncanonicalness of these agreement configurations in structural terms. Assuming an Agree-based approach, cases like (2a) seem to involve a locality violation, as T would have to probe past the external argument in Spec,*v*P in order to Agree with the internal argument. The British English group noun configuration begins to look similar once we adopt two independently motivated assumptions about number features: first, that in standard cases a DP's syntactic number features reside in NumP, a functional projection between *n* and D; second, that root-selective instances of number agreement, such as pluralia tantum or 'semantic' agreement like with the group noun cases, involve agreement with number features on *n* (see e.g. Kouneli 2019 and references therein). With these assumptions as background, the plural agreement case would also seem to require a locality violation, as T would have to probe past Num in order to find the features on *n*. The parallel between the group noun cases and the object agreement cases can be seen here:

(3)   a.   b.
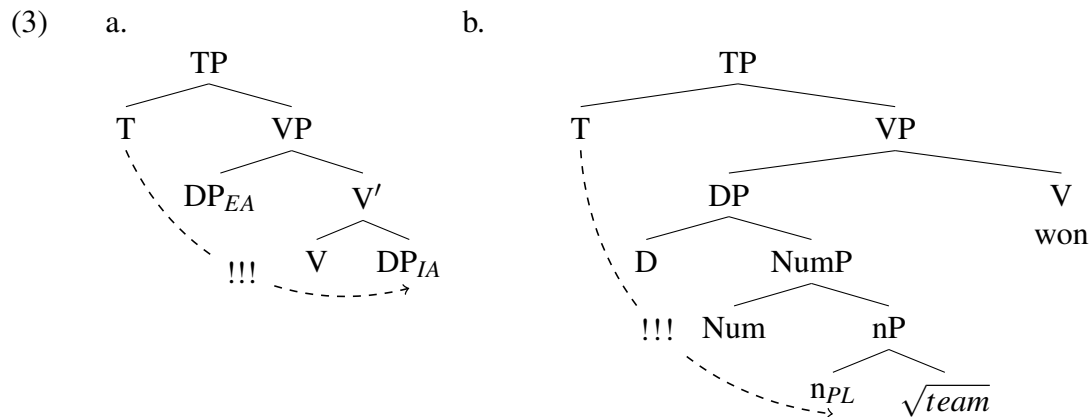
Nevins and Anand (2003) propose that the locality problem with object agreement is solved by "punting," which is where the intervening argument is A-moved out of the way before T probes for a goal. Such derivations seem irrevocably countercyclic – they require T to

probe after it has acquired a specifier – and it is not obvious how they extend to the group noun cases with structures like (3)b, where moving Num out of the way would seem to necessitate involve moving *n* with it. Nevertheless the idea that the plural agreement option requires movement is supported by the fact that it is impossible when the subject doesn't move to Spec,TP, as in existential constructions (Sauerland and Elbourne 2002).

(4)   There {was/*were} a committee holding a meeting in there.

We thus have two problems that we would like to solve with one analytical move: the locality problem, and the antireconstruction problem.

3.   External remerge and antireconstruction

The analytical move I would like to make is to invoke external remerge (AKA sideward movement, parallel merge, interarboreal movement; see Nunes 1995, Citko 2005, Vries 2009 among others) as a means of adding structure to a nominal as it moves to its terminal position. I will argue that this gives us a way around the locality problem, and that this particular route around the locality problem predicts antireconstruction.

External Remerge (ER) is the name given to a situation where X is merged with Y and then remerged with some Z which is part of a separate subtree which has not been merged with Y or anything containing Y. It is remerge since X has been the input to a previous instance of merge; it is external since X is merged with a Y which is not in X's host structure. Y might come from the numeration, or it might be some other complex structure which has been built in an 'auxiliary' derivation; whichever way, this results in a multirooted structure, and subsequent instances of merge will be required to ensure they form a single syntactic object. Although it looks somewhat exotic in view of approaches to movement directly descended from the GB-era move α rule, ER is actually quite difficult to rule out without recourse to stipulation in merge-based theories, and various authors have sought to restrict ER at the interfaces rather than in the narrow syntax, with many possible outputs of ER being ruled out by interface conditions (see e.g. Nunes 1995, Citko 2005). ER has been used to account for a variety of constructions which seem to involve 'sharing' of arguments in multiple positions, such as Right Node Raising, and its utility for deriving antireconstruction has recently been developed by Johnson (2012, 2016). It is this utility that I seek to exploit here.

The empirical matter that Johson addresses in this work is reconstruction in *wh*-movement chains. The availability of bound readings of examples like (5a) seem to require the restrictor of the *wh*-phrase to be interpreted in a low position in the c-command of the subject, and yet the *wh*-quantifier which that restrictor combines with needs to take sentential scope; that is, the restrictor reconstructs, but the determiner does not. On a conventional 'xerox-style' implementation of the copy theory of movement, this seems to require some kind of distributed deletion, as in (5b).

(5)   a.   Which picture of his$_i$ mother did [no boy]$_i$ like?
       b.   LF: which ~~picture of his mother~~ did [no boy]$_i$ like ~~which~~ picture of his$_i$ mother

The challenge is to ensure that the quantifier is not interpreted in the clause-internal position, and Johnson's alternative proposal, employing external remerge rather than distributed deletion, is that this is possible because the quantifier is never in that low position: the argumental nominal is combined with the *wh*-quantifier (analysed as a Q-morpheme in the sense of Cable 2007) as an instance of ER, with Q being added in a separate subroot and the QP that comprises this separate subroot being merged into the Spec,CP position. (6) illustrates such a derivation; as we can see, Q is not c-commanded by any clausal material, although the DP the Q combines with is.
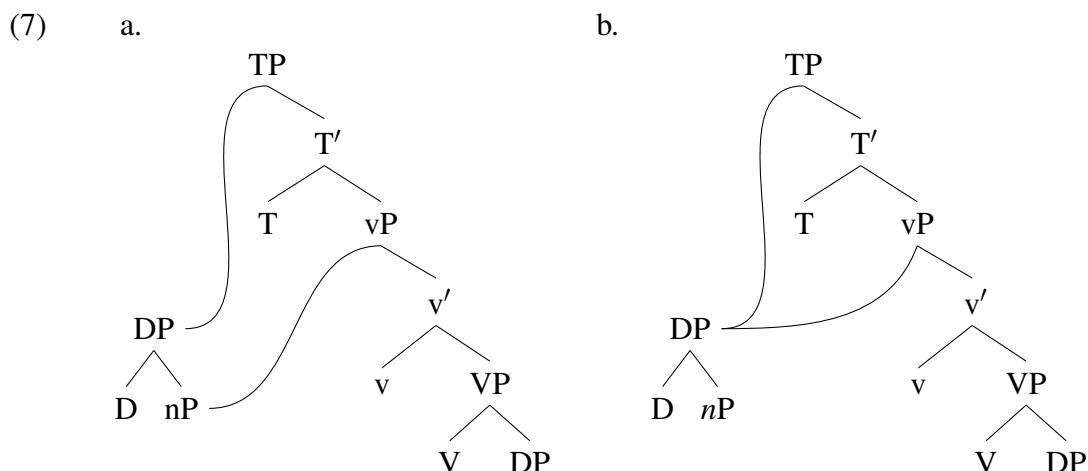
(6)
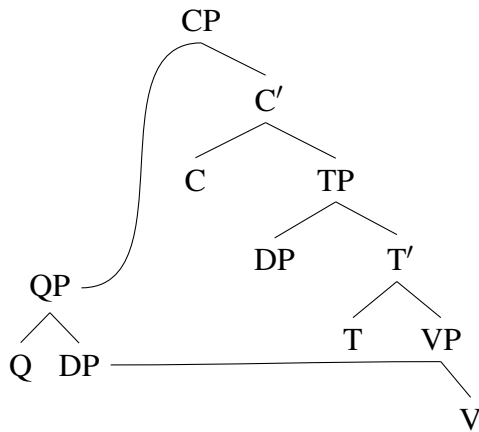
Johnson provides a semantics which ensures that this results in the restrictor being interpreted low (in its base position) and the Q element being interpreted in Spec,CP (its lowest position in the main root). The effect of distributed deletion is thus derived by distributing construction of the moved expression, as part of it is built prior to merge in the base position, and non-reconstructed material is added onto it in a sideward fashion after first-merge. I call this way of constructing a nominal *layering* in order to distinguish this particular type of ER from others.

4.   Layering with A-movement

If layering is possible for deriving non-reconstruction of *wh*-quantifiers, then we might consider extending the analysis to account for antireconstruction more generally by saying that if a given quantificational element is not to reconstruct, it has to be layered onto the moving nominal in a separate subroot. Thus to derive a case where a D takes wide scope in an A-chain,[2] we would have a structure like (7)a: an *n*P is merged in the thematic position, then D is layered on, and then the resulting DP is merged in Spec,TP, the quantifier's scope

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[2]This is not to say that wide scope for a quantified subject requires the derivation in (7)a, as it may also be possible to use a structure like (7)b but then employ in-situ scoping mechanisms to give the quantifier wide scope by essentially nonsyntactic means. Such an option does not affect the argument here.

position.[3] By contrast, reconstruction of the whole DP (i.e. the low scope interpretation) would be derived by merging D with the *n*P earlier, before merger of the argument into its thematic position, as in (7)b. As before, the relevant interpretation would be derived by interpreting the nominal in its first-merge position.

(7)   a.   b.

The most important aspect of this approach for our purposes is that reconstruction and antireconstruction involve different sets of hierarchical relations in the syntax. In the reconstruction structure, (7)b, T and other higher heads c-command every node in the internal argument, whereas in the antireconstruction structure, (7)a, T does not c-command its D layer, since it is layered on in a sideward fashion.

This difference in c-command relations is the key to our explanation of the connection between antireconstruction and locality. Layered material, such as the D in (7)a, will be invisible for any probing that's done by T, and so this D will not be an intervener; consequently, a T that is searching for D-related features will be able to probe past this nominal without violating locality. Viewing the matter in a more locality-centric way, the layering approach provides us with a means by which to allow T to find the internal argument without violating relativized minimality, one which is reliant of movement of the intervener. Note that it's not the case that movement is getting an intervener out of the way, since the *n*P is not actually an intervener; rather, what movement does is provides an opportunity for distributing construction of the moving element, an opportunity that is not afforded if there is no movement.[4] Crucially, it predicts antireconstruction: the D that is layered onto the internal argument is not c-commanded by scope-taking elements below T, and so it takes wide scope.

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[3]To get the right interpretation, we could employ a version of the semantics proposed by Johnson 2012 for QR. Considerations of space restrict me from expanding on the various issues to be resolved for the syntax-semantics mapping in this short paper.

[4]This means that the layering solution to the locality problem has no countercyclicity issues, and in this respect it is an improvement on Nevins and Anand's 'punting' analysis. Moreover it is fully compatible with a derivational approach to locality, unlike some other approaches to the salvaging effect of moving interveners (e.g. the 'salvation by deletion' approach of Bošković 2011).

5. Deriving the data

Let us begin by showing how the proposal deals with the British English group noun data. Recall the locality problem we are trying to solve: plural agreement requires T probing for and finding features on *n*, and thus it requires that Num does not intervene between T and *n* when T searches for a goal in its c-command domain. From the perspective developed here, this means that Num and all other higher material in that nominal (i.e. D) will be layered onto the external argument, and thus they will not be c-commanded by T or anything lower than it. (8) illustrates a simplified case:

(8) a. Step 1: Agree with *n*

TP
T′
T
vP
ϕ
nP
n*PL*
√*team*
...
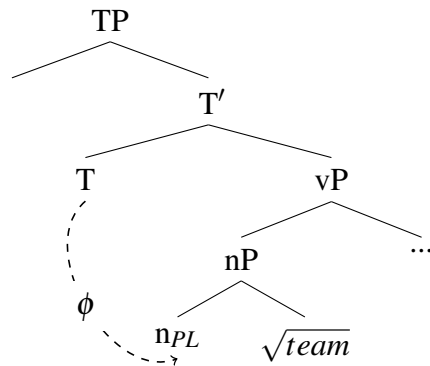
b. Step 2: add Num and D layers onto *n*P in separate subroot, remerge in Spec,TP

TP
T′
DP
T
vP
D
NumP
a
Num
nP
...
team
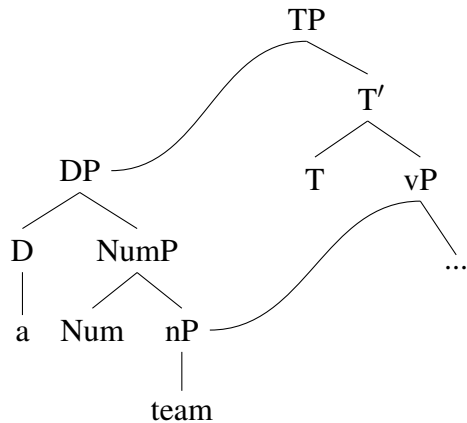
This account predicts that D will always have to take scope above the T node that controls noncanonical plural agreement, and thus it correctly predicts the antireconstruction effect observed with group noun DPs.[5] It also accounts for the data from existential constructions in (4): since the subject is low, there is no way to layer on Num and D while ensuring that

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[5]Note that nothing about this account rules out an analyses where *n*Ps are always merged in thematic position, as in Sportiche (2005). If this was right, then all A-movements would involve at least one instance of layering, and apparent reconstruction into the base position would involve a derivation where the DP formed by layering is merged with the clausal projection as low as possible, an instance of very local A-movement, with an additional instance of A-movement to get the DP into its surface position. See Heim

they are not in the c-command domain of T, and so T will never find *n* first and thus will never trigger plural agreement.

Now to return to the Hindi case, recall that these involve ergative subjects that do not control agreement; rather, T Agrees with the internal argument, if one is present. The approach here offers a new perspective on (split) ergativity and its role in locality calculation, but space restrictions preclude a full examination of the alternatives,[6] so for now I will simply assume that an ergative DP would constitute a (defective) intervener when T tries to probe for a goal with phi-features (Nevins and Anand 2003). Specifically, I assume (in line with the above) that in standard cases, phi-features in a nominal are borne on functional projections above the *n*P (such as NumP), and that these projections are the target for the phi-probe on T; thus, a full DP in Spec,*v*P, whether it be ergative or nominative, would constitute a potential goal. If it is an *n*P that is merged in Spec,*v*P, and that *n*P does not bear any phi-features, then this would not constitute a goal and thus it would not be an intervener. This is how we get round the locality problem: first merge an *n*P into Spec,*v*P, externally remerge it with its functional structure, and then remerge the DP formed in Spec,TP.

(9)   a.   Step 1: T probes for ϕ-features

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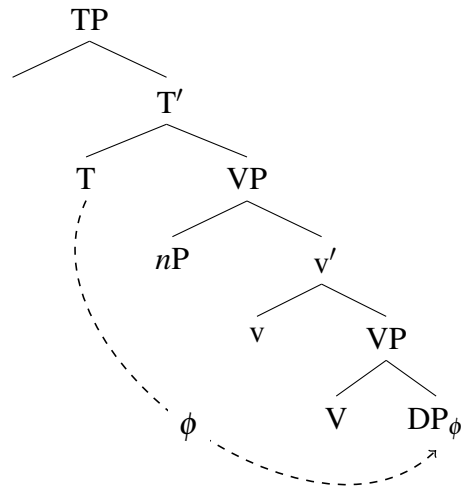
(1997) and Johnson and Tomioka (1998) for reasons to believe that DPs might not actually reconstruct as low as their lowest base positions, but to some low position just above it.

[6]I will mention one possible avenue for further exploration in light of the system developed here, specifically in the domain of split ergativity. Consider person splits in ergative systems. If pronouns are nominals which are built around *n*Ps which are inherently specified for phi-features, then any such nominals would always constitute a goal for T, and would thus always enter into the kind of Agree relation that conditions nominative on the external argument. Variation across languages with respect to pronoun splits may then be tied to where in the extended DP phi-features reside in a given language: in some languages, they may be on projections like NumP, but in others they may be on *n*.

b.   Step 2: layer Num and D onto *n*P, remerge to Spec,TP
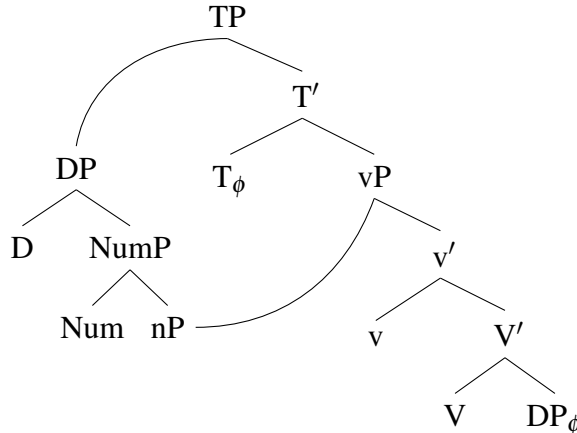
Thus the layering analysis gives us a way around the locality problem, and it predicts that the subject does not take low scope, as desired. Such an analysis would apply to other cases where the subject is not an agreement controller, including ones where ergativity is not implicated (e.g. Greek promoted goals, as discussed by Nevins and Anand 2003).

6.   Interactions with negation

An additional virtue of the account developed here is that it can explain some puzzling differences between different kinds of negation and their interaction with groun noun DPs. As observed by Thoms (2013), group noun DPs can scope below the affixal negative *-n't*, even though they cannot scope below negative adverbs like *never* (as originally observed by Sauerland and Elbourne with NPI data).
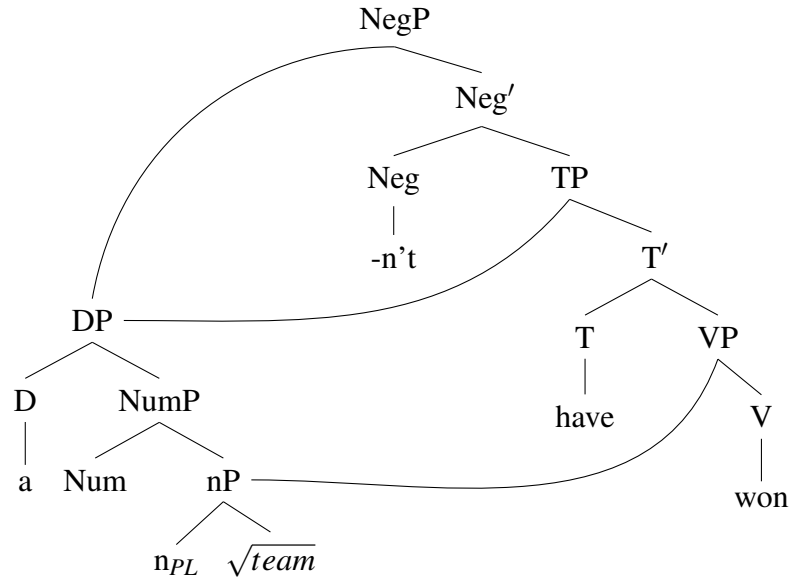
(10)   a.   An English team haven't reached the final in two years. $\neg > \exists$
       b.   A Scottish team have never reached the final. $*\neg > \exists$

This contrast can be understood in terms of the syntactic height of negation. In the case of the adverbs, it is clear from their surface position that they must be generated below T. If this is so, we do not expect the group nouns to scope below them with plural agreement: plural would require layering Num and D on after T has probed, and yet the adverb would need to be merged below T.

   Things are different with affixal negation *-n't*. The standard analysis of *-n't* is that it is a reduced version of *not* which must occur in the same syntactic projection as it, one that is located between TP and VP (e.g. Pollock 1989). But there are reasons to reject this. First, there are morphological reasons to believe that *-n't* is an inflectional morpheme rather than a reduced version of *not*: for one thing, it triggers suppletion (*won't, ain't*; see Zwicky and Pullum 1983 for much more argumentation). If it's a head that occurs on T, then a standard analysis of verbal morphology would make it the head of a projection in the clausal spine, such as NegP (see Zeijlstra 2004 for such an analysis). But then the fact that *-n't* is further from the stem on auxiliary verbs than tense (*ha-s-n't* not **ha-n't-s*) tells us, in

accordace with the Mirror Principle, that the NegP projection must be higher than TP, and that the surface position of the subject must be Spec,NegP or some other such projection (cf. Holmberg 2013). If this is right, then the following layering derivation makes possible the reading where the indefinite scopes below *-n't*.

(11)

```
                              NegP
                                  \
                                   Neg′
                                  /    \
                               Neg      TP
                                |      /  \
                              -n't    /    T′
                                     /    /  \
              DP ─────────────────── /   T    VP
             /  \                       |    /
            D    NumP                  have  /  V
            |   /   \                       /   |
            a  Num   nP ──────────────────/   won
                    /  \
                  n_PL  √team
```

Thus the negative adverb and *-n't* differ because the adverb is merged below T and *-n't* is merged above it.

7. Conclusion

In the preceding I have proposed an account of the interaction between noncanonical agreement and reconstruction in terms of layering, a type of external remerge derivation where material is added onto a moving expression in a sideward fashion. The condensed discussion here only scratches the surface of the proposal's predictions and does not expand on a number of crucial details, in particular relating to how the structures are interpreted, but hopefully I have demonstrated that the external remerge-based approach provides a new angle on reconstruction and intervention which may prove fruitful for further exploration.

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