(Anti)reconstruction as layering
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"Reconstruction" is the term used to describe when a given constituent seems to be interpreted in a position lower than its surface position with respect to certain interpretive effects, for instance for low scope (1a) or anaphor binding options (1b).

(1) a. A Kenyan is likely to win the race.　　b. Which picture of himself$_i$ does John$_{i/j}$ think Bill$_j$ likes?
The challenge posed by such data depends on one's theory of movement. Pre-Minimalist theories derive surface structure interpretations by default, and they have to stipulate some way of "lowering" the moved XP into the trace position to produce non-surface structure interpretation. Minimalist theories, working with the Copy Theory of Movement (Chomsky 1995), get the reconstructed interpretation more easily, since there is a copy of the quantifier in the lower position, but they must then add extra technology to determine the different interpretive options, for instance by converting copies into non-quantificational expressions (see e.g. Fox 1999, Erlewine 2014). Johnson (2012, 2016) develops a novel theory of (anti)reconstruction couched in multidominance terms. On Johnson's theory, the default is that when a DP moves, it is interpreted in its base position, and so when a moving DP seems to take scope in some higher position - for instance Spec,CP in a wh-question - this is because that DP is sideward-merged with a quantificational element Q; the QP formed by this sideward merger is then merged in Spec,CP, where it takes scope. Thus Johnson's theory derives reconstruction as the default, and nonreconstruction of quantificational material follows from it being sideward-merged "on the way" to the surface position and then externally remerged into its surface position.

While Johnson's theory derives reconstruction into base positions readily (e.g. the "picture of Bill" reading of 1b), he does not discuss how it would deal with cases of antireconstruction (the "picture of John" reading), where some content of a fronted nominal is not reconstructed fully to the base position. In this talk we develop a generalized version of Johnson's theory where sideward merge is responsible for all instances of antireconstruction: any material which is not reconstructed is sideward-merged onto the moving element on the way up the tree. We call this process *layering* for exposition, but it adds nothing more to the theory than external remerge does, and we take external remerge to be justified empirically by the existence of complex specifiers (de Vries 2009, Zwart 2011). Layering is distinct from late-merge as it only involves adding an extra layer to a moving element: on an external remerge derivation of this kind, merge only targets roots, and so sideward merging X onto a YP which has merged with some other head Z involves creating a multirooted tree; these are then combined into a single tree by external remerge (again see de Vries 2009). Layering cannot add a complement to a given constituent on the way up, nor can it adjoin to a lower projection contained within a given XP, but it can merge superordinate heads to that XP, and it can add specifiers/adjuncts to the topmost projection of a moving XP.

Sample derivations: <u>nonreconstruction of a determiner</u> involves base-generating just an NP in the base position, merging the nP with D to form a DP which is not dominated by the containing clause, and then externally remerging the DP into its landing site. Since the D is only dominated by material in its landing site, it takes wide scope and so we derive "antireconstruction." Fig.1 provides a rough illustration of such a derivation for A-movement with nonreconstruction of D. (Structures such as these can be interpreted with a semantics like that given by Abels & Martí 2010 for split scope readings of Germanic NegDPs.)

<u>Nonreconstruction of a PP-"complement"</u> requires an analysis where the PP is actually introduced in a specifier position in a DP-internal projection above the core NP; such a derivation of so-called PP-"complements" is motivated in Adger (2013) and is ultimately in line with the general line of thought in which arguments are introduced by functional heads (Lohndal 2014 and citations therein). Thus to derive (1b) on the "picture of John reading", first an nP is moved from the base position; second, that nP is sideward-merged with the head F which introduces the PP; third, the PP is merged with the resulting FP; fourth, all other material is merged on to create the DP and it is externally remerged into a cyclic spec below *John* but above *Bill*; finally, the derivation proceeds to move the whP to its surface position. Fig.2 provides a snapshot of this, where

Fig 1: layering on a D

Fig 2: layering on a PP

we can see that the PP is not c-commanded by material in the CP, but it would be c-commanded by higher specifiers (e.g. the subject of the predicate which selects that CP).

This approach predicts that material which is introduced by layering will not be visible for syntactic processes which would "see" the base position, such as agreement; relatedly, material which is reconstructed (i.e. not layered on on the way up the tree) will obligatorily be visible for the same syntactic processes. We thus predict reconstruction to interact with processes such as agreement and case competition; we show that this is right, and that standard theories don't fare so well.

Argument 1: A-movement in English. Sauerland & Elbourne (2002; S&E) observe that collective noun-based DPs like *a team* can trigger plural agreement in British English, although not when they occur in postverbal positions. SE claim that when there is plural agreement, the team DP cannot reconstruct; but while this is true for cases where the subject scopes below a predicate or an argument, Thoms (2013) notes that the same DPs can reconstruct below negation.

(2) a. An English team is/are in the final.   b. There is/*are an English team in the final.

(3) a. An English team are likely to qualify.   *likely > an English team*
    b. An English team haven't qualified.   *not > an English team*

We assume that plural agreement is triggered by a feature on the n of British collective nouns, a form of inherent plurality (cf. Kramer 2014). We also assume that T probes for a goal in its c-command domain and that it cannot skip a potential goal. This means that if T is to Agree with an inherently plural n, there cannot be a D on that nP when T probes as it would intervene (and trigger singular agreement, unless it was itself plural). In other words, D *must* be layered onto team nPs to derive this "semantic agreement," and so semantic agreement precludes vP-level scope for D. What about (3b)? This follows if the NegP projection hosting *–n't* is above TP, as proposed by e.g. Holmberg (2013) and is suggested by morpheme order (T/Agr is closer to the verbal stem): D would be layered onto the nP on the way to TP and would be below NegP even after remerge in Spec,NegP. (2b) is expected, too, because there is no possibility of layering the D onto nP after T probes: the nominal doesn't move above T, and so T could only ever find D as its goal. We show that S&E's and others' approaches fare less well.

Argument 2: PEPPER. Nevins & Anand (2003; N&A) establish the generalization that when a given DP moves to Spec,TP purely for EPP purposes, without triggering Agreement, it fails to reconstruct (Purely EPP Eliminates Reconstruction, AKA PEPPER). The poster child is Hindi-Urdu ergative subjects: these do not trigger agreement (T agrees with the absolutive object), and they do not reconstruct into vP, but they do seem to scope below negation, much like British *team* DPs. We generalize the account of *team* DPs: in order for a subject to evade Agreeing with T, its D must not occur in T's c-command domain, and so it is layered onto the nP as it moves to Spec,TP. This means we require a layering derivation (as in Fig.1) and so the D cannot take vP scope. This generalizes to other cases where a DP subject evades Agree and is subsequently destined to scope out of the vP, but potentially below higher operators (e.g. Greek promoted goals).

Argument 3: intermediate reconstruction crosslinguistically. Facts such as (1b) hold of languages such as Italian, Dutch and Portuguese, but not in all languages. Gracinin-Yuksek (2012) reports that long-distance wh-questions in Croatian don't allow intermediate reconstruction for anaphor binding, and the same holds in Russian. A similar cut is seen with Condition C: while Slavic and Greek (which is uninformative wrt 1b due to logophoricity) show Condition C reconstruction in long-distance questions, English etc. do not, (4). These facts have remained unacknowledged and unexplained to date.

 (4) Which of John$_i$'s friends do you think he$_i$ will invite?   (cf. Huang 1993)

We suggest that the key factor is morphological case: the languages with strong reconstruction effects have robust m-case distinctions in the *wh*-determiner system, and the others do not. This can be explained as follows. Assume that morphological case involves the calculation of case competition at the TP level (Marantz 1991). This calculus deals with DPs, and it is not affected by A'-movements, so in these languages independent constraints on case competition ensure that any nominal moving out of a TP has its D-layer. If so, a layering derivation where PP-"complements" are layered on as it escapes an embedded CP (a la Fig.1) is impossible, since that requires that the D be added outside of the TP, and so there is no antireconstruction in these languages. Languages without m-case, by contrast, allow movement of just an nP out of their containing clause, and so they allow antireconstruction via layering.

Selected refs. Adger, 2013. *A syntax of substance*. MIT Press. Johnson, 2012. Toward deriving the difference in how wh-movement and QR are pronounced. *Lingua*. Nevins & Anand. 2003. Some AGREEments matter. *wccfl*. de Vries 2009. On multidominance and linearization. *Biolinguistics*.