Verb Movement and Minimality

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Outline of the talk

1. Head Movement: Problems and Questions
2. Label-free Bare Phrase Structure
3. Motivation in a Probe-Goal System
4. Summary

1. Head Movement: Problems and Questions


(2) Problems for HM (cf. Roberts 2006 and Vicente 2007 for ample discussion)

- BPS cannot capture 'segments of X' (cf. Harley 2004)
- weak semantic effects (cf. Chomsky 2001)
- violates the Extension Condition (cf. Chomsky 2001)
- violates the A-over-A Condition (cf. Roberts 2006)

(3) Most of these worries go away if HM is a PF (or p-signature copying) process; cf. Hale & Keyser 2002

(4) For HM to be syntactic (= participate in a Probe-Goal system), we need to clarify the following:

   a. The motivation (what is the Probe)  WHY-question
   b. The restrictions (locality, freezing, etc.)  HOW-question
2. Label-free Bare Phrase Structure

(5) Stages in Minimalist Phrase Structure

1. X-Bar Theory (cf. Chomsky 1993)
2. BPS (cf. Chomsky 1995)
2 ½. Collins (2002)

(6) a. \{X, \{X, Y\}\}                       b. \{X, Y\}
    \ /       \                             /       \\
   X         Y

(7) “In any event, reference to labels (as in defining c-command beyond minimal search) is a departure from SMT” (cf. Chomsky 2007:23)

(8) Within label-free BPS, finding the head is enough to “find the label.” In X-Bar Theory, the label is always the head.

(9) “The label of an SO must be identifiable with minimal search” (cf. Chomsky 2008:145)

Chomsky’s (2008:145) labeling algorithm
a. In \{H, \(\alpha\)\}, H an LI, H is the label
b. If \(\alpha\) is internally merged to \(\beta\), forming \{\(\alpha\), \(\beta\)\}, then the label of \(\beta\) is the label of \{\(\alpha\), \(\beta\)\}

(10) The problematic cases involve first-Merge of X and Y. With Boeckx (2008) I assume, labeling waits until the phase-level:

1. Merge \{X, Y\}   no label
2. Merge \{Z, \{X, Y\}\}   label is Z

Within the \(v^*P\), Z corresponds to \(v^*\), the phase head. The same is true at the CP level, if the \(v^*P\) remnant (after Transfer) is a head, \(v^*\) (cf. Boeckx 2008).
(11) The pattern that emerges:

1. Probe (C/v*) – N (T/V) – Goal (DP_{subj} / DP_{obj})

(12) “Still keeping to SMT, all operations are driven by labels. Since at least some operations are restricted (by definition) to the phase head [IM, Transfer], the simplest assumption would be that all operations apply there.” (cf. Chomsky 2007:17). This holds except for EM.

(13) “A more interesting case arises when LI α is internally merged to non-LI β. In this case, [9a] yields the conclusion that α is the label, while [9b] yields the conclusion that the label of β is the label of {α, β} […] the two labels coexist” (cf. Chomsky 2008:145)

(14) If correct, HM must always cause re-labeling. In X-bar terms:

\[
\begin{array}{c}
\text{XP} \\
/ \\
Y \\
\text{}/ \\
X' \\
/ \\
Y \\
\text{/} \\
X \\
/ \\
Y \\
\text{/} \\
\text{YP} \\
/ \\
Y \\
\text{/} \\
V \\
\text{}/ \\
\sqrt{R} \\
\text{[/ [sing]]} \\
\text{[/ [sing]]} \\
\text{[/ [ ]]} \\
\end{array}
\]

\[
\begin{array}{c}
\text{YP} \\
/ \\
Y \\
\text{/} \\
X \\
/ \\
Y \\
\text{/} \\
\text{YP} \\
/ \\
Y \\
\text{/} \\
V \\
\text{}/ \\
\sqrt{R} \\
\text{[/ [sing]]} \\
\text{[/ [sing]]} \\
\text{[/ [ ]]} \\
\end{array}
\]

The process appears to apply in free relatives. On the other hand, L-syntax-related HM (Hale & Keyser’s 2002 conflation) is different, as there is no relabeling.

Let us therefore make a distinction between **Lexical-HM** and **Functional-HM** (cf. Quinn 2007). The distinction is similar to that of Roberts (1994).

Let us furthermore suppose: (i) L-HM is strictly local (in fact, p-signature copying), (ii) F-HM (bona fide HM) is anti-local, like any movement (cf. Abels 2003, Grohmann 2003).

Lexical-HM: “conflation consists in the process of copying the p-signature of the complement into the p-signature of the head, where the latter is “defective” […] when […] spelled-out, the p-signature of the complement will be deleted” (cf. Hale & Keyser 2002:63-64)

\[
\begin{array}{c}
\text{VP} \\
/ \\
V \\
\text{}/ \\
\sqrt{R} \\
\text{[/ [ ]]} \\
\text{[/ [sing]]} \\
\text{[/ [ ]]} \\
\end{array}
\]

\[
\begin{array}{c}
\text{VP} \\
/ \\
V \\
\text{}/ \\
\sqrt{R} \\
\text{[/ [ ]]} \\
\text{[/ [sing]]} \\
\text{[/ [ ]]} \\
\end{array}
\]

Technical details aside, **M-merger** (cf. Matushansky 2006, Vicente 2007) plausibly behaves like this too. Instead of p-signature copying, **M-merger** involves IM + affixation (M-merger proper).
3. Motivation in a Probe-Goal System

(15) Much GB-research focused on V-T-C movement (cf. Roberts 2000 for discussion). The motivation was related to phi-features, but that is impossible in Chomsky’s (2008) system.


(17) Roberts (2006) makes a similar proposal, arguing v∗-to-T movement is akin to cliticization. The implementation still raises the problem of re-labeling: clitics do not project after movement, whereas I am assuming V movement to T or C does, yielding hybrid projections: v*/C, v*/T. This fits with the idea that clauses are ‘verbal,’ and is further supported by analyses where clauses were treated as VPs or TPs. It may also matter for s-selection issues.

(18) The key question: why movement, if Agree can take place at a distance?

Following Boeckx (2008) I take some instances of IM as being triggered to avoid intervention. This, as Boeckx (2008) argues, is the cause of the EPP:

C[\uphi: \_] \ldots T[\uphi: \_] \ldots DP[\uphi: \text{value}]
(19) In the case of V movement, v* is the Goal of the T-Probe. Since T intervenes, v* will have to 'leapfrog.'

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(20) IM has a (discourse-oriented) semantic effect (cf. Chomsky 2004). For consistency, V movement should have some inherent semantic effect too. Following Gallego (2007), I take it to be related to tense (a clausal property) and clause typing (adopting ideas of Koster 2003). This is plausible if we think on V movement to C in modal environments, and on Pesetsky & Torrego's (2001) analysis of that.

(21) V-movement typology:
   a. V-to-v*
   b. T-to-C
   c. C-to-V

   In the (a) and (b) cases, there are two options: movement can apply because V and T have no label (see above), or else there is some projection breaking anti-locality.

   As for (c), it cannot happen, given the clause-bounded nature of V-movement. I am putting aside cases of consecutio temporum (present at least in subjunctive-like dependents).

(22) If this much is correct, then the obvious question is what happens with English. It is possible that, since XP is not present in this language, v* cannot move. However, this will not solve the minimality scenario, and T will still intervene.

To solve this, I adopt Lasnik’s (2003) analysis of English verbs as being completely bare. In particular, I take them to lack both tense and agreement features.

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(23) From a diachronic perspective, the analysis raises the question of why verbs moved higher in previous stages in some languages (e.g., Spanish). The logic of the approach suggests that the verb moves higher because there are more heads along the way so the verb has to undergo ‘massive leapfrogging.’ This fits with the presence of projections like Uriagereka’s (1988) F.
Many questions arise when considering the nature of AUX verbs in English and Romance. Why do AUX verbs in English behave like lexical ones? Just because they are not bare (as suggested by Lasnik’s 2003 work). Cf. Boeckx (2008) and den Dikken (1994).

Further support for the syntactic impact of V-movement comes from Gallego's (2007) Phase Sliding, a process that may have some bearing on the Pro-drop Parameter, and many phenomena related to it (e.g. the lack of VP ellipsis in Romance; cf. Gallego 2008).

4. Summary

- Under Chomsky's (2008) label-free BPS, HM is syntactic if it has ‘(re-)projecting’ effects (cf. Donati 2006).

- V-Movement can be recast in a Probe-Goal fashion by invoking tense features, not agreement ones (cf. Biberauer & Roberts 2007 and Gallego 2007).

- If HM involves Agree, why is there movement? Why doesn’t Long-Distance Agree suffice? Following Boeckx (2008), I take (some instances of) movement to have anti-minimality effects. This is the case of v*-to-T movement, if T intervenes between C and v*.

- Language variation is expected depending on whether v* is bare or not (cf. Lasnik 2003), or there are more heads playing an intervening role.
REFERENCES


