Head Movement, Roll Up and Labelling

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In this presentation I will first summarise the technical account of head movement in terms of the notion of defective goal, as in Roberts (2010), and extend it in relation to Chomsky's (2013, 2015) approach to labelling. In particular, I suggest a generalisation of Chomsky's (2015:9) proposal that T varies cross-linguistically as to whether it can label its category; if it is too "weak" to do so, then the subject must move into its Specifier, giving English-style EPP-effects. If T is sufficiently "strong", on the other hand, the subject does not need to move to SpecTP; correlating "strength" with rich agreement, this derives the fact that null-subject languages like Italian do not show rigid EPP effects. I propose to extend this basic idea to give an account of cross-linguistic word-order variation. The central idea is the constraint in (1):

(1) Every functional head H must be uniquely identified in relation to an Extended Projection.

UG makes available three ways to satisfy (1). One possibility is to lexicalise a higher head with an element specified as N or V, e.g. an auxiliary, a determiner, etc. Another is to raise a head bearing the V- or N-feature into the higher head; this option only applies where that head already has the feature, given the defective-goal approach to head movement. The relevant property must therefore be that of carrying an affix lexically specified as N or V; this gives rise to head-movement and associated inflectional morphology. Third, (1) can be satisfied by rolling up a categorised XP. If we follow Chomsky in requiring XP and YP to agree for the feature, then the functional head must be prespecified for the feature, independently of the presence of a suffix or lexical item; alternatively we could regard the feature-agreement as "dynamic" in the sense that the moving category contributes the categorial feature to the functional head as a consequence of moving into its specifier. As long as the roll-up starts "at the bottom" of an Extended Projection and is iterated, all categories in the Extended Projection can be labelled.

The three options for satisfying (1) give rise in principle to a three-way typology. Type I languages satisfy (1) purely by roll-up. This labels all the functional categories as V or N, and gives rise to harmonic head-finality (all Extended Projections must act the same in order to be identified). Type II languages satisfy (1) by head-movement; so these languages are head-initial with head-movement into high positions in the EP. Pure Type II languages must be either V-initial or V2. Finally, Type III languages satisfy (1) by lexicalising heads in the

Extended Projection. Such languages are head-initial, lack head-movement (above v/n) and have little or no suffixal morphology.

An interesting aspect of this typology is that it appears that "pure" versions of Types I, II and III may actually be rather rare. There is in principle no ban on combining the strategies for satisfying (1), and indeed this may be preferred; certainly mixed strategies for satisfying (1) appear to be cross-linguistically more frequent than the "pure" ones. English, for example, combines elements of Types II and III, being head-initial with rather little suffixal morphology and systems of determiners, complementisers and auxiliaries. The same is true of North Germanic and Romance, although in the latter case the Type II strategy is more prevalent. Chinese arguably combines Types I and III, being highly analytic, with many particles of various kinds in both the nominal and verbal projections, but allowing some head-finality in both the nominal and the verbal Extended Projection (with variation across "dialects" in this regard; see Huang 1982, 2015). The combination of Types I and II, featuring both head-movement and roll-up, but no insertion of free functional morphemes, is not found. In order to distinguish a system of this type from a pure Type I system on the one hand and a I+II+III system (i.e. combining roll-up, verb-movement and free functional heads), we expect to see V- or Aux-movement to C with head-final properties lower in the clause; in other words such languages would be verb-initial or verb-second. It has been known since Greenberg (1963) that V-initial languages very strongly tend to harmonic head-initiality. A verb-second system of this kind would resemble Germanic, but without the free functional morphemes Germanic clearly has. Importantly, such a system would lack the root-embedded asymmetry in verb-movement which is familiar from Germanic and other verb-second languages, since embedded CPs would have to satisfy (1) by head-movement (roll-up would give rise to a pure Type I language and free complementisers a I+II+III-type language like German); such systems do not appear to exist. This leads to the question of the nature of the root-embedded asymmetry. I will suggest that this too is connected to labelling, in that roots cannot be labelled while complements must be; second-position effects serve to "delabel" a category and hence can and must apply only at the root.