# Problems of Projection: Extensions* 

NOAM CHOMSKY<br>MIT<br>chomsky@mit.edu

"With gratitude for many years of scholarly achievement and warm friendship"

I assume here the minimalist research program, which I think is well-motivated on grounds of learnability, explanatory success, and the very limited information on origin of the human language faculty. In particular, I assume the conclusions of Chomsky (2013), including the abandonment of the endocentricity stipulation of X-bar theory and its descendants, and the separation of projection (labeling) from the principles of construction of expressions. A labeling algorithm, keeping to minimal search, assigns labels to expressions $\{\mathrm{X}, \mathrm{Y}\}$ constructed by iterated Merge (external EM or internal IM); labeling yields no new category If one of $\mathrm{X}, \mathrm{Y}$ is a head, labeling is trivial: minimal search yields the head as a label. If neither is a head, labeling is possible only if search of X and Y yields agreeing heads, meaning that if one or the other was raised it is now in its criterial position in Luigi Rizzi's sense. Assume further that at the CI interface, and for the rules of externalization, syntactic objects must be identified (labeled). It follows that IM is successive-cyclic leading to a criterial position, and is forced to ensure labeling.

A further question is what Rizzi calls "the halting problem": why is there no further movement from a criterial position? A simple solution is outlined that keeps to the minimalist assumptions just sketched. Further questions arise about special properties of subjects of CP: the Extended Projection Principle (EPP) and the Empty Category Principle (ECP). These are unified under the labeling theory assumed. The analysis extends to the second phase $\mathrm{v} * \mathrm{P}$, where the object that is raised under the analogue of EPP - in accordance with the object-raising analysis of Saito and Lasnik (1991), tracing back to work of Paul Postal's - is in a structural position analogous to subject of CP. ECP is violated for $v^{*}$ P, and sometimes for CP (escape from the "that-trace filter"). The reason for these apparent violations is the same, under the analysis presented, which also entails a revision of standard approaches to head-raising and sharpening of notions of phase-based memory. Work tracing back to Rizzi (1982) has shown that null-subject languages apparently differ in these properties, the parametric difference relating to "rich agreement." The basic distinctions also fall into place under the presented analysis. Several other anomalies of earlier proposals are also discussed and overcome.

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## References

Chomsky, N. (2013) Problems of Projection. Lingua 130. 33-49.
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Saito, M. and Lasnik, H. (1991). On the Subject of Infinitives. In L. Dobrin, L. Nichols, and R.
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