

Coordinate NPs, Recursion and the Acquisition Path

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1. We argue that the derivation of coordinate NPs relies on the coordinator's extended projection and indirect recursion. This is enforced by principles of efficient computation Maximizing Asymmetry (MA). Variation between languages with respect to the spell out of the coordinator, e.g. English vs. Japanese, follows from the effect of principles of efficient computation Minimizing Externalization (ME).

We focus on the derivation of NP coordinate structures (CS) to the interfaces. We explore a consequence of our hypothesis for language acquisition.

2. We assume that Free MERGE is the combinatorial operator of the Language Faculty and that Principles of efficient computation favour convergent derivations (Chomsky Gallego & Ott 2019). CS are asymmetrical, (1) (Zwarts 2009, Kayne 2020) and derived by phases (Uriagereka 1999, Bošković 2014). CS interface properties follow from Principles Maximizing Asymmetry (MA), such as AGREE, and Principles Minimizing Externalization (ME), including Collins (2007) Condition on Spell-Out.

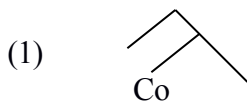
The fact that Co may precede both the first and the second conjunct in several languages, including Latin, from Johannessen 1998, and Italian, (2)-(3), indicates that Co has an extended projection, in the sense of Rizzi and Cinque (2016). Distributive *ambidue* "both" may precede the first occurrence of Co, (3b), suggests that *both* is not a modifier, contra Johannessen (1998). The fact that the first occurrence of Co can be interpreted as *both* indicates that the extended functional projection of Co hosts operator features.

Differences in semantic interpretation emerge considering (4)-(7). For example, *lion-leopard* is interpreted as an entity consisting of the intersection [I] of certain properties of its parts, while *mother-and-child* is interpreted as an entity consisting of the grouping [G] of its parts. (4)-(5) illustrate differences in agreement, and (6)-(7) illustrate differences in scope of the distributive [D] vs. selective operators. We argue that Co extended projection includes operator features, in addition to the List [L] operator, which occupies the lowest position in the extended projection in (8).

Given MA and ME, we derive the difference in the pronunciation (< >) of Co from the displacement of the NP from the Specifier of the lower phase to the next higher phase for nominal [N] feature AGREE/valuing, and a difference in the timing of ME. Differences in semantic interpretation follow from the scope of the operator feature in the extended projection of Co, (9)-(10).

3. The externalization of the coordinator and the semantic interpretation of coordinate NPs follow from the proposed derivations, which lead to further explore the simplest explanatory theory of the Language Faculty. However, a truly explanatory theory must also meet the learnability criteria (Chomsky 2016, Chomsky Gallego and Ott 2019). We point to a consequence of our proposal for language acquisition.

We address the question of why children at school age, when presented with novel compounds such (11) and (12) overwhelmingly prefer the conjunction reading, but give some evidence of possessing the recursive reading (Hiraga 2009, Roeper 2011). We also ask why a coordinate conjunction is also part of recursive possessive, prepositional and adjectival XP. We explore the hypothesis that the List operator feature [L] is primary in language acquisition path.



(2) a. et ego et Cicero meus flagitabit (Lat)
and I and Cicero my will-demand.3SG.

b. ke eghe ke o petros to thelume (MG)
and I and the Petros it want, 1PL
“both Peter and I want it.”

(3) a. Anna studia e sintassi e semantica. (I)
Anna studies and syntax and semantics
“Anna studies syntax and semantics.”

b. Anna studia ambedue (e) sintassi e semantica.
Anna studies both (and) syntax and semantics
“Anna studies both (and) syntax and semantics.”

(4) a. The mother and child are/*is in the garden.

b. The lion-leopard *are/is in the garden.

(5) a. This mother and child are often together.

b. *This lion-leopard are often together.

(6) a. Both mother and child are in the garden.

b. ≠Both lion-leopard are in the garden.

(7) a. ≠Only the mother and child is in the garden.

b. Only the lion-leopard is in the garden.

(8) $Co_{[D]} > Co_{[G]} > Co_{[I]} > Co_{[L]}$

(9) $[NP_{[N]} < Co_{\{[I],[uN]\}} > [NP_{\{[N]\}} < Co_{\{uN\}} > NP_{[N]}]]$ I-reading

(10) $[NP_{[N]} < Co_{\{[G],[uN]\}} > [NP_{\{[N]\}} Co_{\{uN\}} NP_{[N]}]]$ G-reading

and

(11) a. tea pourer maker b. ≠tea pourer and maker

(12) a. pencil sharpener spiller b. ≠pencil sharpener and spiller

References

- Adger, D. 2003. *Core Syntax: a Minimalist Approach*, Oxford: OUP. * Bošković, Z. 2018. On the Coordinate Structure Constraint, Across-the-Board-Movement, Phases, and Labelling. Ms. University of Connecticut. * Chomsky, N, A. Gallego and D. Ott. 2019. Generative Grammar and the Faculty of Language: Insights, Questions, and Challenges. *Catalan Journal of Linguistics*: 229-261. * Collins, C. 2007. Home sweet home, *NYU Working Papers in Linguistics*. * Johannessen, J.B. 1998. *Coordination*. Oxford: Oxford University Press. * Kayne, R. 2020. Antisymmetry and Externalization. Ms. NYU. * Kayne, R. 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press. * Munn, A. 1993. Topics in the Syntax and Semantics of Coordinate Structures Doctoral dissertation, University of Maryland.* Rizzi L. and G. Cinque 2016. *Annual Review of Linguistics* 2:139-163. * Roeper, T. 2011. The Acquisition of Recursion: How Formalism Articulates the Child's Path. *Biolinguistics* 5(1-2): 57-86. * Szabolcsi, A. 2015. What Do Quantifier Particles Do? *Linguistics and Philosophy* 38:159-204. * Uriagereka, J. 1999. Multiple Spell-Out. In S. Epstein and N. Hornstein (eds.) *Working Minimalism*, 251-282. Cambridge, MA: MIT Press. * Winter, Y. 1998. Flexible Boolean Semantics: Coordination, Plurality and Scope in Natural Language. Doctoral dissertation, Utrecht University. * Zhang, L. 2015. Decomposing English Particle *and* and *or*. *NELS* 45: 261-270. * Zwart, J.-W. 2000. The Relevance of Typology to Minimalist Inquiry. *Lingua* 1119: 1589-1606.