**A generative model of learning tested on a complex construction**

**Anat Ninio**

**The Hebrew University of Jerusalem**

**Séminaire de l’UMR 7023 – Structures formelles du langage**

**University of Paris-8, Vincennes St Denis, Paris, France**

**6 June 2016**

Syntactic structure is taken to be constructed by a binary Merger or Dependency operation, as assumed by current generative grammar (the Minimalist Program, Chomsky, 1995) and by Dependency Theory (Hudson, 1990). In such a grammar, longer structures are constructed from two-word long building blocks by applying in a recursive manner the Merge or Head-Dependent relation to a set of words (Ninio, 2014, 2015). We are assuming that the same generative process characterizes children’s learning. Our hypothesis is that in order to be able construct a multiword structure, children need to learn to produce its atomic constituents, which are two-word long units from which the structure is build up in a modular fashion. We tested this learning model to controlled-subject constructions. Control constructions were defined as chained structures with a finite verb getting as a complement a nonfinite verb or predicate whose understood subject is identical to the finite verb’s syntactic subject or object. Most such sentences in adult speech involve an auxiliary or a copula as the finite verb. A generative model of learning predicts that producing combinations with the auxiliary verb omitted, namely, “telegraphic speech”, would assist learning control as the telegraphic two-word combination is also a building-block of the control sentence. In a large sample of 439 English-speaking children, mean age 2;2.30, 88% already produced a considerable number of sentences with an adult pattern of control, mostly in constructions with copulae, tense/aspect auxiliaries, modal auxiliaries and *do*-support. Producing telegraphic sentences significantly increased the probability of a child producing also grammatical control sentences with expressed auxiliaries. Learning the components of complex constructions helps with their mastery, even if it involves producing ungrammatical sentences.

References:

Chomsky, N. (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.

Hudson, R. (1990). *English Word Grammar*. Oxford: Basil Blackwell.

Ninio, A. (2014). Learning a generative syntax from transparent syntactic atoms in the linguistic input. *Journal of Child Language,* *41*, 1249-1275. doi:10.1017/S0305000913000470

Ninio, A. (2015).*How to construct three-word-long sentences the generative way: The development of recursion in young children’s syntax..* Paper presented at a symposium on Generative Grammar: Flexible Approaches to Early Development of Syntax, chaired by L. McCune. The Biennial Meeting of the Society for Research in Child Development, Philadelphia, Pennsylvania, USA, March 21, 2015. Full-length writeup available at <http://micro5.mscc.huji.ac.il/~msninio/three-word_recursion_longtext_online.docx> as a complementary resource for the presentation.