NO WORDS WITHOUT SYNTAX, NOR SYNTAX WITHOUT WORDS

Joana Rosselló, Universitat de Barcelona, Txuss Martin, New York University
and Celia Alba, Universitat Pompeu Fabra

Whatever definition we adopt of linguistic recursion relates it to an unbounded combinatorial procedure to build sentences. That procedure operates on words (roots, stems, morphemes, depending on your framework). It is however often disregarded that the words that enter the recursive procedure have an internal structure that comes from another unbounded combinatorial capacity that operates on meaningless units, and is responsible for the open-endedness of human lexicons. Our thesis in this presentation is that we are in front of two different implementations of a single underlying combinatorial mechanism that yields a discrete infinity of either sentences or words, and that both combinatorics entail each other. The split in two implementations gives us a maximally optimal linguistic architecture that adapts internally not only to other central components of the mind such as a dual memory or the conceptual-intentional systems, but also to the sensory-motor apparatus. Now, that they come from the same source is shown by a variety of factors including that (*i*) both implementations combine units to form meaningful structures; (*ii*) both implementations are unbounded and yield discrete entities; (*iii*) their unboundedness is not likely to be the result of any external adaptive necessity; (*iv*) it is highly implausible that two independent evolutionary events created the two systems separately.

While the centrality of recursion goes undisputed in syntax, the combination of meaningless elements to yield words, generally known as *Duality of Patterning* (henceforth DP), is seen as unrelated to recursion, something we reject (ROSSELLÓ 2006). Alongside this, we address some of the problems that have to date plagued the concept of DP. Firstly, HOCKETT'S 1958 original formulation is often misunderstood in the evolutionary literature (HURFORD 2002: 319; PINKER 2003: 32; STUDDERT-KENNEDY 2005: 50; FITCH 2010: 19, 94 among others), in the sense that it is considered a mere restatement of the fact that languages have syntax and phonology. For Hockett, however, DP refers to the idea that minimal meaningful units are built out of meaningless elements, and syntax plays no role in that definition. Secondly, Hockett doesn't take into account that DP in language is unbounded. We go beyond his idea and understand DP as an unbounded lexicalization technique that combines meaningless elements into minimal meaningful units. We thus take DP to be a basic design property of the faculty of language (FL), without which no language is possible. Just like recursion.

Our thesis, however, seems to contradict claims by EVERETT 2005 on Pirahã, or by ARONOFF *et al*. 2010 on Al-Sayyid Bedouin Sign Language (ABSL): Pirahã would lack recursion, while ABSL would not exhibit DP. We assume the arguments against Everett in NEVINS *et al*. 2009 with respect to recursion, and concentrate here on ABSL and DP. We address some conceptual problems in ARONOFF *et al*. 2010, and then provide a reinterpretation of their empirical data. The main points we discuss contra Aronoff *et al*. include among others (*i*) their resort to current contingent glossogeny to shed light on phylogeny, (*ii*) their inconsistent use of E-language and I-language, claiming that DP is a property of E-language, something we think is wrong, (*iii*) their identification of iconicity and holism in ABSL, or (*iv*) their idea that social convention is a requirement for systematic phonology. We consider that convention accounts for uniformity among speakers, not for systematicity in grammar, which is strictly individual. In light of all that, we reinterpret several of the data offered in their paper, showing that they are better accounted for in our proposal. In doing all this we also take issue with any theory stating that languages can lack one basic design feature, be that recursion, or DP, and that no (proto)language is possible with words but without syntax, or with syntax but without words.

REFERENCES

ARONOFF, Mark; Irit MEIR; Carol A. PADDEN & Wendy SANDLER (2010) The Roots of Linguistic Organization in a New Language. In Michael ARBIB & Derek BICKERTON (eds.) *The Emergence of Protolanguage*. *Holophrasis* vs. *Compositionality*. Amsterdam/Philadelphia, PA: John Benjamins, 133-152.

EVERETT, Daniel L. (2005) Cultural Constraints on Grammar and Cognition in Pirahã. Another Look at the Design Features of Human Language. *Current Anthropology* 46, 4: 621-646.

FITCH, W. Tecumseh (2010) *The Evolution of Language*. Cambridge: Cambridge University Press.

HOCKETT, Charles F. (1958) *A Course in Modern Linguistics*. New York: MacMillan.

HURFORD, James R. (2002) Expression/Induction models of language evolution: dimensions and issues. In Ted BRISCOE (ed.), *Linguistic Evolution through Language Acquisition*. Cambridge: Cambridge University Press, 301-344.

NEVINS, Andrew; David PESETSKY; Cilene RODRIGUES (2009) Piraha Excepcionality: a reassessment. *Language* 85, 2: 355-404.

PINKER, Steven (2003) Language as an adaptation to the cognitive niche. In Morten H. CHRISTIANSEN & Simon KIRBY (eds.), *Language Evolution*. Oxford: Oxford University Press, 16-37.

ROSSELLÓ, Joana (2006). Combinatorial properties at the roots of language. In Joana ROSSELLÓ & Jesús MARTÍN (eds.), *The Biolinguistic Turn. Issues on Language and Biology*. Barcelona: Promociones y publicaciones universitarias,162-186.

STUDDERT-KENNEDY, Michael (1998). The particulate origins of language generativity: from syllable to gesture. In James R. HURFORD, Michael STUDDERT-KENNEDY & Chris KNIGHT (eds.) *Approaches to the Evolution of Human Language: Social and Cognitive Bases*. Cambridge: Cambridge University Press, 202-221.