

Progovac, Liliana: *Evolutionary syntax*. Oxford: Oxford University Press (2015), 261 pp.

The dominant view of the phylogenetic evolution of the language faculty from the perspective of biolinguists connected with some version of Chomsky's (1995) Minimalist Program calls for a saltationist view, where a single mutation was primarily responsible for bringing about the sudden existence of human grammar (e.g., hierarchical structure in syntax) (see e.g. Berwick & Chomsky 2011, 2015 for an overview of this position). In this monograph, Liliana Progovac (LP) challenges this mainstream assumption in presenting her case for a gradualist, adaptationist approach to the evolution of syntax. In spite of her departure from the saltationist view, LP extends her analysis using widely-held Minimalist machinery. LP adopts the standard cartographic hierarchy found in Minimalist analyses (cf. (1)), discussing in detail how each additional layer of functional structure marked an additional evolutionary step towards the grammar system we recognize today:

(1) CP > TP > vP > SC/VP

[CP = Complementizer Phrase, TP = Tense Phrase, vP a transitive (light) Verb Phrase, VP = a basic Verb Phrase, and SC = Small Clause]

According to this gradualist interpretation of the development of grammar (and syntax in particular), LP engages in a detailed excursion through stages where grammar consisted merely of one-place predicates, consisting of a proto-argument and a proto-verb. Through the eventual development of fundamental operations (such as Merge and Move) and additional hierarchical/functional structures that would indicate transitivity (vP), tense (TP), and recursion (CP), LP makes the case for an interpretation of the gradual development of the Faculty of Language in accordance with the primary tenets of Minimalism. LP draws primary empirical support for her claims based on the existence of "syntactic fossils" (Jackendoff 2002), i.e., vestigial structures from various languages that appear to exhibit structures commonly found in previous developmental stages of proto-grammar. As a case in point, in Section 2.3 LP purports that certain Serbian root small clauses make a strong case for a stage of tense-less constructions – lacking the TP-projection – and their gradual integration into an evolving grammar system.

The structure of the book provides an in depth exegesis of LP's view of the development of hierarchical syntax. Chapter 2 is devoted to the discussion of the initial stage of two-item root predicates that lack tense (and the TP-projection in general). In addition to lacking tense, these projections also generally lack other attributes such as structural case and the displacement of elements. This treatment of small clauses continues in Chapter 3, where LP documents the complexities introduced by transitivity (vP) and the assignment of accusative and inclusion of tense (TP). Chapter 4 concerns itself with the strength of the bond between the elements in a clause, where LP outlines three primary stages of how this bond evolved over time: (i) The Paratactic Stage, (ii) the Proto-Coordination Stage, and (iii) the Specific Functional Category Stage. In Chapter 5 LP shows how the formation and licensing of long-distance dependencies such as islandhood and Subjacency (and the concept of Move(ment) in more general terms) receive a straightforward account from a gradualist perspective. Summarizing this position, subjacency "is not a principle of syntax [...] but rather just an epiphenomenon of evolutionary tinkering" (p. 31). LP revisits which fossils may provide the best empirical evidence for her theoretical claims in Chapter 6, where she discusses how exocentric VN-compounds (such as, turn-coat, cry-baby, and kill-joy) represent an ideal collection of examples based on various structural conditions. The purpose of Chapter 7 is to highlight the communicative advantages that accompanied these various stages of syntactic evolution, and in Chapter 8 LP summarizes her primary claims in support of her gradual evolution of syntax and its implications for generative theory.

LP's proposal indeed merits serious consideration, and offers legitimate challenges to the saltationist view of the evolution of syntax. There are, however, certain challenges that LP does not directly address in this manuscript that require answers moving forward. The first challenge left unaddressed concerns the issue of first cause in a gradual, adaptationist system. The generally accepted school of thought from the biolinguistic perspective (see e.g. Hauser, Chomsky & Fitch 2002) is one where the Narrow Faculty of Language "evolved for some other reason, such as number quantification, navigation, or some other ability requiring recursion, and was not initially part of a communication system" (Jablonka & Lamb 2014: 296). It is unclear as to whether this gradualist perspective is also compatible with one that supports an evolution of the Narrow Faculty of Language that is not (primarily) driven by communication needs. Second, and related to this first point, more discus-

sion involving the development of lexical items and their relation to these initial stages in syntax (the SC/VP-stage) is necessary. At what stage were our linguistic ancestors dealing with elements in a complex lexicon absent of any sort of formal syntactic computation? This represents an important initial step prior to the SC/VP-stage, which, as suggested in recent work by Koenig & Michelson (2015), may very well exist in natural languages. Lastly, although LP treats this topic in some detail in Chapter 4, her discussions of Merge and Move must also include recent discussions by Chomsky (2013, 2015) and others concerning the labeling of projections in a syntactic hierarchy. It is unclear how LP's treatment of the evolution of Merge addresses these issues in an appealing way. These issues notwithstanding, LP advances an interesting thesis that challenges a strong saltationist view of linguistic evolution.

References

- Berwick, R. & N. Chomsky 2015: *Why only us: Language and evolution*. Cambridge, MA: MIT Press.
- Berwick, R. & N. Chomsky 2011: The biolinguistic program: The current state of its development. Di Sciullo, A.M. & C. Boeckx (eds.): *The biolinguistic enterprise: New perspectives on the evolution and nature of the human language faculty*. Oxford: Oxford University Press, 19–41.
- Chomsky, N. 1995: *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, N. 2013: Problems of projection. *Lingua* 130, 33–49.
- Chomsky, N. 2015: Problems of projection: extensions. Di Domenico, E., C. Hamann & S. Matteini (eds.): *Structures, strategies, and beyond: Studies in honor of Adriana Belletti*. Amsterdam: John Benjamins, 1–16.
- Jablonka, E. & M.J. Lamb 2014: *Evolution in four dimensions: Genetic, epigenetic, behavioral, and symbolic variation in the history of life*. Cambridge, MA: MIT Press.
- Jackendoff, R. 2002: *Foundations of language*. Oxford: Oxford University Press.
- Hauser, M.D., N. Chomsky & W.T. Fitch 2002: The faculty of language: What is it, who has it, and how did it evolve. *Science* 298, 1569–1579.
- Koenig, J.-P. & K. Michelson 2015: Invariance in argument realization: The case of Iroquoian. *Language* 91, 1–47.

Michael T. Putnam
Penn State University
239 Burrowes Building
University Park, PA 16802 (USA)
mike.putnam@psu.edu