"Grammatical knowledge is digital, not analog" (p. 4).

## **SUMMARY**

"Syntax and Spell-Out in Slavic" consists of five chapters dedicated to different problems of South Slavic syntax and the syntax-phonology interface. The chapters are united by the common subject matter and to some extent the analytical tools outlined in the first half of the book, where the author elaborates on a complex system of minimalist-like syntax and its connection to spell-out. The second part largely deals with the South Slavic clitics.

Let us have a close look at the organization of the work and the contents of the chapters. Each chapter (apart from Chapter 1 with the background information) raises a particular problem or set of problems and delves into their analysis.

Chapter 1, Features and Vocabulary Insertion, discusses the basic notions of Distributed Morphology (DM), argument structure and feature checking. Here Steven Franks also introduces his view of the functional hierarchy: the presence or absence of certain projections in the functional sequence of a syntactic tree. He revives Agreement Phrase (AgrP) for some languages and assumes a "distinct (K)ase Phrase, the K0 of which is typically instantiated as a pronominal clitic" (p. 29). An important role here is played by the Subset Principle of Halle (1997) cited on pp. 11 and 118, according to which both a syntactic position designated for a particular lexical item and the lexical item (LI) to be inserted in that position have to share a certain number of features, and the "item matching the greatest number of features specified in the terminal morpheme must be chosen".

Chapter 2, Movement and Multiattachment, offers the author's original vision of syntactic derivation and its connection to the other linguistic levels, particularly, phonetic form (PF). Movement is viewed here through the metaphor of multiattachment, which should not be confused with representational analyses. The author repeats more than once that he adopts "a highly derivational perspective" (p. 84). The essence of Frank's approach is in probe and goal relationship, in which one probe can have a connection with multiple goals through identical morphosyntactic features. To achieve this, the notion of address is postulated. It is borrowed from Grohmann 2003 and adapted from Franks and Herring 2011. Roughly speaking, an address corresponds to an old Government and Binding idea of an index (pp. 48-49). "All pieces of structure... have an address. ... Vocabulary items and higher phrases" are ""pointers". ... What Merge does is assign a unique new address A which points to the addresses of the syntactic objects being concatenated. ...Address A is multiply invoked, once at the initial merge site and again at the remerge site" (p. 49). The theory is best demonstrated and corroborated by

the data of interrogative sentences. It is richly illustrated by tree diagrams with multiple arrows indicating the multiattachment relations between different nodes.

The derivation proceeds in three steps, the details of which are clearly stated in the chapter. Step I is a general search induced by features on the probe for the unvalued features on the goals and establishing "the featural link" between them in syntax. Step II is "a precursor to eventual movement". This operation is laden with constraints and is responsible for, e.g., island effects. Step III is actual movement here understood as "multiattachment to the root of the tree" (p. 54).

Chapter 3, Pronunciation and Mapping to PF, deals with Spell-Out, connected with prosodic properties of different chunks of syntactic structure. Here the author discusses processes of delinking, that is, "those in which, as part of the mapping to PF, a link to phonetic content is severed. ... If pronunciation involves accessing the information located at some address B and pointed to by some higher address A, then failure to pronounce implies the removal of that pointer or, in terms of my diagrams, deletion of that link" (pp. 99-100). The point is developed mostly against the ellipsis data. Another piece of data convincingly supporting the idea is provided from Polish where one relative pronoun can seemingly be simultaneously genitive and dative (p. 116) (I should add that similar data can also be found in Russian). Another important topic of this chapter is linearization in the style of the Linear Correspondence Axiom (LCA) by Kayne (1994): it explains certain island effects.

In Chapter 4, the author closely addresses the problematics of South Slavic clitics. He considers the phenomenon of splitting (when clitics interfere with a syntactic constituent) and discusses three mechanisms of splitting: a) PF deletion; b) Remnant Movement; c) Left Branch Extraction. He shows that in different languages different mechanisms could be at work, which is justified by various typologies characterizing South Slavic languages. For example, Bulgarian and Macedonian are Determiner Phrase (DP) languages according to Bošković (2005), whereas the rest are Noun Phrase (NP) languages. This means that the former will disallow extraction from within the determiner phrase, and the latter do not contain this kind of structural barrier. Hence, the only way to insert a clitic inside a Bulgarian or Macedonian phrase and make it (superficially) discontinuous is through PF deletion in multiple copies of this phrase, which in this system are created by multiattachment. In the other languages, Remnant Movement and Left Branch extraction are legitimate.

A big part of this chapter deals with "the mapping from syntactic phrasing into prosodic phrasing" in accordance with Selkirk's Match Theory (Selkirk 1994). This theory matches different levels of syntactic structure onto different prosodic units: a clause to an utterance, a phrase to an I(ntonation)-Phrase

and a syntactic word to a P(honological)-Word. South Slavic clitics are deficient in all respects (prosodic, semantic and syntactic, p. 160); yet they are subject to different prosodic restrictions. The chapter addresses cases where prosodic restrictions overlay LCA in syntax. To account for such a mismatch, the author appeals to optimality theoretic-like constraints. The main proposal here is that in spite of surface distinctions in the behavior of Bulgarian, Macedonian, Bosnian-Serbo-Croatian and Slovenian clitics, they all obey the overlay prosodic restriction prohibiting them to initiate an Utterance.

Chapter 5, which the author calls the Appendix, deals with two concrete issues of South Slavic syntax: "(i) the idiosyncratic properties of the third singular form (j)e, and (ii) the problem of variation in Person-Case Constraint Effects" (p. 30). The theoretical machinery developed and tested in the other chapters is applied to these problems.

## **EVALUATION**

The book is a masterful elaboration on challenging syntactic problems permeating the majority of languages. The organisation and presentation of the material is clear and stylistically superb. The solutions proposed by the author strike me as technically complex but at the same time convincing. The analytic tools are highly original and can serve as a basis of a fully fledged theory in its own right. The explanations given are amply illustrated by empirical data and detailed diagrams.

The main fault I find with the monograph is that its title is slightly misleading. Syntax and Spell-Out in Slavic sounds too general, almost like a title of a handbook. As a consequence, the book can attract all kinds of interested researchers not suspecting what it is actually about. In fact, nearly half of the work is a theoretical layout of the author's ideas applicable to any language. Indeed, the examples provided in the first part are taken from English, French, Romanian, and German, against which South Slavic, Russian and Polish examples look like just additional evidence for the universal nature of the matters discussed rather than the illustration of the subject matter of the author's research. Slavic in the title does not include East Slavic and West Slavic. In other words, the book represents an incredibly technical and original analysis of SOME problems of SOME Slavic languages.

My other insignificant complaint concerns the connection between the chapters. For instance, Chapter 2 and Chapter 4 look like parts of a different book, albeit by the same author. At the same time, if I had a task of selecting my favorite parts of the monograph, they would again be Chapter 2 and Chapter 4, since they show the heights a generative analysis can reach tackling very complex data.

My relevant theoretical background is inferior to that of the author, so most of my questions arise from the need to clarify a number of issues, and I will not ask them here. Reading the monograph I was wondering how the same problems would be solved in a different framework, like, for example, nanosyntax. In his recent paper, Caha (2018) compares the operation of vocabulary insertion in nanosyntax and Distributed Morphology. It follows from the article that a lot of machinery involved in creating complex heads necessary for Spell-Out in the present theory could be eliminated by phrasal Spell-Out.

The audience of this work should have a solid generative grammar background. To fully appreciate the monograph, the potential reader would need an advanced knowledge of the Minimalist Program (Chomsky 1995), Phase Theory (Chomsky 2001), Distributed Morphology (Halle and Marantx 1993, Marantz 1997), Linear Correspondence Axiom (Kayne 1994), antilocality (Abels 2003, Grohmann 2003), and even Optimality Theory (Prince and Smolensky 1993). It might be interesting to researchers of South Slavic syntax, especially such issues as wh-movement, pronominal and auxiliary clitics and ellipsis. It is a must for those who would like to read the next publication by the author, devoted to the nominal structure of South Slavic (Franks, in progress).

## REFERENCES

Abels, Klaus. 2003. Successive Cyclicity, Anti-Locality and Adposition Stranding. Ph.D. diss., University of Connecticut.

Bošković, Željko. 2005. "On the Locality of Left Branch Extraction and the Structure of NP." Studia Linguistica 59: 1–45.

Caha, Pavel. 2018. "Notes on Insertion in Distributed Morphology and Nanosyntax". In Exploring Nanosyntax, edited by Lena Baunaz, Karen De Clercq, Liliane Haegeman, and Eric Lander, 57-87. OUP.

Chomsky, Noam. 1993. "A Minimalist Program for Linguistic Theory." In The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger, edited by Kenneth Hale and S. Jay Keyser, 1–52. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. "Derivation by Phase." In Ken Hale: A Life in Language, edited by Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.

Franks, Steven. In Progress. Microvariation in the South Slavic Noun Phrase. Bloomington, IN: Slavica.

Franks, Steven, and Joshua Herring. 2011. "Against Copies: A Computational Model of Chain Formation and Spell-Out." Poster presented at the Linguistics Society of America Annual Meeting, Pittsburgh, PA, January 6–9.

Grohmann, Kleanthes. 2003. Prolific Domains: On the Anti-Locality of Movement Dependencies. Amsterdam: John Benjamins.

Halle, Morris. 1997. "Distributed Morphology: Impoverishment and Fission." In PF: Papers at the Interface, edited by Benjamin Bruening, Yoonjung Kang, and Martha McGinnis, 425–49. MIT Working Papers in Linguistics 30. Cambridge, MA: Dept. of Linguistics, MIT.

and Alec Marantz. 1993. "Distributed Morphology and the Pieces of Inflection." In The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger, edited by Kenneth Hale and Samuel Jay Keyser, 111–76. Cambridge, MA: MIT Press.

Kayne, Richard. 1994. The Antisymmetry of Syntax. Cambridge, MA: MIT Press.

Marantz, Alec. 1997. "No Escape from Syntax: Don't Try Morphological Analysis in the Privacy of Your Own Lexicon." University of Pennsylvania Working Papers in Linguistics 4: 201–25.

Prince, Alan and Paul Smolensky. 1993. Optimality Theory: Constraint Interaction in Generative Grammar. Blackwell Publishers.

Selkirk, Elisabeth. 2011. "The Syntax-Phonology Interface." In The Handbook of Phonologi-cal Theory, 2nd ed., edited by John Goldsmith, Jason Riggle, and Alan Yu, 435–84. Malden, MA: Blackwell.