Continuations and natural language. By Chris Barker and Chung-chieh Shan.

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This book presents the results of a long-term collaboration between the two authors, Chris Barker and Chung-chieh Shan, on the application of the notion of ‘continuation’ in the study of natural language syntax-semantics interface. ‘Continuation’ is a notion originally developed in theoretical computer science. In its application to natural language grammar, it is essentially a tool for explicitly representing the ‘larger (syntactic) context’ in which some piece of linguistic expression is interpreted. As one might expect, this is useful for analyzing linguistic expressions that take scope outside of the immediate syntactic environments in which they occur (such as quantifiers), enabling one to capture explicitly the way they interact with scope-sensitive phenomena such as the binding of pronouns and the licensing of negative polarity items (NPIs).

The book consists of two parts: Part 1 deals with ‘order-sensitive’ phenomena (weak crossover (WCO), superiority, NPI licensing, and donkey anaphora) involving ordinary generalized quantifiers, and Part 2 deals with more complex types of scope taking (parasitic scope) in symmetrical predicates (same, different, etc.) and with sluicing. Both parts present analyses of linguistic phenomena in explicit fragments of English, but, as explained below, the fragments in the two parts are somewhat different.

Part 1 of the book develops a version of combinatorial categorial grammar (CCG) called the ‘tower grammar’, which is designed for the analysis of ‘order-sensitive’ phenomena. This fragment is a version of CCG in the sense that it recognizes (generalized versions of) the familiar type-raising (or type-lifting) rule and related rules as axioms. (But it should be kept in mind that it is substantially different from the widely known version of CCG by Steedman (2000, 2012); B&S themselves provide a lucid comparison in Ch. 11.) The fragment is presented using the newly invented ‘tower notation’. This new notation greatly enhances the presentation (to see this, compare Shan & Barker 2006, which presents the same fragment using combinators alone). Part 1 moreover contains many exercises, useful for checking one’s understanding of the material.

The key empirical claim in Part 1 is that phenomena such as WCO, superiority, and NPI licensing all involve sensitivity to ‘evaluation order’ (which in many, but not all, cases coincides with surface word order). Familiar contrasts, such as Every student, loves his, mother vs. *His, mother loves every student (WCO), are accounted for by the way in which certain linguistic phenomena—binding in this case—are sensitive to the ‘order of evaluation’. Specifically, the fragment is set up in such a way that quantificational binding is possible only if the binder linearly precedes the bindee, signaling, as it were, the presence of the bindee in the rest of the sentence. Technically, this order sensitivity is captured by specifying which of the different ‘combinatory rules’ are posited as licit rules in the fragment (this point becomes important in the comparison with the NL₃ system introduced in Part 2).

An intriguing property of this account of WCO and related phenomena is that an apparent exception to order sensitivity in reconstruction environments (Which of his, relatives does every man, admire most?, which is fully grammatical despite the pronoun linearly preceding its binder) is accommodated naturally: one merely needs to assume that the ‘trace’ of wh-movement can be of a higher-order type, inheriting the ‘bindability’ of the fronted expression containing the pronoun (represented explicitly in the syntactic and semantic types of the fronted expression, which the trace inherits via an independently motivated mechanism for extraction).

In Part 2, the tower grammar is no longer used, and B&S instead present a variant of type-logical grammar (TLG) called NL₃, which by itself does not encode order sensitivity (the dilemma here essentially lies in the fact that the simple option of controlling order sensitivity by admitting only some of the combinatorial rules is unavailable in NL₃, since what correspond to
those rules are theorems in NLₜₜ and not axioms). Aside from order sensitivity being removed from the grammar, the main difference between the two fragments is that NLₜₜ is capable of handling scope-taking behaviors that are more complex than that of generalized quantifiers, as exhibited by the ‘parasitic scope’ (Barker 2007) of symmetrical predicates such as same and different, which require ‘double’ continuations (i.e. contexts that are simultaneously missing two linguistic expressions rather than one). This fragment is applied to the analyses of symmetrical predicates and sluicing. Part 2 also contains a chapter at the end (Ch. 17) that studies the formal properties of NLₜₜ, building on the literature of substructural logic (Restall 2000).

The book has many attractive features. Most of all, the clear and easy-to-access presentation of highly technical material (facilitated greatly by the tower notation—but the presentation of TLG in Part 2 is also superbly clear and reader-friendly) is notable. Also, the rather slim volume (228 pages) covers an unusually wide range of empirical phenomena. The authors are moreover careful in noting where they have updated their own analysis published in previous work. The prose is crisp, and the narrative is engaging from the beginning to the end. All of these are rare accomplishments for a book of this sort, whose primary purpose is to present an innovative theoretical approach.

But no book is perfect, and this one is no exception. While the broad empirical coverage and the elegance with which several challenging empirical phenomena (such as donkey anaphora and reconstruction effects) are handled are admirable, there are a couple of key issues and fundamental questions that perhaps deserved more thorough examination. I discuss these points below in the hope that doing so will stimulate future research on these important open questions. Due to space limitations, I mostly focus on the tower grammar in Part 1, which in my view embodies a more controversial claim about the grammar of natural language. But I would like to note that Part 2 also contains an innovative theoretical approach and insightful (but also potentially controversial) linguistic analyses.

The first issue with the tower analysis of the ‘order-sensitive’ phenomena concerns the idea that the same notion of ‘evaluation order’ is at the core of a range of phenomena including WCO, superiority, and NPI licensing. This is a bold and controversial claim, and given the intricacies of each of these phenomena, it is evident, even from just the relatively small samples of data provided by B&S, that the actual empirical patterns are not as neat as the theory predicts them to be.

One specific example of this type of discrepancy between data and analysis can be found in the following pair of examples: ?John sent his grade to no one’s mother vs. *John sent anyone’s grade to no one’s mother (p. 75, ex. 138; the judgments are B&S’s), both of which are predicted to be ungrammatical by B&S’s approach for fundamentally the same reason: NPI licensing and binding are both sensitive to the same left-to-right evaluation order scheme built into the tower system. B&S do not offer any comment on the different degrees of acceptability exhibited by these examples. Such a discrepancy by itself does not of course preclude a uniform analysis, but since the alleged uniform behavior is central to the empirical hypothesis advocated in this part of the book, at least a brief comment on possible confounding factors seems to have been called for.

The second issue, related to the first, pertains to the status of these order-sensitive constraints within the grammar. As is well known and as B&S themselves acknowledge, the effects of at least some of these constraints, most notably WCO, are pretty weak. And it is not entirely clear whether they should be captured by encoding them directly in the grammar itself or should instead be taken to arise from processing factors. B&S express their own take on this issue most clearly in the following passage:

The result is a theory in which a certain aspect of processing is represented in terms of a competence grammar. In this sense, then, we treat crossover and other order effects simultaneously as processing defaults and as part of the competence grammar that composes well-formed expressions. (117)

This is certainly a possible position, but one that is at odds with the standard view in generative grammar, which treats competence and performance as distinct. To see how radical a view this potentially is, note that once one freely extends this perspective to similar controversial issues hotly debated in the current literature, such as the status of syntactic island constraints (cf. e.g.
Hofmeister & Sag 2010, Hofmeister et al. 2012a,b, Sprouse et al. 2012a,b), the very issue itself threatens to become pointless: there is no need for a debate since, after all, islands are part of the grammar and at the same time embody processing constraints. Fine—that is a coherent position, but do we gain any new insights about the nature of island constraints by merely acknowledging this possibility? Even limiting our attention to WCO and related phenomena, given that the elusiveness of the exact relation between the competence grammar (in the traditional, narrower sense) and the processing component is precisely what makes these ‘order-sensitive’ phenomena so challenging for traditional approaches, it is regrettably that B&S chose to say only very few words on this issue.

Aside from these two issues, there is one fundamental question left open: throughout the book, the exact relation between the two fragments presented in the two parts remains unclear. NL₃ is more powerful than the tower grammar, but the former is not simply an extension of the latter since NL₃ lacks control over evaluation order. There is a two-page ‘Afterword’ section at the end of the book that briefly touches on this issue, where B&S comment on the possibility of incorporating order sensitivity into NL_{CL₁}, a reformulation of NL₃ introduced in Ch. 17 for the purpose of studying its formal properties. The book ends there, and the reader is left wondering what to make of this rather abrupt comment offered at the very end of the book.

Do B&S mean that NL_{CL} with the added restrictions is the version of continuation-based grammar that they would ultimately endorse? To be sure, B&S emphasize, right at the beginning of Part 2, that by presenting two different versions of continuation-based grammar, their intention is not to argue for a particular theory, but rather to illustrate the utility of the notion of continuation in linguistic analysis. But to the extent that the ‘continuation hypothesis’ is an empirical hypothesis, one would like to know the answer to the above question. In particular, one important subquestion that is left unaddressed is whether it is possible to incorporate order sensitivity into NL₃ directly, via the standard technique of ‘modal control’ (Moortgat 1997) in TLG and by adding more structural postulates to it. Learning only that NL_{CL} can be so regimented is unsatisfying since (though closely related to NL₃) NL_{CL₁} is a purely formal fragment that lacks NL₃’s transparent correspondence to the more familiar movement-based architecture of grammar, as well as to related approaches in TLG such as displacement calculus (Morrill et al. 2011) and hybrid type-logical categorial grammar (Kubota & Levine 2016). If imposing such restrictions on NL₃ directly is not straightforward, that itself would be a useful thing to know; in that case, one would like to know more about where the key difficulty lies. Such a discussion would not only have been useful for the evaluation of NL₃ itself, but would also have had far-reaching ramifications for the whole family of related approaches (including the standard movement-based architecture).

To conclude, despite the issues noted above, I would like to emphasize once again the virtues of the present book: it is masterfully written and very engaging, and the new perspectives it offers on well-known, challenging empirical problems are refreshing. To be sure, some of these refreshing ideas are quite controversial, but that gives us all the more reason to study them carefully. It is a must-read for anybody interested in empirical issues related to scope, binding, and quantification, as well as the general architecture of the syntax-semantics interface of natural language.

REFERENCES


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In the past fifteen years, the field of politeness studies has experienced momentous growth both in the range of phenomena studied and in the number of venues dedicated to the relevant research. In terms of the former, impoliteness, aggression, and mock politeness as well as mock politeness are now among the topics regularly addressed; while the latter include no less than two dedicated journals (the Journal of Politeness Research, founded in 2005, and the Journal of Language Aggression and Conflict, founded in 2013), a lively series of annual conferences and workshops, and, in the past five years alone, numerous book-length publications including a dedicated Handbook of linguistic (im)politeness (Culpeper et al. 2016). It is in this climate of renewed interest in im/politeness research that Geoffrey Leech’s The pragmatics of politeness comes as a welcome addition to remind us of the linguistic roots of the field and, unwittingly, given the author’s passing within a month of its publication, to serve as his legacy into the future.

It is hardly an exaggeration to say that L, alongside Robin Lakoff (1973) and Penelope Brown and Stephen Levinson (1978, 1987), was one of the founders of the field. His interest in politeness dates to the 1970s, when he wrote Language and tact (Leech 1977), insights from which were later incorporated into his classic Principles of pragmatics (Leech 1983). Already in this early text, the seeds of his maxim-based view of politeness are evident: the mapping between (semantic) sense and (pragmatic) force, indirectness, and politeness as a scalar notion are all discussed. For L, politeness (or rather, tact) is about strategic conflict avoidance and showing regard for others. But it also serves a deeper purpose: it ensures the trust and goodwill necessary for enabling the spirit of cooperation that underlies Grice’s cooperative principle (CP) to take effect. This is quite a revolutionary view, since, unlike Lakoff (1973), he did not see politeness and cooperation as competing principles alternatingly taking precedence depending on the exigencies of the context; nor did he, like Brown and Levinson (1987:5), think of Grice’s CP as a ‘presumptive framework for communication’ grounded in reality through a set of politeness strategies. Rather, he viewed politeness as primary, as setting the scene for the CP to operate on. As he famously put it, ‘unless you are polite to your neighbour, the channel of communication between you will break down and you will no longer be able to borrow his mower’ (1983:82).

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