

Frederick J. Newmeyer, *Possible and probable languages: a generative perspective on linguistic typology*. Oxford: Oxford University Press, 2005. Pp. x + 278.

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Over the past thirty or so years, Frederick ('Fritz') Newmeyer has carved out a niche within the field of linguistics that really only he occupies. *Possible and probable languages* (henceforth *PPL*) is his latest monograph dealing with foundational issues in the field. The central thesis of *PPL* is that the results of linguistic typology have no bearing on generative theory, that it is misguided to attempt to capture the results of linguistic typology within generative theory because typological generalizations are generally due to external or functional factors rather than grammar-internal ones.

Like his previous monograph, *Language form and language function* (Newmeyer 1998; henceforth *LFLF*), *PPL* focuses on issues that distinguish formal and functional approaches to grammar. The main thesis of *PPL*, that typological generalizations are due to external or functional factors, is one that is consistent with most work in linguistic typology, and contradicts widely-held assumptions in Chomskyan generative theory (henceforth CGT), a label I use to exclude other generative approaches, such as Head-driven Phrase Structure Grammar, which do not make the sort of claims

that Newmeyer argues against in this book. In fact, I think it would be fair to say that *PPL* (as well as *LFLF*) demonstrates that Newmeyer is one of a small number of linguists who can be described as being both a formal linguist AND a functional linguist. Admittedly, many functionalists would reject this characterization as impossible since many functionalists see rejection of generative theory as a fundamental component of functionalism. But the combination of views that Newmeyer lays out in *PPL* is a perfectly coherent combination of views. And since a central theme of *LFLF*, continued in *PPL*, is that formal and functionalist approaches are compatible, Newmeyer himself would presumably admit that someone can be both a formalist and a functionalist.

There is one important reason why *PPL* makes it even more appropriate to call Newmeyer a functionalist now. One of the central ideas of functionalist linguistics, especially over the past fifteen or so years, is that frequency of usage plays a central role in explaining why languages are the way they are. While Newmeyer was fairly critical of this line of functional explanation in *LFLF* (see especially pages 134–136), he appeals to frequency-based explanations in a number of places in *PPL* (see, for example, page 158).

The first chapter of *PPL*, entitled ‘On the possible and the probable in language’, is an introduction to the issues discussed in the rest of the book. The second chapter, ‘Parameterized principles’, is an informative history of the attempts to incorporate typological generalizations into CGT. The third chapter, ‘Parameters, performance, and the explanation of typological generalizations’, is the heart of the book, in which Newmeyer lays out his arguments against trying to capture typological generalizations within generative theory. Part of his argumentation is that these attempts are problematic on internal grounds and cannot explain why one type of language is more frequent than another. He argues, appealing primarily to the work of John Hawkins (especially 1994 and 2004), that performance or usage provides a better explanation than CGT for the fact that certain language types are more common than others.

Another central goal of the third chapter is to reason against the notion of parameters in CGT and in favour of language-specific rules. Newmeyer argues in detail that the use of parameters rather than rules accomplishes nothing. He shows how the alleged advantages of parameters over rules do not stand up to scrutiny, and that if one examines the history of appeals to parameters, one finds that the solutions that are required are no simpler than analyses involving rules. Newmeyer further claims that language-specific rules are superior to parameters; however, apart from the fact that rules do not have to be binary (Newmeyer argues that binarity is not well-motivated in morphology and syntax) and the fact that CGT requires both parameters and rules anyway, he offers relatively little in support of this position.

In some respects, what Newmeyer argues for in the third chapter represents a retreat to a version of CGT from the period of Chomsky (1973)

up to, but not including, Chomsky (1981). One might say that Newmeyer has retreated to the 'core' of CGT, namely the idea that innate knowledge must be posited to account for the problem of language acquisition. Newmeyer shows that using parameter settings rather than rules has no advantage from the perspective of language acquisition.

The fourth chapter, 'In defense of the Saussurean view of grammar', is a defense of the distinction between competence and performance, or, as the issue is more often framed in recent years, between grammar and usage. One might wonder why Newmeyer devotes an entire chapter to this, since this is something he has argued for in at least three of his previous monographs. But Newmeyer's reasons for arguing for this in *PPL* are different from his reasons in his previous monographs. In the third chapter of *PPL*, he has argued that performance or usage plays a central role in explaining competence or grammar. Many functionalists who argue for the same conclusion might interpret this as providing an argument against the competence-performance and grammar-usage distinctions, but Newmeyer wants to make clear that this does not follow, that even if performance and usage play a major role in shaping competence and grammar, the distinctions still stand. (In fact, one might ask how usage could play a major role in shaping grammar if there were no distinct notion of grammar that is being shaped by usage.)

The fifth and final chapter is entitled 'The locus of functional explanation' but is primarily devoted to arguing for what Newmeyer calls holistic functionalism and against what he calls atomistic functionalism. Atomistic functionalism claims that there is a direct linkage between functional motivations and 'properties of particular grammars' (174). Holistic functionalism denies any such direct linkage and claims that functional explanation takes place at the level of language change and 'is manifested only typologically' (175). Unfortunately, Newmeyer includes under atomistic functionalism two very different approaches, which I believe have little in common. One type of atomistic functionalism he associates with functionalists who claim that a particular rule in a given language has a certain property because of some functional motivation. However, while such claims are often made, I believe that they are not always intended literally. One might say loosely, for example, that English does not place adjective phrases with a post-adjectival complement before a noun (**the angry at Bush voters* vs. *the voters angry at Bush*) because the resultant structure is more difficult to process. However, what is really meant by this is that the processing difficulty (assuming there is such) was plausibly a causal factor leading to the fact that English places complex adjective phrases on the opposite side of the noun from simple adjectives (*the angry voters* vs. **the voters angry*). This processing difficulty would also be avoided if all adjective phrases followed the noun, and the functional explanation fails to explain why this option is not followed. Newmeyer uses the analogy of smoking and lung cancer: there is clear

evidence that the likelihood of getting lung cancer is greater if one smokes. One might say of an individual that they got lung cancer because they smoked, though strictly speaking there is generally no evidence in any particular case that smoking caused the lung cancer (since some people get lung cancer even though they do not smoke). Note that Newmeyer himself uses such loose language when he says of the possibility of extraposition in a particular sentence that '[p]resumably it would be motivated by its role in parsing efficiency' (180).

Newmeyer's characterization of the distinction between atomistic and holistic functionalism seems to exclude an intermediate position, that in at least certain cases, a property of a particular grammar is directly motivated by some functional consideration, but that the locus of this functional explanation was at the level of historical change. Such a position seems to be a coherent one and is likely to be widely held by functionalists. By Newmeyer's criteria, the claim of direct motivation would constitute a case of atomistic functionalism, while the claim that it took place at the level of historical change would seem to involve holistic functionalism. In other words, Newmeyer's characterization obscures the distinction between two different issues; that is, it conflates the questions whether there is a direct link between functional explanation and grammatical properties and whether the locus of functional explanation is at the level of historical change or somewhere else (such as at the level of language usage).

The second type of atomistic functionalism is represented by the functionally-based version of Optimality Theory (OT) associated with Joan Bresnan and Judith Aissen. In fact, Newmeyer devotes much of the fifth chapter arguing against functionally-based OT. Functional OT is a thoroughly atomistic approach in that it claims that the grammar makes direct reference to functional principles (in ranking them); and unlike the first type of atomistic functionalism, the functional explanation cannot be interpreted as taking place at the level of language change. Newmeyer observes that Functional OT might be viewed as a middle ground between functional and formal approaches. However, as he observes, since Bresnan & Aissen (2002) claim that the principles are both functionally-motivated and innate, their approach should hold little appeal to functionalists.

From my overview of *PPL* so far, the title of the book might seem puzzling. Newmeyer's view is essentially that the explanations for what makes a language PROBABLE, i.e. what makes one type of language more common than another (for example, subject-initial languages vs. object-initial languages), lie in usage. What makes a language POSSIBLE is determined by Universal Grammar (UG) in Chomsky's sense. The first of these claims, about what makes a language probable, is defended at length in the third chapter of *PPL*. But I find the second of these claims, about what makes a language possible, problematic in a number of ways. First, it is far from clear that there are not some ways in which usage or performance factors render

certain hypothetical languages impossible. Surely, structures that were for various reasons unparseable would be excluded, so that any language including them would be impossible. This means that the distinction between possible and probable languages is not the same as the distinction between external explanation and UG explanation, so that Newmeyer has not really fully addressed the distinction between possible and probable languages. I see no reason to believe that the distinction between possible and probable languages is an important one (see also Dryer 1998 for arguments against making such a distinction).

Let me now turn to the question of parameters. Newmeyer's rejection of parameters is related to the primary thesis of *PPL*, namely that typology is irrelevant to CGT. While the parameters of CGT are generally different from those discussed by typologists, parameters do define a typology. Newmeyer is thus arguing that not only should CGT not have to account for why certain types of languages are more common than others, but that in addition it need not represent different types of languages directly.

It is worth discussing briefly one typology that has played a role both in typology and in CGT, and that is the word order correlations associated with Greenberg (1963). The two settings for the 'head parameter' are intended to capture what are assumed to be the two most common types of languages – head-initial languages and head-final languages. But the head parameter also illustrates how parameters are not helpful with respect to language acquisition: there is no poverty-of-stimulus advantage to assuming that languages are consistently head-initial or head-final. It is not as if a child will learn that P(repositional) Phrases, N(oun) Phrases, and V(erb) Phrases (or whatever maximal projections one's theory assumes) are all head-initial, and will therefore infer that A(djectival) Phrases are head-initial as well, since by the time the child has been exposed to many instances of PPs, NPs, and VPs, they will presumably have also been exposed to enough APs to know that APs are (or are not) head-initial. The situation is very different from principles like subadjacency, where the role of the principle is to account for ungrammatical sentences that the child has no data on, and where the relevant constructions are sufficiently complex that the child will have been exposed to far fewer instances than they would have been to the number of APs with complements.

If APs are superficially not head-initial in a particular language, previous work in CGT provides ways to account for such languages within the rubric of a head parameter. But then the theory no longer explains why languages that are head-initial for PPs, NPs, and VPs are more likely to be superficially head-initial for APs than superficially head-final. Newmeyer argues that the attempts to account for such frequency differences within CGT do not work.

There is another problem here. It is shown in Dryer (1992) that the word order correlations cannot be described in terms of consistent ordering of

heads and complements. Rather, they involve a tendency towards consistent left-branching or consistent right-branching, and it is only because heads are most commonly lexical categories while complements are almost always phrasal categories that a tendency towards consistent branching direction creates the illusion of a tendency towards consistent ordering of heads and dependents. Furthermore, it is proposed in Dryer (1992) that the tendency towards consistent branching direction is motivated by processing considerations and that languages that mix left- and right-branching more often have structures that are more difficult to parse. This idea is pursued in detail by Hawkins (1994, 2004), whose proposed explanations Newmeyer cites as examples of how differences in language frequency are better explained in terms of performance than within grammars.

The apparent irrelevance of head position to explaining word order correlations means that there is no point in having a head parameter, and Newmeyer offers an alternative approach that suggests to me that he has missed his own point. He proposes that although there is no head parameter, 'UG would still specify that phrases are headed (and hence in the process of acquisition children would still be driven to identify the position of the head)' (74). Thus, speakers of English end up with a rule that generates complements to the right of the head, and speakers of Lakhota end up with a rule that generates complements to the left of the head. But since Newmeyer endorses Hawkins' theory, which gives a processing explanation for why so many languages are like English and Lakhota in being consistently head-initial or consistently head-final, why would he propose that speakers of these languages come up with such rules? Note that languages that are not consistent – like Yagua, which has head-initial VPs but head-final NPs and PPs – will have to have separate rules for each category. In other words, having argued that Hawkins provides a plausible processing account for why languages tend to be consistently head-initial or consistently head-final, thereby obviating any need to capture this within CGT, Newmeyer ends up proposing an analysis in which the difference between consistently head-initial or head-final languages and 'inconsistent' languages is represented. 'Consistent' languages need just one rule, whereas 'inconsistent' languages need a separate rule for each category (or, at the very least, more than one rule). Oddly, Newmeyer is later quite explicit about this particular typological generalization not being represented in grammars:

Take Japanese, for example, which upholds the above-mentioned generalization [that verb-final order is associated with postpositions] and German, which violates it. The grammar of neither language encodes, directly or indirectly, the information that the former language is typologically consistent and the latter inconsistent. (104)

An alternative view, and one that is more in the spirit of the overall argumentation in PPL, is to suggest that English and Lakhota, like Yagua,

have separate rules for the order of N and complement, V and complement, and P and complement. In fact, since these languages also need separate rules for the order of other pairs of elements (various heads and adjuncts, and various non-heads), it is not clear that the notions of head and complement play any role in the formulation of word order rules. Crucially, this means that, at least as far as word order is concerned (and I would claim the same for all grammatical phenomena), there is no need for UG to specify that phrases are headed or that children are driven to identify the position of the head. Phenomena involving the notion of 'head' do not generally face a problem of poverty of stimulus. In other words, while there are linguistic phenomena that provide a puzzle as to how the child comes to know that certain sentences are ungrammatical, these puzzles do not generally arise with word order or simple matters of phrase structure, where the child is exposed to plenty of data from which the relevant rules can be inferred relatively easily.

Let me, at this point, drop the pretence of objectivity, since with a book of this sort, one's reaction is bound to be heavily influenced by one's own biases. I am a typologist and a functionalist, but I find myself in agreement with most of Newmeyer's claims in *PPL*. I say 'but' only because I suspect that many functionalists would find more with which to disagree. However, the claim that typological generalizations are better explained functionally is clearly consistent with the views of most functionalists. Whether usage should be distinguished from grammar is something that many functionalists would question, but I believe that any functionalist who has written a descriptive grammar of a language could not have done so if they really believed that usage and grammar were not distinct. Many functionalists do make claims that make them sound like atomistic functionalists, but I suspect that in many instances, this is just because of imprecise wording, although some functionalists appear to believe that functional explanation happens in real time, not just at the level of language change.

Perhaps surprisingly, my general agreement with Newmeyer's claims in *PPL* includes what I take to be the main claim in a five-page section in which he argues against a paper of mine (Dryer 1997a). In fact, not only do I agree with Newmeyer here, but I believe that the arguments that he presents for his conclusion are unnecessarily weak. Newmeyer suggests that the typology I offered in terms of O(bject)V(erb) vs. VO and S(ubject)V vs. VS is inferior to the more traditional typology of SOV, SVO, VSO, VOS, OVS, and OSV. On this point, we do disagree. Nevertheless, I agree with his main claim in this section that the full argument structure of transitive clauses is cognitively represented. Newmeyer seems to think that my typology somehow supports the opposite view, and argues that I am mistaken in my view that VSO and VOS languages are typologically the same in terms of what features correlate with these orders. His argument seems to presuppose that if it turns out that he is wrong about the choice between the two

typologies, such a result would provide some argument against the view that full argument structure is cognitively represented. However, even if VSO and VOS languages are typologically the same, there is still very good reason for claiming that full argument structure is cognitively represented. Consider Welsh, which is VSO, as illustrated in (1a), and Malagasy, which is VOS, as illustrated in (1b).

- (1) (a) Gwel-odd y bachgen ddyn ddoe.
 see.PAST.3SG the boy man yesterday
 'The boy saw a man yesterday.'
 (b) Ma-hita ny alika ny zazavavy.
 see.PRES the dog the girl
 'The girl sees the dog.'

If full argument structure were not fully represented, why do speakers of Welsh consistently interpret (1a) as 'the boy saw a man' rather than 'a man saw the boy', while speakers of Malagasy consistently interpret (1b) as 'the girl sees the dog' rather than 'the dog sees the girl'? Speakers of these two languages must cognitively represent this difference between the two languages, which only manifests itself in clauses with both a subject and an object, regardless of whether VSO and VOS languages are typologically similar.

While I agree with most of Newmeyer's claims in *PPL*, this does not mean that I agree with most of Newmeyer's beliefs. Newmeyer's position in *PPL* is a retreat from many of the claims of CGT, but he still believes in an innate UG; the analyses that he discusses are mostly close in spirit to analyses assumed in CGT, and I do not agree with him about these. However, these are not really claims of *PPL*, but simply assumptions that Newmeyer makes, which are not necessary for most of his claims in this book. My own view of grammar is quite different from Newmeyer's: I believe that the analyses provided by basic linguistic theory (Dixon 1997) are superior to those provided by CGT (for reasons it would not be appropriate to discuss here). I believe, in sharp contrast to CGT, all syntactic and morphological categories and rules to be language-specific (Dryer 1997b). Where there are similarities across languages, the explanations for these similarities are external to grammar. My purpose here is not to defend an alternative view of grammar, but to draw attention to the fact that despite my rather different view of grammar, I am in agreement with Newmeyer on most of the major claims of *PPL*. In other words, most of the central claims of *PPL* are quite independent of one's view of grammar, which commends this book to linguists of varying persuasions.

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