

# SYNTACTIC RECONSTRUCTION

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Syntactic reconstruction has not figured prominently in historical linguistic investigations, as can be surmised from the fact that the index of the recent 881-page *Handbook of Historical Linguistics* (Joseph & Janda 2003) lists just seven pages, all in the same article, where it is discussed. As Fox observes, ‘Syntactic reconstruction is a controversial area...scholars working within the framework of the classical Comparative Method have been far less successful in applying their methods here than in the case of phonology of even morphology’ (1995:104; see also Jeffers 1976). And in discussing this topic elsewhere, Fox does not point to any methods other than the Comparative Method that have offered promising results (1995:104-109, 190-194, 250-253, 261-270).

Efforts to reconstruct syntax can be traced at least as far back as 1893-1900, when Delbrück (as cited in Lehmann 1992:32) reconstructed OV word order for Proto-Indo-European. By far the most ambitious early effort at reconstructing syntax is Schleicher’s “Proto-Indo-European fable”, which was considered a rash enterprise even in those pre-Neogrammarian times (1868, as cited and translated in Jeffers & Lehiste 1979:107):

*Avis akvāsas ka*

‘A sheep and horses’

avis, jasmin varnā na ā ast, dadarka akvams, tam, vāgham garum vaghantam,  
tam, bhāram magham, tam, manum āku bharantam.

avis akvabhjams ā vavakat: kard aghnutai mai vidanti manum akvams agantam.

Akvāsas ā vavakant: krudhi avai, kard aghnutai vividvant-svas: manus patis

varnām avisāms karnauti svabhjam gharman vastram avibhjams ka varnā na  
asti.

Tat kukruvants avis agram ā bhugat.

‘A sheep on which there was no wool saw horses, one drawing a heavy wagon,  
another a great burden, and another carrying a human quickly.’

The sheep said to the horses: The heart feels anguish seeing the man driving the  
horses.

The horses said: Listen, sheep, the heart feels anguish having seen the man, the  
master, make the wool of sheep into warm clothes and there is no wool for the  
sheep.

Having heard that, the sheep turned away into the field.’

Even aside from the fatal flaws instantly evident to any modern Indo-Europeanist (or, for that matter, to any of the Neogrammarians of the 1870s)—most notably the Sanskrit-like phonology, especially the vowel system, which no one now believes to be possible for Proto-Indo-European (PIE)—Schleicher’s fable struck Indo-Europeanists as so unpromising that hardly anybody since then has felt confident enough to reconstruct even a short discourse for Proto-Indo-European (in spite of a few proposed “updates” of Schleicher’s fable, e.g. one by Hermann Hirt in 1938, as cited in Jeffers & Lehiste 1979:108). The problem, after the phonology is corrected, is that PIE syntax is too poorly understood to justify constructing PIE sentences. But the issue of whether syntax can be reconstructed at all recurs in the literature of historical linguistics.

Two waves of interest in the topic, one of them widely considered abortive and the other current and growing, account for most of the research. The first wave, which crested in the 1970s, was based on the famous typological morphosyntactic generalizations first presented in Greenberg 1963. These generalizations focused in particular on clusters of

morpheme orderings that tended to appear together as a bundle—for instance, OV word order with postpositions, Adjective-Noun, Determiner-Noun, Relative-Noun, and other word order patterns. A language in which all the statistically predominant ordering patterns appear together is said (on this view) to be typologically consistent. The fundamental argument relevant to typologically-based syntactic reconstruction is that inconsistencies in ordering patterns, especially as reflected in minor patterns in restricted environments, reflect older consistent patterns, providing a means of reconstructing the earlier morpheme order patterns. When evidence for certain patterns is lacking (for instance because of the absence of texts in an attested ancient language), the existing orderings, e.g. Noun-Adjective, are used to infer other orderings, e.g. VO word order. In other words, the typological clustering of the various ordering patterns provides directionality of syntactic change and thus permits the reconstruction of earlier syntactic orders.

The most prominent proponent of this approach to syntactic reconstruction is Winfred Lehmann (e.g. 1973, 1974, and see also 1992:238-240); Lehmann views typologically “inconsistent” languages—that is, languages that violate Greenberg’s ordering generalizations—as predictably transitional, en route to consistency. The entire typological approach to syntactic reconstruction is sharply criticized in Watkins 1976, with a focus on Lehmann 1974. Watkins laments the fact that (as he sees it) ‘the rebirth of Indo-European syntax has taken place in the bed of Procrustes’ (p. 305), that ‘[s]yntax is now viewed as coterminous with word order’ (ibid.), and that the approach ‘elevates some of Greenberg’s extremely interesting quasi-universals to the dubious status of an intellectual strait-jacket...’ (p. 306). He also presents arguments against specific predictions of the typological approach, e.g. the fact that some typologically “inconsistent” languages have apparently remained “inconsistent” for many centuries.

A partly comparable search for universal principles that might lead to valid syntactic

reconstruction is Givón's much-cited dictum, 'Today's morphology is yesterday's syntax' (1971:413). Like Lehmann, Givón claims that clues to earlier word order patterns are to be found in relics, specifically, for Givón, in the order of morphemes in words—the crucial assumption being that processes of cliticization and then affixation of formerly independent words must have fossilized the original relative ordering of the words. This approach too has been sharply criticized (see e.g. Comrie 1980 and Harris & Campbell 1995:199ff.). One empirical problem for the claim is that affixes sometimes change positions in the word relative to other affixes and even relative to the stem, and clitics sometimes change position when they turn into affixes. A major reason for the widespread skepticism about all approaches to syntactic reconstruction that focus on reconstructing word order patterns is hinted at in one of Watkins' objections: not only is there much more to syntax than word order, but it is also impossible to know, from surface word order alone, the nature of the grammar that produced that word order. So, for instance, a dominant SVO sentential word order pattern in one language might result from a grammar that specifies SVO word order, but in another language it might result from a verb-second rule.

The search for universals that would permit the establishment of a firm directionality in syntactic change, and thus a sure means of syntactic reconstruction, is continued in some of the research on grammaticalization, and this research goes well beyond word order studies. Still, proposals of universality have not met with general acceptance. See, for instance, Harris & Campbell (1995:336-338) for a criticism of claims that certain morphosyntactic changes are predictably unidirectional. Many linguists, including Harris & Campbell themselves, would agree that a weaker sense of directionality might prove useful in syntactic reconstruction, in the same way that probabilities are used in phonological reconstruction: all things being equal, one would reconstruct *\*p* rather than *\*b* for an intervocalic *p* : *b* correspondence, because intervocalic voicing is more common, and more likely on phonetic grounds, than

intervocalic devoicing. Some (not all) of the proposed universals of morphosyntactic change would meet this “more probable” criterion.

The recent upsurge of interest in syntactic reconstruction is much less homogeneous than the typological approach of the 1970s. Perhaps the most-cited recent contribution to the debate, both in its own right and as a stimulus to further research (much of which offers opposing views), is Harris & Campbell’s Chapter 12, ‘Reconstruction of syntax’ (1995:344-376). Harris & Campbell’s approach is criticized in Lightfoot 2002a, and the discussion is continued in a follow-up exchange (Campbell & Harris 2002, Lightfoot 2002b). The two most difficult issues, for syntactic reconstruction in general as well as in these articles, concern the problem of identifying syntactic correspondences in related languages and the problem of directionality. Neither issue is new, but the former in particular has received more attention recently than in (for instance) the 1970s (but see Watkins 1976).

The crux of the correspondence problem is articulated by Werner Winter (1984:622-623, and see also the discussions in Harris & Campbell 1995:345-353 and Rankin 2003:201-206): ‘Sentences are formed, not learned; morphemes and simple lexemes are learned, not formed.’ The difficulty is that application of the Comparative Method requires elements that show recurring correspondences in both form and meaning, and in practice this has always meant reconstructing proto-language features on the basis of cognate morphemes—that is, morphemes in two or more daughter languages that are descended from the same morpheme in their shared parent language. The method has been spectacularly successful in the reconstruction of individual morphemes, both words and affixes, and of phonological features abstracted from the reconstructed morphemes; reconstruction of partial morphological patterns has also been carried out successfully, especially where analogic changes that have transformed some daughter-language paradigms are fairly transparent. But purely syntactic structures—those which, unlike constructions that are anchored by such morphemes as the

question particle used in the formation of yes/no questions in some language families—offer no cognate morphemes to base a reconstruction on.

As a means of overcoming this difficulty, Harris & Campbell propose the concept of **syntactic correspondence**. Although they acknowledge that ‘syntax has nothing quite like the duality of patterning (double articulation) in phonology’ (1995:349), they argue that sentences in related languages can be considered to correspond if they mean the same thing and if the grammatical morphemes that are crucially relevant to the structure point under consideration are cognate (p. 349), and if they are ‘responses to identical or essentially identical stimuli in two stages of a language’ (p. 350). This last notion—that identical stimuli can be predicted to produce linguistically equivalent utterances—seems at best overoptimistic; it is surely not supported by psycholinguistic evidence. Harris & Campbell also emphasize that their goal ‘is to establish correspondence patterns, not corresponding sentences’ (p. 350), so in fact their proposal is that there are cognate sentence patterns, not cognate sentences per se.

Crucially, they argue for the existence of regularity in syntactic change, equivalent to the regularity hypothesis for phonological change (pp. 326 ff.)—but with a sense of regularity, namely ‘rule-governed and non-random’ (p. 326), that differs sharply from the sense in which phonological change is hypothesized to be regular. An analogic change that levels a morphophonemic stem alternation in an inflectional paradigm is regular in Harris & Campbell’s sense, but it is not directly comparable to the concept of regular sound change that has guided applications of the Comparative Method for over a century: regular sound change is form-based only, while analogic change is both form- and meaning-based (as seen, for instance, in certain analogic leveling processes in Serbo-Croatian that affect noun declension but not adjective declension—Thomason 1976). The morphosyntactic changes discussed by Harris & Campbell in this context are presumably driven by analogy, not by sound change. Another

major problem that arises for Harris & Campbell's notion of cognate sentence patterns is the same as a problem noted above for the typological approach to syntactic reconstruction: the same syntactic output in two different languages might well be produced by quite different grammars.

A different line of research aimed at reconstructing syntax focuses on the implications of changes in parameter settings (e.g. Roberts 1998, Longobardi 2001; compare the critical discussion in Lightfoot 2002a:127-130). But until an approach based on parameter settings is worked out in more detail, including specific examples, the idea is difficult to assess.

Can any safe general conclusions be drawn about the feasibility of syntactic reconstruction? Perhaps. There is fairly widespread agreement that syntactic identity in all the daughter languages—for instance SOV word order—permits the reconstruction of that pattern in the parent language, and nobody (as far as I know) has recommended that all efforts to reconstruct syntax should be abandoned because they are hopeless. On the contrary, a cautious optimism is widespread and seems justified. Watkins, for instance, argues for the possibility of reconstructing poetic formulas of two and three words—and therefore bits of proto-language syntax—where the formulas are cognate morpheme by morpheme in the daughter languages (1995). Pires & Thomason (forthcoming) argue that, at least at relatively shallow time depths, the Comparative Method can sometimes be used successfully to reconstruct morphosyntactic constructions, for instance the Proto-Romance future (using a deliberately restricted data set for testing purposes); here the analysis rests on shared cognate morphemes, on directional probabilities (clitic-to-affix is more likely than affix-to-clitic), and on drift (independent clitic-to-affix changes in several languages). The prospects seem to be dimmer for successful syntactic reconstruction where the constructions under comparison are not expressed at least in part by cognate morphemes and where there is no identity in all the daughter languages. Certainly proposals that don't meet at least one of these criteria

are all highly controversial at present.

## References

- Campbell, Lyle, and Alice C. Harris. 2002. Syntactic reconstruction and demythologizing 'Myths and the prehistory of grammars'. *Journal of Linguistics* 38:599-618.
- Comrie, Bernard. 1980. Morphology and word order reconstruction: problems and prospects. In Jacek Fisiak, ed., *Historical Morphology*, 83-96. The Hague: Mouton.
- Delbrück, Berthold. 1893-1900. *Vergleichende Syntax der indogermanische Sprachen*. Strassburg: Trübner.
- Fox, Anthony. 1995. *Linguistic Reconstruction: An Introduction to Theory and Method*. Oxford: Oxford University Press.
- Givón, Talmy. 1971. Historical syntax and synchronic morphology: an archaeologist's field trip. *Chicago Linguistic Society* 7:394-415.
- Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph H. Greenberg, ed., *Universals of Language*, 73-113. Cambridge, MA: MIT Press.
- Harris, Alice C., and Lyle Campbell. 1995. *Historical syntax in cross-linguistic perspective*. Cambridge: Cambridge University Press.
- Jeffers, Robert J. 1976. Syntactic change and syntactic reconstruction. In William Christie, ed., *Current Progress in Historical Linguistics (ICHL 2)*, 1-16. Amsterdam: North Holland.
- Jeffers, Robert J., and Ilse Lehiste. 1979. *Principles and Methods for Historical Linguistics*. Cambridge, MA: MIT Press.



- Joseph, Brian D., and Richard D. Janda, eds. *The Handbook of Historical Linguistics*. Oxford: Blackwell.
- Lehmann, Winfred P. 1973. A structural principle of language and its implications. *Language* 49:47-66.
- Lehmann, Winfred P. 1974. *Proto-Indo-European Syntax*. Austin: University of Texas Press.
- Lehmann, Winfred P. 1992. *Historical Linguistics*. 3rd edn. London: Routledge.
- Lightfoot, David W. 2002a. Myths and the prehistory of grammar. *Journal of Linguistics* 38:113-136.
- Lightfoot, David W. 2002b. More myths. *Journal of Linguistics* 38:619-626.
- Longobardi, Giuseppe. 2001. Formal syntax, diachronic minimalism and etymology: the history of French *chez*. *Linguistic Inquiry* 32:275-302.
- Pires, Acrisio, and Sarah G. Thomason. Forthcoming. How much syntactic reconstruction is possible? In Gisella Ferraresi and Maria Goldbach, eds., *Principles of Syntactic Reconstruction*.
- Rankin, Robert L. 2003. The comparative method. In Joseph & Janda, 183-212.
- Roberts, Ian G. 1998. Review of Harris & Campbell. *Romance Philology* 51:363-370.
- Schleicher, August. 1868. Eine fabel in indogermanischer ursprache. *Beiträge zur vergleichenden Sprachforschung* 5:206-208.
- Thomason, Sarah G. 1976. What else happens to opaque rules? *Language* 52:370-381.

- Watkins, Calvert. 1976. Towards Proto-Indo-European syntax: problems and pseudo-problems. In Sanford B. Steever, Carol A. Walker, and Salikoko S. Mufwene, eds., *Papers from the Parasession on Diachronic Syntax*, 306-326. Chicago: Chicago Linguistic Society.
- Watkins, Calvert. 1995. *How to Kill a Dragon: Aspects of Indo-European Poetics*. Oxford: Oxford University Press.
- Winter, Werner. 1984. Reconstructional comparative linguistics and the reconstruction of the syntax of undocumented stages in the development of languages and language families. In Jacek Fisiak, ed., *Historical Syntax*, 613-625. The Hague: Mouton.