

# The Stokhof – van Lambalgen paradox resolved

FREDERICK J. NEWMAYER

Stokhof and van Lambalgen (S&vL) present the reader with what, on the face of it, is a troublesome paradox.<sup>1</sup> On the one hand, generative linguistics of the mainstream Chomskyan variety enjoys tremendous ‘success and prestige’, even today being ‘held up as a model of scientific innovation to other disciplines in the humanities’ (1). Not only that, but it ‘appears to tie in with internal, disciplinary developments in other fields’ and ‘has succeeded to come up with scientific characterizations of its core concepts that have allowed linguists to develop theories that are both descriptively and explanatorily adequate’ (2). But paradoxically, ‘despite the solid reputation that linguistics has as a successful discipline, many of the expectations have not (or not yet?) been realized’ (2): Complete and explicit grammars of individual languages are non-existent and the field manifests ‘substantial diversity in approaches and models, and even in definitions of central concepts’ (3). And furthermore, as S&vL go on to argue at length, the constructions of linguistic theory are of a different nature from those in the natural sciences. Rather than being the abstractions characteristic of the latter, they are idealizations, whose ‘motivation is not so much practical as ideological’ (14), a motivation based on ‘scientistic naturalism, plain and simple’ (22). The ‘real question’, for S&vL is ‘whether a theory that reduces the relevant core concept to biological entities [i.e. the ‘language organ’ – FJN] and that accepts only a naturalistic methodology, will be able to come up with insightful explanation of properties of the original object of study’ (23). They ‘strongly suspect . . . that the ideologically motivated choice for naturalism severely hampers the explanatory power of the

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resulting linguistic theory, [which] by itself provides a clear pointer to the direction in which one may look for alternatives' (25).

How, one might ask, given that mainstream generative linguistics is mired in an ideological and explanatory morass, could it paradoxically be so successful and prestigious? In fact, in large part as a result of the scientistic naturalism that it has adopted, the field is *not* or, more accurately, is no longer, considered successful and prestigious. The remainder of this commentary is devoted to defending that point, or, in other words, to arguing that there is no paradox.

I was puzzled at the outset by the reference to the 'humanities'. The term is used differently in different parts of the English-speaking world, but it generally encompasses literary analysis, history, philosophy, and cultural studies. It is true that in the 1960s, when structuralism was in fashion among literary critics, the influence of structural linguistics of the Jakobsonian variety was evident, but those times have long since gone. The post-modernist deconstructionism that still reigns in literature departments in the western world is antipathetic to scientific investigations of language of *any* variety. Historians as a group have no interest at all in linguistics, while philosophers generally reject naturalistic approaches to mental faculties *tout court*. Wolfram Hinzen, one of the few philosophers committed to such an approach laments 'the current predominance of functionalist and externalist thinking about the mind' (Hinzen 2006: xi) and sets out to defend a Chomskyan-style rationalism that is 'a unique brand, as it combines with an internalist and methodological naturalism in what I think is an unfamiliar way in philosophy today' (xii). And finally, cultural studies of language are practically unanimously anti-generative:

The basic assumption of linguistic anthropology is that to understand the meaning of linguistic messages one must study them within the contexts in which they are produced and interpreted. This commitment to contextualized language is supported by a number of units of analysis that go beyond the word, the sentence, and the notion of language as an ideal system to include speech communities, speech events, activities, and acts, as well as the notions of register and variety. (Duranti 2009: 31)

In short, the status of linguistic theory within the humanities could not be lower than it is.

But it is among cognitive scientists, not humanists, where one would hope (and expect) linguistic theory to enjoy the highest prestige. That was certainly true at one time. As Judith Greene put it: 'Chomsky's theory of generative

transformational grammar was the first to force psychologists to reconsider their whole approach to language behavior, and so heralded the psycholinguistic “revolution” (Greene 1972: 15). But the bloom is off the rose. The major work devoted to the history of the cognitive sciences remarks that ‘although theoretical linguistics was hugely important in the origins of cognitive science, it’s now almost invisible’ (Boden 2006: 417). Sadly, even generative linguists concur. Jackendoff (2003: 652) writes of a ‘gulf between linguistics and the rest of cognitive science that has persisted until the present’. Alec Marantz acknowledges the ‘gulf between mainstream linguistics within the generative linguistic tradition and most of those engaged in experimental cognitive neuroscience research’ (Marantz 2005: 430), but dismisses it as ‘a public relations problem rather than a fundamental methodological confusion’. But others explain the gulf by pointing to the very idealizations that S&vL call into question:

Generative grammar has almost exclusively devoted its attention to [the level of mind/competence] . . . All in all, this seems to have led to an unfortunate isolation for generative grammarians (especially those who have followed the minimalist program) within the realm of cognitive science. (Ritter 2005: 120)

At the moment, the study of formal syntax in particular seems to be off in its own separate world, which makes it very difficult to connect it to the broader enterprise of trying to understand human and other minds. (Ferreira 2005: 378)

In other words, S&vL are correct that the idealizations that underpin the generative enterprise set it apart from mainstream scientific inquiry, but they do not seem to appreciate the degree to which that has led to diminished success and prestige among cognitive scientists. And as far as the natural sciences are concerned, two of the major defenders of generativist methodology remark that ‘the minimalist view on language and linguistic theory is at odds with the general beliefs held by mainstream biologists until very recently, and by the majority of them to this day’ (Boeckx and Piattelli-Palmarini 2005: 456).<sup>2</sup>

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<sup>2</sup> One might object that two of the world’s most eminent evolutionary biologists, Marc Hauser and W. Tecumseh Fitch, have teamed up with Chomsky to produce a paper on the evolution of language (Hauser, Chomsky, and Fitch 2002). This paper contrasts the ‘narrow linguistic faculty’ (possibly containing only recursion) with the ‘broad linguistic faculty’ (aspects of language derivable from other faculties). However, both Hauser and Fitch now speculate that the narrow linguistic faculty might be completely empty (Hauser 2010; Fitch 2010). Such a position represents an implicit rejection of over a half century’s theorizing in generative grammar.

The following passage, written by a philosopher and three linguists with quite different takes on grammatical theory, indicates the degree to which linguistics has been marginalized by natural scientists:

We . . . wrote a letter to *Nature* to warn against over-interpretation of the Gentner group's results [= Gentner et al. 2006 – FJN]. The letter presented four reasons for thinking the paper's conclusion, that the experiment 'opens a new range of complex syntactic processing mechanisms to physiological investigation', was not sufficiently supported. Within 18 hours, *Nature* declined to publish the letter. (In our experience, this is what usually happens when linguists write to general science journals like *Nature* and *Science* commenting on the content of papers with linguistic content that have been published by non-linguists.) (Jackendoff et al. 2006)

Turning to computer-based applications of linguistic theory, S&vL here do acknowledge the diminished prestige of the theory: 'As the theoretical models of the generative tradition, based as they are on the notion of a grammar as a system of explicit rules, failed to deliver in applications such as machine translation, question-answer systems, and the like, people started to use other constructions of central concepts such as 'language', 'meaning', and so on' (24). The situation is probably worse than they think. One of the world's leading computational linguists famously put it: 'Whenever I fire a linguist our system performance improves' (Jelinek 1997).<sup>3</sup>

The sorry state of the reputation of generative linguistics is matched by the stagnant (if not declining) number of institutions at which the approach predominates. I am quite certain that a clear majority of North American syntacticians do one form or another of generative grammar, though it is an open question as to whether the majority of North American linguists *as a whole* feel that the generative approach is on the right track. But in how many European countries are generativists in the majority among syntacticians? Only in Britain and the Netherlands, I would say. Germany, for example, has produced a number of outstanding generative syntacticians, but they represent a minority within the subfield. Henk van Riemsdijk, the doyen of Dutch generative linguistics, has observed:

<sup>3</sup> In fairness, Jelinek later tempered his remark with the following comments: 'Linguists study language phenomena as much as possible like physicists study physical phenomena. They will give us advice, but will not directly engage themselves in building systems. Just as engineers learned to take advantage of the insights of physics, it is our task to figure out how to use the insights of linguistics' (Jelinek 2009: 32).

Take a country like Germany. It is not a poor country, they've got a lot of universities. But if you want to pin point the centers of generative grammar, depending on your generosity, you end up with maybe half of a dozen. (Riemsdijk 1998: 18)

I doubt that one could find even that many in France or Italy. A telling point is that the International Cognitive Linguistics Association, when it meets in Europe, outdraws its generative counterpart, Generative Linguists of the Old World, by a factor of two to one.

To conclude, S&vL have done the field a great service by (in my opinion, correctly) pinpointing the ways in which the ontology and methodology of mainstream theoretical linguistics has diverged from that of the natural sciences. But they wildly underestimate the extent to which this divergence has led to a decline in fortunes for the theory. As they present their case, scholars in other disciplines paradoxically continue to express admiration for an approach to language that has failed basic scientific litmus tests. As we have seen, there is no paradox. Such admiration, as we enter the second decade of the twenty-first century, barely exists.

*Correspondence address: University of Washington, University of British Columbia & Simon Fraser University*  
fjn@u.washington.edu

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