

Noam Chomsky

The Science of Language. Interviews with James McGilvray.

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This volume is endorsed as “truly exceptional in affording an accessible and readable introduction to Chomsky’s broad based and cutting edge theorizing” (Stainton, back cover). Chomsky made undeniably important contributions to modern linguistics but his Minimalist Program and subsequent developments have been severely criticized. Hence a cutting edge account addressing these criticisms would be indeed desirable. The volume promises to cover a wide range of topics relevant to a 21st-century science of language. Twenty-five interviews are grouped in two sections. Part I introduces the reader to Chomsky’s thought on the design and function of human language, language evolution, representationalism, the nature of human concepts, optimality and perfection of Universal Grammar, and Chomsky’s intellectual contributions. Part II includes discussions of human nature, evolutionary psychology, morality, epistemology, and biological limits on human understanding. In addition McGilvray provides twelve appendices, chapter-by-chapter commentaries, and a glossary.

In spite of the impressive table of contents, hope for finding cutting-edge insights and meaningful engagement with long standing criticism fades quickly. Most arguments for domain-specific innate biological endowment, saltational language evolution, semantic internalism, and computational optimality have been proposed for decades and are unsupported by evidence and/or citation of sources. Furthermore, it will be difficult, especially for the lay reader, to follow the presentation because terms are not clearly defined, the conversation meanders through countless obscure, irrelevant digressions, and far-reaching conclusions are often drawn from meager premises.

For example, Chomsky argues that the function of human language cannot be communication because: “probably 99.9% of its use is internal to the mind. You can’t go a minute without talking to yourself. It takes an incredible act of will not to talk to yourself” (11). No evidence supports the claim that 99.9% of language-use is internal. It seems to be based on Chomsky’s introspection. Furthermore, showing that language is currently used mainly for internal thought does not rule out its having originally evolved for communication. Selection acts only on aspects of traits that make a difference to the trait carrier’s inclusive fitness, irrespective of what other aspects these traits may have, and exaptations occur.

The Argument from the Norman Conquest, defending Chomsky’s dismissal of the significance of empirical data for linguistic theorizing, is equally unconvincing:

Take the Norman Conquest. The Norman Conquest had a huge effect on what became English. But it clearly had nothing to do with the evolution of language – which was finished long before the Norman Conquest. So if you want to study distinctive properties of language – what really makes it different from the

digestive system ... you're going to abstract away from the Norman Conquest. But that means abstracting away from the whole mass of data that interests the linguist who wants to work on a particular language. There is no contradiction in this; it's just a sane approach to trying to answer certain kinds of far-reaching questions about that nature of language.

The vague formulation of this argument makes evaluation difficult. If, when studying L_1 , one should abstract away from *the whole mass of data* of interest to the linguist about L_1 , the same logic would hold for $L_2 \dots L_n$. So one would have to abstract away from everything of linguistic interest about all languages to uncover the nature of language and explain how it differs from digestion. Idealization and abstraction are of course part of the scientific method but given how little is currently known about the core properties of language, such wholesale abstraction is hardly responsible. Even on a more charitable reading, the Argument from the Norman Conquest is incompatible with Chomsky's view that "the linguist is *always* involved in the study of *both* universal and particular grammar ... his formulation of principles of universal grammar must be justified by the study of their consequences when applied in particular grammars" (*Language and Mind*, 1968, 24, emphasis added). It is remarkable that most arguments offered in support of Chomsky's position are as vague as the Argument from the Norman Conquest.

While *The Science of Language* cannot be recommended for the positive arguments it contains, even worse are numerous attacks on opponents, who are often not even named. None of the criticisms are supported by solid evidence. Instead, one finds misattributions and distortions:

[As to Everett's work on Piraha,] a very good English philosopher wrote a paper about it. It's embarrassingly bad. He argues that this shows that it undermines Universal Grammar because it shows that language isn't based on recursion. Well if Everett were right, it would show that Piraha doesn't use the resources that Universal Grammar makes available". (30)

The very good English philosopher informed me that he had not written an academic paper but an 800-word book review for *The Independent* (Papineau, private correspondence, henceforth p.c.). It is an informative review and in my view contains nothing that is 'embarrassingly bad'.

Another unnamed opponent is criticized as follows:

Some of the stuff coming out in the literature is just mind-boggling ... The last issue [of *Mind and Language*] has an article – I never thought I would see this – you know this crazy theory of Michael Dummett's that people don't know their language? This guy is defending it.

'This guy' was very surprised that Chomsky "overlooked" that his 2008 paper in *Mind and Language* "was attacking Dummett's position as untenable, using arguments inspired from Chomsky's work" (Lassiter, p.c.). Lassiter's paper proposes a position different from Chomsky's on the internalism/externalism debate, but nowhere does he defend Dummett.

Chomsky's arguments against evolutionary accounts of language development involve blatant distortions:

There are a lot of [theories of language evolution] but *there's no justification for any of them*. So for example, a common theory is that somehow, some mutation made it possible to construct two-word sentences; and that gave a memory advantage because then you could eliminate this big number of lexical items from memory. So that had selectional advantages. And then something came along and we had three word sentences and then a series of mutations led to five...finally you get Merge, because it goes to infinity. (15, emphasis added)

One example hardly supports the claim that there is no justification for any existing theory of language evolution. The 'common theory' is indeed terrible but it also appears to be an invention on Chomsky's part. None of the sixteen researchers I contacted had embraced such a theory, which one of them described as "truly nonsense" (Newmeyer, p.c.), and few could imagine anyone would. The consensus was: "This is a theoretical straw man if I ever saw one" (Christiansen, p.c.). Nevertheless, many similarly unsupported attacks on the language evolution community appear throughout Chomsky's proclamations: "We know almost nothing about the evolution of language, which is *why* people fill libraries with speculations about it" (51) and "If you look at the literature on the evolution of language, it's *all* about how language could have evolved from gesture, or from throwing or something like chewing, or whatever. *None of which makes any sense*" (49, emphasis added). Chomsky does not provide any evidence or detailed analysis supporting his dogmatic dismissals.

McGilvray's appendices aim to provide additional details in support of Chomsky's position. But his arguments suffer from the same lack of engagement with criticism and at times he outdoes Chomsky in distorting others' views:

Consider, for example, Patricia Churchland's (1986, 2002) view that one must look directly at the brain to construct a theory of mind. The internalist approach to linguistic meanings cannot currently look at neurons, axons, and neural firing rates. That is because unless one has a theory in hand of what neural systems 'do' – of the computations they carry out – looking directly at neurons is as sensible as groping in the dark ... Moreover, there is no guarantee at all that the current understandings of neural systems and how they operate are on the right track. (212)

The reply from the author, perplexed by this caricature of her view, was "To say of me what McGilvray says is like saying that Darwinian evolution implies that my grandfather is a monkey" (Churchland, p.c.). In the works McGilvray cites and elsewhere, Churchland explicitly argues that neuroscience needs psychology to provide a description of capacities and behaviors, that neurological and psychological theories need to co-evolve, and that no neuroscientist pursues a purely bottom-up strategy. Mysteriously, McGilvray entirely missed these arguments.

Finally, there is a confident dismissal of work by connectionists, based on a letter by Chomsky to McGilvray (already quoted in *Cartesian Linguistics*, 2009, 23):

... take Elman's paper[s] ... on learning nested dependencies. Two problems: (1) the method works just as well on crossing dependencies, so doesn't bear on why language near universally has nested but not crossing dependencies. (2) His program works up to depth two, but fails totally on depth three. (Chomsky cited by McGilvray, 226)

This example is particularly troubling because an earlier review brought to McGilvray's attention that Chomsky's interpretation of Elman's work is incorrect and, as his footnote 6 indicates, McGilvray is aware of the sources provided there. Yet, he repeats the fallacious argument and draws a similarly grandiose conclusion:

Details aside, the point is clear. Those convinced that language is a learned form of behaviour and that its rules can be thought of as learned social practices, conventions, induced habits ... are out of touch with the facts ... Enough then of externalist or "representationalist" and clearly non-naturalistic efforts to deal with language and its meaning. (226)

Enough indeed. There are many good publications on the market that deal with the topics discussed here. *The Science of Language* is not one of them, and one can only hope that in future publications both authors follow the advice Chomsky gives to others:

So sure study [language] to the extent you can, but sensibly – knowing when you're talking and producing serious science and when you're gesturing rhetorically to a general public who you are misleading. Those are important distinctions and I think if we make those distinctions, a lot of this literature pretty much disappears. (105)

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