

The Essence of Postal's Criticism: A short reply to Ulfsgjorninn (2012) – an update

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The Science of Language; Interviews with James McGilvray (Chomsky, 2012) contains countless surprising claims. But none is as surprising as Chomsky's candid admission that longstanding criticisms of his biolinguistics (e.g., Katz, 1980; Katz & Postal, 1991; Postal, 2003, 2004, 2009) are correct because it rests on a metaphysical foundation that forces us to "accept things that we know don't make any sense" (Chomsky, 2012, p. 91). One might have expected this admission would have been discussed widely in the biolinguistics community. Seeing this was not the case, Postal provided a detailed discussion of the implications of Chomsky's admission (Postal, 2012), and later posted several of the original critiques on LINGBUZZ. This has given biolinguists an opportunity to (re)familiarize themselves with the arguments, and that the papers have been downloaded thousand of times might indicate that they have taken advantage of this opportunity. Given that Chomsky and Postal agree on an issue concerning the very foundations of biolinguistics it would seem necessary for biolinguists to either (1) refute Chomsky and Postal and provide at least a road-map towards a coherent foundation for biolinguistics or (2) admit that this is a framework for which no coherent foundation can be provided. Until (1) has been achieved it would not be rational to continue work in a framework that has been demonstrated to be incoherent *and* has been admitted to be incoherent by its chief proponent.

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Shanti Ulfsson should be complimented for doing something Noam Chomsky has refused for decades: directly addressing a criticism of Paul Postal. Unfortunately, Ulfsson (2012) seems to miss the point of Postal (2012) almost entirely and his conclusions are mostly irrelevant to Postal's critique of Chomsky's work. Furthermore, Ulfsson seems to misunderstand Postal's Platonism and several errors result from this misunderstanding. Given that the first is of far greater importance than the second, I will briefly restate the main purpose of Postal (2012) and ignore problems with Ulfsson's (2012) interpretation of Postal's Platonism.

Postal (2012) is not a defense of linguistic Platonism. While Postal is offering Platonism as an alternative to Chomsky's incoherent biolinguistic view, he states explicitly that the incoherence critique remains valid even if Platonism or other alternatives are rejected:

But, logically, efforts to show the superiority of a platonist view of NL to NC's biolinguistic one were unnecessary because on purely internal grounds, NC's foundational position is untenable regardless of the superiority of *any* other position. That holds since it is *incoherent* and so fails to qualify even as a rational candidate for the proper view of NL ontology. (Postal, 2012, p. 5)

Hence, the task is not to refute Platonism but to show how Chomsky's foundational view can be made coherent. Ulfsson (2012) does not provide a successful argument for the coherence of Chomsky's foundational view.

Given that the aim of Postal (2012) seemed unclear it is worth to restate some of the main points.

(1) Postal argues that Chomsky's view is based on an ontology that is internally incoherent because his form of conceptualism¹ asserts that (i) language is a biological organ and (ii) language consists of an infinite range of sentences. Taken together (i) and (ii) are inconsistent because biological organs such as brains are concrete objects that exist in time and space; infinite sets of sentences are abstract objects that have no location in time and space. That is, the physical finite grammar resides in the brain and sequentially produces a finite physical output over time.

The claim that such a grammar can “potentially” generate a discrete infinity of linguistic objects abstracts away from *all* resource bounds of the brain. In the physical world, no matter how much one enlarges the brain (by providing external resources) or expands lifetimes, most “potential” sentences would remain unproduced. Hence, Chomsky’s abstraction is unrealistic/unphysical.

(2) Postal provides textual evidence showing that (i) Chomsky held such an internally incoherent view at least since Chomsky (1972) and has repeated it numerous times since, and (ii) that Chomsky is not speaking merely metaphorically when he invokes a set-theoretical framework for his biolinguistic view.

(3) Postal demonstrates that for at least 30 years an extensive literature (e.g., Katz, 1981, Katz & Postal, 1991; Katz, 1998, 2002; Langendoen & Postal, 1984; Postal, 2003, 2004, 2009) exists that specifically addresses the internal incoherence of Chomsky’s foundational view. Postal provides further evidence that Chomsky is aware of this literature (e.g., Chomsky 1987, 2012) but that he has not addressed the criticism in a convincing way.

(4) Postal introduces Chomsky (2012/2004) to demonstrate that Chomsky is aware that his own view is untenable but, nevertheless, continues to propose this view.

(5) Postal suggests that proposing a view one knows to be untenable violates ethical standards, and that this is even more so the case when the person who commits such an act is a highly esteemed intellectual leader who enjoys the trust of the scientific community.

Postal (2012) provides detailed evidence for (1) to (5) that I need not repeat here. Given that it is crucial for any successful refutation of Postal (2012), I will briefly touch on (4). In an interview with James McGilvray that was conducted in 2004 and published in 2012 *Chomsky* admits that he is unable to provide a coherent foundation for his biolinguistics:

In the work that I’ve done since *The Logical Structure of Linguistic Theory* – which just assumes set theory – I would think that in a biolinguistic framework you have to explain what that means. We don’t have sets in our heads. So you have to know that when we develop a theory about our thinking, about our computation, internal processing and so on in terms of sets, that it’s going to have to be translated into some terms that are neurologically realizable. I don’t know how helpful pure nominalism will be, but there is a gap there that the nominalistic

enterprise is focused on. It's a gap that has to be overcome. There are a lot of promissory notes there when you talk about a generative grammar as being based on an operation of Merge that forms sets, and so on and so forth. That's something metaphorical, and the metaphor has to be spelled out someday...if we want a productive theory-constructive [effort], we're going to have to relax our stringent criteria and accept things that we know don't make any sense, and hope that some day somebody will make some sense out of them – like sets. (Chomsky, 2012, p. 91; cited in Postal 2012, p. 21)

Postal (2012) discusses in detail the implications of this admission, so I can restrict myself here to two points. First, it is important that *it is not Postal's proposal but Chomsky's own admission* that Chomsky's view (i) assumes set theory, (ii) talk of sets has to be translated into terms that are neurologically realizable, (iii) there is a gap that needs to be overcome, (iv) metaphors have to be spelled out some day, (v) on Chomsky's view we have to accept things we know don't make any sense, and (vi) hopefully one day someone else will make sense of a view Chomsky knows to be incoherent. Second, given that Ulfsbjorninn is correct to observe that "Postal's ... criticism, if valid, would halt a lot of work on evolutionary psychology" (Ulfsbjorninn, 2012, p. 1), it is essential that Chomsky finally responds to Postal's longstanding criticism, and explains to the biolinguistics community if and how his view can be made foundationally coherent. From the foregoing it is clear that Chomsky needs to fill the gap that exists between set theoretical "metaphors" and cognitive structures that are neurologically realizable. In other words, the task is not to refute Postal's Platonism but to provide an account Chomsky (2012) claims he cannot give. Possibly Chomsky (2012) was speaking "metaphorically". So if Chomsky, or anyone else, can give such an account they need to do it now. If no such account can be given, work in biolinguistics needs to be carefully reconsidered.

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