# Reply to Jackendoff

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### Abstract

In this note, I clarify the point of my paper "The Nature of Semantics: On Jackendoff's Arguments" (NS) in light of Ray Jackendoff's comments in his "Linguistics in Cognitive Science: The State of the Art." Along the way, I amplify my remarks on unification.<sup>1</sup>

NS criticized two arguments Jackendoff offers against referential semantics. The first argument was that reference relations would be examples of intentionality, but one cannot make naturalistic sense of intentionality. The second argument was that there is something "suspect" either about the alleged objects to which a reference relation would relate representations or in the very notion of object such a semantics assumes. I criticized both of these arguments as failing to establish their conclusions and, in particular, as resting on dubious philosophical assumptions. (Jackendoff does not take up these criticisms in his reply, so I will not elaborate further upon them here.) The point of NS was not to establish the nature of semantics or, more specifically, to defend referential semantics. It was to clear away some unconvincing philosophical arguments that might stand in the way of assessing referential semantics on empirical grounds.

Jackendoff's reply suggests that the point of NS was not apparent to him, in part as a result of his misunderstanding how I see the relations among referential semantics, conceptualist semantics, physicalism, and methodological naturalism. Before I turn to his remarks, it will be useful to review these labels.

<sup>1.</sup> Austin (1979: 154) once remarked that replies to replies face "the law of diminishing fleas." I am aware of the indulgence I ask of the reader. All references to Jackendoff are to Jackendoff (2007) unless otherwise noted. My thanks to Georges Rey for helpful comments on a draft, to Nancy Ritter for organizing these exchanges, and especially to Ray Jackendoff for the instruction and stimulation his work has provided and continues to provide.

### Referential semantics:

The attempt to characterize (typically compositionally) the intentional properties of some system of representations – i.e., to characterize what they "represent" or are "about," what purported things they refer to or are true of. Linguo-semantics concerns the intentional properties of linguistic representations (morphemes, phrases, etc.); psychosemantics concerns the intentional properties of mental representations (percepts, concepts, etc.).<sup>2</sup>

## Conceptualist semantics:

The investigation of conceptual structures in the mind/brain and their interfaces with other mental structures such as those implicated in linguistic competence. It is not assumed that these structures have any intentional properties at all: in any event, conceptualist semantics does not concern itself with intentional properties if there are any.

## Physicalism (a kind of *metaphysical* naturalism):

The doctrine that everything is composed of physical things (things posited by physics) and every property is appropriately related to physical properties (properties posited by physics). Physicalists disagree about what constitutes a suitable relation to physical properties. Some require reducibility, others only require supervenience – i.e., that there be no change in non-physical properties without some change in physical properties.

# Methodological naturalism:

The injunction to aim for well-supported, intelligible explanations as measured against our evolving standards of successful science.

Now, in his reply, Jackendoff writes that I "oppose [Jackendoff's] conceptualist semantics with a position [Gross] calls 'methodological naturalism.'" This might be read in one of two ways, but on both readings it is incorrect. First, Jackendoff might mean that I oppose conceptualist semantics, and the way I oppose it is by adverting to methodological naturalism. This is incorrect because NS does not oppose conceptualist semantics. It opposes Jackendoff's objections to referential semantics. Of course, to oppose certain *objections* to referential semantics is not to endorse referential semantics. Indeed, far from defending referential semantics, NS mentions an alternative ground for criticizing it at least in the linguistic case – viz., the difficulty of disentangling

<sup>2.</sup> In NS, I labeled referential semantics 'Intentional Worldy Semantics (IWS)' in order to high-light the two main aspects that Jackendoff attacks. I also (2005b: 257, Fn. 17) distinguished descriptive and foundational projects in semantics. The former characterize intentional properties (as with referential semantics); the latter ask in virtue of what representations have the intentional properties they do. This distinction is relevant to Fn. 7 below.

semantics and pragmatics. (Cf. Gross 2005a cited at Gross 2005b: 264, Fn. 31; cf. also Gross 1998/2001.) But even if one *were* to endorse referential semantics, one would not thereby oppose conceptualist semantics – at least not obviously. For, as highlighted in the introduction to NS, and *pace* Jackendoff, it is not obvious that conceptualist semantics and referential semantics cannot be seen as two aspects of a larger project and thus themselves subject, if you will, to unification.

Second, Jackendoff might mean that I take methodological naturalism to be the opposite of conceptualist semantics and vice versa. This is also incorrect. NS contrasts methodological naturalism, not with conceptualist semantics, but with physicalism, a kind of *metaphysical* naturalism (and an apparent philosophical premise in Jackendoff's first argument against referential semantics). The two naturalisms, however, are not opposed. One could endorse both, neither, or either. Likewise, following Jackendoff, NS contrasts conceptualist semantics and referential semantics. But, as just discussed, it does not assume that they are opposed: there is the possibility that they might be combined. Finally, NS certainly does not argue that methodological naturalism and *concep*tualist semantics are opposed – i.e., that conceptualist semantics, given current knowledge and by current standards, fares poorly as an explanatory theory. NS in fact makes a point of noting that it nowhere challenges Jackendoff's important contributions to lexical and phrasal semantics. Besides this brief note, NS does not so much as take up the question of conceptualist semantics' explanatory success. Neither does it discuss how referential semantics fares in the regard - beyond alluding to the problem of disentangling semantics and pragmatics. NS's goal was to shift focus away from the philosophical considerations Jackendoff raises and to empirical considerations – but it ends at that point.3

Jackendoff expresses surprise that I both note that a methodological naturalist can accept intentionality<sup>4</sup> and quote a passage of his that advocates the position that, "even if there is intentionality, we still have to explain how the mind grasps meaning." As far as I can tell, Jackendoff's surprise is based on the misunderstanding that I take conceptualist semantics and methodological naturalism to be opposed. But I do not. So, Jackendoff need not be perplexed by my agreeing – indeed, explicitly emphasizing – that accepting intentionality does not threaten his conceptualist semantics. Jackendoff argues against referential semantics in part by denying intentionality *tout court*. NS argues that

<sup>3.</sup> One of the ways NS tries to achieve this shift is to contrast metaphysical naturalism and methodological naturalism. The former is a philosophical premise Jackendoff seems to rely on in arguing against intentionality – one open to question. The latter focuses attention on successful explanation, but raises no challenge to the existence of intentionality.

<sup>4.</sup> Though she must reject non-explanatory theories *of* intentionality, or that *advert to* intentionality, as she must reject any non-explanatory theory.

this argument fails: the discussion of methodological naturalism that Jackend-off cites occurs in the course of NS's making this point. But to argue against an argument against referential semantics is not to argue against conceptualist semantics – especially if it remains possible, for all that has been shown, that the two are not incompatible.

Similarly, I do not see that the success of Jackendoff's contributions to lexical and phrasal semantics "demonstrate[s] how an insistence on intentionality ... actually gets in the way of insightful semantic/conceptual analysis." This might follow if acknowledging the existence of intentionality precluded conceptualist semantics. But it is not obvious that it does. Again, as NS notes, none of its remarks call into question Jackendoff's contributions – nor has Jackendoff here added any considerations that now give me reason to think that there is some tension between acknowledging intentionality and engaging in conceptualist semantics. Further, Jackendoff has not shown that deploying intentional notions in referential semantics threatens the ability of conceptualist semantics to yield insightful semantic/conceptual analysis. Finally, I do not see what compelling grounds Jackendoff has supplied – not that there might not be some - for thinking referential semantics in its own right fails to supply insightful semantic/conceptual analysis. In particular, the success of *Jackendoff's* empirical work does not by itself show that referential semantics is non-explanatory – unless, again, one can show (what Jackendoff seems to assume and NS questions) that conceptualist semantics and referential semantics are relevantly opposed. Thus, I do not yet know what Jackendoff's basis is for seeing "Gross's position [perhaps he rather means the position of the referential semanticist?] as actually warding off unification of semantics with the rest of cognitive science."

That said, I do think it is very much an open question whether we can expect in practice, or even in principle, to achieve an understanding of intentionality that can be unified with the rest of our understanding of the mind/brain. In-practice worries arise from the complexity of the mind/brain basis of the phenomenon of intentionality – the possibility that intentionality might reflect a complex and in-practice theoretically intractable interaction effect among many components of the mind/brain, not to mention complex facts concerning their interaction with the natural and social environment. In-principle worries arise, for example, from the possibility that the intentional facts are intrinsically normative and thus not the kind of fact that can be explained naturalistically. Such obstacles would indeed have consequences for the aim of unifying semantics with the rest of cognitive science. But the consequence would not simply be that conceptualist semantics, which eschews intentionality, holds out more promise for unification. Rather, conceptualist semantics would hold out more promise for unification with the rest of the cognitive sciences that also eschew intentionality. Referential semantics might hold out more promise for unification with other parts of cognitive science that (at least seem to) advert to intentionality. The larger question would remain of whether the intentional parts of cognitive science could be unified with the rest. And, of course, as already mentioned, there would be the even larger, prior question of whether intentionality can have any place in a successful explanatory theory at all.

These issues are too large to enter further into here. What I want to note, however, is that Jackendoff attempts in effect to render the unification problem easier by dismissing much of what we might want our unified account ultimately to explain. If there is no intentionality, as Jackendoff claims, then of course it is no obstacle to unification. But the denial of intentionality is a radical claim, one for which (NS argues) Jackendoff supplies insufficient grounds. If there is intentionality, then conceptualist semantics, which eschews the intentional, leaves it untouched - however well conceptualist semantics may or may not lend itself to unification with the rest of the cognitive sciences. Unification is of course all to the good: as NS remarks, it yields an increase in explanatory scope. But recalcitrance to unification might reflect any of a variety of things. Sure, it might suggest that we are on the wrong track – perhaps so far off as to be investigating what is not really there. But it might rather reflect our current ignorance, our cognitive limitations as scientists, or even a feature of the subject matter. So let us always aspire to unification where possible. But where there is a phenomenon that presently seems to thwart our unificatory aspirations (and perhaps even threatens to forever remain beyond the grasp of explanatory theorizing), let's recognize that – even as we consider ways of pushing ahead.

NS began with Jackendoff's remark that meaning is the "holy grail' not only of linguistics, but also of philosophy, psychology, and neuroscience – not to mention more distant domains such as cultural and literary theory." It noted further that Jackendoff seems then to reject the very holy grail he seeks. But he would claim only to reject a mistaken conception of that grail in favor of non-intentional structures that play roles analogous to those supposedly played by the mythological meanings we should reject. As is clear, I do not see that Jackendoff has given us any reason to reject either linguistic meaning as usually conceived (which is not to *endorse* that conception either!) or intentionality more generally. But let me use Chomsky as a foil once again in my attempt to display alternative positions that Jackendoff fails to consider.

Chomsky (2000: 45) claims that "[n]aturalistic inquiry will always fall short of intentionality." Thus:

If "cognitive science" is taken to be concerned with intentional attribution, it may turn out to be an interesting pursuit (as literature is), but it is not likely to provide explanatory theory or to be integrated into the natural sciences. (2000: 23)

But he does not conclude that there is no such thing as intentionality or that we cannot advance our understanding of it:

Plainly, a naturalistic approach does not exclude other ways of trying to comprehend the world. Someone committed to it can consistently believe (I do) that we learn much more of human interest about how people think and feel and act by reading novels or studying history than from all of naturalistic psychology, and perhaps always will ... (2000: 77)

Thus, whereas Jackendoff suggests that the conceptualist *ersatz* might suffice for the needs even of literary theory, an alternative position is that the study of literature (of course not only that) might concern itself with, and advance our understanding of, matters that so far and perhaps forever may elude our science-forming capacities and, in particular, go beyond what conceptualist semantics explains.<sup>5</sup>

I have concentrated on the second of Jackendoff's two paragraphs in reply to NS. Let me close with a remark on his first. Jackendoff rightly notes that of course it does not follow from the fact that the presence of a cow *can* activate a cow-concept that the mere presence of a cow is alone sufficient for the cow-concept to be activated. But he complains that I take the "relation of the cow to the cow-concept for granted, as though it's simply self-evident," suggesting either that (1) I do not think this relation involves the complex goings-on of the perceptual system and other aspects of the mind-brain, or perhaps (2) that I think the nature of this relation, including what's going on in the mind-brain, is itself self-evident. I clearly rejected (1). Worrying that Jackendoff at one point confuses Fodor with a strawman, I wrote:

Jackendoff [2002: 279] also parenthetically criticizes Fodor for not saying *how* something can cause a representation of it to be tokened: "by acting on the speaker's perceptual system? Fodor doesn't say." ... This seems unfair since the answer is obviously 'yes'. (2005b: 256, Fn. 15)

I took it as self-evident that perception can play such a role. But it is certainly the case that NS did not then proceed to say much about it. That was because

<sup>5.</sup> I say only *may* elude. Unlike Chomsky, I am not so confident as to place bets. Yet it might be – indeed I have some sympathy for the suggestion – that cognitive science is more likely to *progress* (and achieve partial unifications) where it eschews intentionality, both as object of study and as tool in explanation. Still, this would provide no more reason to deny intentionality than one's better headway on calmer waters provides reason to deny the existence of stormy seas. (Scientists are warned not to be like the person who drops his keys by the curb but then looks for them under the streetlamp down the block where there is better light. In the scientist's case, however, no one should deny that there may also be lots of other interesting stuff under the streetlamp.)

Cf. Fodor (1990: 210). I do not mean to suggest that there are not real deficiencies in Fodor's views.

it was not its topic – not because I take *what perception involves* to be self-evident, as (2) would suggest. I agree that "the relation of my cow-concepts to cows has to be mediated by the perceptual system, for which the explanatory burden falls on psychology and neuroscience." Shouldering that explanatory burden requires the extremely hard empirical work of cadres of scientists, including the hard work that has gone into Jackendoff's own important contributions. If only the nature of the mind-brain and its relations to things outside of it were self-evident to us! If I did not make that sufficiently clear, that's because I take that to be obvious as well.<sup>7</sup>

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### References

Austin, J. L. (1979). Unfair to facts. *Philosophical Papers*. J. O. Urmson and G. J. Warnock (eds.), 154–174. Oxford: Oxford University Press.

Chomsky, Noam (2000). New Horizons in the Study of Language and Mind. Cambridge: Cambridge University Press.

Fodor, Jerry (1990). A Theory of Content and Other Essays. Cambridge: MIT Press.

Gross, Steven (1998/2001). Essays on Linguistic Context-Sensitivity and its Philosophical Significance. Studies in Philosophy: Outstanding Dissertations. London: Routledge.

- (2005a). Context-sensitive truth-theoretic accounts of semantic competence. Mind & Language 20: 68–102.
- (2005b). The nature of semantics: On Jackendoff's arguments. The Linguistic Review 22: 249–270.

Jackendoff, Ray (2002). Foundations of Language. Oxford: Oxford University Press.

(2007). "Linguistics in cognitive science: The state of the art." The Linguistic Review, this issue: 347–401.

<sup>7.</sup> Jackendoff notes that in a footnote I say as much, but he seems hesitant to take me at my word. One guess is that this stems from the fact that he characterizes his imagined opponent as requiring a "direct" relation between representations and what they represent. But 'direct' is not my word, and, in the note that he quotes, I explicitly disown its seeming implications. There is a position in semantics known as 'direct reference,' according to which certain expressions - e.g., proper names - refer directly as opposed to mediately through a description or concept. Maybe this is behind Jackendoff's usage? But direct reference is a particular thesis held only by some referential semanticists about some expressions. Moreover, even these "direct reference theorists" typically hold that the relation between a representation and what it represents in virtue of which the representation (perhaps in part) has the content it does is complex, not direct. Thus, some combine their direct-reference answer to certain questions in "descriptive' semantics with a causal-chain answer, for example, to questions in "foundational" semantics. Note further that both sorts of questions must be distinguished from questions concerning what leads to a particular representation being tokened on any particular occasion. Thus, returning to mental representations, we must distinguish what my mental representation DOG refers to, in virtue of what DOG refers to what it does, and what caused it to be tokened or activated on some particular occasion.