

## HOW NOT TO ARGUE FOR A MODULE OF LANGUAGE

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The purpose of this paper is to argue that there is no quick argument for establishing the existence of a distinctively linguistic module. More specifically, pointing out the existence of a linguistic cognitive ability, one which is unique of linguistic creatures, falls short of indicating the existence of such a module.

I will focus on an argument of Gabriel Segal. In a recent article (Segal 2001), Segal points out a significant difference between the structure of language and the structure of thought, one which concerns their different roles in cognition, and on the basis of this difference he claims that different cognitive systems are required for dealing with these structures. Thus, the difference in question is argued by Segal to imply that there is a distinctively linguistic cognitive system or faculty. I shall argue that differences of the kind pointed out by Segal do not in themselves have any such deep implication concerning our cognitive systems. The unique linguistic abilities in question can be attributed no less plausibly to our "central system", and the kind of consideration Segal advances is not the kind of consideration which can support the case for a linguistic module.<sup>1</sup> If there are considerations which can support such a case, they are likely to be heavily empirical considerations — considerations which are much closer to the empirical end of the spectrum than Segal's considerations.

<sup>1</sup> Segal's argument aims at criticizing Derek Bickerton's arguments to the effect that language and distinctively human intelligence are basically one (Bickerton 1996). I do not discuss Bickerton's arguments. My criticism of Segal's argument is independent of them, and should not be taken to indicate that I endorse them.

Let me also note, that I use the term "*module*" even though Segal speaks in terms of the language *faculty* or *system*, and does not commit himself to the Fodorian concept of module with all its characteristics (see Fodor 1983 and 1987). As Segal clarified to me (in private communication), he does not think that this argument vindicates the existence of a linguistic module in the Fodorian sense. However, if the criticism I am about to suggest is along the right lines, then the kind of consideration Segal advances can neither support the case for the existence of a distinctively linguistic system in a weaker sense; as I said, I will argue that the linguistic abilities Segal points out can be attributed no less plausibly to our central system.

## I

Segal concedes, for the sake of argument, that the syntactic structures of natural language sentences are just like the structures of Mentalese representations, but he draws a distinction between the kind of structure a representation has and the role a representation plays in cognition. The structures of natural language sentences and those of Mentalese representations, he argues, play very different roles in cognition, so that it becomes clear that two different cognitive systems are involved: one for thought and one for language. Segal focuses on the following example (p. 127):

- (1) Mary's Ferrari is faster than any Lotus.  
 (2) If [Mary's Ferrari is faster than any Lotus], Pete will eat his hat.

While (1) and the antecedent of (2) are alike in surface form, they have different semantic features, for in (1) "any" means *every*, while in (2) it can be interpreted either as *every* or as *at least one*. What fixes the different possibilities of interpreting "any" are the underlying syntactic structures associated with (1) and (2) and rules defined over them. For interpreting (1) and (2), Segal argues, our cognition must be able to construct these structures and assign them to the surface forms. Thus, however alike the structures of language and thought may be, their roles in cognition are very different, since the structures of language alone are subject to such a process of interpretation. "It therefore looks as if we need different cognitive systems to deal with them." (p. 128) That means that there is a distinctively linguistic cognitive system or module, different from the central system that supports our (non-linguistic) thinking.

By relying on this idea, Segal adds, we can explain why an hypothetical ape with syntaxlike conceptual representations cannot learn syntax: what he lacks is the ability to assign the relevant structures to external signs and use these assignments as a basis for judgements of grammaticality and meaning. Even if the ape has the two conceptual representations that correspond, respectively, to the two possible interpretations of (1), he might still lack a cognitive system that specifies when "any" is to be mapped to the concept *every* and when it is to be mapped to the concept *at least one* (pp. 127–28).

## II

The difference between the cognitive roles of natural language representations and Mentalese representations that is pointed out by Segal is a significant difference. As Segal's example shows, the role of the structures of

language and thought in cognition are very different, since the structures of language alone are subject to a process of interpretation of the kind he points out. This difference in cognitive role between linguistic and non-linguistic representations suggests that representations of these different kinds cannot be said to share structure or syntax in the sense of "structure" and "syntax" which is relevant to cognitive science. Segal's distinction between the kind of structure a representation has and the role a representation plays in cognition can then be paraphrased in terms of a distinction between syntax and structure *in the linguistic sense* and syntax and structure *in the cognitive sense*.

I believe, though, that Segal's considerations do not support the conclusion he draws to the effect that there is a distinctive linguistic faculty, and do not render it more plausible than the central system alternative. Let us focus for the moment on the hypothetical ape in question. Segal's assumption is that this ape is intelligent enough to be able to token the two relevant conceptual representations, and most probably this also means that these different representations can play different roles in this ape's cognition. The only language-related disadvantage this ape has in comparison to normal human beings concerns the ability *to interpret external signs*. He lacks, e.g., the ability to find out what some other creatures mean by using certain signs on various occasions. What Segal argues, then, is, first, that linguistic creatures exclusively have such pragmatic abilities, and second, that the fact that linguistic creatures exclusively have such abilities implies that there is a distinctively linguistic system. The idea that our pragmatic linguistic abilities are rooted in a distinctively linguistic system is certainly an exciting one, but Segal has not done enough to convince us of the likelihood of its truth. Showing that the ape in question lacks pragmatic abilities, I will now argue, falls short of supporting the claim that he lacks a cognitive system that we do have, and it thus falls short of supporting the general claim that there is a distinctively linguistic system.

Our ability to find out what other creatures mean by using certain signs is certainly crucial for being a fully competent linguistic subject. But in order to be justified in claiming that there is a distinctively linguistic cognitive system on the grounds that linguistic creatures exclusively have such pragmatic abilities, it should be shown, further, that those pragmatic abilities cannot be (or simply are not) associated with some general (i.e., not distinctively linguistic) cognitive ability. In other words, it should be shown that our ability to extract the meanings of external signs cannot plausibly be attributed to our general intelligence or central system. It is one thing to claim that the linguistic cognizer performs unique cognitive tasks; it is another thing — and it takes another argument — to claim that there is a distinctively cognitive system. For what makes one being able to perform a unique task — e.g., what makes one a linguistic cognizer (and, correspondingly, what makes one a

non-linguistic cognizer) — may be attributed to various factors, and not necessarily to one's having (or, correspondingly, to one's lacking) a distinctive cognitive system. The specific cognitive task of assigning meanings to external signs does not seem to be any different in this respect (I would even say that it is naturally interpreted as "a general intelligence task" — see below); Segal, at any rate, does not attempt to convince us that the ability to perform it should be attributed to a distinctive faculty.

Segal might protest that his example illustrates more than the mere fact that linguistic competence includes the ability to interpret external signs. But what more can it be taken to illustrate? The fact that the example concerns occurrences of signs with identical surface forms (or the more specific character of the example) cannot bring him closer to his target — it can only serve to show that sometimes the pragmatic-interpretative task is complicated. This complexity of the task in question does not make it any more reasonable to assume that it is performed by a specific cognitive faculty rather than by our general intelligence. For the complication in the case Segal points out appears to be an intellectual one. Indeed, it is not easy to imagine an ape who is sophisticated enough to token the two conceptual representations with which Segal's example is concerned, but who is incapable to form a reasonable belief as to whether a certain external sign is to be interpreted as carrying the meaning of the first or that of the second. This complication is not one which concerns, e.g., multiplicity of data the choosing among which can only be reasonably attributed to a domain-specific system designed to handle this rather than that kind of linguistic structures. So such a complexity should not disturb one who believes that the pragmatic-interpretative ability is to be attributed to our general intelligence. Performing the task in question involves a calculation that takes into account various contextual factors, and there is no *a priori* reason to believe that such a calculation can only be performed by a linguistic cognitive module, or even that it is more likely that it is performed by such a module.<sup>2</sup>

We can better realize this point by considering, again, Segal's example.

- (1) Mary's Ferrari is faster than any Lotus.
- (2) If [Mary's Ferrari is faster than any Lotus], Pete will eat his hat.

It is not the fact that "any" in (1) cannot but be interpreted as meaning *every*, from which Segal infers the existence of a distinctively linguistic cognitive

<sup>2</sup> Problems of context and relevance pose, of course, extremely difficult challenges for cognitive science, but it is hard to see how the specific challenge that pragmatic interpretation poses *in this regard* can be softened by postulating a language module. Segal does not allude to this issue.

system; nor is it the fact that many words (including logical words like “any”, “or”, etc.) have different meanings on different occasions. Rather, it is the fact that we can specify when, e.g., “any” is to be mapped to the concept *every* and when it is to be mapped to the concept *at least one* (pp. 127–28). However, we can certainly know this by using our standard reasoning abilities. We may think, e.g., that since Pete believes that Mary’s Ferrari is the worst car on earth, then taking “any” in (2) to mean *at least one* is (though not the only possible interpretation) the most plausible interpretation. Under such circumstances, that is, reason simply prefers this interpretation. Or we may think, alternatively, that since Pete believes that Mary’s Ferrari is a relatively good car, then taking “any” in (2) to mean *every* is the most plausible interpretation. Under these latter circumstances, reason prefers this latter interpretation of “any”.<sup>3</sup> It is then just plausible to assume that it is our standard reasoning abilities — our general abilities to figure out what is reasonable, coherent, etc. — which underlie our endorsements of these interpretations. These interpretations simply appear to be the most rationally acceptable interpretations, respectively, under the different circumstances, and it is our (general) rational skills which are fit to figure this out, and, consequently, to choose the interpretation which is (rationally) called for in each case. Such examples, therefore, present no good reasons for avoiding the more parsimonious central system explanation and for postulating a distinctively linguistic system. Further justification is required for preferring an explanation in terms of a specializing system.

It is worth noting that Segal’s example might be understood differently. It might be thought that his point is not that when embedded, the sentence “Mary’s Ferrari is faster than any Lotus” has two possible interpretations, and that we can specify when “any” means *at least one* and when it means *every*. Rather, Segal’s point might be that although, when embedded, this sentence indeed has two possible interpretations, when unembedded it only has one. In (2), the sentence can mean that Mary’s car is faster than some

<sup>3</sup> Here is a simple example in which *logical considerations* dictate the interpretation of “any” in (2) as *every*. Suppose that a logic textbook offers the following as an example of modus ponens:

- (1) Mary’s Ferrari is faster than any Lotus.
- (2) If [Mary’s Ferrari is faster than any Lotus], Pete will eat his hat.  
Therefore,
- (3) Pete will eat his hat.

On the assumption that this is modus ponens, (1) and the antecedent of (2) are identical in meaning, and “any” in (2) means *every*.

Lotus; in (1), it simply cannot. How do we know, then, when either interpretation is possible, and when only one is?<sup>4</sup>

I think that understanding Segal in this way clashes with some of his central claims, but let us consider his argument under this interpretation. On this interpretation, Segal's point comes down to this: how do we know that in one context (i.e., when unembedded) a word cannot but have one meaning, whereas in another context (when embedded in a certain sentence) it can have either one of two meanings? We can see that this point is much weaker than the one I attributed to Segal. For of course the linguistic context may make a difference to meanings of occurrences of words. Since the context in the example under consideration is on the surface, it is a very long shot to assume that a distinctive linguistic faculty is required to explain how we can know that in one case two meanings are possible and in another only one. As far as this linguistic phenomenon is concerned, then, it appears to be even more natural to prefer the more parsimonious explanation and to attribute this knowledge to our (general) rational skills.

### III

Segal is right to point out the difference between the cognitive roles of natural language representations and Mentalese representations. This difference ensues from the fact that processing language concerns external signs and their interpretation whereas non-linguistic cognitive activities do not involve interpretation of the same kind, and, we may say, the fact that "having a representation with a certain structure in one's head is one thing and being able to assign such a structure to a perceptually presented item is quite another." (p. 128)<sup>5</sup> So processing natural language sentences involves performing unique cognitive tasks. But so do, for example, our mathematical thinking, our folk physical thinking, or our folk psychological thinking, and each of these facts does not by itself support, respectively, the views that we have a mathematical cognitive module, a folk physical module, or a folk psychological module; these views are highly contested and require further argumentation and evidence. The difference Segal points out between language and thought, then, while certainly a significant one, does not by itself

<sup>4</sup> A reader of an earlier version of this paper understood Segal in this way.

<sup>5</sup> The "of the same kind" locution is inserted since it seems to me evident that our cognitive engagement with non-linguistic representations, even such which lack the syntactic structure of natural language sentences, sometimes involve an interpretative activity which, in an important respect, is similar to the linguistic interpretative activity. Think, for example, of the famous duck/rabbit. But my argument does not depend on this point.

warrant the strong conclusion Segal takes it to warrant; as we saw, it falls short of making it more plausible than the (central system) alternative.

I by no means argue that there are no reasons to believe that there is a distinctively linguistic system. For one thing, one may reject the idea that the cognitive tasks Segal points out are performed by a distinctively linguistic system, yet accept the existence of a distinctively UG-orientated syntactic system.<sup>6</sup> For another thing, neither do I argue that the task of assigning meanings to external signs is not performed by a distinctively linguistic (or even by a distinctively pragmatic) cognitive system. Segal's consideration in favor of this idea, I argue, fall short of vindicating it, but there may well be other considerations that support it. Perhaps considerations having to do with the (alleged) fastness or automatic nature of linguistic interpretation, or considerations concerning the pragmatic performance of people with various brain damages, can support this idea.<sup>7</sup> At any rate, I suspect that the relevant considerations are likely to be heavily empirical considerations — considerations which are much closer to the empirical end of the spectrum than the considerations advanced by Segal.

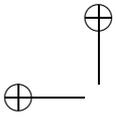
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<sup>6</sup> Though making the case for the existence of such a system is also anything but simple. See, e.g., Putnam 1967. And see Segal's views on the matter in Larson and Segal 1995.

<sup>7</sup> The research of Kasher and others aims at establishing the existence of a pragmatic module by studying brain-damaged people who suffer from "pragmatic deficiencies", such as the inability to understand metaphorical language (see., e.g., Kasher 1994).



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