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SYNTAX BEFORE SEMANTICS, STRUCTURE BEFORE CONTENT

Book Review of Carstairs-McCarthy on Language-Origins

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Abstract

Carstairs-McCarthy's book sets out a bold proposal that constitutes an exciting challenge to the idea that the development of modern syntax was driven by the contentful divisions of language. Instead he posits a physiological cause in order to explain why the core aspects of modern syntax are as they are. It is a great virtue of the book that it carefully reviews a vast interdisciplinary literature encompassing biology, anthropology, neuroscience and the study of apes to support this startling hypothesis. Moreover, the

author does a good job of raising doubts about the handful of views that would otherwise contradict it. I conclude the review by arguing that the hypothesis has merits beyond its ability to provide potential answers to the main puzzles raised in the book. Specifically, it fits well with a rejection of a purely communicative model of language, according to which it functions simply to provide a public code for the expression of pre-existent conceptually based: thoughts. In this respect, it is in line with cutting edge work in cognitive science, concerning the relation of connectionist models and nonconceptual content, which suggests that cognitive processes are not initially structured after the fashion of language. However, I end by sounding a note of caution about some of the author's wider philosophical conclusions.

Keywords

ape, aphasia, brain development, evolution of language, grammar, language, larynx, noun phrase, predication, principle of contrast, reference, sentence, sign language, speech, syllable, truth

1. If there is a reason why the syntax of our language is structured as it is then surely it must be due to some strong relation to the meaningful content of our linguistic expressions. For example, if language in some important sense mirrors the world then its basic structure must be isomorphic with the structure of the world. That there should be such structural similarity is part and parcel of the idea that language - at least when suitably analysed - carves reality at its meaningful joints and can provide a true picture of it. Although, these claims are not universally held or even frequently defended by today's analytic philosophers they remain widespread enough that to successfully challenge them would upset a number of philosophical apple carts. Yet, the idea that the development of modern syntax is not driven by its meaningful elements is a crucial consequence of proposed explanation that Carstairs-McCarthy offers in order to address some fascinating puzzles surrounding the origins of certain syntactical features of human language.

2. The primary purpose of his book is to advance and defend the hypothesis that the core structural aspects of modern human syntax evolved due to the lowering of larynx in our ancestors. This was a crucial physiological development because despite introducing our ancestors to the risk of choking this also permitted them to generate the repertoire of sounds required to form complex syllables. The connection with syntax is established if it can be shown that both syllabic and some important aspects of early syntax obtained their core structural features from this common cause.

3. This claim is supported not only by demonstrating that such similarities do in fact exist but by the fact that only this hypothesis provides a unified explanation of three unique features of human language, which are not adequately accounted for separately by any other proposals. These three features are: vocabulary size; duality of patterning; and the existence of the noun phrase/sentence distinction. These phenomena all cry out for explanation. Carstairs-McCarthy is particularly concerned to ask not just why these differences obtain, but why they developed at all. This additional emphasis puts a strong constraint on what would constitute an adequate explanation of the differences.

4. For example, it is interesting that no other system of animal communication, even that of complicated birdsong, has a vocabulary size that even approximates to that found in human language. This is curious, of course, because if we look to our ancestors it is not at all obvious what explains why they should have developed capacity to create and retain such a large vocabulary. Another apparently unique feature of human language is that it divides into two levels, one involving meaningless elements, such as the merely phonological, and another involving meaningful elements, such as the grammatical and semantical. While this degree of independence is clearly useful in providing the basis for a combinatorial semantics and allowing for the expansion of vocabulary, the very fact that this division is only found in human language ought to raise eyebrows.

5. Finally, and most importantly, Carstairs-McCarthy queries why our language should have evolved along its current 'syntactic lines', as opposed to different ones (cf. p. 15). Given that there is no logical necessity for this to be so, it wants explaining. He shows that it is easily possible to imagine complex linguistic phrases and word orderings that lack the kind of internal grammar of modern human syntax but instead must be disambiguated by appeal to context on the basis of pragmatic concerns. The fact that sometimes fully formed sentences must also be disambiguated by this means is widely accepted (p. 25). Given this, through a series of convincing thought-experiments he shows that human language could still have served its communicative functions, even if it had evolved such that it had either a much less complex syntax or a much more complex syntax than it currently enjoys. As a result the distinction between noun-phrases and sentences, and equally the related philosophical distinction between reference and truth which rests on this divide, are shown to be merely accidental features of our language that need not have developed at all. Thus, Carstairs-McCarthy writes:

"We may be tempted to see it as self-evident that a communication system that does what human language does must inevitably distinguish between mentioning things (or referring) and making assertions about them (or making true and false statements). But, even if we grant for argument's sake that this distinction is important, it does not follow that it must be reflected in syntax" (p. 28).

6. Given this, the existence of the distinction between noun phrases and sentences, as found in our syntax, demands an explanation by appeal to factors other than communicative or representational functions. Assessing the virtues and vices of the current possible explanations of these three phenomena is the task of the book's fourth chapter. In each case the explanations are found wanting. Moreover, the author stresses that, as things stand, his is the only current proposal that attempts to find a single explanation to account for the origin of all three of these unique features of human language in one blow.

7. There is no simple way to judge the ultimate success of this proposal for it depends on the acceptance of a great number of other theories and explanations in cognate fields. However, it is a great virtue of the book that it carefully reviews a vast interdisciplinary literature encompassing biology, anthropology,

neuroscience and the study of apes in a way that enables reader's to assess the proposals compatibility with the best theories from these fields. As things stand, it appears to be largely neutral with respect to most currently accepted theories and Carstairs-McCarthy does a good job of raising doubts about the handful of views that would otherwise contradict it. Crucially, the account is in good standing with regard to issues that are essential to its empirical integrity, such as the fact that humans and apes deploy synonym avoidance principles, facts relating to the timing of the lowering of the larynx and the development of bipedalism. Part of the plausibility of the proposal rests on the fact that Carstairs-McCarthy is quite happy to allow for a messy, complex account of gradual development and wisely never attempts to rule out other influences or causes when defending his view.

8. However, beyond the issues raised in the book, the hypothesis is philosophically exciting because it fits well with a rejection of a purely communicative model of language, according to which it functions simply to provide a public code for the expression of pre-existent conceptually based: thoughts. This requires postulating a universal *lingua mentis* with its crew of innate concepts. But if one rejects classical cognitivism on independent grounds then a language of thought is proposed because of an explanatory need, not because it does any proper explanatory work. Moreover, there are good reasons to doubt that the kind of correctness conditions required for the conceptual: content could not exist without a social context of linguistic communication. Scepticism on this front is re-enforced by the fact that cutting edge work in cognitive science, concerning the relation of connectionist models and nonconceptual content, suggests that cognitive processes are not initially structured after the fashion of language.

9. If this is correct, then it casts doubt on the idea that it is the mind structures language rather than the other way around. This has encouraged speculation that such structure only emerges with the use of complex external: symbols, spoken or written. The only problem with this idea is that if the mind is not ready-structured by inborn concepts, then it would be difficult to explain how or why a universal grammar would exist prior and independently to any apparent need. Yet if there is a purely physiological cause that explains why the core aspects of human syntax evolved then the crucial structural features of language would have been in place long before its linguistic content. Such independence is both healthy and explanatorily important. In addition to the other issues cited, this explanatory potential provides yet another crucial reason for taking seriously the Carstairs-McCarthy hypothesis.

10. In noting this, it is important to sound a note of caution concerning the book's philosophical conclusion. The author rightly recognises that many philosophers regard the having of propositional knowledge as an important Rubicon that separates humans from other animals and that this is often tied to unique features of human language. Yet, in maintaining that the noun phrase/sentence distinction is merely an accident of physiological changes to our vocal tract, as opposed to a necessary feature of language as required for representing the world, he sees his work as casting doubt on the importance of this divide. Thus, we are told that noun phrases and sentences, "are seen as having essentially the same kind of relation to the world, of which 'having reference' and 'being true' are merely subtypes" (p. 229). Thus he doubts the usefulness of describing the divide by appeal to knowledge-that as opposed to knowledge-how.

11. While there is no doubt that if one endorses Carstairs-McCarthy hypothesis, and the kind of continuist view that sees human language as having evolved from primate call systems, one should tread cautiously in describing the nature of the divide between human language and other forms of animal communication. However, it does not follow that one need reject the existence of such a divide, even if its origins are accidental. Indeed, one can even accept that the nature of the divide is as philosophers such as Dummett and Davidson suggest. For it is possible to accept that both 'reference' and 'truth' have distinct characteristics in human language that are due to the nature of the normative criteria that allows the fixing of semantic content. Although it is true that philosophers talk of such content as being essentially propositional in nature, it remains possible to accept that noun phrases could also enjoy this type of content, provided the contexts of use disambiguated alternative interpretations. What is important is not the distinction between referring or asserting, as such, but the capacity for reciprocal understanding that makes possible the application of concepts in a comprehending way. It is this capacity that represents a genuine point of difference between humans and animals, a difference of kind not of mere complexity. Moreover, if Davidson is to be believed it is this which is needed in order to generate a notion of an: objective world as the subject-object split only emerges when we have access to such an intersubjective standard; a social world. This remains important, even if we agree that we cannot read the structure of thought or reality off the structure of language.

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