

BOOK REVIEW

Language, Science, and Structure: A Journey into the Philosophy of Linguistics. BY RYAN M. NEFDT. (Oxford: OUP, 2023. Pp. xiii + 237. Price £54.00.)

Ryan M. Nefdt's *Language, Science, and Structure: A Journey into the Philosophy of Linguistics* is an impressive achievement. Integrating work in the philosophy of science with wide-ranging knowledge of linguistic theory and contemporary cognitive science, this book provides both an evaluation of traditional debates within the philosophy of linguistics as well as a proposal for how it ought to be done in the future. Nefdt's naturalistic approach both promotes and exemplifies the pursuit of philosophy of linguistics as a branch of the philosophy of science in a more thoroughgoing way than many of his predecessors in this small but expanding, and exciting, subdiscipline.

Nefdt's core proposal has an ontological and methodological component. Ontologically, he addresses one of the core questions within the philosophy of linguistics—What is (a) Language?—with the thesis, inspired *inter alia* by Dennett, and Ladyman and Ross, that a language is a *real pattern*. A pattern exists in a spatially or temporally distributed system when information about the properties of one subregion of this system provides information about the properties in distinct regions. A pattern is, in this sense, an informational redundancy: a description of the entire system can be *compressed* by describing one component of the system and specifying how the properties of this component are repeated in the remainder of the system, plus any ways in which the remainder deviates from the described component.

In the linguistic case, it is clear that such patterns abound. Learning some facts about, say, English utterances, significantly constrains the independent variation of properties we expect to find in subsequent utterances. For example, many languages have relatively fixed word order. In English, subjects overwhelmingly frequently precede their verbs. This means that if we want to describe the set of English utterances, the description which generalizes and states that subjects precede verbs, and then has to state only for each individual utterance which particular subjects and verbs are found within it, will be much more compact than one which listed each utterance by specifying both its subject, its verb, and their ordering.

In this way, Nefdt leverages his ontology into a proposed methodology for linguistic science. Languages are patterns, and therefore have more or less compact ways of being described. The linguist's job, then, is to find the most compact description, i.e., to find the patterns. The characteristic product of linguistic inquiry, a grammar (whether this be a statement of generative rules or of constraints which utterances must meet) is an attempt to capture the patterns exemplified by language.

One aspect of Nefdt's proposal which most strongly differentiates him from precedents in these debates is his endorsement of the 'scale relativity of ontology' (p. 67). Where previous work has debated whether grammars purport to describe mental states/systems (as e.g., Chomsky has long defended) or properties of public symbols (à la Michael Devitt), or whether linguistics is essentially aimed at describing idiolects (the languages of individual speakers) or shared, public languages, Nefdt argues that patterns will exist in all of these domains, and thus all are suitable targets for linguistic theorizing. In doing so, he rejects the pluralist position which views these as separate, but presumably related, enterprises, by insisting that the compact description of linguistic patterns will identify a *nested hierarchy*, with each pattern at a smaller scale contributing to the patterns found at the higher levels.

Nefdt's book is clearly in some ways calling for a revolution. Specifically, the core philosophical claims concerning the methodology and ontology of linguistic theory go against many of the standard assumptions of both linguistics and the philosophy thereof. And Nefdt often endorses those theorists who explicitly see themselves as fomenting a revolution in their own fields, such as the neo-empiricists in computer science and proponents of 4E cognition in psychology. However, there are also aspects of the work which are more conservative. Nefdt spends a good deal of time spelling out the ways in which traditional approaches in linguistics, specifically broadly Chomskian/generative approaches, can be retained within his re-analysis of the goals and methods of linguistics. Like the structural realists he is inspired by, Nefdt clearly wants to have the 'best of both worlds'. My major worries with the project undertaken in this book concern whether this is a realistic option.

Consider, for example, the stated aim of traditional generative linguistics: the description of the human language faculty (HLF), the species-unique cognitive system purportedly enabling humans to acquire and use language. In the first instance, this seems to be an individual object, not a pattern at all. At best, such a system will generate mental representations, and patterns could be observed, and subsequently compressed, in such representations. But describing these patterns and describing the system generating them are different enterprises. The rules and constraints constitutive of the system, considered in isolation, will be reflected at best partially and imperfectly in the patterns of its products. The worry here is a modal one: Linguistics has for almost a century now been concerned with the question of which expressions are *possible* in a

language. However, if we are trying to capture only those patterns instantiated by language, even at multiple different ontological scales, there is no reason to expect this to answer questions about which linguistic patterns *could have* been instantiated, if things were different. As Chomsky has long argued, we want to study HLF itself, not merely the linguistic behaviour it contributed to the generation of, because the latter will be influenced by a wide range of things (conversational goals, memory limitations, etc.), which are independent of the rules and constraints encoded by HLF and will thus not cue us in to the modal questions we started with. In brief, a description of a system capable of generating patterns, and a description, no matter how compressed, of the patterns it in fact generates need not coincide. Indeed, it seems to me that one of the major results of the last half century or so of linguistic theorizing has been uncovering just how radically these two projects can diverge.

For these and related reasons, I am sceptical of Nefdt's ambitious claims about the unification of the various linguistic disciplines. I believe that there is a distinctive project, characterized by generative linguistics, in describing not linguistic patterns, but the rules and constraints operative on/in HLF. Unlike Nefdt, however, I am a pluralist. I believe that mentalist study of the cognitive systems underlying our linguistic capacities and the study of the patterns of language in use are, while distinct, both valuable endeavours. And I think this book has made a uniquely valuable contribution towards providing a plausible methodological foundation for the study of languages as systems of public communication, at the conversational, social, and historical levels. This is a notable achievement, given the scepticism towards 'E-linguistics' (the study of public languages) in parts of theoretical linguistics and philosophy.

There is of course much more to be said about the above topics, not to mention the many fascinating discussions in this book, which I haven't had time to discuss, including Nefdt's novel account of the ontology of words, and his 'systems biolinguistics' approach, which does attempt to resolve some of the above worries. I will, however, leave it there, except to reiterate that this is a highly engaging book, rich with insight and packed with empirical and conceptual detail. Those working in philosophy of linguistics must read it, those in other areas merely should.

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