A Metaphysics for Scientific Realism: Knowing the Unobservable

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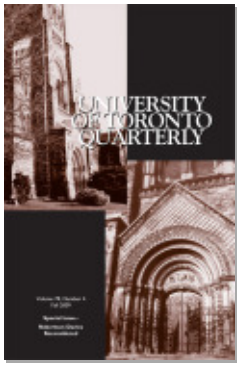

This chapter is only twelve pages long, but those who have time only to browse would do well to devote all of their time to it. It presents language as an activity, not a static contrast as in Saussure, or a purely abstract algorithm as in Chomsky. The activity requires three essential elements: a means of production, a producer, and a product. The typical means of production is the mother tongue learned in childhood, the producer the native speaker, and the product is spoken and written discourse. This essential sequence is spelled out in a variety of ways, as in figure 1.Figure 1. A schematic representation of the act of language

The notion of language as activity is one of Guillaume's most important contributions to modern linguistics. Hirtle quotes Langacker: 'Conceptual structure emerges and develops through *processing time*, it resides in *processing activity* whose temporal dimension is crucial to its characterization,' and notes also the comparison between synchronic linguistics (activity in time) to diachronic linguistics (evolution through time), both involving the absolute necessity of time.

Another important dictum stemming from Saussure and Meillet is that a language, a tongue, is a system of systems, *un système où tout se tient*. It is well known and accepted by linguists that every language has a phonological system; it was a common understanding of the Paris School that the system of parts of speech had subsystems such as the nominal and verbal systems, which in turn had their own subsystems, and the rest of the book is concerned largely with the exposition of these interrelated and contrastive systems. (JOHN HEWSON)

Anjan Chakravartty. *A Metaphysics for Scientific Realism: Knowing the Unobservable*
Cambridge University Press. xvii, 252. US$88.95

Scientific realists acknowledge that the history of science is replete with failures, and suggest that the sophisticated realist must therefore be selectively skeptical: we ought to believe only our best, most mature scientific theories, and of these, perhaps only part. In *A Metaphysics for Scientific Realism*, Anjan Chakravartty offers what he sees as the next step in the evolution of (selectively skeptical) scientific realism – he dubs it 'semirealism.' Semirealism is a realism about well-detected causal properties. Causal properties are dispositions for causal relations, according to Chakravartty's *dispositional identity thesis*. And so, for Chakravartty, there is a very tight link between knowing the intrinsic nature of an object (its dispositions as conferred by its causal properties) and knowing something about structural relations (relations between properties of objects). Chakravartty has thus combined realism about entities and realism about structural relations in his account – two varieties of realism that traditionally have been thought mutually exclusive.

Chakravartty's semirealism has many attractive qualities. To take one example, because his realism is ultimately about (well-detected) causal properties, his notion of natural kinds is deflationary. The concept of natural kinds, despite being a very important metaphysical foundation, is importantly conventional according to semirealism: it is *we* who group objects into kinds, and such groupings are helpful, to the extent that they are, only because of the way causal properties happen to be distributed (and *not* because such groupings track some great Order of Nature that exists completely independent of us). This more conventional view of kinds does not attach any metaphysical importance to the notion of essence and so avoids having to explain why many branches of science can be successful, despite the fact that they work with kinds that do not have essences (such as species in biology, perhaps). This view also lends itself to pluralism; there is no single correct way of classifying, because different incompatible groupings of objects track different distributions of properties among objects.

Explanation, for better or worse, is often the divisive issue among competing metaphysical views of science. Consequently, one might be ultimately unsatisfied with the explanations offered by Chakravartty's semirealism. For example, since kinds like the electron admit of no causal decomposition, as Chakravartty notes, the fact that causal properties cohere in these cases (or are 'sociable,' in Chakravartty's terminology) must be taken as a brute fact. Sociability may then be explained in some cases, but not in all, and often not in the very best cases of sociability. For those who seek explanations of robust regularities, this might be a glaring oversight, and so some may not be persuaded to adopt semirealism despite its other explanatory achievements.

Chakravartty's book offers a lucid discussion of the scientific realist and antirealist views in general, bringing to the forefront their most important differences and some of the most promising resolutions. On this score alone, Chakravartty's book is worth reading. Further, he has indeed done what he set out to do: his humble aim was to provide a coherent realist account complete with metaphysical foundation, rather than to argue that his account is exclusively coherent. Chakravartty's refreshingly modern view is indeed plausible, and so semirealism may very well be the next step in the evolution of scientific realism. (J. MICHAEL STEINER)

Walter Hirtle. *Lessons on the English Verb: No Expression without Representation*
McGill-Queen's University Press 2007. x, 346. $85.00

Long years ago I taught English as a Second Language, as a graduate student, to francophone students at Université Laval. Although I had trained as a language teacher and had taught Latin, Greek, and French,