

Noam Chomsky, *New Horizons in the Study of Language and Mind*, with a Forward by Neil Smith. Cambridge, England: Cambridge University Press. Pp. xvi, 230.

Reviewed by Gilbert Harman, Princeton University

Here are seven essays that describe and deplore a philosophical double standard that respects the methods and results of physics, chemistry, and biology but not the methods and results of linguistics and other sciences of the mind.

One sign of the double standard is that, while hardly anyone thinks one can do philosophy of physics without knowing physics, it is all too common for to think one can do philosophy of language without knowing linguistics.

Chomsky is, of course, the leading figure in contemporary linguistics. Starting in the 1950s, his development of generative grammar was an important factor in the shift from behavioristic to cognitive approaches to language and mind. Chomsky's approach takes the goal of linguistics to be to characterize the human faculty of language, noting its differences from the human faculties for general problem solving science. As Chomsky and other linguists tried to give explicit characterizations of the competence of a speaker of a language like English, it became clear that a child learning language simply does not have the sort of evidence available that would enable it to learn the relevant principles from scratch. There is a "poverty of the stimulus." The child must be prepared to acquire language with these principles in a way that it is not prepared to acquire the principles of, say, physics or quantification theory.

It is clear that normal children acquire a language that reflects their particular linguistic environment. A child brought up in Japan acquires a version of Japanese. The

same child brought up in Brazil acquires a version of Portuguese. So, these languages must in some sense reflect some of the same underlying innate principles.

Further reflection along these lines and a great deal of empirical study of particular languages has led to the "principles and parameters" framework which has dominated linguistics in the last few decades. The idea is that languages are basically the same in structure, up to certain parameters, for example, whether the head of a phrase goes at the beginning of a phrase or at the end. Children do not have to learn the basic principles, they only need to set the parameters. Linguistics aims at stating the basic principles and parameters by considering how languages differ in certain more or less subtle respects. The result of this approach has been a truly amazing outpouring of discoveries about how languages are the same yet different.

More recently, there have been attempts to try to explain some of the basic principles on the assumption that the language faculty is close to an ideal engineering solution to a problem of connecting the language faculty with the cognitive system and the articulatory perceptual system. This "minimalist program" remains highly speculative, but whether or not it succeeds, contemporary linguistics as a whole has been a tremendous success story, the most successful of the cognitive sciences.

One would therefore expect that any philosopher of mind or language would make it his or her business to understand the basic methodology and some of the results of this subject. But many philosophers of mind and language proceed in utter ignorance of the subject.

Scientific versus Ordinary Notions

For example, it is or ought to be well known that linguists do not theorize using the ordinary notion of language in which German and Dutch are two different languages and Chinese is a single language. Language in this ordinary sense is a political or social notion. Speakers on both sides of the Dutch-German border understand each other quite well, although some are counted as speakers of German and some as speakers of Dutch and both have trouble understanding other speakers of German. There are great differences between Chinese speakers, yet all are counted as speaking the same language, Chinese, whereas people in France and Portugal are not counted as speaking the same language, although their differences are much less than differences among Chinese. The social and political aspect of this conception of language is brought out in the quip that a language is a dialect with an army and a navy. So, some theorists at least take the unit of language to be a dialect or even an individual "idiolect"---the very particular dialect of a particular person, with no assumption that any two people have exactly the same idiolect. In fact none of these notions---language, dialect, idiolect---plays any role in contemporary linguistic theory, which is concerned with characterizing the internal linguistic faculty.

Nevertheless, many philosophers persist in thinking that linguistics is or ought to be the study of language in this ordinary sense. They argue (or, rather, assert) that it is theoretically important to try to specify what it is to have a more or less complete grasp of a language in that sense and they suppose that people with an incomplete or erroneous understanding of aspects of a language do or should defer to others who have a more complete understanding. These philosophers believe furthermore that principles of

language have to do with social rules or conventions among people who speak the same language.

This is true despite the fact that the principles of language of interest to contemporary linguistics are *never* explained as due to linguistic convention or social practice. Contemporary linguistics supposes that the relevant principles are built into the language faculty and are therefore the same in all languages, up to parametric variation. Language use is not a matter of rule following in any intelligible sense.

It is true that a speaker may defer to one or another elite with respect to pronunciation or conditions of application for terms just as a person may defer to another in all sorts of other ways. The notion of "misuse" of language is relevant to "the study of the sociology of group identification, authority structure, and the like" (71), but it is not taken seriously in linguistics.

Mind Body Problem

Chomsky raises other related issues in these essays. For example, he argues that it is a confusion to suppose that there is a "mind-body problem." Before Newtonian physics, the mind-body problem was the problem of giving a mechanical explanation of mind, the presupposition being that everything else could be given a mechanical explanation. With the failure of that presupposition, the issue is unclear.

Just as philosophers of language often fail to distinguish between ordinary notions and scientific notions of language, so philosophers of mind often fail to distinguish between ordinary notions like belief, sensation, and desire, on the one hand, and notions that appear in scientific theories. Chomsky observes that there is no more reason to think

that notions of desire or belief will play a role in scientific psychology than to think that the ordinary notion of language will play a role in linguistics or that ordinary notions like desk and chair will play a role in physics. (This does not mean there are not desks, chairs, languages, desires, or beliefs. Only that these notions are not suitable for scientific purposes.) Similarly, there is no reason to assume, as many philosophers do, that mental "representations" appealed to in psychological or linguistic theories must represent things in the world.

Contemporary philosophy of language is sometimes concerned with alleged relations between expressions and things, denotation, reference, where there is a certain amount of appeal to "intuitions." Chomsky observes that we cannot have intuitions about these things deriving from our language faculty any more than we can have such intuitions about angular momentum.

Furthermore, it is important to distinguish ethnoscience, which might be concerned with how people normally understand things, with physics or psychology or linguistics, which is concerned with what is actually the case. Chomsky argues that philosophers are often best understood as doing ethnoscience, although without adhering to normal standards of empirical inquiry. In any event, the study of the semantic resources of the language faculty is to be distinguished from the study of ordinary conceptions of meaning.

Words

Another theme in these essays has to do with the semantic representation of words in a natural language. Chomsky argues that the underlying semantic representation of

most words is quite complicated, often involving intricate and highly specialized perspectives involving human interests and concerns, providing various analytic connections in ways that could not be learned from scratch, so there is a "poverty of stimulus" argument here.

Here are some examples. If say that I painted my house brown, you will understand me to mean I painted it brown on the outside. That's the default or unmarked case. But I can also say that I painted my house brown on the inside. To climb a mountain is to go up, but you can also climb down the mountain. If I am inside my house I cannot see it (except perhaps through a window if an exterior surface is then visible). I am not near my house if I am inside.

Words offer conflicting perspectives. The book I just took out of the library has a red cover, took four years to write, weighs two pounds, and has been translated into several languages. I can paint the door brown and then walk through it. After the bank lowered interest rates, it burned down and was rebuilt across the street. The pronoun in this case can refer to a financial institution but cannot be used to refer back to a river bank, as in, "After the bank lowered interest rates, there was a flood and the river overflowed it."

This may relate to a worry some philosophers have about the idea that to know something you must believe it and it must be true. What's known is a fact, what's believed is a proposition. Some philosophers therefore object that what you know can't be what you believe. But perhaps that is like objecting that the baby can't both finish the bottle and then break it.

In this brief review I have been able to mention only a small part of the riches contained and I haven't really been able adequately to defend Chomsky's complaints against philosophers of language and philosophers of mind, although I am convinced that he is right. In any event, this collection should be read and studied carefully by all philosophers of mind and language.