Paul Tillich

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（Sinn, meaing）　　　　（Bedeutung, reference)

Michael A. Arbib and Mary B. Hesse

The Construction of Reality, Cambridge University Press　1986

rejection of the literalist view of language as an ideal static system with fixed meanings

Metaphors have as such no truth value and therefore no cognitive value in expressing knowledge of the world.

to suggest on the contrary that metaphor after all has cognitive status is to question the grounds of most of applied logic and semantics. Nevertheless, if we are to make any sense of most everyday speech, let alone the language of ideology and religion, we must give some cognitive status to metaphor.　　　　　　　　　　　　　　　　　　　　　（148)

To understand the connection between scientific realism, the positivist theory of knowledge, and the literalist view of language, we need to go back to the seventeenth-century scientific revolution and beyond that to Aristotle. Much of Aristotelian philosophy　was discredited and

explicitly rejected by the pioneers of modern science, but his theory of language remained essentially unscathed. In the seventeenth century, the rise of science was accompanied by the conception of an "ideal language"..... The metaphor of "two books" is pervasive:

Bacon: *Natural and Experimental History*

Leibniz: characteristica universalis

cf. Umberto Eco, *La ricerca della lingua perfetta nella cultura europea*

Roma-Bari, Laterza   1993

The notion of an ideal language perfectly reflecting the world has a philosophical pedigree going back at least to Aristotle.

Aristotelian world in which all objects and events fall into complexes of a finite (though perhaps very large) number of fixed species or natural kinds. This is exactly the world Aristotle adopted for his ontology...

nature as a treelike hierarchy of species and genera   (149)

The theory of the ideal language and the ideal science fits this ontology like a glove. Any language contains in practice a finite number of general terms, and an ideal language contains enough for them to "mirror" the fixed number of natural kinds that are to be made isomorphic with them in the ideal science. ... This program for both language and science was the seventeenth-century dream, which still maintains its hold under the guise of the correspondence theory of truth, ... The seventeenth-century myth has conspired with the nineteenth-century dream of a universal logic...   (150)

formal analysis of language in terms of precise and stable meanings. In this formal analysis, metaphoric uses of words are in some way improper or deviant. If metaphor is to be taken seriously, it implies changing meanings; in a literalist theory, however, there is no room for understanding metaphor as implying continual shifts of meaning, because literal meanings are either constant, that is univocal, or equivocal.   (150)

We are going to argue for a nonliteralist theory of meaning and metaphor compatible with an account of language as rooted in schemas. Specially, we argue for the thesis that "all language is metaphorical."   (150)

Lying behind this notion of "proper" and "improper" application of terms, and behind almost all subsequent discussion of metaphor, is an Aristotelian philosophy of universals. Universals are the correlates in reality of the "proper" use of universal terms; it is therefore at this level that the significance of metaphor must be analyzed. An alternative to the Aristotelian theory of universals can be found in Wittgenstein's (1953) account of "family resemblances"(FR) ... Here, objects may form a class to whose members a predicate P is correctly ascribed, without assuming that there is any universal "P-ness" realized by each other. Instead, we assume that in an FR class,...,

the members of enough pairs of objects in the class resemble each other in some respects relevant to P so these resemblances can form, as it were, a chainlike structure through the class in such a way that there are relatively clear cases of objects falling within the class and relatively clear cases of those that do not. ... Wittgenstein argued from ordinary usage that there are such cases of irreducible FR.   (151)

Contrary to Aristotle's belief, no two particular objects or events share exactly the same properties, whether theses are called "essential" or "accidental," and indeed this distinction is a false one. Locke .... General terms are necessary, but their use entails some loss of information about the world.   (151)

Understood in terms of this FR analysis, metaphorical shifts of meaning depending on similarities and differences between objects are pervasive in language, not deviant, and some of the mechanisms of metaphor are essential to the meaning of any descriptive language whatever. This is what is meant here by the thesis that "all language is metaphorical."   (152)

The thesis that all language is metaphorical rejects this classical analysis to highlight the fact that explicit use of metaphor and simile are themselves based on the most fundamental linguistic fact of all --- namely, that linguistic reference always depends on perceived similarities and differences. ... metonymy (parts/whole, effects/causes) ... We assume that "all language is metaphorical" in a fundamental sense that underlies all meaning tropes; but this is only the beginning of our problems.   (153)

Our starting point is Max Black's interaction theory of metaphor as modified in the light of Wittgenstein's FR. We use the term meaning loosely as an inclusive term for reference, use, and the relevant set of what Black calls the "associated commonplace" ... called up by metaphoric usage.   (154)

We saw that if "truth" is understood in the sense of ideal correspondence and if it has the meaning in propositional logic, then metaphorical utterance are effectively equivocal in meaning, have no truth value, and do not permit deductive inference. But we have abandoned strict correspondence and deduction, except as special limiting bases; it thus remains to find a new sense of "truth" more adequate to the new view of meaning and language.   (154-155)

the use of metaphor in language has the functions not only of extending meaning and defining new meanings but also of the interaction and redescription of domains already seen through one metaphor frame in terms of another. Such redescription can have disruptive effects on previously complacent ways of looking at the world.

Lakoff and Johnson: "Argument is war"

extended metaphor: Your claims are indefensible. He attacked every weak point in my argument. His criticisms were right on target.

To philosophers, this may seem the only natural and "correct" way of talking about argument, but it depends on metaphor just as the first example did and is equally revealing of a certain set of value judgements about what argument is.

Contrast another metaphor, equally familiar in modern context: "Argument is negotiation," with its accompanying ....

Metaphor is potentially revolutionary.   (155-156)

In such cases, the question "Which metaphor is true ?" cannot expect a single or simple answer. There is no "fact" to which "argument" corresponds that has the natural character of "war" or "logic" or "negotiation." The extended metaphors are not in that sense true or false but are appropriate or inappropriate, more or less revealing, more or less useful, depending on the context of application and their coherence with evaluative judgements made about particular situation.   (156)

Metaphor causes us to "see" the phenomena differently and causes the meaning of terms that are relatively observational and literal in the original system to shift toward the metaphoric meaning. ... In terms of the metaphor, we can find and express deeper analogies between diverse phenomena; or, of course, in the case of bad metaphors we may find we are misled by them.

(156)

This interaction view of theoretical models is compatible with the thesis that observations are theory laden. It entails the abandonment of the a two-tiered account of language in which some observational uses are irreducibly literal and invariant with respect to all changes of the language and content of explanatory theory. The interaction view sees all language, including the scientific, as dynamic.   (156-157)

In the metaphorical view, logical consistency is no longer at the heart of language. Rather, as we in our discussion of Piaget, the reconciliation of logical discrepancies assumes a driving role for change of meaning; similarly in science, we reconfigure both theory and observation language to allow us to describe and explain a wider range of phenomena. This does not mean, however, that the metaphoric view entails abandonment of logic and deduction in science. Indeed, we may see this as chief distinction between use of metaphor in science and in poetry. Good poetic metaphors are initially striking, unexpected, and perhaps shocking. They extend and ramify by association and analogy not by logic..... Scientific metaphor, on the other side, may be initially unexpected; once established as useful, however, they are extended and developed by logic as well as by analogy. They are meant to be internally tightly knit by logical and causal interrelations.   (157)

We found reason to reject both assumptions. Implied classifications and analogies can only be stated in a language containing some other implied classifications and analogies. Reality is never exactly captured in explicit speech. This is not, however, a nonempirical idealism because it does not deny that there is a real structure in the world, of which science progressively exhibits more as it learns more about the natural environment by the feedback method of the pragmatic criterion.

Nor does it ascribe a strong realism to scientific theory because science does not capture this structure in a detailed isomorphism of true categories and true statements with the world.

Scientific theory provides constructed models of scientific reality that are distinguished from other types of social and poetic construction by being constrained by feedback loops involving experimentation in the natural world. (159)

Scientific models are a prototype, philosophically speaking, for imaginative creations or schemas based on natural language and experience, but they go beyond it by metaphorical extension to construct symbolic worlds that may or may not adequately represent certain aspects of the empirical world. These symbolic worlds all share with scientific models the function of describing and redescribing the world; and for all of them it is inappropriate to ask for literal truth as direct correspondence with the world. Symbolic worlds differ from scientific models, however, in that it is not their function to represent the state of the natural environment for purposes of prediction and control. As their functions differ, so their means of validation will also be expected to be different. (161)

1.   1991
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2.   1987-2002
3.   1997
4.   1986
                         1988
5.   1986

8.   1993
                    (pp.155-196)