DIMITRI GINEV

THE HERMENEUTIC CONTEXT OF CONSTITUTION

In this paper I concentrate on two distinctions introduced by Patrick A. Heelan. At stake in the distinction between weak and strong hermeneutics of natural science is the issue of the possibility of an interpretative-ontological approach to the rationality of science. The distinction between cultural praxis-laden meaning and theory-laden meaning has much to do with a philosophico-hermeneutic critique of the account of scientific theory elaborated in the post-positivist philosophy of science. My primary aim is to show that the “hermeneutic turn” in the philosophy of science as informed by the two distinctions allows one to delineate a particular context of scrutinizing science. In opposing both the normative epistemology (the rational reconstruction of science’s cognitive structure) and the deconstruction of epistemology (the denunciation that there are aspects of science’s cognitive structure which have to be approached as non-empirical objects of inquiry), I shall treat this hermeneutic context of constitution as an alternative to the context of justification and the context of discovery. What I am referring to is an attempt to forge a notion of scientific rationality by studying the hermeneutic fore-structure of scientific research.¹ It is my aim to show that in the context of constitution one can hold the view that (pace Rorty) the science-nonscience opposition “cuts culture at a philosophically significant joint” without appealing to the uniqueness of epistemological features like a special method, or a special relation to reality.

1. WEAK AND STRONG HERMENEUTICS OF SCIENCE

Weak hermeneutics of science is a heading for all interpretative studies of the production of scientific texts and the forms of scientific communication (including the historical dynamics of these forms). The kernel of these studies is the comparative analysis of the author-text-reader relationship constitutive of different genres of scientific publications — working papers, journal articles, monographs, volumes of essays, textbooks, yearbooks, and so on. Ideas and programs of weak hermeneutics of science are developed in a wide range of disciplines — history of ideas, cultural history, rhetoric (both as informal logic of argumentation and as literary rhetoric), media and communication studies, cultural studies, social psychology, literary criticism, and others. Champions of weak hermeneutics are predominantly preoccupied with the historico-cultural being of scientific languages. In particular, they are interested in the
communicative openness of the idealized (formalized, standardized) languages of natural science. The specification of this interest in the framework of the comparative analysis of the author-text-reader relationship helps one to address issues like the “implicit reader” as a mediator between production and reception of scientific texts, the historical distance necessary that a scientific text may gain a status of classical work, the role the “generic characteristics” of the different types of linguistic representations of scientific results play in the formation of communicative spaces in scientific communities’ life-worlds, the ways of achieving a depersonalization of scientific texts’ authorship, and so on. (To the weak hermeneutics of natural science one should attribute also the studies in the “rhetorical production of epistemic objectivity and axiological neutrality” as well as the interpretative studies of the historico-cultural forms of popularizing natural science.)

A sui generis transition from weak to strong hermeneutics of science is represented by the approaches of authors (e.g., Robert Crease) who are trying to disclose the role of interpretation in the “production” of experimental objects. Like the champions of the weak hermeneutics, these authors concentrate on the specificity of scientific languages. In contrast to the former, the latter hold a much broader concept of scientific language. According to them, the language of science arises first and foremost from and is addressed to experimental practices. Following this view, they go on to recast claims raised by the champions of the weak hermeneutics in terms of a context that includes aspects of the cognitive structure of scientific research. For example, they recast the problematics of the reading process in a manner that allows one to construe the experimentation (and not only the reception of scientific texts) in terms of such a process. By suggesting a hermeneutics of the reading process of what is written on the instruments of experimentation, these authors evoke Galileo’s conception that scientific research is a reading of the Book of Nature. It is this orientation towards an “exegesis of the experimental practices” that leads to the problematics of the strong hermeneutics of science.

In what follows, I use the expression of “strong hermeneutics of science” to designate studies in the hermeneutic phenomenology of the process of constituting domains of scientific research. The basic claim of weak hermeneutics is the impossibility of a hermeneutic approach to natural science’s cognitive content. More specifically, champions of the weak hermeneutics contest the relevance of the post-Heideggerian ontologizing approach to natural scientific practice and the cognitive constructions arising out of this practice. On the principal argument for this claim, the ontologizing approach does not have resources for answering the question of why the interests and methods of hermeneutic philosophy can not, from the viewpoint of natural scientific practice, help in reaching a deeper understanding of scientific rationality. A leading exponent of the weak hermeneutics goes on to say that “it is insufficient to indicate or to demonstrate that some of philosophical hermeneutics’ ideas and concepts are nevertheless applicable in some sense to the field of natural scientific inquiry as well.”

Heelan’s defense of the strong hermeneutics of natural science is by no means restricted to indicating and commenting particular examples of such an applicability. For Heelan, a strong hermeneutic philosophy of natural science must center on the phenomena of research praxis as these make their appearance in scientific communities’ laboratory everydayness. The task is not to derive meanings from texts