

## CONSCIOUSNESS AND THE WORLD

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Fred R. Dallmayr and Thomas A. McCarthy, eds., *Understanding and Social Inquiry*, South Bend and London: University of Notre Dame Press, 1977, pp. iii, 365, \$20.35 cloth.

The role and significance of interpretive understanding as the fundamental category for the analysis of social phenomena is the primary concern of this collection of essays. Understanding, or *verstehen*, has been the subject of controversy at least since the time of Max Weber. His distinction between value-motivated action and reactive behavior presupposed that cultural reality, the product of individual choices and purposes, was not susceptible to cognitive appropriation in terms of general concepts and laws. Rather, the systematic study of social interaction must take its bearings from the point of view of the actors who are possessed of values and goals. However, Weber was not always clear on the relationship between those aspects of social reality amenable to adequate conceptualization in terms of causal analysis and those which require interpretive understanding. Consequently, the meaning of *verstehen* has been subject to a variety of interpretations. It is this diversity of meaning which the present volume illustrates.

Scholars of a positivist persuasion perceive *verstehen* as a heuristic device. Accordingly, it is granted the extra-scientific function of hypothesis generation and located within the context of discovery. It is a vehicle by which the social scientist can utilize empathy to acquire insight into the springs of action while leaving the explanatory concepts unaffected.

One response to this position is associated with the writings of the later Wittgenstein; Peter Winch is the most notable representative of this approach. He argues that principles and rules are generated in the course of practical activities and impart to these activities intelligibility and coherence. These intersubjective conventions are taken for granted by a heuristic interpretation of *verstehen* which is thereby guilty of begging the question as to whether or not life-forms are commensurable. Moreover, standards of rationality, while apparently the same across cultures, must be understood in terms of "the point of the activity" to which they are applied. In this view, it is quite possible that the indices of rationality peculiar to the logic of western science may be

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meaningless (and therefore neither in competition nor conflict) when compared with those of magic or religion. For example, the concept of consistency may be satisfied in quite different ways, although apparently employed with reference to the "same" phenomena, by practitioners of science and of magic.

Another response to the positivist position is to claim that social reality — practices and actions — is permeated with inter-subjective and common meanings. The existence of these meanings testifies to the presence of prior interpretation and goals which may be implicit or the result of theoretical reflexivity. Explanation in terms of testability and the subsumption of particulars under general, universal laws misses this since it does not tap the value-saturated dimension of the explanatory enterprise itself. Interpretive understanding, therefore, cannot be divorced from the reality to which it is salient; rather, it is a constituent component, generator and modifier of that reality.

The critics of positivism have a fundamental objection to defining interpretive understanding in terms of empathy. It is that all knowledge, whether in science or the humanities, must assume the phenomenon of meaningfulness underlying inter-subjectivity. To deny this claim, they argue, is to opt for an objectifying methodical solipsism which refuses to acknowledge that the variety of symbolisms in which communication occurs do not carry within themselves the catalyst of meaning but must, like a speaker, rely upon a listener, a recipient, for the activation of their potential. Knowledge is pluralistic. There is no necessary or self-evident reason why truth or meaning must take the form of explanation rather than understanding. If the goal of the knower is technical mastery and control, explanation may be the preferred modality of cognition. But there are other goals which articulate with and require other methodologies.

While the contributors to this collection are distinguished and able spokesmen for significant perspectives on the philosophy of the social sciences, it is regrettable that selections from the writings of Hubert Dreyfus and Michael Polanyi are absent. The pervasive and ubiquitous theme is the relationship between the observer and actor on the one hand, and external reality on the other. Underlying this, one can detect the attraction exerted by the prospect of finding certainty in terms of a methodological formalism which denies a role to understanding, or an idealism which assigns so strong a role to consciousness as to eclipse the intrusive tendencies of a world distinguished by plurality. Various authors, notably Taylor, Apel and Habermas attempt to avoid this dichotomy, but their efforts could have had a more salutary effect if reinforced by the kinds of considerations adduced by Dreyfus and Polanyi. This is especially the case with reference to the views advanced by those of neo-positivist persuasion. These contributors see the reconstructed logic of science as providing a formal kind of certain knowledge. In their view, there is no significant methodological distinction — at least as far as the goal of a protocol of verification is concerned

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— between explanation and understanding. To understand is to be able to give an explanation — in practice or in principle — which conforms to the requirements of the hypothetico-deductive method. Now this is a defensible but quite narrow conception of explanation which, in its implicit claim that science holds a mortgage on this term, appears to ignore what John Yolton has called systemic explanation in both its logical and epistemological dimensions. The following comments by Yolton are worthy of note:

In order to extract the logic of explanation from the logic of scientific explanation, we need to emphasise the contextual or systemic aspect of understanding and explaining. Explanation must go on within some particular order system, such that the fact to be explained can be shown to stand in definite relation to other members of the system.<sup>1</sup>

Regarding the epistemological dimension, he says:

A further analysis of the claims of this paper would have to show how systemic explanation arises out of and is grounded in recognition and perceptual processes. Such an analysis would constitute the *epistemology* of explanation. The result of this line of thought is, I think, the separation of explanation from the empirical context of science.<sup>2</sup>

It is precisely this concern which is prominent in the work of Dreyfus and Polanyi. Dreyfus, in a 1967 article, advances the claim that intelligence and understanding are dependent upon embodiment.<sup>3</sup> In his later, full-scale examination and refutation of certain claims of scholars in the fields of artificial intelligence and cognitive simulation, he shows how the situation — that is, the world, of which one may be conscious and have experience — is a function of human needs.<sup>4</sup> These needs are not known independently of the context in which they become available to consciousness. Similarly, the setting in which they acquire a determinate configuration is not recognized as being responsive or non-responsive according to a rule-governed protocol; the project of developing a formalism which obviates problems arising from inter-subjectivity and the inter-dependence of explanation and understanding has not been successful. To quote Dreyfus:

Game playing, language translation, problem solving,

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and pattern recognition, each depends on specific forms of human "information processing," which are in turn based on the human way of being in the world. And this way of being-in-a-situation turns out to be unprogrammable in principle using presently conceivable techniques.<sup>5</sup>

Michael Polanyi, in a series of writings from 1946 to 1975, developed and refined his claim that the structure of knowing exhibits a striking similarity to the structure of perception, recognition and creation.<sup>6</sup> He is best known in this respect for his concepts of tacit knowing and personal knowledge.<sup>7</sup> While Dreyfus and Polanyi agree on most ontological and epistemological issues relating to the cognitive significance of embodiment, I should like to suggest that an extremely fruitful area of inquiry might be found in that aspect of Polanyi's contribution which is challenged by Dreyfus.<sup>8</sup> Polanyi, when analysing the ways in which practical activities are conducted, refers to hidden rules which are tacitly followed by the actor.<sup>9</sup> This suggests that, in principle, it is possible to have a complete theory of practice. This possibility is denied by Dreyfus. He draws a basic distinction between a theory of competence and a theory of performance. A theory of competence assumes that all non-arbitrary action can be understood or expressed in terms of how the actor accomplished his purpose. This competence is expressed in the form of rules. This formalism is equivalent to saying what is the action; it is a form of description. The most distinctive aspect of a theory of competence, therefore, is that it comes after the completion of the act and does not purport to explain how the actor was enabled to successfully execute his performance; it does not claim that the actor was actually following the rules retrospectively seen as structuring the act. A theory of performance, on the other hand, is concerned to elucidate the protocol which would enable an actor to reproduce or duplicate an action. The justification for the distinction between performance and competence (which, it is alleged, Polanyi ignores) is to be found in the form of two considerations. First of all, while action may be retrospectively described in rule-like terms, it occurs in a situation which is not universally defined. This means that there are no self-evident rules which enable actors to recognize the context in which rules are to be applied. Recognition of this fact entails awareness of both the practical capacity of actors to act in undefined situations and the theoretical difficulty that the requirement of rule-following in the production of action leads to the logic of an infinite regress: there must be rules for the application of rules for the application of rules. This difficulty disappears, Dreyfus believes, if we cease assimilating competence to performance. Secondly, there is operative an ontological assumption to the effect that the world is composed of atomic, discrete facts. This assumption enables the formalist to ignore the problem of infinite

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rule regress since it allows him to process all information in the form of rules which require no context-delimited interpretation. Dreyfus rejects this neo-Cartesian perspective by denying the intelligibility of a dichotomy between fact and situation.

There is one additional respect in which this volume does not realize its full potential. This has to do with the debate over the question of whether the natural and social sciences are continuous or discrete. Apart from considerations of a logical and methodological nature, there is a strong tendency on the part of the writers to *assume* that science is characterised by unity or its lack, rather than provide arguments leading up to and supporting their respective conclusions. I should like to suggest that an adequate ontology must come to terms with the view that man is a playful as well as reasoning being. To deny or neglect the symbiotic relationship between rational and playful human capacities is to relegate reason to an instrumental role while transforming the creative, exploratory aspect of playfulness into an addictive fascination with the following of explicit rules. Mankind's predisposition to engage in play as a medium of self-expression and self-presentation has been asserted in a variety of places. However, I want to consider an implication of only one aspect of this complex concept. To conceptualize certain aspects of human activity as prompted and permeated by an urge and capacity for play, is to acknowledge the various degrees of indeterminacy involved in the satisfaction of needs and wants and the realization of purposes which may have a more or less explicit gradient of definition. Expressed otherwise, the notion that all action is rule-governed or that, in principle, all activity is susceptible to description and explanation — after it occurs if not before — in terms of rule-observing behaviour, becomes untenable once certain hitherto unexamined presuppositions are made explicit. For example, the rule-following postulate assumes that a viable equation can be drawn between contextual regularity and tacit or explicit rule-observance. But it is, at best, problematic to conceptualize action in terms of an ideal model, goal or purpose. As well, such an orientation assumes an existential as well as an analytic dichotomy between means and end while presupposing that an explicit, precise and exhaustive specification of the end is possible. This is tantamount to believing that we experience external reality and then endow it with significance. The more adequate view is, of course, to avoid the epistemological caricatures presented by both realism and idealism and see the actor and his context as reciprocally and jointly involved in the project of definition.

Similarly, truth and meaning appear to be dichotomous, and articulate with science and social science respectively, if one assumes that human embodiment in respect of the physical environment is necessarily static, while *vis à vis* the cultural environment it is infinitely malleable. However, to the extent that men cease to be creatures of the earth — subject to the invariant constraints of

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nature — and become creatures of the world, modifying their physical context by “acting into nature,” the distinction between physical and social science becomes less viable. On the other hand, in as much as men lose the capacity to act, and behave instead, with the concomitant homogenization of culture, so the universal possibilities of social science are enhanced.

The contention that science is characterized by unity rather than discontinuity can be supported by additional ontological and epistemological considerations. The ontology of the physical and social sciences, it is sometimes claimed, is asymmetrical with respect to the constitution of phenomena. The world of physical reality is autonomous: it exists irrespective of our wishes or actions; it is that with which it is necessary that we come to terms. The social world, by contrast, is generated through human activity; the specific contours and nuances of social phenomena are the result of human interaction. The question as to whether this distinction is viable, I shall consider shortly. For now, it is necessary to note that this difference should not obscure an important dimension of continuity between nature and society which consists in the fact that both are experienced as environments susceptible to use and modification in such ways as to facilitate the creation and realization of human needs, wants and purposes. That is to say that nature, along with the regularities it exhibits, constrains human options while at the same time it makes possible the continuation of life. Men breathe unaided by artifice, reckon with the force of gravity, derive the light to see from the sun. Examples of capacities made possible, and constraints which must be taken into account due to the structure of our natural environment, could be multiplied without limit; the coincidence of freedom with necessity in terms of natural parameters which define the human species is very evident. Not so apparent is the possibility that it could have been otherwise. For instance, we have no reason to believe that oxygen would not exist were our physiology radically different. Nor are there grounds for believing that the sun would leave the sky if we were not possessed of the capacity for vision. Or, to make the same point another way, the world of nature may possess innumerable structures and characteristics of which we are not aware and which we cannot even imagine simply because they do not articulate with the structure of our nature. For example, if we were beings not endowed with auditory and visual abilities, the fields of physical science which deal with light and sound would be absent — and meaningless. This very elementary but frequently unnoticed phenomenon seems to be indicated even by our linguistic habit of using synonymously or interchangeably the terms “physical” and “natural” when referring to science. So-called “hard” science deals with the physical world; but what is intended by this usage is the world which appears “natural” to us not because, in some basic sense, it is self-evident but because it is the world with which our “nature,” as a species, articulates. In short, the very being of the physical world is testified to by our

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senses prior to our being able to speak of it. But this being, of which we are aware at a non-cognitive level, may be ineluctably partial, dependent upon the structure of *our* being, which prohibits the possibility of making contact with the structure of nature as a whole. To speak of nature as a whole is to suggest that it enjoys an internal, comprehensive equilibrium and coherence. One implication of such a view is that aspects of physical reality — including any that may exist of which we are necessarily ignorant due to our psycho-physical constitution — may be interrelated in unanticipated and unimaginable ways.

If the above is not, literally speaking, incredible, the same can be said to apply to society. The institutions, practices and “common meanings” characteristic of a society are indicative of human capacities and potentialities; they reflect the interests and abilities of the members of a society. While it is true that they are the result of human interaction — that they are created — it would be misleading to suppose that they have determinate authors. Every person is born into an intricate matrix of life-routines which may be more or less resistant to modification or ripe for change. For most individuals the impact of their lives on their society will be negligible; for the outstanding few, their creative or destructive acts make sense only if account is taken of the matrix they attempt to transcend. In the most basic sense, however, social phenomena, however variable, testify to universal propensities of the human species. Alternatively expressed, the social is no less “natural” than nature. Consider, for example, the fact that every society of which we have knowledge has generated various modes of self-interpretation, whether magic or myth, history or philosophy. Moreover, although there are significant emphases and differences, all societies exhibit the capacity for developing and appreciating works of art as well as for coping with the imperative to satisfy the less ambiguous needs such as sustenance and reproduction.

The conclusion to be drawn, then, is that selection of problems for study is not distinct from the constitution of problems, even though it may seem to be the case. For example, in the case of physical science there are phenomena which are as they are and could not be otherwise, at least insofar as human actions affecting them are concerned. The earth, the physical world, is there for the scientist to explore and analyze; it is refractory, thereby providing a constant check on his imagination by means of the characteristics and structure peculiar to it. At the same time it may be readily acknowledged that the theories generated and laws derived from the study of nature have not provided complete and perfect knowledge of physical reality and the processes characteristic of it, since the fit between conceptualization and data does not make possible error-free testing and application — thereby leading to anomalies which precipitate scientific change. Could people constitute phenomena other than the ones they do? Could people select problems other than the ones they do? Are differences in the *media* of self-expression that are constituted,

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significant? Or is it simply a matter of convenience — and on a continuum of sophistication defined in terms of simplicity, consistency, comprehensiveness — which in turn is dependent on a concept of rationality and effectiveness? If this is the case, then all media are a variety of response to *universal* issues and problems and in both natural and social science the degrees of freedom are bounded by constraints indicative of *both human and external givens*. The conclusion is, then, that natural science is not the model *nor* is social science. They face similar problems and are prompted and accounted for by formally similar relationships of people and phenomena.

In terms of epistemological considerations, the concepts employed by both physical and social science do not correspond in a direct, unmediated fashion to the reality they are designed to grasp. Phenomena are conceptually constituted in both cases; idealization takes place in both instances; and the strongest claim to be made is that the theories generated in each field have a bearing on the reality appropriate to that field. Another, and more fashionable, although frequently ambiguous way of making the same point, is to say that both sciences employ paradigms to relate observation to theory.

To acknowledge the presence and role of paradigms in scientific activity is to endorse a number of propositions which include but are by no means exhausted by the following. First, physical science does not deal with uninterpreted, unambiguous particles of matter. Aside from the consideration that "matter" is, itself, a problematic concept which requires a theoretical matrix to enable specification, the characteristics of any physical data bear a symbiotic relationship to the problem in terms of which conceptualization takes place. This activity on the part of the scientist both presupposes and makes possible the practice of his professional role. This role, in turn, is predicated on a pre-scientific, culture-dependent understanding of the physical environment as well as on his membership in a scientific community which supplies him with categories of discrimination which may be modified as a result of his action. Second, social science assumes and requires that the scientist be able to understand the awareness possessed by social actors of their environment. What is sometimes called the natural attitude or first-level conceptual orientation of social actors, cannot be reduced to a behaviouristic account of movement in terms of overt acts without a substantial skewing and reduction of meaning. Therefore, in order to secure the viability of concepts appropriate to social science, these concepts must, in principle, be explicable in terms meaningful to the actors themselves. Third, in both physical and social science, the concepts of truth and proof must be seen to have an intra-theoretic status: they are objective and have meaning and application only insofar as they are understood in the same way. In short, laws must be interpreted; rules require application; and the correct procedure to follow in either case is not self-evident. Data completely independent of the scientist-actor, which are discrete, determinate



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and unambiguous do not exist; or, if they do, they are that of which we cannot speak.

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### Notes

1. John Yolton, "Explanation," *The British Journal for the Philosophy of Science*, Vol. 10, No. 37, p. 205. He continues, "not deducibility, but intelligibility constitutes the basic feature of the logic of explanation. Understanding and intelligibility are the basic controls operative in every context. Testability and deducibility are the specific controls in the physical sciences, the ideals for many in the social sciences. When the controls of testability and deducibility are set aside for the more generic form of explanation, we do not retreat into some vague common denominator shared by early perceptual responses, mythic, and metaphysical constructions. Understanding is similar in all of these contexts but each context has its own characteristic form of understanding. The final vindication of my claim for a generic explanation present in all these diverse modes of apprehension would have to make a detailed analysis of the specific features of each form of understanding. A critique of understanding is a necessary complement to an analysis of explanation" (pp. 207-8).
2. *Ibid.*, p. 195.
3. Hubert Dreyfus, "Why Computers Must Have Bodies in Order to be Intelligent," *The Review of Metaphysics*, Vol. 21, No. 1, pp. 13-22.
4. Hubert Dreyfus, *What Computers Can't Do*, New York: Harper and Row, 1972.
5. *Ibid.*, pp. 214-15.
6. The most specifically political work by Polanyi is a collection of essays called *The Logic of Liberty*, London: Routledge, 1951. Other short essays, published separately, include *The Magic of Marxism and The Next Stage of History*, Manchester: Special Supplement to the Bulletin of the Committee on Science and Freedom, 1956; *Beyond Nihilism*, London: Cambridge University Press, 1960; and *The Republic of Science: Its Political and Economic Theory*, Chicago: Roosevelt University Publication, 1962. Polanyi's first attempt to relate philosophy of science to philosophy of culture is *Science, Faith and Society*, London: Oxford University Press, 1946; Chicago: University of Chicago Press, 1964. The best introduction to his attempt to place his view of science within a larger cultural setting is *The Study of Man*, Chicago: University of Chicago Press, 1959. Polanyi's major work on philosophy of science is *Personal Knowledge*, Chicago: University of Chicago Press, 1958. His latest, posthumous work, in collaboration with Harry Prosch is *Meaning*, Chicago: University of Chicago Press, 1975.
7. First, it is necessary to distinguish between explicit and tacit modes of knowing. Explicit knowledge is that kind of information and awareness which is susceptible to inter-subjective transmission in lucid propositional form. Perhaps the best illustration of this kind of knowledge is that found in mathematical formulae. The tacit mode of knowing, on the other hand relies upon example and imitative effort in which clues are transmitted from one person to another. These clues may be either subliminal or subsidiary in nature; they cannot be focal.

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For example, in the exercise of a skill such as dancing or typing, if we focus our attention on our feet or fingers we completely paralyze and negate the comprehensive joint performance which we seek to attain.

Polanyi has referred to a very significant aspect of tacit knowing, its unspecifiability, as "knowing more than we can tell." That is, we know tacitly more than we can articulate or make explicit. Explicit knowledge is dependent on tacit knowing for its intelligibility. The acquisition of explicit knowledge involves a process of inferential reasoning in which two terms are to be found: premisses and conclusions. In this respect it is similar to tacit knowing, which also has two terms: the proximal and the distal. There obtains dissimilarity, however, by virtue of the fact that explicit reasoning is carried out according to formal rules of inference — drawing while in tacit knowing, which leads from the proximal to the distal term by relying on the former for attending to the latter — thus establishing the latter as the meaning of the former — no formalized operation is involved but rather a process of unspecifiable integration striving to arrive at a coherent performance or understanding. Moreover, due to the structure of tacit knowing, the distal term cannot be detached from its proximal term as can a conclusion from its premisses.

Tacit and explicit knowledge can also be contrasted in terms of refutability and irreversibility. Since the structure of explicit knowledge allows us to repeat indefinitely the process by which a conclusion is derived from its premisses, an explicit inference can be refuted by adducing new evidence which tends to cast doubt on its tenability. Not so with things tacitly known since our understanding tends to reach conclusions or achieve a satisfactory integration of the particulars in ignorance of the steps involved. Likewise, the process of arriving at explicit knowledge is reversible; the process of tacit understanding is largely irreversible.

Explicit knowledge is dependent upon a tacit matrix for its intelligibility in the sense that to be meaningful an explicit statement requires a tacit co-efficient. An illustration of this dependence of explicit on tacit knowledge is provided by a consideration of the transparency of language symbols — of words. A word, by itself, lacks meaning. A demonstration of this fact may be had by referring to an experience which everyone has had at some time, namely by repetition within the context of disattention to the phenomenon which it denotes. If we repeat a word, for example, "chair," over twenty or more times in succession while focussing solely on the muscular movements necessary to produce the sound of the word, the word loses all meaning. This occurs because, to be meaningful, words must be transparent, i.e. focal attention must be on that which the word denotes rather than the word itself. We could make the same point in the following terms: when we acquire focal knowledge of a word *qua* word, we thereby acquire explicit knowledge of it and lose our understanding of it as a symbol or sign.

8. Dreyfus, *What Computers Can't Do*, pp. 236-37; "Why Computers Must Have Bodies in Order to be Intelligent," pp. 28-29.
  9. Polanyi, *Personal Knowledge*, p. 53.
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