

ARTICLES

Abstract

In this paper I seek to clarify Paul H. Hirst's concept of reason, which is expressed only implicitly in his theory of forms of knowledge. Hirst's view of the temporal nature of knowledge is explicated as a prerequisite to the analysis of his key concepts of objectivity, judgement, the given, and facts, all of which are entailed by and necessary to his concept of reason.

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The Concept of Reason in Hirst's Forms of Knowledge

Introduction

Some of the most engaging issues in philosophy of education during the past two decades have emerged from the theory of knowledge advanced by the British philosopher of education, Paul H. Hirst. The theory was first presented in an essay which has come to be called seminal, entitled "Liberal Education and the Nature of Knowledge" (1965).¹ It has subsequently reappeared as one of several of Hirst's collected papers, some of which are direct responses to aspects of the criticism which followed his initial statement.²

A central concept in Hirst's theory, and one which has eluded clear meaning, is that of reason. The concept is implicit throughout Hirst's work, and is addressed explicitly if briefly in Section V of his essay, "The Forms of Knowledge Re-visited." In understanding Hirst's concept of reason, one encounters a galaxy of interdependent concepts, including objectivity, the given, and facts, all of which link together in a special kind of conceptual matrix, the logic of which may be called "its reason." My purpose here is to draw out this notion of reason through an examination of its aforementioned components as it constitutes an essential feature of Hirst's theory of forms of knowledge and liberal education.

In an Ockhamist sense, I take reason to be logically secondary to its components of objectivity, the given, and facts, though these are in many ways equally abstract. I say this because they are the more immediate and accessible concepts in so far as they are employed daily in quite meaningful ways in our language-games. One has only to participate seriously in a funeral, a fishing trip, or a honeymoon in order to appreciate their various uses, which I hope to make clear. Reason, on the other hand, appears to be logically dependent upon the ways in which forms of understanding confer upon it its meaning. Let us examine the problem in more detail.

Forms of Knowledge

It is necessary to say something about Hirst's theory of "forms of knowledge" in order to proceed since his concepts of knowledge and reason are inextricably intertwined. I shall be necessarily brief

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in this regard since the theory is rather well-known and, as Jane Roland Martin has noted, "has come to dominate the thinking of philosophers of education"³ as they consider curricular theory.

Hirst argues that the logical character of liberal education is fundamentally flawed as expressed in such statements as the well-known Harvard Committee Report, *General Education in A Free Society*.⁴ This is so because of a more basic misunderstanding of the nature of knowledge itself. The case is argued for a concept of liberal education viewed as "initiation into the forms of knowledge".

According to Hirst's original formulation, there are seven distinct forms of knowledge: mathematics, physical sciences, human sciences, history, literature and the fine arts, religion, and philosophy. Reconsideration of his theory in the light of certain criticisms has led Hirst to remove history and the human sciences from the group and to add moral knowledge and understanding of our and other people's minds to the list (pp. 86-87). A provision for these adjustments is to be found in Hirst's insistence, clearly stated all along, that the forms are neither static nor immutable, but are subject to modification, change, and expansion in the light of our understanding of knowledge. But a stronger ground is established by Hirst's further clarification of the distinctions between "forms of knowledge" and disciplines. A form of knowledge, accordingly, is a class of true propositions or statements that test out as coherent and distinct from other classes. It matters not whether the propositions address elementary (common sense) or technical knowledge (p. 90).

A form may derive its status as such only after successfully meeting a set of criteria, or standards, which originally numbered four, but has been reduced to three as Hirst has reconsidered them. The four involved (1) a set of concepts central to the form; (2) a distinctive logical structure; (3) a set of distinctive expressions, testable against experience in a way that provides particular truth criteria; and (4) particular techniques and skills for exploring experience, which give the form its distinctive method (p. 44). Revisions of his theory have led Hirst to regard the fourth criterion (method) as logically "secondary", though "most important in education and research" (pp. 85-86).

Rejection of Absolutism

In his response to critics of his theory, Hirst takes pains to make clear that he rejects the doctrines of metaphysical and epistemological realism with which he has not infrequently been taken to be associated (p. 92). Confusion on this point was no doubt predictable, since his use of such terms as "forms" and "categories" suggest association with Plato and Kant. Indeed, Hirst acknowledges that such terminology lends at least superficial support to such associations, but he is correct in his insistence that the use of such terms carries no logical implications. This is one point on which it is difficult to fault Hirst, who was explicit in his initial essay that, though there are certain obvious similarities between his theory and the classical Greek concept of liberal education, his theory is not a by-product of any metaphysical doctrine (pp. 42-43).

Hirst is guided by the desire to differentiate the fundamental divisions in knowledge on grounds of "the logical relations and truth criteria to be found at present in our conceptual schemes" (p. 92). He employs what he takes to be the essential and best notions of what is and what is not intelligible in our time, with no assumption about the permanence of such notions. Unlike Kant, who sought to elucidate the categories of reason in a way which would place them above the milieu of time, place, and circumstance, Hirst confers validity on the Wittgensteinian belief that our categories of thought are structured by our forms of life. Given such a supposition, conceptual schemes are developed "by means of public language in which words are related to forms of life, so that we make objective judgements in relation to some aspect of a form of life" (p. 93).

But what is the nature of such conceptual schemes? Hirst views this as a question of inquiry and investigation, rather than a matter of *a priori* definition. Here Wittgenstein's notion of "forms of life" holds interpretive significance as a metaphor denoting agreement among users of a language that certain rules are to be followed in their employment of that language. By so agreeing, tacitly or otherwise, they participate in a form of life. Hirst, like others who have employed this interpretive metaphor,⁵ extends it to the analysis of statements about art, religion, mathematics, science, and other domains of knowledge. His purpose is to construct a descriptive theory of knowledge based upon "... a differentiation of modes of experience and knowledge that are fundamentally different in character."⁶

Hirst is careful to reject any notion of ultimacy in regard to his theory, though he acknowledges that one may never be altogether clear about the extent to which such schemes constitute an "invariant structure." This is Hirst's way of proffering the possibility that certain of our conceptual schemes may possess qualities that render them apparently immutable and transcendent. Indeed, though they may be so, human experience compels that we not take them as such, else we forfeit the possibility for basic change as our culture evolves and provides for new forms of life.

Conversely, other more obviously transient conceptual schemes come to our attention, both in our own retrospective culture and in the cultures of less sophisticated societies in transition. These, Hirst believes, are paradigms of *a posteriori* conceptual schemes. As such, they serve as models for our study of intercultural understanding of conceptual schemes, which Hirst considers subject to the bridge provided by communication. Indeed, the difficulties involved in understanding the values and judgements in an inter-cultural context may be so great as to be understood only when a member of one society grasps the conceptual schemes of another through a comprehensive immersion in its culture.

The starkest examples are those in which a member of an aboriginal culture is suddenly thrust into a more sophisticated (perhaps urban, industrialized) culture, and is shocked by the realization that the conceptual schemes of his native culture, previously held to be immutable, are in fact insufficient to understand the new. Such an experience is dramatized in the latest Tarzan movie, *Greystoke*, in which, if unrealistically, an ape-man's immersion into nineteenth-century British culture is depicted. The process begins with the ape-man's self-conscious exposure to the language of humans, which becomes his tool for a reconceptualization of knowledge. Ironically, the reconceptualizing process is a one-way matter, his British counterparts being unable to participate in or in any way appreciate his primitive form of life. As is so often the case in such culture clashes, the entire affair ends in tragedy.

While this example serves its point, our lives are filled with many, more subtle cases. These are evident in the problems faced by members of different ethnic groups as they strive to understand each other in a pluralistic society. But they are also evident in the attempts of ethnically similar individuals who try to understand each other by means of language emanating from differing forms of life. We see such a struggle in the debate over biology's role in the curriculum and the issues surrounding questions of causation, e.g., evolutionism and creationism. Though it is obvious that not all participants in that debate wish seriously to appreciate the opposing form of understanding, there can be little doubt of the presence of each form or of the necessity to approach rationally an understanding of each by members of the other.

Several problems issue from Hirst's work at this point, not the least of which is that Hirst is himself functioning within a conceptual framework which is primarily a function of culture. But

Hirst understands this, and because he does he proposes a rationale for understanding knowledge by means of public languages and human experience. For Hirst, there can be no meaningful concept of knowledge apart from its public testability against experience, as experience is shared in one form of life or another and expressed in public languages. Ostensibly, such a belief entails serious questions concerning the objectivity of judgements, given the varieties of human experience and the forms of understanding and discourse that characterize each. Hence we turn to the question, "How can Hirst's theory provide the conditions for objectivity in the formation of judgements based on knowledge?"

Objectivity and Judgement

Hirst's thesis is that knowledge gains its logical character through different forms of discourse. These are discrete in so far as they represent contrasting forms of life and result in a limited number of logically distinct categories between which claims to knowledge differ vastly in their logical character. Any such claim must necessarily be proclaimed under conditions which subject it to judgements of truth and validity within the context of the form of experience from which it issues. A part of any such context is, of course, a conceptual scheme which includes the criteria for objectivity in the judgement of a claim to knowledge. "Only where there is public agreement about the classification and categorization of experience and thought can we hope for any objectivity within them."⁷

Judgements may be more or less objective within each form, though the logical character of objectivity differs from one form to another owing to differences in the logical character of the forms themselves. According to Hirst, this potentially radical variability is part and parcel of the theory itself, since "the relationship between words and some element of what is 'given' may vary. Indeed that is again just what the distinction between 'forms of knowledge' is all about" (p. 94).

Consider, for example, the statement, "Alfred loves Karen very much." Though it is clearly an emotive utterance, or more strictly an utterance *about* an emotive affair, it is moreover a claim to knowledge of a special sort. In the parlance of ordinary discourse it can be shown to be either true or false by means of reasonably objective criteria. The criteria for the objective judgements of statements in, say, mathematics or the physical sciences would be entirely inappropriate for judging this statement. Though it involves considerable subjectivity, it involves interpersonal knowledge. Its criteria for objective testability would hinge on a shared concept of love, which might include such matters as Alfred's statements about Karen, his displays of affection towards her, the frequency of his amorous contacts with her, and perhaps, though not necessarily, his marriage to her.

Hirst wants to show that we may be seen to be functioning intellectually (reasoning) in a variety of ways, each subject to one or another form of experience. But is it possible for objectivity to achieve sufficient stability as a concept under such a theory? Hirst responds in the positive. "In terms of this approach," he says, "the possibility of objectivity and sense, even if not resting on absolute principles, would seem to rest on a fair degree of stability of judgement and agreement between men" (p. 94). Hirst cites the concepts of mathematics and those of space, time, and causality as examples of enormously stable concepts which, while they have been considered *a priori* by philosophers such as Kant, despite their limited application, have provided a significant measure of stability through history and between cultures.

It seems to be Hirst's assumption that corresponding constellations of concepts are to be found in all forms of life. For this reason, one may suppose, Hirst does not offer careful, detailed examples of

how his notion of objectivity might apply to the more subjective and controversial forms of experience, as for example in the arts and literature. In this, Hirst is thought by some to be like the venerable owl who, serving as the hoary consultant in the animal kingdom, advised the grasshopper on the problem of surviving the savage and painful winters. Listening patiently to the grasshopper's plight, so the parable goes, the owl prescribed a simple solution. "Simply turn yourself into a cricket and hibernate during the winter." The grasshopper jumped joyously away, profusely thanking the owl for his wise advice. Later, however, after finding that this important knowledge could not be translated into action, the grasshopper returned to the owl asking how he might perform this metamorphosis. The owl's curt reply was, "Look, I gave you the principle. It's up to you to work out the details!"

But analogies of this sort have their limits. Here, in so far as Hirst's theory contains any educational principles, he cannot be faulted for failure to anticipate all corollaries for their realization, but only for failures of clarity. To some his concept of objectivity is one such area. R.D. Smith, for example, argues

that Hirst's 'Forms of Knowledge' theory is vitiated by serious confusions over knowledge, truth and meaning. As his treatment of 'objectivity' shows, Hirst is using a Wittgensteinian frame of reference appropriate to questions rather about meaning than knowledge. As a result we can only understand the 'forms' as forms of public discourse; Hirst's view of truth excludes the possibility of describing their distinct canons (sic) of truth and falsity.⁸

But Smith is mistaken, I think, in his argument that the object of Hirst's forms is not rightly knowledge, but meaning. Consider, for example the simple statement, "Paul knows art." Whatever the particular elements of its context might be in terms of determining its meaning, i.e., the sense in which it has one kind of meaning instead of another (say, with reference to painting as opposed to architecture), there are truth-criteria by which a form-specific type of objectivity may be employed in judging the statement. Thus, while its meaning might be that "Paul is an excellent critic of painting," the claim to knowledge that he is in fact an excellent critic of painting resides in our understanding of what is involved in that type of art criticism. Ostensibly, a number of key concepts are involved, such as background and foreground, high lights, empty air, virtual space, motion, accent, intensity of color, depth of darkness, objects in relation to each other, and so forth. These are understood rather objectively among those who participate in this form of life, i.e., among those who use the language of this particular form of experience. Moreover, through such conceptual apparatus a rather high degree of objectivity is maintained in answering such questions about the colors in a picture as elements, determined by their environment, e.g., whether they are warm or cold, whether they advance or recede, enhance or soften or dominate other colors, create tensions in a picture, distribute weight, and so forth. Hence we may illustrate the way in which objectivity of judgment is understood in a form of knowledge considered by many to be altogether subjective in its character.

The Given

Hirst believes that the notion of objectivity is an entailment of reason in his theory, and moreover that reason is inextricably tied to a concept which he refers to as "the given". A certain tension is implicit in judgements about knowledge in situations where the criteria of objectivity and agreement on "the given" are not clearly agreed upon, or where they are not clearly understood, if even tacitly. This is especially true in the areas of moral knowledge and personal knowledge, but may also be seen in mathematics and the physical sciences.

In the case of mathematics, Hirst identifies number, integral, and matrix as distinctive concepts which are peculiar in character to that form (p. 44). These concepts, along with others, constitute the basis for objective judgements within the form once certain axioms are given. Mathematics, then, "depends on deductive demonstrations from certain sets of axioms" (p. 45), which means that they are arbitrarily chosen so as to provide a foundation for a particular mathematical system. The best example of such "givens" are probably the axioms of Euclidian geometry which are no longer taken as self-evident truths as they formerly were. Hirst makes this point while illustrating this relationship in his statement that "... the truth that the lengths of the sides of a right-angled triangle satisfy the equation that $a^2 = b^2 + c^2$ rests on the truth of a sequence of earlier proposition which, in turn, depend on the axioms of Euclidian geometry" (p. 123).

Thus we see in the "most objective" of Hirst's forms the extent to which objectivity and the given perform a dance-of-life-and-death in the interest of reason. While the two are conceptually distinctive, they are interdependent and necessary features of reason in any form of experience. This suggests that the problem of reason at the practical level is to recognize the form of knowledge in which a judgement is to be rendered, and to find agreement within that form of the criteria for objective judgement in light of the given.

One further distinction is necessary at this point, and that is in the difference in the scope and nature of "the facts" and "the given". The Hirstian notion of the given subsumes and is thus, in all but the strictest of cases, larger in scope than the facts.

It is not altogether clear what Hirst has in mind when he talks about "facts," although he provides a general comment on the matter in his essay on "The Nature and Structure of Curriculum Objectives" (pp. 18-19). Besides viewing a fact as an "item of knowledge," Hirst argues that meaning is conferred upon the concept of a fact only after consideration has been given to what is involved in knowing facts. This includes, at the very least, the ability to identify certain names and to understand certain concepts used in the formulation of a simple sentence which purports to state a fact, such as, "Ronald Reagan is President of the United States." One would need to know what a President is. He would need to be able to identify Ronald Reagan. And he would need to have some idea of what difference it makes that Ronald Reagan is President rather than someone else. Moreover, it would involve an understanding of the truth criteria by which any statement of fact would be objectively substantiated. Accordingly, the notion of a fact is not logically primitive in nature. While we may usually think of facts as "just lying about the world, somehow being registered on our sensitive plates," certain concepts are to be understood if we are to know the facts. Hence, more complex concepts entail more complex facts.

Though one may detect shades of agreement between Hirst and the earlier positivist philosophers on the idea of facts, it is a very limited agreement. The positivists took facts to be, generally, complexes of "particulars", or complexes of particulars, qualities, or relations in the real world as understood through science. Hirst's theory broadens their meaning to include the facts resulting from other forms of knowledge as well. The positivists held particulars to be self-subsistent entities much on the order of the substances of the world, though perhaps less permanent. Facts, as complexes of particulars, formed the basis for the positivists' truth criteria.

For Hirst, the notion of facts is exponentially complex, since the analysis of what is meant by a fact is dependent upon concepts, and thus, linguistic meanings. Since, to him there are no less than seven forms of knowledge, Hirst appears to hold that there are facts pertaining to each form of

knowledge, and that these are to some extent dependent upon the distinctive concepts attending each form. Of course, while certain types of facts may be present in all language-games, depending on their contexts, this is always a matter for research and investigation. The point is to recognize the complex nature of Hirst's concepts of facts and the given, and to acknowledge that while there may exist considerable overlap of each in any language-game, the two are conceptually different.

It is unclear whether Hirst believes that mathematics, as a form of knowledge, contains or includes facts, or whether there are facts in the real world which bear upon mathematics as a form. While it is relatively easy to come to agreement on that which is given in mathematical discourse, the question of attendant facts is a puzzling one owing to its purely conceptual nature.

Hirst's notion of the given may be taken to include phenomena which issue from a variety of sources, including mental states and value dispositions, as well as matters of fact. While facts constitute a fundamental element in Hirst's construct of knowledge, mental states and value dispositions do not.⁹ It is through the medium of public discourse that the elements and the whole of that which is given are established. Hence, propositional knowledge of the several forms may emerge in ways which provide for intelligibility in public language and objectivity of judgement, both of which Hirst takes to be demands of reason (p. 93).

Conclusion

For Hirst, "reason is a human creation that depends on a whole range of factors all of which we are now prepared to see as variable" (p. 93). Man's capacity for linguistic development and his sensory apparatus are both products of evolution, and must be viewed as non-static in their nature. Similarly, man's notions of reason, intelligibility, and objectivity must be viewed as concepts subject to adjustment and change within the larger evolutionary context. Yet this does not suggest that man is unable to discern certain features of reason, intelligibility, and objectivity as they exist. The challenge is to come to understand the nature and character of our forms of understanding as these themselves constitute a complex of knowledge and process, a challenge which entails the involvement of liberally educated persons on a substantial scale.

Looked at in this way reason is not something that is inherent in the nature of things; neither is it a concept without form or structure. It is, however, a polymorphous concept in that it encompasses, as Hirst presently states his case, at least seven avenues of understanding. These emanate from distinct forms of knowledge, each with its form of discourse, yet all in an environment that is at once physical, social, mental, and though Hirst does not state it explicitly, emotional. Reason is the word Hirst uses to depict the mental stuff that on the one hand, makes knowledge and understanding hang together coherently, while on the other, giving direction to their gradual, evolutionary progression.

Résumé

Dans son article, l'auteur cherche à éclaircir le concept de raison chez Paul H. Hirst, lequel n'est présenté qu'implicitement dans sa théorie des formes de la connaissance. Une explication du point de vue de Hirst sur la nature temporelle de la connaissance sert de toile de fond à une analyse des concepts clef d'objectivité, de jugement, du donné, des faits, tous nécessaires à la compréhension de son concept de raison.

NOTES

¹ Paul H. Hirst, "Liberal Education and the Nature of Knowledge," in Archambault, Reginald D. (ed.), *Philosophical Analysis and Education*, (London: Routledge and Kegan Paul, 1965), pp. 113-138.

² Paul H. Hirst, *Knowledge and the Curriculum: A Collection of Philosophical Papers* (London: Routledge and Kegan Paul, 1974). Unless otherwise stated, references to Hirst's work in this paper will refer to this source.

³ Jane Roland Martin, "Needed: A New Paradigm for Liberal Education," in Soltis, Jonas F. (ed.), *Philosophy and Education*, Eightieth Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1981), p. 38.

⁴ *General Education in a Free Society: Report of the Harvard Committee* (London: Oxford University Press, 1946).

⁵ Cf. Peter Winch, *The Idea of a Social Science and Its Relation to Philosophy* (London: Routledge and Kegan Paul, 1958).

⁶ P.H. Hirst and R.S. Peters, *The Logic of Education* (London: Routledge and Kegan Paul, 1970), p. 63.

⁷ *Ibid.*, p. 62.

⁸ R.D. Smith, "Hirst's Unruly Theory: Forms of Knowledge, Truth and Meaning," *Education Studies* 7, 1 (1981): 25.

⁹ See Martin's criticism of this issue in Jane Roland Martin, *op. cit.*, pp. 46-51.