

of hypotheses and theories, the determination of their presuppositions and implications; but it also includes quite different operations, such as observation, inquiry, discovery, experimentation, and verification. Observation, inquiry, discovery are preconceptual operations: they are prior to the thoughts and words that speak about them but do not constitute them. Experimentation presupposes the implications of a hypothesis to have been worked out but consists in consequent external acts in which instruments are applied to materials. Verification confronts hypothetical prediction with observed results to provide rational consciousness with evidence for a judgment.

A second point is the multiplicity of methods. If the objective of science is the complete explanation of all phenomena, it remains that the sciences are many, that each selects for its province a determinate range of data, that each develops a method appropriate to its proper data and directed to attaining the type of explanation possible in its field. So the advance of science involves its specialization, and the specialization brings with it an increasing development and differentiation of methods. At any stage of this process in any given specialization certain types of operation will be selected and others regarded as unsuitable. But the operative criterion surely is a posteriori for here, above all, method is the product of reflection on successful performance, and any procedure that works will hold its ground until a better one comes along.

A third point is correlative to the second. Besides the many specialized methods there is their common root and ground. Specialization results from the interaction between operations and objects, and it consists in an increasing adaptation of the pattern of

I have been attempting to indicate the pattern or structure of our conscious and intentional activities, and now I must issue a warning against the ambiguity that underlies the psychological fallacy. When a psychologist describes an emotional state, perforce he employs concepts and words in his description; but it would be a gross misinterpretation to suppose that he was describing, not an emotional state, but concepts or words; and it would be unjust to object that the emotional states one experiences are nothing like the concepts he describes. In a somewhat similar fashion, it is only by employing the pattern of our conscious and intentional activities that one can advert to, investigate, understand, describe, affirm, or

evaluate the pattern of our conscious and intentional activities. Still, this necessity does not justify confusion, and avoiding confusion here is of considerable importance.

As already suggested, the foundations of method reside in the pattern of our conscious and intentional activities. But they do not reside in this pattern insofar as I or anyone else happens to succeed in making it an object of introspection, in understanding it, in describing it schematically or fully, in passing judgments of fact or value upon it. No doubt, it is true that one cannot talk about or appeal to or be guided explicitly and thematically by the pattern without such reflexive activities. It remains that when we place the foundations of method in the pattern, we refer to something that is antecedent to and independent of all introspecting and reflexive activity

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I have been attempting to indicate the pattern or structure of our conscious and intentional activities. I must now proceed to note that the activities are given, for they are conscious, and that the pattern is given for one conscious activity leads consciously on to the next and such conscious linking of activities constitutes the relations of the pattern. It will be recalled, however, that the consciousness of the activities and of their connecting relations is not homogeneous. There is consciousness to the spontaneities of sense, to the exigences of our intelligence, to the judicial detachment of our reasonableness, to the deliberateness with which we accept or reject motives; but while all four are conscious, still our inner experience of any one is quite different from our inner experience of any other.

Next, it is of great importance to distinguish the many different ways in which the pattern of our conscious and intentional activities may concern us. There are (1) the concrete activities themselves in their actual pattern at any moment and, since they are conscious, they also are given; (2) the same activities but as objects of the special attention named introspection; (3) the introspected activities as objects of acts of understanding that distinguish them and relate them; (4) the introspected and understood activities as described in concepts and words; (5) the introspected, understood, and described activities as affirmed in judgment to be realities; (6) the introspected, understood, described, and affirmed activities as pronounced to be of notable utility, significance, value.

The principle underlying the foregoing distinctions is simple. We have been applying the pattern of activities to itself. In the last instance, (6), the full pattern has been applied; in (5) judgments of value are omitted; in (4) judgments of reality are omitted; in (3)

description is omitted; in (2) understanding is omitted; in (1) the full pattern of our activities is being exercised and we are conscious of this exercise but it is in no way transposed from the side of the subject and taken as an object of investigation, introspection, understanding, description, judgment.

The point to the foregoing distinctions is avoidance of the psychological fallacy. When a psychologist describes an emotional state, perforce he employs concepts and words; but this in no way implies that he is describing concepts or words; in fact, he is describing an emotional state, and that is something quite distinct from the concepts and words he employs in describing it. Similarly, when we shall place the grounds or foundations of method in the pattern of our conscious and intentional operations, our assertion or claim will express a judgment on the significance and value of the pattern. Such a judgment will presuppose a judgment upon its reality. In turn, that judgment will presuppose a description of the pattern, an understanding of it, and introspection that objectifies its elements. But though all these reflexive activities are involved in attending to the pattern, in talking about it, in making claims for it, still it is not in them that the foundations of method reside. On the contrary, the foundations reside in the pattern of activities itself; they exist and function independently of any introspection, understanding, description, or judgment that reflexively busies itself with the pattern; it is true that without such reflexive activity the pattern cannot be known by us or spoken of by us; but that does not imply that we are to place the foundations of method in our own or anyone else's introspection, understanding, description, or judgments concerning the pattern.

The third approximation is psychological and educational. Only through the apprehension of meaning can one enter into community; only through the expression of meaning can one play one's role in community. At the start the infant has only the potentialities for meaning that seem common to the human race; in the adult these potentialities have become operational, the operations have been endlessly differentiated, sequences and ranges of differentiated operations combined, and possibilities of combination grouped. Individual development goes forward on the successive levels of consciousness and intentionality, in increasing mastery of the artistic, linguistic, and mathematical tools of meaning

that descriptive analysis exists for a purpose, and the purpose is intelligent synthesis. We distinguish to relate and, in the present case, the relations in question are none other than the relations that are given in consciousness and that repeatedly we have referred to as the pattern or structure of our conscious and intentional acts.

Such givenness of relations is, of course, exceptional. Hume rightly claimed that we perceive not causality but succession, for perception is an empirical apprehension, while causality is an intelligible relation that is not perceived but understood. But when we state that the relations between our conscious operations are given, we are not saying that they are perceived, for perception is of objects, while consciousness is of the subject and his operations and, as we have claimed, the consciously operating subject consciously proceeds from one operation to the next and thereby includes within consciousness the pattern or structure in accord with which the operations are performed, assembled, and rounded off into the unities we name instances of knowing

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First, then, transcendental method is both broader and more fundamental than logic. It is broader, for method includes logic as one of its parts, just as conscious and intentional operations are a genus of which logical operations are a species. It is more fundamental, for the norms expressed by the laws of logic have their prelogical and real ground and principle in the norms immanent and operative in intellectual and rational consciousness.

Secondly, transcendental method derives its basic terms from our conscious and intentional operations, and it derives its basic relations from their pattern or structure. Similarly, special methods, as grounded in transcendental method, derive their additional basic terms from special classes of conscious and intentional operations, and they derive their additional basic relations from the special patterns or structures employed in limited fields of inquiry.

So method is both unified and economical. For knowing method is knowing precisely what one is doing and why one is doing it. To know that is to know one's operations in themselves and in their relations. And such knowledge will be both knowledge of method and knowledge of its basic terms and relations.

A corollary may be added. A reader will be missing the point if he bothers his head about the objective or proper meaning of my words. For my meaning is just an invitation for him to turn to his own experience and to find out there just what it is to sense, perceive, imagine, to inquire, understand, formulate, to reflect, weigh the evidence, judge, to be his own responsible self, evaluate, deliberate, decide, choose. It is in himself that he will find the foundations of the method he is to implement in his own operations.

Secondly, besides the common ground that lies behind irreducible differences, there are the irreducible differences themselves. These consist in an incomplete or unbalanced development, in philosophies that rationalize such incompleteness and onesidedness, and in further philosophies that denounce the philosophic enterprise as de facto or inevitably a failure.