## 1. A Preliminary Notion

Distinguish operational structure, technique, and method.

An operational structure is a normative pattern of recurrent and related operations. There are, then, operations; the operations are distinct; each is related to the others directly or indirectly; the set of relations forms a pattern; and the pattern is recurrent and normative. It is recurrent, for operations in accord with the pattern occur not just once but over and over. It is normative, for it is regarded as the right way of doing things, and other ways ix are ascribed to ignorance or perversity.

An operational structure may be implicit or explicit. It is implicit when advertence to the pattern is not a condition of performing operations in accord with the pattern. It is explicit when advertence to the pattern is a condition of performing the operations in accord with the pattern. Thus, breathing, eating, walking are operational structures, but commonly they are performed without any analysis of the pattern they satisfy or any advertence to that pattern. But techniques and methods have to be discovered, thought out, and some formulated, revised, improved; advertence to the technique or method is a condition of its proper use.

Further, operational structures may be open or closed. A technique is a closed operational structure: the result of its use is known in advance; the result follows automatically from proper use; and it is always the same result that follows. But a method is an open operational structure: the result of its use is discovery, and what is to be discovered is not known advance. Again, in advance; again, the result follows from the use only statistically; the widespread and sustained use of scientific method makes a succession of discoveries not certain but probable. Further, successive applications of

method are cumulative; for they take into account the results of previous applications, and so do not endlessly reparement the same results but keep advancing to ever fuller and more accurate results. Finally, the use of method has a twofold end: its proximate end is some contribution to the advancement of knowledge; but its ultimate goal, which is thought to be indefinitely manual remote, is conceived as the complete explanation of all phenomena.

A method, then, is an open and explicit operational structure or, more fully, a method is an open, explicit, and normative pattern of recurrent and related operations.

It will hardly be amiss to illustrate this definition by appealing to the more obvious features of method in the natural sciences. That method, then, inculcates a spirit of inquiry, and inquiries recur. It insists on accurate observation and description: both observations and descriptions recur. It demands the formulation of discoveries in hypotheses, and hypotheses recur. It requires the deduction of the implications of hypotheses, and deductions recur. It urges that experiments be devised and performed performed to check the implications of hypotheses against observable fact, and such processes of experimentation recur. Manifestly, there are operations; they are distinct; and they recur.

The distinct and recurrent operations are related, and the relations form a pattern. For singly the operations are but parts; together they form a whole; and the it is from the whole that the parts derive their significance and value. If method inculcates a spirit of inquiry, it does not encourage people to ask questions and the never bother about answers. If it insists on observation, it also wants description for, without description, observation is a private affair that lacks precision and is subject to the vagaries of memory. Again, observation and description, unless eventually they lead to discovery, the

merely accumulate insignificant facts. Discovery itself, unless it is formulated in hypothesis, may be a highly satisfactory experience but, like observation without description, cannot be shared by others and lacks clarity and precision. Hypotheses, finally, may be brilliant and entertaining but, untily they are verified, they are not contributions to science. Manifestly, there is a pattern, a rounded whole, whose parts are the distinct operations; and it is only through the partern, only through the appropriate combination of the distinct operations, that the significance and value of a contribution to science is achieved.

This pattern is open. The process of experimentation and verification brings to light data that may or may not square with the implications of the do, hypothesis. In so far as they they reveal that the investigation is not entirely on the wrong track, that something of permanent value may have been attained. In so far as they do not, they lead to a modification of the hypothesis and, in the limit, to new discovery, new hypothesis, new deduction, new experiments. The wheel of method not only turns but also rolls along. The field of observed data keeps broadening. New discoveries are added to old. New hypotheses and theories express not merely the new insights but also all that was valid in the old; and so method dequired not only of acquires its cumulative character but also engenders the conviction that, however remote the goal of complete explanation may be, at least now we are nearer to it than we were.

Finally, the pattern is explicit and normative. It is explicit in far more detail than our summary indications would suggest. It is normative with an imperiousness that tends to deny the validity of any other cognitional procedures and to impose on all if fields of inquiry the procedures that are appropriate in the natural sciences.

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## 2. The Ground of Method

Apprehension of method may go no further than a set of fragmentary slogans; its acceptance may have no better basis than the other-directedness of conventional minds; and then its use will be unresourceful, inflexible, obtuse. The rules of the game will be known and obeyed but, unfortunately, they will not be understood; they will safeguard the prestige and privileges of an in-group, but prevent rather than promote the advance of science.

To seek the ground of method is to seek an understanding of method. It is to try to see why method is just what it is and why it works. If it is an arduous inquiry far easier to point than to undertake, still it is the sovereign remedy against fragmentary apprehension, conventional acceptance, inflexible and unresourceful use; and in any case it is a necessary step if one is to discover and work out a method for hammboung theology.

A general statement of the ground of method is quite simple. Human cognitional activity satisfies an implicit, open, normative pattern of recurrent and related operations. Accordingly, it differs from method as the implicit differs from the explicit and so, to uncover the foundations or ground of method, one has only to make explicit the operational structure implicit in human cognitional activity.

This might be interpreted to mean that the ground of method is a cognitional those theory. Such an interpretation, however, is ambiguous and a description and discussion of so misleading. If by cognitional theory one understands what others have thought about human knowledge, then cognitional theory is only remotely relevant to an account of the ground of method. On the other x hand, if by cognitional theory one understands an acquaintance and familiarity with the operations which one performs oneself when one advances in knowledge.

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Such an explicitation is our immediate task. Obviously it does not consist in recounting and discussimng what others happen to have thought about human knowing. It is a matter of adverting of adverting to the operations of one's own mind, of distinguishing and relating them, of growing familiar with each type of operation and with the web of relations that link them together. It is a task, then, that each has to perform for himself and that no one can perform for him. It is a task that is completed, not when one happens to grasp what Lonergan happens to think, but when one finds out for oneself what happens in one's own mind when one advances in knowledge. Accordingly, the paragraphs that follow are to be read, not so much as the statement of a theory or doctrine, but rather as a set of clues that may prove helpful in the discovery of one's own mind. It is only by that discovery that one will possess for oneself one's own ground of method and one's own understanding of what method is and why it works. For without such selfappropriation and self-possession one is radically other-directed and one's opinions are just sounding brass and tinkling cymbal.

Our set of clues fall, under three headings. First, one has to find in one's own experience what is meant by such general terms as an conscious and intentional operation, subject, object, and introspection. Secondly, one has to advert to the spontaneities and inevitabilities of one's own and to conscious operations, the structure or pattern that they satisfy. Thirdly, in the light of that structure or pattern one has to understand each of his own cognitional operations in their relations to the tracked others.

By performing these three steps one will make explicit what already is implicit in one's own cognitional activities, and so one will reach the ground of method, a ground that one can reject only by rejecting one's own mind.

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The first step was to discover in one's own experience the meaning of such generic terms as conscious and intentional operation, subject, object, and introspection. Here an initial clue is provided by the difference between presence in and presidence to. Presence in has no cognitional connotation.

There are cells present in my body, a table and chairs present in the room, visitors present in the hall. But presence to has a cognitional connotation and, indeed, it has two cuite different connotations which we shall distinguish as intentionality and consciousness.

Intentionality is the presence of objects to a subject: of the spectacle objects of the spectacle of the spectator, of that music to the listener, of thoughts to the thinker, of truths to the man that judges rightly, of objects of choice to the man that deliberates and chooses. Consciousness is presence to the subject (1) of the subject himself, (2) of his operations, and (3) of the connectedness of his operations.

Intentionality and consciousness are concomitant and distinct. They are concomitant, for any intentional operation is conscious and any conscious operation is intentional. They are distinct, for they differ qualitatively and, so to speak, occupy different dimensions of the same operation. Thus, when the spectacle is present to the spectator, the spectator is also present but the to himself, and so too is his gazing; bath former presence to differs from the latter; the spectacle is present as object; the spectator is not part of the object, and yet he is not unconscious; he is present as the one that attends, while the object is present as what is attended to. When music is present to the listener, the listener too is present to himself, and so also is his listening; but though simultaneously present, the listener and listening are no part of the music; their presence is, as it were, in another dimension that in no way obtrudes on the music or distracts from it; it is a presence that is not listened to but listens; and without that presence the music would be only sound-waves in the air and physiological effects upon the ear.

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When objects of thought are present to the thinker, the thinker is present to himself and his thinking too is present to him; but they are present, not as further objects of thought to distract his attention, but as the origin and source whence objects of thought so submissively proceed to be distinguished, compared, combined, related, opposed, dismissed. Similarly, one make might run through the whole list of our apprehensive and appetitive operations to discern in each the concomitance and the distinction of consciousness and intentionality, of subject and object.

Distinct and penem concomitant, consciousness and intentionality are linked by the two bridges of contintuity and introspection. There is the bridge of continuity between the conscious human subject and that the body in which he is incarnate: consciously he may move his fingers, hands, arms; intentionally, he w may watch his moving fingers, hands, arms. There is also the bridge of introspection: it is a shift of attention by which we advert to the data of consciousness. Such adverting is both intentional, but it is of a second order, for it supervenes upon a prior consciousness and intentionality. Second-order consciousness is the presence of the subject to himself as introspecting: see second-order intentionality is of first-order data of consciousness as introspected and so as transformed into objects. In introspection, then, there arises the distinction between the subject as subject and the subject as object. The subject as subject does the introspecting; the subject as object is the same subject, not as introspecting but as introspected, not as adverting but as being adverted to, not as attending but as being attended Finally, if one wishes logical coherence, one will consider our present task of introspecting introspection to pertain to a third-order of consciousness and intentionallity.

However, such logically coherent language is more complex than the simple facts. Whileh one watches a spectacle or listens to music, one is not

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himself as introspecting; second-order intentionality has a second-order object that in a first order is not an object but a datum of consciousness. Similarly, when as at present one introspects introspection, then there is a third-order consciousness and a third-order intentionality. There is a third-order consciousness, for consciously we advert to our adverting to out our operations. There is a third-order intentionality whose third-order object was, in the second order, not an object but the datum of consciousness and that is the introspection being introspected.

Again, it may be felt that introspection of its nature must be too fleeting to yield reliable knowledge. Here the difficulty arises from too summary a view of human knowings. Just what human knowing involves, will occupy us presently. For the man knowing as the data of sence sense stand to a theory in physics or chemistry is, not an instance of human knowing, but a component in an instance of human knowing. Just as sense perception is neither common-sense nor scientific knowledge but only a component in such knowledge, so too introspection yields, not knowledge of our minds, but only the data for such knowledge. Hence, one might as well say that a flash of light or a musical note is too fleeting to yield reliable knowledge,

as to contend that introspection cannot under any circumstances provide the data for an account of our cognitional operations and their structure.

However, our present concern is neither psychological possibility nor the validity of our knowledge but only certain prior matters of fact.

There is the fact of conscious and intentional operations which, as intentional, make objects present to the subject and, as conscious, make the subject as operating present to himself. There Os is the further fact of consciously adverting to oneself and one's conscious operations, and even of consciously adverting to such conscious advertence. The distinction of first, second, and mainly third orders is merely a verbal device to avoid verbal contradictions third orders, while grounded in the fact that introspection supervenes upon prior conscious activity, mainly is a verbal device to ward off litigious accusations of verbal contradiction. The substance of the matter is the difference between consciousness and introspection: we are conscious throughout our waking hours and veven in our dreams; we introspect only occasionally; and unless we already were conscious, we would ye have nothing to introspect.

Such is our first set of clues, and its purpose was to urge the reader to identify in his own inner experience what is meant by subject and object, consciousness and intentionality, operations generally and the operation we named introspection. Others may prefer to name, to use the name, reflexion, where we speak of introspection, and to reserve the name, introspection, for the compound activity that we shall call self-knowledge.

Our second set of clues brings us to this compound activity. It involves a distinction (1) of four levels of conscious and intentional operations and (2) of three operations operators moving us from the first level to the second, from the second to the third, and from the third to the fourth.

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