Chapter 12

Empirical Method in Metaphysics

I

The common reaction against Whitehead's metaphysics is a protest that it is intolerably abstract. What is all this talk about actual entities and prehensions and nexus? Yet Whitehead wrote (PR I 11 i) that in framing these three notions he was trying to base philosophical thought upon what is most concrete! Surely—the reaction runs—the concrete things are the identifiable bodies around us, and all our knowledge is knowledge of the behaviors of identifiable bodies of one sort or another, got by observing them and framing theories about them. A philosophy of actual entities, prehensions, and nexus can only be written by someone who deems himself to have a way of knowing that is superior to the way of science.

A similar reaction, on a smaller scale, could have been made—and was made—to the concept of nature in Whitehead's 1920 books. He elaborated a theory of events, and a theory of various types of objects. But surely the concrete things in nature are neither events as such nor objects as such, but enduring objects whose behavior we can observe! Whitehead
was aware of this view, and criticized it several times.\footnote{A good example, not well enough known, is his criticism (R pp. 53 f.) of the view "that our notions of space merely arise from our endeavours to express the relations of these bodies to each other."} Evidently we have a head-on collision of opinions about what it is that men concretely experience.

Enough has been said in earlier chapters about this collision in the theory of natural science. What is harder to be fully aware of is the sense in which Whitehead’s metaphysical thought can be concrete when he adopts the same procedure there. It really is the same. When explaining it in *Process and Reality* he referred in a footnote to the second chapter of *The Principle of Relativity*.\footnote{He could also have referred to CN i.} There we find such passages as: “... the Tower of London is a particular aspect of the universe in its relation to the banks of the Thames. Thus an entity is an abstraction from the concrete, which in its fullest sense means totality” (R p. 17). The position he took in his metaphysical books is shortly put in the statement, “We experience more than we can analyse,” and the explanation, “For we experience the universe, and we analyse in our consciousness a minute selection of its details” (MT v 3). This doctrine will be familiar from our discussion of Whitehead on abstraction, in Chapter 10. I want to add now, emphatically, that if the doctrine is fully accepted, the terms of any metaphysical scheme constructed in accordance with it will of necessity be intangibles to common sense; and the identifiable bodies of common sense and science will appear as constructs. The ultimates must be intangibles, because whatever is marked out for us by our hands or eyes, and whatever we are conscious of as an individual object in the external world, is an individual only in the special way in which objects of its kind are individuals and/or taken as individuals relative to our particular purposes and our perceptive organs. We must then permit thought rather than sense, thought not limited to particular purposes, to frame the shapes of the metaphysically ultimate entities. Not that anything proposed by thought will
serve; as we know, Whitehead holds that nothing we can propose will be wholly satisfactory. And he is aware of the risks we run in unleashing pure thought. "The speculative methods of metaphysics are dangerous, easily perverted" (Al xx xi). But, "in spite of much association with arbitrary fancifulness and atavistic mysticism, types of Platonic philosophy retain their abiding appeal; they seek the forms in the facts" (PR I ii i). The general form of actuality which Whitehead speculatively defined in that totality of fact, the universe, is the one he named "actual entity."

Well! (it will be said) —If Whitehead wants to call concrete things abstracta and call his intangibles the really concrete things, at least we know that this is not an empiricist approach to metaphysics. Ah, but if we pass that judgment, we must also say that only a crazy empiricism begins with "we experience the universe." And that is not self-evident to Whitehead. He considered the classic doctrine that we experience impressions and ideas a pretty unempirical one. Among empiricisms, Whitehead had most in common with James's; we shall explore this in our next chapter.

Among other empiricisms not of the classic type but held by English-speaking philosophers in the twentieth century, one stands in a particularly enlightening contrast to Whitehead's. The naturalistic empiricism, inspired by Aristotle, that was nourished by F. J. E. Woodbridge at Columbia was meant to be a doctrine for metaphysics. The "empirical metaphysics" which thus arose was not confined to the behaviors of identifiable bodies; its analysis of experience was organized around the subject matters of the various sciences and of types of human activity. In a Symposium, "The Nature of Metaphysics: Its Function, Criteria, and Method," held at a meeting of the American Philosophical Association (Eastern Division) in 1946, one of the three speakers, W. E. Hocking, defended a view which, very roughly speaking, continues the tradition of Plato, Hegel, and Royce; the two others, J. H. Randall, Jr., and Sterling P. Lamprecht, very largely coincided in recommending the position, stemming from Woodbridge,
which I have just mentioned. Professors Randall and Lamprecht have continued the advocacy and practice of this kind of metaphysical analysis, and the former reprinted his contribution to the Symposium of 1946 a dozen years later, in his book, *Nature and Historical Experience.* To me, the papers of 1946 opened up the whole question of "empirical method in metaphysics." In a paper so entitled, read to the same philosophical association at the end of that year as part of a program on Empirical Method, I tried to state the general empiricist ideal and to show how speculation is necessarily involved in its application to metaphysics. I believe the paper brings out as well as I can the reasons why an empiricist should take a Whiteheadian approach to that field rather than approaches which at first sight look more concrete. The remainder of this chapter consists of that paper, with practically no alterations. As I have not tried to remove the polemical edge, it should be noticed that in the passages which criticize "empirical metaphysics" I am criticizing a type of metaphysics, not the complex positions taken by either Professor Lamprecht or Professor Randall; nor could I take account of their later published specimens of metaphysical analysis without disproportionately enlarging this part of my book.

II

We smile when we read that once many German philosophers fell into the habit of asking themselves, "Was ist deutsch?" Perhaps we should smile a little at ourselves as we ponder the question, "What is empirical method?" We are, I think, quite sure that empiricism is a great common bond uniting us, that no nonempirical blood runs through our philosophic veins; and we wish to heighten our conscious-

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8 New York, 1958.
4 Originally published in *Journal of Philosophy, 43* (1946).
5 This was a bit of an overstatement in 1946, and "empiricism" is no
ness of this characteristic, to discuss its implications, and so help ourselves keep true in practice to what we all are in essence. Perhaps we should assume that a genuine empiricism will be off the line of our mental habits, and that nowadays we violate it even when we think we are being most empirical.

This would be but a smug proposal to use words perversely, were the attitude I shall recommend not needed to fulfill a basic ideal of empiricism which we all recognize—the ideal that thought should progressively satisfy experience. "Satisfy" may be too vague a word to satisfy you, but I shall not go into its meaning now. I shall discuss what precedes the verifying process. We often unwittingly hamstring this basic empirical ideal in advance of verification.

To become aware of this, we must first remember that we use ideas, as C. I. Lewis once aptly said, to play a perpetual "animal, vegetable, or mineral?" game with given experience. Now I am reminded that the last time I played this parlor game with my wife, she was thinking of the letters engraved on a silver cup, and in answer to my first question, "Animal, vegetable, or mineral?" she replied, "It's a sort of absence of mineral." Had she been less generous, she might have made no answer, and charged me with a question that was a sheer loss. As the thing she was thinking of was just itself, and not necessarily either animal, vegetable, or mineral, so, empiricism holds, experience is just itself, and is not necessarily isomorphic with any category in our mental stockroom. To assume the contrary is partially to nullify the submission of thought to experience. It is to commit what Whitehead called "The

longer the word of widespread praise which it was then. Nevertheless, I think it is by their appeals to experience (including linguistic experience) that most English-speaking philosophers make their difference from Whitehead known.

Some degree of isomorphism is, of course, presupposed by the possibility of using categories to put questions to experience. But if any set of philosophical categories which man has formulated were predetermined to be completely isomorphic with experience as it is had, empirical testing would be confined to subordinate matters of detail; it would be eliminated from philosophy. And surely the truth is that the repeated empirical testing of ideas concerning details is at the same time a long-range testing
Fallacy of the Perfect Dictionary," which consists in "the belief, the very natural belief, that mankind has consciously entertained all the fundamental ideas which are applicable to its experience," together with the assumption "that human language, in single words or in phrases, explicitly expresses these ideas" (MT p. 235). As I have not time to discuss language, I shall concentrate on the aforementioned "very natural belief," to which the assumption about language is merely a natural supplement.

History shows us that the displacement of old ideas, whether scientific or philosophical, by new ones which achieve a wider and more precise coverage of experience, is a real possibility. This is so obvious in the history of science that it is hard for a scientist to persist unchallenged in the Fallacy of the Perfect Dictionary. But we generally get away with its use as a staple of metaphysical argument. I illustrate by a passage on pluralism, drawn from Hastings' *Encyclopaedia of Religion and Ethics*:-

"If the monads are absolutely separate, it is not obvious how a cosmos can arise; while, if they are inter-related, there is no intelligible sense in which they can be ultimate." 7

Here the phrase, "there is no intelligible sense," should warn us that a conventionally accepted, "intelligible" notion of relatedness is being dogmatically applied to prevent metaphysicians from trying out novel conceptions of individuality. The fallacy is hardest of all to detect when the instrument of its application is not consistency with "intelligible" categories, but fidelity to "the empirical." 8 Yet the history of thought warns us that new ideas which eventually prove most advan-

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7 W. D. Niven, "Good and Evil," Vol. VI, p. 323 (edition of 1914). There is no later edition. It can plausibly be said, however, that this way of thinking is now practised anew in much "Oxford philosophy."

8 I do not wish to suggest a hard and fast distinction between two ways of committing the Fallacy of the Perfect Dictionary. The empiricist sinner, just as much as the rationalist, is proud of pinning philosophy down to "intelligible" categories, universally recognizable and untranscendable.
tageous often, perhaps usually, look queer from an empirical point of view when they are first introduced. Therefore we must carefully examine every restriction which anyone, in the name of empiricism, may propose to place on ideas in advance of the tests of future experience.

III

By way of illustration, let us examine the restrictions implicit in a current view of what constitutes proper empirical procedure for metaphysicians. The procedure recommended is an analytic survey of the various universes of discourse presented by the sciences and by human activities, so as to identify the properties which their subject matters in common present. This will be an analysis of "existence as existence," and our conclusion will be a statement of "the generic traits of existence." Though we generalize as we pass from one universe of discourse to all, we avoid the notion of synthesis, because we believe that we shall lose our empirical purity if we start to talk about "the Whole." When, by our comparative method, we have identified and carefully stated such traits as causality and contingency, structure and process, individuality, or continuity, we have the good sense to accept them, instead of trying to "explain" them. We respect the meanings of ideas in ordinary experience, giving each a chance to be considered the generic meaning, and choosing fairly between them. We become great admirers of Aristotle, and recommend as models those books of his *Metaphysics* in which he did this with such masterly impartiality.

In asking what more may be desired, I do not wish to attack what Messrs. Lamprecht and Randall said at the Symposium on Metaphysics in February, 1946. My concern is not with the complex position taken by any individual, but with what is distinctive of this "empirical metaphysics," and what we shall neglect if we choose to pursue it rather than a speculative metaphysics of experience such as Whitehead's.
Knowledge of the generic traits of existence is rightly much to be desired. My questions concern the method recommended. "Analysis" in the sciences is an application of theoretical concepts to something observable. It is easy for the metaphysician to say that he will analyze, but dare he assume that he has the tools for it in his pocket? That would be the Fallacy of the Perfect Dictionary at its worst. How, then, shall he get those tools? How analyze?

It will be obvious, to begin with, that a sheer survey of diverse universes of discourse will discover no idea which is the same in all of them; we may find the same term employed, but in different senses. Thus no idea, as it appears in our survey, expresses a generic trait of existence; some wider form of it may. The problem is to state that wider form, and is not to be thought of as just the separation of the more general from the less general in our stock of concepts. "Empirical metaphysics" rises to the problem by suggesting a "clarification" of these concepts. I take this to be a process of extrusion and abstraction, by which the hard generic core in any given concept is separated from the indefinite shell of extra meanings which it has in use.

An illustration will let us see how far this gets us. Individuality and continuity, we suspect, are generic traits of existence. We say that a man, a beetle, an experience, an atom, a quality, an element in a mathematical manifold, a universal, a work of art, an act, all have individuality; but in different senses. Clarify, refine each of these senses as much as we please, will the common result of our labors be anything more than the truism that everything mentionable is ipso facto individual? That hardly helps us to conceive the individuality which is a generic trait of existence, or to conceive its generic relation to continuity, which is in the same leaky boat. Shall our generic continuity be that of the mathematicians, which they have fortunately already clarified for us? or the continuity exhibited in the growth of organisms? or of minds? Shall it be the continuity of which Bergson spoke? or that of James, when he said, "Perception changes pulsewise, but the pulses
continue each other and melt their bounds”? Mathematical, biological, and perceptual continuity are not only vastly different: they are not even commensurable at this level of inquiry. We must tackle the status of mathematical forms, and of life, and of perception, in the world. Their status is part of our problem from the start.

Further illustration would be tedious. It is a recognized principle that thought and observation grow but meagerly in the absence of a working hypothesis which embraces the field to be investigated. What reason is there to think that the observing, formulating, and interrelating of the generic traits of existence is any exception to this rule?  

Of course the advocate of “empirical metaphysics” does not take this lying down. He protests that he approves of hypotheses—he merely wants them to be derived from the facts. He strives for interrelatedness, but he will not buy it by supposing that existence forms a single system, a Whole; he sensibly studies existences distributively, and if the result be modest, it is empirically sound. But here he may be a little ahead of the game. Possibly his demand that existences be studied distributively signifies merely a preference for pluralism over monism—a preference I share. But if it implies that their unity is simply that of members of a class, this is empirically a most unwarranted assumption. The physical uni-

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9 Some Problems of Philosophy (New York, 1911), pp. 87 f.

10 It may be objected that I have dealt with “analysis” in but one of its meanings. Another, commonly used when our situation is that of relative ignorance, signifies selective emphasis on some observed trait which, it is hoped, contains a clue to understanding. But as Dewey—from whose How We Think (rev. ed.; Boston, 1933), pp. 127, 157, 197) I take this statement of the second meaning—tells us, the clue is developed by conjecturing the existence of systematic interconnections in the situation. In a highly general problem, this means that, starting from some selected aspect, we construct a general working hypothesis. It does not mean just “clarification,” of the sort whose self-sufficiency I am questioning.

11 This way of putting the matter was employed by both Prof. Lamprecht (Journal of Philosophy, 43 [1946], 397) and Prof. Randall (ibid., p. 406). I think it was unfortunate. Prof. Lamprecht tells me he does not embrace the natural connotation which I proceed to criticize, and I do not suppose Prof. Randall would accept it either.
verse has more unity than that, in the eyes of a physicist; an
organism-environment "transaction," in the eyes of a Deweyite;
the many data of a single experience, to its experiencer. A
purely classical unity is quite hard to discover empirically;
it appears to be an artifact of thought. The outcry about the
Whole drowns out the distinction between togetherness which
is more than classical, and togetherness in a Cosmic Being.
A purely distributive study would cripple the production of
metaphysical ideas adequate to experience, by declaring that
only one favored type of relational concept—the classical—is
worth testing.

As the next item to be considered—the plausible demand
that hypotheses be derived from the facts—is not peculiar to
"empirical metaphysics," I now take my leave of that doctrine,
with the thought that it will never reach the generic traits
of existence so long as it is faithful (as Aristotle was not) to
a method which locks us inside a partitioned mental stock-
room. "Seeing in context" is required not only where Pro-
fessor Randall recommended it—in the metaphysical study
of a specific subject matter—but (in the form of a general
metaphysical hypothesis) in our search for the generic traits
of existence.

IV

Turning to the "derivation" of metaphysical hypotheses
from the facts of experience, we repeat that if the facts meant
are those presented by the various departments of knowledge,
the traits they offer us are too narrow. And we fool ourselves
if we imagine that, upon adding to these what are called "the
data of common experience," we shall have everything we
need. The experience of the woman who lists her occupation
as "housewife" is not as partial as that of a mathematician

12 The formulation of this in twentieth-century metaphysical thought is
well illustrated by Whitehead's concept of a nexus and Samuel Alexander's
concept of compresence.
or a bacteriologist. But it is still partial, in that, from moment to moment, she is consciously preoccupied with the accidents of existence, whereas metaphysics seeks the factors that are always with us. Common experience certainly has an essential place in the construction of metaphysical hypotheses; but we, like the natural scientist, can literally derive generic ideas from it only by reconceiving it—which is not what our empiricists usually have in mind. But unless they have it in mind, they commit the Fallacy of the Perfect Dictionary.

Our empiricists, I think, want metaphysics to use only the sort of method that Francis Bacon proposed for science. But as Galileo reconceived the material world, the truly empirical metaphysician has to reconceive the nature of experience—not just survey what it plainly displays. Unfortunately, and in spite of the lessons to be found in modern philosophy, the belief persists that “experience” should always mean something given, not also something to be conceived. I think this dative view is a half-truth masquerading as the whole, and I should like to dispose of it; but the problem is very complex, and I do not flatter myself that I can dispose of that view now. It will be enough to suggest two of the difficulties in its way.

One is, that the dative view of experience is not open to anyone who holds, as most empiricists today hold (and they are right), that every experience is a natural event. For every natural event has its natural constitution, only a small part of which is dative, if the event be an occasion of experience. Do we take “dative” to mean “given in at least some conscious experience” (especially such as have occurred in laboratories), we still have not reached the integral natural constitution of an experience. That is something which we conceive rather than observe. And in the natural sciences, what a theory offers for verification is in effect an explanation of dative experience as an outcome of experience broadly conceived, so as to include its genetic constitution. In practice many “dative” empiricists unhesitatingly import into their philosophies the novel notions about the constitution of human
experience which have recently been developed in the biological sciences. The original insistence that experience must only be employed datively may deservedly be named "single-track empiricism."

A second defect of the dative view is this: does it not demand that the philosopher give up all distinction between experience and conscious experience, between what is undergone and what is given? But extension of the notion of experience beyond the conscious has proved too valuable to be given up. And our only way of getting at the extended area is by some speculative conception. In fact, every philosopher employs some conception of what occasions of experience generically are. These conceptions should be made explicit.

It may be objected that I would elevate experiences into actual entities, whereas "experience" has usually been employed adjectivally, to signify a context which things acquire. Experience is at least that. But surely if we accept the view than an experience is a natural event, we must also hold that there is such a natural entity as "an experience"—an integrative process possessing its essential constitution.

V

Turning now to a closing consideration of what empirical procedure might be in metaphysics, I should like to ask: If the metaphysician wants to formulate the interrelatedness of generic traits of existence, should he not, like the scientist with his atoms and genes, conceive his existents, not just talk discursively about trait after trait? The tameness and sterility of most current empiricist literature springs largely from its merely adjectival mode of thought—something not remedied by piling adjectives on top of each other.

It may be thought that generic traits are the metaphysician's only possible topic, because his actual entities are presented by everyday life and adequately defined by the various departments of knowledge. Now it is all very well to say that meta-
physics deals only with those tables and animals and actions which everybody perceives; and doubtless this facilitates exposition in the seminar room. But if you grant that “individuality” (for example) applies to these things in different senses, how do you escape determining what it applies to in a basic sense, of which the applications to tables, animals, and actions are special forms reflecting the composite nature and special place of those things in the world? Granted, those things are as real as anything. But we show little respect for their reality if we assume that their mode of existence is completely given to ordinary, mildly interested, human sense-perception. As Whitehead would say, humility before subject-matter demands our utmost efforts of imaginative thought.

As for the different departments of knowledge, each conceives existences in its own way, and none attempts to state the full nature of that existent which is empirically of critical importance: the occasion of experience. No, the metaphysician can not take over anybody else's conception of the existences of this universe. He must sweat that out himself.

He may do it by conceiving of some type of beings or being which is related to our occasions of experience as their source; or, concentrating, to begin with, on those occasions themselves, he may conceive other existences as composed of elements analogous to them (he will then be applying to the universe “descriptive generalizations of experience”—a procedure practiced by Whitehead, and praised by Dewey 14). Each way has its dangers—as what thinking that is of consequence does not? If we choose the second, we must always remember that all occasions of human experience have in common some traits, such as dependence on a nervous system, which are surely not present in all existences. Then, as the chemist had to generalize beyond fire and flame to achieve a theory of combustion, so we have to conceive human perception in a generalized form (such as “prehension,” for example) from which are omitted

all characteristics which there is positive reason to believe are only human or animal. I state this requirement in terms of positive reasons; it would be a great mistake to insist upon the rigid exclusion of traits which "there is no reason to believe" characterize inorganic existence. This customary phrase, "there is no reason" (with the implication that there could be none) expresses a determination to keep one's mind closed, and one's beliefs sensible at all costs; in human intercourse it is the mark of an unimaginative man. Metaphysicians must go on the principle that the human experience-event is in some sense on the same level as all events; but they cannot escape having to use imagination and judgment in applying the principle.

The other way of conceiving existence is illustrated by most concepts of God, by the One, the Idea of the Good, and the Epicurean atoms in their void. The generic traits become the constitution of a necessary being or beings, and the common characteristic of human experiences is but that of a theatre wherein special traits appear as variable effects of the allegedly generic. To state this procedure is to become suspicious of it. Yet it is regularly employed by common sense, and—as the modern theories of the gene and the atom illustrate—in the natural sciences. There, the frequency of the various effects can be analyzed in detail, and the method of difference employed in experimentation. As philosophers do not enjoy these advantages, it is dangerous for them to theorize about sources. But of course they will continue to do so. Many of the scientifically-minded do so today, especially in limited fields where the risks are less: an instance is the type of ethics which conjectures a hypothetical structure of needs, inherent in the animal organism, as the sole source of human conduct.

In metaphysics, the method which thinks of existences as analogous to occasions of experience deserves an empiricist's preference. The mansion it builds is closer to home, yet as large as we can wish: for we can only get at the generic traits of existence, and their interrelatedness, as they come together in our experiences; and any trait or relatedness of traits which
does not exist in the experience-event is, in virtue of that fact, not generic. Furthermore, as experience is essentially a process, this metaphysical method will never picture being as "an everlasting fixture."  

In reality the two modes of thought cannot be kept apart. We all know what happens when a metaphysician conceives the sources of our experiences as having but faint analogy with them. On the other hand, an experience which was not, if only vaguely, of sources, would be a solipsist's experience. Thus in conceiving the typical togetherness of items in an experience, the metaphysician is introducing sources—but in their experiential context.  

I hope that nothing in this chapter will be construed as encouragement to clothe experience in fancy dresses of the sort the post-Kantian German idealists designed. The position taken bases itself rather on the conviction that an experience is a natural event whose nature is only partly bared by scientific investigation. The work recommended is, roughly speaking, a development into a systematic conceptual scheme of the experiential naturalism which Dewey discursively suggested in *Experience and Nature*. It would contrast with "methodological naturalism" (as I call his antimetaphysical exaltation of scientific method). My idea of empirical metaphysics is closest to Whitehead's; but it could be developed in a more naturalistic, less Platonic, way.

What we have to cast off is the habit of supposing that empirical conceptions in philosophy are those which anybody can recognize—merely by chasing speculation out of his head and opening his eyes. Democratic, this notion may sound; but it can nourish neither science nor philosophy. What we require, in advance of the testing of our ideas, is the contrasting notion of arduous *flights toward* the empirical, seeking to penetrate to the essence of experience and more adequately to express it. We enjoy that essence, but nature has not laid it open in our laps.

15 Plato, *Sophist*, 249a (Jowett's trans.).  
16 See Whitehead's strong argument against accepting any other meaning of "togetherness," except as derived from this type: PR II ix ii.