

Whitehead's Revolutionary Concept of Prehension*

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LIKE MOST English philosophers (Bradley being the great exception—corrupted no doubt by Hegel), Whitehead is a pluralist, as were Occam, Locke, Berkeley, Hume, and Bertrand Russell. But these others were *extreme* pluralists, whereas Whitehead's pluralism is strongly qualified. Indeed, in some (to my mind) careless and unfortunate passages he seems, but does not intend, to contradict pluralism.

A pluralist, as I here use the term, conceives the universe as made up of many things—or, to use a more neutral word than things—many *entities*, each of which is definitely distinguishable from every other. In a given part of space-time the number of concrete or actual entities is taken to be a definite finite number. The number throughout space may also be finite. Only time, as G. E. Moore said, need involve an infinite number.

There are two ways of viewing the plurality of entities. One may take the single entities to be things or individuals going through changes. At different moments, one may say, "the same thing" is in different "states." Each of us is an example. But one may also say that each momentary state is a distinguishable reality, different from every other—thus my experience or yours in a small fraction of a second, during which no succession of experiences is detectable. Such an experience or state does not change, for change, in this view, is the succession of states. There is a kind of atomization or quantization of becoming, in agreement with quantum physics. Each state comes to be or is created, and then is displaced from its position as the present or latest state by a new one. Thus becoming or creation is taken as ultimate, and change, which is subtly discontinuous or quantized, is defined through becoming or creation, not becoming or creation through change. In Aristotelian language, it is as though "substantial change," production of new units of reality, were the only kind.

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The Buddhists, who first held this view, spoke of “dependent origination.” Change for Buddhism is the coming to be of new actualities. It is not one entity different at different times, but different entities or single events, one after another. Whitehead takes this view, and may have done so before knowing about Buddhism, which he never cites in this connection. Russell also takes the view, though in an ultrapluralistic or Humean form. This *extremism* of Russell’s pluralism is what most separates him from Whitehead. He lacks, and Whitehead has, the “dependence” or origination, the connectedness of events.

In ordinary life we speak of successive events as states of one changing thing or person provided the states follow one another in certain ways, with certain special relations to their predecessors. Thus each experience of a person normally relates itself, through memory, causal influence, and congruent purpose, to earlier experiences which, partly because of these relations, are regarded as belonging to the same personal series. The other basic reason for so regarding them is the relatedness of the bodily states, some of which are observable by others, though some are intuited more directly by oneself. These states show a high degree of similarity through time. And in seeking causes for a bodily state we tend to go back partly to its predecessors in the mental or bodily series. I am a rather short male person because my bodily states yesterday and fifty years ago exhibited these features. But this sameness is no absolute matter. Had I been fed differently in childhood I might now be inches taller, and had I been treated by certain modern methods I might now be difficult to classify sexually. Thus one’s present states are conditioned not only by one’s past states, but also by what has come into those states from outside one’s own series. Also, in spite of some philosophers, our experiences are not simply identical with any of our bodily states, though there is a kind of overlapping between the humanly mental and the bodily. Identity is too simple a concept for this mind-body relation.

The process view is that causality, not individual identity, is the universal relation to the past. Self-identity is the special case, causality the general principle. To have seen this so long ago is the glory of Buddhism. Reality consists, for precise analysis, of successions of states or events causally related to predecessors, only some of which were in the same individual series. Causality is not stopped at the boundaries of so-called identity. In a special limited form causality is that identity. To say that I am now of a certain height because I have long been of that height is an explanation of my present height only if it means the causal rule that people generally stop growing taller upon reaching a certain age, after which they keep about that height. And the explanation of this rule must be found at least partly in biochemistry, not in the mere sameness of the person.

In short, within a person’s body and mind, or psychophysical system, and between it and the rest of the world, there are many intersecting causal lines. Science simply *has* to think the world in Buddhist-Whiteheadian fashion as a set of causing and caused events, not as a set of interacting, changing things or persons, except as this latter description is taken as shorthand for the more

analytic event-analysis. Whitehead and a few physicists were saying this 60 years ago, and the Buddhists 2000 years ago.

If momentary actualities that become, and whose successive becoming is change, are causally related, what is this relation of causality? By the principle of reasonable anthropomorphism defended in my first Leuven lecture,¹ a principle endorsed by Peirce and Whitehead, also, I think, by Heidegger in his theory of *Dasein*, we must look to our own experience for examples, by *analogy* with which the other actualities in nature are to be understood. Take someone's momentary experience, does it exhibit causality? There are two ways to try to answer this question. The experience might be a *cause* or it might be an *effect*. To see something as a cause is to look to the future for its possible effects, to see something as an effect is to look to the past for its necessary conditions. Science now rejects the Aristotelian notion of causes as simultaneous with their effects.

Before Peirce, Bergson, and Whitehead, the usual procedure was to ask, Is experience a cause of bodily movements? But Hume and others point out that we do not experience anything in the decision to move an arm, for example, that explains why the arm moves as it does. We might have had a stroke such that no decision to move the arm would result in the movement. To see experience as cause of bodily movement does not help us to understand causality. Let us try the other possibility, that experiences are the effects of past conditions. Here there are two clues in experience itself.

1. In all remembering, experience points to past experience as among its causal conditions: If I have just read a telegram with bad news I am now troubled. What troubles me is remembering having, a moment ago, perceived the bad news. Thus in memory previous experience influences present experiences. So experience can be on both sides of the causal relation. Moreover, we remember remembering, and thus the entire relationship can be given in memory. This answers Hume's question, Is there an impression of causality? If by cause is meant necessary condition, the past influencing the present, then in remembering we have what Hume calls for.

2. The other and less obvious clue to causality is perception. When we perceive an event outside the body, the event has already happened. It takes time for a stimulus to reach our bodies and more time for our perception to take place. Thus in perception as in memory we are influenced by the past. Even if the event perceived is inside the body, it is only hypothesis, not known fact, that our perceptual experience is strictly simultaneous with the bodily events perceived. Avoiding the simultaneity hypothesis, we can say that in all experience the data are past events conditioning the experience. We have a theory of givenness that is also a theory of causality.

The doctrine of simultaneity is sometimes defended by the argument: past realities cannot be now given because they no longer exist. In short to be past is

¹"Can We Understand God?" Inaugural Lecture at the University of Louvain, Oct. 4, 1978, published in *Louvain Studies*, 7 (Fall 1978), 75-84.

to be unreal! So history describes unrealities? The argument proves too much. When we speak of the past, are we speaking about nothing? Or about the present only? If past events can influence present events at all, to say they cannot influence present experiences by becoming their data seems wholly arbitrary. And if past events cannot influence present events what is all our science?

The unreality thesis is closely connected with the refusal to analyze things or persons into successive momentary actualities. That Cromwell no longer exists is true *if* that means that the Cromwell sequence of experiences and bodily states had its final members just before he died; it is false if it means that this sequence, thus completed, is now a nothing or a mere fancy or possibility, or anything but a determinate actuality. Changing things or persons can be "destroyed" or killed, but not concrete events and careers, actualities that become and ever after remain the subject of true or false statements. They become, they do not unbecome, debecome, or decome. Ordinary language here supports process philosophy. Bergson was perhaps the first to clearly state the indestructibility of the past, though Peirce somewhat earlier had the idea ("the past is the sum of accomplished facts").

We can now see what Whitehead means by prehension. In its primary or concrete form it is the experiencing of past events, these being necessary conditions of the experience. This concrete form is called "physical prehension." Whitehead also speaks of "mental prehensions" whose data are his "eternal objects." I am in this matter less "Platonic" (if that is the word) than Whitehead, and I think mental prehensions can be included in physical prehensions, taken as involving (a) at least a minimal sense of futurity and (b) at least a minimal sense of contrast, likeness and difference, among the past data prehended. Futurity is, as Aristotle said, potentiality, or as Epicurus put it, a mixture of chance and necessity. The necessity is that the experience must somehow become datum for *some* further experiencing; the chance, or lack of necessity, is the freedom or indeterminacy as to just *how* or in just *what* further experiences this status as datum may be brought about. I have shown elsewhere that the *extent* to which the future is knowable beforehand (that is, approximately or statistically), and the sense in which there is definite truth about it while it is still future, follow logically from the requirement that every event must prehend its predecessors, provided certain aspects of God as prehending and prehended be included among the realities classified as "past" in each given case. Thus in principle prehension is the whole story of causality and freedom. I know of nothing like this extraordinary generalization in the entire history of philosophy previous to Whitehead.

In every experience, though negligibly so on the lowest levels in nature, there is at least something like imagination and inference as well as the sheer having of data. This involves responding to signs, which are prehended in the ordinary perceptual way. On the higher levels, this sign usage becomes what Whitehead calls symbolic "reference." We interpret, verbalize, theorize, make more or less "educated" guesses about what is experienced. This is the *how* of experience

rather than its *what*. In later memories the *how* can become a *what*, that is, itself experienced. Introspection is a reality in this sense. Self-awareness is not, for Whitehead, simultaneous prehension. Ryle seems to agree with this.

Although there is no infallible human way to distinguish in particular cases between what is given from the past and the interpretive *how* with which it is prehended, the concept of givenness or prehension is not dependent on such human infallibility. We have only to admit that to experience something and know that we experienced it are not the same. Infants experience (intuit or feel) their pasts, mental and physical, but scarcely know, in anything like the adult sense of know, that they do so. Prehension can be—indeed, in all non-divine experiences it is—more or less indistinct, lacking in conscious propositional definiteness. But the idea of experience as a sensing or intuiting of its past conditions can be understood all the same. The data of an experience are its necessary past conditions, these being only relatively open to conscious detection, depending on the level of experiencing, the importance of the conditions, and the like. Infants are surely limited in their capacity for self-knowledge, but so are adults; we are all infants by any absolute standard.

Though memory and perception alike involve only past conditions or data, they differ in the portions of the past furnishing these conditions. In memory it is previous experiences in the same personal series that influence present experience. (The role of brain events here, if Bergson is right, is negative, they prevent us from recollecting, revivifying, irrelevant memories; Bergson, unlike most philosophers, takes ‘forgetting’, which covers vastly more of the past than humanly possible recollecting does, as the problem the brain has to solve.)

In perception it is past events not belonging to the same personal series that are influences. These non-personal past events may be regarded either as analogous, however remotely, to human experiences, or as simply not analogous. If as not analogous, they can never be understood, even in principle, as concrete events, but only as at most abstract schema like those of physics. And even this implies some analogy with patterns in the minds of physicists. Since Whitehead wants to understand in principle what it is to be concrete, he affirms the analogy. In consequence, memory and perception have for him a common structure, that of experience as at least with feeling, however negligible any aspect of thought may be, but experience having past experience as its data. These past experiences may be as different from the human as one experience could be from another.

In an experience many past events function as data. An experience is thus a “synthesis,” a new single reality intrinsically related to, partly constituted by, many past realities. In the lucid phrase of Whitehead, “The many become one and are increased by one.” The multiple past produces a single new item which then goes into an enriched multiplicity for further experiencing. This is, so far as I know, an unprecedented theory of creativity. Only vague approximations to it can be found in Buddhism, Peirce, or Bergson.

Each datum is a necessary condition for the experience, but even the totality of conditions does not constitute a “sufficient” reason in the strong sense of

this phrase. The conditions together suffice to make the experience possible, since otherwise it could not occur; but they do not suffice to make it causally necessary or in its concrete singularity predictable. Causes make what happens more or less probable, they do not necessitate it. This is the freedom or creativity of all experiencing. It is not intelligible that a multiplicity could dictate, completely determine, a particular addition to that multiplicity. It may be necessary, indeed it is, that there be some such addition, for it is not an accident that becoming is endlessly, inexhaustibly creative.

The very point of becoming is that the more originates from the less, and the particular addition to the specificity or definiteness of reality cannot be specified or necessitated in advance, for this would be contradictory. Sufficient reason would be thus unreasonable.

When Whitehead calls the "synthesis" which any experience is "creative," he is being redundant, though not without need, considering the amount of talk there has been about psychological determinism. It is no accident that B. F. Skinner, the behaviorist, reduces experience to behavior. Even so, his determinism is open to many objections. Actualization is best conceived as the final step in the process of particularizing the essentially more or less vague potentiality which is futurity, as Aristotle may have been the first to see.

Whitehead finds it convenient to speak at times as though for each item prehended by an experience there is a distinct prehension (perhaps excluding those prehended "negatively" or as irrelevant), or as though an actual entity were a bundle of prehensions. But Whitehead implies that this is only a way of speaking. Actually there is just the one experience, the one synthesis of the many prehended items, a single complex grasping by one momentary subject of many past subjects.

The concept of prehension explains the fact, noted above, that we cannot distinctly intuit the connection between a human decision and its bodily expression. In this philosophy, to be influenced by something is toprehend that something. Hence, if nerve or muscle cells are to be influenced by our mental states, they mustprehend these states. Any prehensions by such minute and in comparison, primitive creatures as cells must be enormously different from ours, and the creatures must be too trifling, taken one by one, to be perceptible by us as distinct items. The whole microstructure of the world, its pervasive structure, is given to us only in a blurred manner. The Greek atomists deserve admiration for their brilliant guess (and it was not merely lucky) that this was so.

That twenty-five centuries of philosophizing occurred before the concept of prehension, which illuminates so many problems, was formulated requires some explanation. The following seem to be assumptions or mental habits, all more or less neutral or easy to fall into, that had to be overcome to make the concept possible and its merits appreciated. I first briefly list the items:

1. Subject-predicate logic and the neglect of relative predicates.
2. Thing-structure vs. event-structure of reality.

3. Common sense and ordinary language (fallacy of the perfect dictionary?)
Suspicion of new concepts.
4. Fascination with symmetry.
5. Three alleged simultaneities: perceiving and perceived, memory and its data, mental events and their bodily conditions.
6. Determinism: the symmetrical view of causal necessity.
7. Hume's axiom: What is distinguishable is separable.
8. Continuous becoming, denial of quanta.
9. Three confusions: the given with the believed or known to be given; the remembered with the believed or known to be remembered; data experienced as apparently single or non-composite with genuinely single things.
10. "Neutral" or non-emotional, sensory qualities.
11. "Inextended" mind and its natural results—dualism, materialism, or skepticism.
12. "Pathetic (anthropomorphic) fallacy."
13. God as unmoved mover knowing the world.
14. Truth as "timeless."
15. Nominalism.
16. Non-intentional, non-modal logic.

Here are sixteen ways of thinking that are more or less obviously unfavorable to the understanding and acceptance of the concept of prehension. They go far to explain why Whitehead's philosophy is even yet not well assimilated—in many circles not even discussed—by the profession. They also furnish a measure of his originality.

Personally I am least satisfied by Whitehead's writings in relation to topic 4 (he was partly fascinated by symmetry himself), and topic 15 (I think he overreacted against ultra-nominalism to an equally exaggerated realism of universals—his "eternal objects"). But he far surpassed all before him so far as items 1, 2, 5, and 8 are concerned. It is the cure for these errors that one could not easily learn from Peirce, Bergson, or the entire history of Western philosophy. The other topics I was on the way to managing more or less well without the help from Whitehead. But with the four errors mentioned one must fall far short of the clarity and coherence of Whitehead's system. Now for some details:

1. A prehension is not specifiable as S is P. One must say, S' is P relative to S'', S''', etc. Traditional logic, and much recent logic, has neglected this point. Thus Russell recognizes only external relations connecting his ultimate singulars, and external relations are only nominally predicates of the externally related terms. Russell, like Aristotle, supposed that the ultimate subjects are only "in" themselves, not in other subjects. On the contrary, the prehended is in the prehendor as its datum.

2. The concrete prehending subjects cannot be things or persons as identical through change; they can only be momentary states, single instances of becoming. In memory it is not A remembering the identical A, it is an

experience remembering earlier, and definitely not identical, experiences. Only an event language can avoid confusion in a theory of relations.

3. Common sense and ordinary language are valid for common purposes and ordinary occasions; their validity for uncommon purposes and extraordinary occasions does not necessarily follow and must be judged in each case. This qualification is itself common sense and is couched in ordinary language. Prehension is the result of trying to answer questions far from common or ordinary concerning the temporal, causal, and logical structures of experience in memory and perception; and in subhuman as well as human creatures. 'Prehension' means 'grasp', and the metaphor vividly suggests the intended meaning. You cannot grasp what is not in being, and you cannotprehend it either. But the entity grasped could be, though you did not grasp it. Thus prehension can be explicated in ordinary terms.

4. Repeatedly philosophers, given a one-way relation, hastily convert it into a symmetrical one. For example, consider the belief that *necessary* past conditions for phenomena are not enough; there must be *sufficient* past conditions. 'Sufficient' here means that the necessity holds both ways. It is as though, wherever P entails Q, the converse entailment must also obtain! Why should events be thus "equivalent" to their successors? A *logic* of mere equivalence would be useless, and so would a world of merely equivalent events. Effects merely "equal" to their causes would be superfluous, since the entire content and value would be there without any effect at all. There must, indeed, for practical purposes be sufficient conditions, but not for what concretely happens, only for certain features of what happens. Or, there must be sufficiently high probability for these features. But strict necessity for the details of events is of no practical use. Probability and more or less abstract features are all that is relevant to our decisions. Prehension as creative synthesis shows why this is all that could be foreseeable. It can also show why in principle so much is foreseeable.

5. The symmetrical relation of simultaneity is logically the wrong relation to explain either perception or memory. For the perceived or remembered should be the independent cause, the perceiving or remembering the dependent effect, and this implies the one-way temporal relation of earlier and later. Also the necessary bodily conditions of experience must be data (however difficult to detect consciously) if they are to influence experience. As Hume unwittingly showed, we have no other means of explaining conditioning.

6. Determinism has been dealt with under 4. It is one of the false symmetries.

7. Hume's axiom is another baseless assertion of symmetry. Events, he said, are distinguishable, therefore mutually separable; either could have occurred though the other did not. But one-way separability is enough for distinguishability. If A prehends B, but B neither prehends nor has any other constitutive relation to A, then they are not identical. In failing to see this Hume committed a classic error, and it tells something about philosophy that I seem to be the first to say all this in plain language. It is amusing that Hume committed

himself also to the other false symmetry of mutual causal necessity in succession. He did not call it necessity, but that is what he means, if anything, by his determinism. It will not do to say that things only happen to conform to strict causal laws, for tomorrow it may happen that they will no longer conform. Indeed Hume has not explained how, with events mutually independent, we can know the past any more than the future. With the clarity of genius he has combined two of the most wrong assertions possible. Prehension eliminates both.

8. If becoming is continuous, then no definite singular subjects for temporal or cognitive relations can be found. The disadvantage of this in Peirce and Bergson are clear enough to some of us. Here it was Peirce and Bergson who made a classic mistake, a rather more subtle one than Hume.

9. Those who deny immediately given data of experience usually argue that such data will not be propositional certainties or securities on which to base knowledge. But the concept of prehension distinguishes between the given and the known to be given; and besides, the function of data is not to provide propositional certainties but to enable the past to *influence* the present and to influence our judgments more or less unconsciously so that there is a probability of their being relevant to situations. Probability is the guide of life; it is also the guide of science and ought to be a central theme of philosophy.

10. My first book was written to justify the theory that sensation is one of the forms of feeling and that the emotional content of sensory qualities is inherent and not a matter of individual associations. The basic argument of the book has not been refuted, though certain faults in the book partly justify its comparative neglect. Only partly; there is still no competitive book dealing with its problem.

11. Once it is conceded that mind is simply non-spatial, the door is open to three sterile theories: *dualism* to explain “inextended” mind and extended reality; *materialism* to get rid of the problem of inextended mind, and *skepticism*, giving up the problem as insoluble. If instead we grant that space is an order of relations and that minds can have these relations, then mind can in principle explain reality. Prehensive relations, Whitehead shows, can constitute space.

12. The only pathetic *fallacy* that is demonstrably so is the attribution of specifically *human* feelings to nonhuman creatures, and the idea of prehension is infinitely more abstract and general than the idea of human feelings. Even an ape does not have human feelings, but clearly there is an analogy. Prehension is the extreme generalization of this analogy. The more imaginative power one has the more sense one can have of the difference between the specifically human and the generic meaning of ‘feeling’. An infant does not have *human* feelings—other than the merely sensory—if ‘human’ means, closely like those of adults.

13. I define the word God as label for the One who is worshipped because regarded as *unsurpassably excellent*. Unsurpassable here does not mean “perfect” in the classical sense of actualizing all possible value. This is

impossible, since there are incompatible values. Nor does unsurpassable mean that nothing can be added to the divine reality or value; it means that there can be no rival to God, since any value actualized by anyone and not already a divine value becomes divine as God's unsurpassable knowledge and love embrace it. To fully know an intrinsic value is to possess it. (And extrinsic values are only potential intrinsic ones.) It follows that God *can* be surpassed, but only by God. The creatures contribute their entire value to God; they enrich the divine life. Here Berdyaev, Whitehead, Tillich, and many others during recent times, agree.

It is deducible from the foregoing that God is "infinite" in whatever sense being infinite is an unsurpassable excellence, and finite in whatever sense being finite is such an excellence. And both senses can be specified. I call this the principle of dual transcendence. It implies that the old negations, intended to protect God from limitations, but themselves crippling limitations, must themselves be limited. I refer to negations forbidding God to be *in any way* finite, *in any way* dependent on others, *in any way* changeable—these are classic examples of how *not* to praise God, since they make deity either a contradiction, or an empty and functionless abstraction. According to dual transcendence, God canprehend, creatively synthesize, each new multiplicity of worldly actualities, and thereby everlastingly enrich the divine life. So prehension applies even to God. It can also explain how God creatively influences the world, as creaturesprehend God's prehensions of them.

There is no contradiction in saying that God is both finite and infinite, for it is a logical truism that 'S is P' and 'S is not P' can be consistent if they apply to S in different respects or aspects. The objection that God must be perfectly "simple," without diversity of aspects, begs the question, for dual transcendence says that God must be unsurpassably simple and unsurpassably complex, though not in the same respect. The simplicity is abstract, the complexity concrete.

14. The notion that all truth is timeless is the ghost of medieval theology. Truth must have all the definiteness of reality, and if all events throughout time are definite for timeless deity or timeless truth, then there is no genuine novelty or creativity at all. Reality is then not in the making but is entirely made. This is open to similar objections as is classical theism. I am not impressed by arguments of logicians for this ancient idea. Peirce, the great logician, rejected it, as did Bergson and Whitehead and still others. The concept of prehension gives it no support. Nor does Tarski's definition of truth require it.

15. Nominalism has two aspects, distinguished by Peirce better than anyone else. It is one thing to say that universals exist—as though the world were populated, so to speak, by particular actualities and also by non-particular actualities. In criticizing this view the nominalists are strong. Whitehead is uncomfortably close to this vulnerable doctrine in his talk of eternal objects, even though he insists that these are only divine concepts. He neglects the argument that degrees of difference and similarity can go far to explain our classifications and descriptions of things without resort to eternal elements

“ingressing” selectively into particulars. Where nominalists go wrong is not in objecting to so realistic a view of universals. Rather it is in not seeing the difference in principle between the past as made up of particulars and the future as (so long as it is still future) without particulars, other than the already actualized ones which any future actuality will have toprehend. The past is a complex of definite particulars, the future is that past as offering a more or less indeterminate potentiality for further prehension; it is a mixture of chance and necessity, as Epicurus brilliantly said. Nothing is more mistaken than the idea that the future consists of particulars we cannot yet see, like railroad stations our train has not reached. The future is the unparticularized-*to-be-somehow*-particularized aspect of reality. The how of particularization is not yet in being, and the truth about the future is that it lacks full particularity until, by ceasing to be future, its particularity gets created. Divine omniscience, unsurpassable by another than God, can, without contradiction, be conceived in these terms, as Socinian theologians showed over three centuries ago.

16. The irreducibly potential and partly *general* character of the future is the extra-linguistic form of modality. The current dogma that modalities are merely linguistic is another classic error. Aristotle knew better, Peirce knew better, Whitehead knew better. They have not been refuted but rather largely ignored, on this point.

Whatever difficulties there may be and there are some, with the prehension concept should not prevent us from seeing how extraordinarily many and grave difficulties it enables us to overcome. It has all the marks of a great idea: originality, range of applicability, definiteness of logical structure. It took a mathematician, an imaginative person, a broadly knowledgeable and most inventive person, to arrive at it.