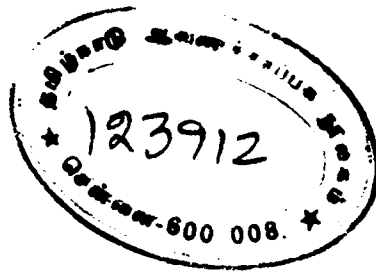


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On the Relationship between Substance and Attribute in Spinoza's Ethics¹

by

JEROME ECKSTEIN
Brooklyn College

Spinoza divides everything which is, either into the class of things which are in themselves, or into the class of things which are in others (Axiom 1.); and all conceptions are divided either into the class of ideas which are conceived through themselves, or into the class of ideas which are conceived through others (Axiom 2).² That which is both in itself, and conceived through itself, is called substance (Def. 3), and that which is both in another, and conceived through another, is called mode or affection (Def. 5). It is important to note at this point—before we understand clearly the meanings of “in itself”, “in another”, “conceived through itself”, and “conceived through another”—that there is the possibility of two other classes of things besides those of substance and mode: the class of those things which are in themselves, but are conceived through others; and the class of those things which are in others, but are conceived through themselves. Spinoza, however, seems to exclude the existence of any classes of things other than mode and substance, when he says, “outside the intellect there is nothing but substances and their affections.” (Prop. 4, demonstr.)

What, then, is the status of attribute?

Attribute is defined (Def. 4.) as “that which the intellect perceives of substance, as if constituting its essence.” No mention

1. The W. H. White translation is used as the text throughout this essay.
2. All references are to the First Part of the *Ethic*, unless otherwise indicated.

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is made as to the ontological or conceptual status of attribute—whether it is in itself or not, or whether it is conceived through itself or through another. One might be inclined to the opinion that attribute is only a redefinition of substance from the point of view of the intellect conceiving it, and that they both denote the same thing.³

Indeed, this view would seem to be supported by one of Spinoza's letters to De Vries (Letter IX).⁴ He writes as follows:

"For the definition as I gave it you, unless I am mistaken, reads as follows: 'By substance I mean that which is in itself and is conceived through itself, that is, whose conception does not involve the conception of some other thing. *I mean the same by attribute, except that it is called attribute with respect to the intellect, which attributes such and such a nature to substance.*' This definition, I say, explains clearly enough what I wish you to understand by *Substance or Attribute*. You, however, wish me to explain by means of an example, which it is very easy to do, how one and the same thing can be called by two names. But not to seem niggardly, I will supply two examples. First, I say that by the name Israel I mean the third Patriarch, I also mean the same Patriarch by the name Jacob, Secondly by plane I mean that which reflects all the rays of light without any change; I mean the same by white, except that it is called white in relation to a man who is looking at the plane (surface)."⁵

Another quotation (Prop. 4, demonstr.) which would indicate that "substance" and "attribute" are to be understood as synonymous, reads as follows: "There is nothing therefore outside the intellect by which a number of things can be distinguished one from another, but *Substance or (which is the same thing by Def. 4) their attributes* and their affections."⁶

Also, it can be seen from Prop. 2 and its demonstration that Spinoza implicitly assumes that substance and attribute denote the

3. The objection may be raised, that in this case substance and attribute do not denote the same thing, but that attribute is somewhere "between" substance and intellect. This point of view, however, raises the following difficult questions, to which, I believe, that no solution can be found in the *Ethic*: According to this scheme, what is the nature of the relationship between substance and attribute? between attribute and intellect? and between substance and intellect?

4. The Wolf translation of Spinoza's letters is used throughout this essay.

5. The italics are mine—J.E.

6. Likewise.

same thing. The proposition states that, "Two substances having different attributes have nothing in common with one another." And the demonstration reads as follows: "This is also evident from Def. 3. For each substance must be in itself and must be conceived through itself, that is to say, the conception of one does not involve the conception of the other." Now, this demonstration is valid only if attribute and substance denote the same thing: Because if attribute were in another or conceived through another, then it would be possible for two attributes, although different from each other, to be in the same thing or conceived through the same thing; and, therefore, two different attributes could have something in common—that they both are in the same thing or conceived through the same thing.

In this way, too, we can understand how Spinoza proves the proposition (Prop. 2) merely by referring to the definition of substance (Def. 3). For if substance and attribute were not identical, then Spinoza would be obliged to demonstrate that two different attributes have nothing in common with one another, before he could demonstrate that two substances which have different attributes could have nothing in common with one another. Now, however, that substance and attribute are understood as being identical, Spinoza is justified in demonstrating a proposition which involves the nature of attribute merely by reference to the nature of substance. All that Spinoza intends to say is, that two substances which are different from each other have absolutely nothing in common with one another. He is only clarifying and developing the meaning of substance; and therefore, he requires as evidence, only the definition of substance. This, he did also in Prop. 1 and its demonstration.

But, why did Spinoza need both the definition of substance and of attribute, when they both denoted the same thing?

To this we reply, that not always in the *Ethic* did Spinoza equate attribute with substance. At times, when he speaks of substance as "possessed" of only one attribute, we must maintain, as a result of the evidence we have brought, that substance and attribute denote the same thing. At other times, however, when he speaks of substance as "containing" more than one attribute, or of an infinite number of attributes, we cannot maintain that substance and attribute denote the same thing—because substance, obviously, denotes more than any one of its attributes. Indeed, since Spinoza concludes that substance "comprises" infinite attributes, we certainly cannot think that the definition of *An* attribute

(Def. 4) denotes the same thing as does the definition of A substance (Def. 3). Consequently, we need both definitions.

We must not think, however, that because substance has these various meanings (one attribute, more than one, and infinite attributes), therefore Spinoza is guilty of inconsistency. We must remember that no mention is made either in the definitions or in the axioms as to how many attributes substance contains. Spinoza is, therefore, obliged to settle this question in the ensuing propositions and demonstrations; and this he does in a very thorough and exhaustive manner. At first, he considers substance as identical with one attribute. From Prop. 1 until Prop. 9, Spinoza never refers to substance as having more than one attribute. He even says (Prop. 8, demonstr.), "Substance which has *Only one Attribute*....." And it is only from this portion of the *Ethic* that we have found evidence in the book towards the view maintaining the identical status of attribute and substance. However, and this is important to stress, the status of substance as developed in these propositions holds true regardless of how many attributes substance is decided to possess. Then, in Propositions 9 and 10, Spinoza speaks of substance as consisting of more than one attribute. He says (Prop. 10, Schol.), "It is very far from being absurd, therefore, to ascribe to one substance a number of attributes....." Here, substance can no longer be equated with one attribute; accordingly, we have, for the first time, propositions whose main concern is the status of attribute rather than that of substance. Finally, after having developed to the fullest extent possible the notion of substance when not considered as consisting of an infinite number of attributes, Spinoza states in Prop. 11, that substance, or God, containing infinite number of attributes necessarily exists. From there on he investigates the nature of God, and concludes that only one substance can exist (Prop. 14). The equation of substance with an attribute is, of course, now impossible.

It is to be stressed that not until Prop. 11 has the existence of substance been "proven," and therefore, all propositions before Prop. 11 were of a "hypothetical" nature—they said that if substance existed then certain consequences would follow. For example, Prop. 2, which reads, "Two substances having different attributes have nothing in common with one another" is to be understood as saying that *If* two substances having different attributes *Existed*, then they would have nothing in common with one

7. Likewise.

another. It was not asserted that two substances actually existed, because this would be in open contradiction with Prop. 14. Also, the demonstration to Prop. 7 would not be valid unless the proposition were understood in a "hypothetical" sense. This becomes evident upon an examination of the proposition and its demonstration, which reads as follows: "Prop. VII. — It pertains to the nature of substance to exist. Demonstr. — There is nothing by which substance can be produced (Corol. Prop. 6). It will therefore be the cause of itself, that is to say (Def. 1), its essence necessarily involves existence, or in other words it pertains to its nature to exist.—Q.E.D." Now, it does not follow that because there is nothing by which substance can be produced, that it produces itself — perhaps substance does not exist at all? Therefore, if this proposition and demonstration is not taken in the "hypothetical" sense, then it is to be understood as claiming to prove the existence of substance; but this it completely fails to do. Consequently, Prop. 7 must be understood as follows: *If* substance existed, then it pertains to the nature of substance to exist; that is, then it exists only by virtue of its own nature and nothing else—then it is the cause of its own existence. In this case, the demonstration is valid.

This interpretation also satisfies the objection raised by some people, namely, why does Spinoza need two propositions—Propositions 7 and 11—to prove the existence of substance? Our reply is, that Prop. 7 does *Not* prove the existence of substance, but only something about the nature of substance; Prop. 11 is the first and only proposition wherein Spinoza "proves" the existence of substance. Certainly, the existence of substance is not asserted either in the definition or in the axioms. Also, it is significant to note, that not only did we find it necessary to interpret Propositions 1–11 as being "hypothetical" with regard to the existence of substance, but these very same propositions also had to be understood as being "hypothetical" or in a developmental process with regard to the amount of attributes possessed by substance. And I believe that each of these "hypothetical" interpretations receives added credence because of the other.

As a result of our interpretation a number of difficulties can be solved. We have already demonstrated that Spinoza needs both the definition of substance and of attribute, because, in the final analysis, they denote different things. Now, too, the examples which Spinoza gave of two names denoting the same thing, in his letter to De Vries, become more meaningful. His first example,

that of the names of Israel and Jacob both denoting the same Patriarch, was indeed, an accurate example; and therefore, it was a true analogy to that portion of the *Ethic* where substance and attribute denoted the same thing. However, his second example is not that of two names denoting the very same thing. For a plane or surface is a thing which has the property of being able to reflect the rays of light; therefore, the plane is completely distinct from the rays of light, and could exist even if there were no rays of light. Whereas, "white", which Spinoza identifies with "plane" or "surface", is what a man sees when looking at the plane. And the rays of light which it reflects—without the rays of light he could not see white. Furthermore, the plane is also capable of reflecting different kinds of light rays, which man perceives as colors different from white. This example, therefore, could only be an analogy to the later conceptions of the relationship between attribute and substance, where substance "contains" more than one attribute, and therefore, where the two do not denote exactly the same thing. Also, it would seem that the proper translation of the definition of attribute ought to read, "as if constituting its (substance's, J.E.) essence" rather than "as constituting its essence." Otherwise, we should be faced with the difficulty that an attribute is but a partial expression of the essence of substance, because it does not express the essential parts of substance which can only be expressed by the other attributes. Another thing that is now possible, is to reply to those who accuse Spinoza of inconsistency because, sometimes he speaks as though more than one substance existed and at other times (Prop. 14) he says that only one substance can exist. To them we say, that the only places where he speaks of "substances" as possibly existing are in the opening propositions (before Prop. 14) where, as a result of our "hypothetical" interpretation, this possibility was a legitimate one. That it followed from the nature of substance that only one substance could exist, was not determined until Prop. 14.⁸

Since Spinoza now understands by substance or God, a Being consisting of infinite attributes, each one of which is conceived through itself (Prop. 10), he is faced with the extremely difficult problem of reconciling the complete separateness of each attribute with the unity of God (Prop. 4, demonstr., Second Part). This

8. Joseph Ratner in his book *Spinoza on God*, Henry Holt and Co., 1930, also interprets the opening propositions with regard to the number of attributes possessed by substance as being in a developmental process, for similar reasons to mine. But otherwise our interpretations are different.

problem is especially difficult if Spinoza simply means by God the sum total of his attributes; in what way can the attributes which are not only conceived through themselves, but are also objectively real (Prop. 10, Schol.; Prop. 19 and demonstr.; Prop. 20 and demonstr.; Prop. 6 and demonstr., Second Part) from the unity of God? And since the attributes do form a unity or whole, does that not require that they (attributes), the parts, have something in common with one another? And, if the attributes do share something in common with one another, then how can it be claimed that each attribute is completely distinct and separate from every other attribute?

Indeed, it can be shown that Spinoza does believe that the various parts of a whole must have something in common with one another. One place where this can be seen is in the demonstration of Prop. 12, where Spinoza, after examining the possibility of two substances with different attributes being parts of one whole, comes to the conclusion that this is impossible, because: "Moreover the parts (Prop. 2) would have nothing in common with their whole, and the whole (Def. 4 and Prop. 10) could be, and could be conceived without its parts, which no one will doubt to be an absurdity." We see that Spinoza refers to Prop. 2 for proof that these parts (substances) could have nothing in common with their whole. But all that Prop. 2 claims is, that "Two substances having different attributes have nothing in common with *One Another*,"⁹ no mention is made of their having nothing in common with their *Whole*. Evidently, Spinoza assumes that if parts have nothing in common with one another, then they can have nothing in common with their whole; and a whole whose parts have nothing in common with it, can not exist, he says, because it leads to absurdity. Consequently, whenever Spinoza posits the existence of a whole, he must also assume that the parts have something in common with one another.

Another indication that the parts of a whole must share something in common with one another, can be found in Spinoza's letter to Oldenburg (XXXII). The letter reads: "With regard to whole and parts, I consider the things as part of some whole, insofar as their natures are mutually adapted so that they are in accord among themselves, as far as possible. . . ."¹⁰

9. The italics are mine—J.E.

10. But, what does it mean to say that the attributes have something in common with one another? Shall we say that what they have in common is that all of them fall under the same logical class of things which are con-

Let us investigate, therefore, the nature of attribute, in order that we may understand how it is possible for the attributes to share something in common with one another and yet be completely distinct from each other. The first point that I wish to stress is, that although each attribute is conceived through itself (Prop. 10), no attribute is in itself. However, before I give any reasons in support of my argument, I wish to note that in order to understand Spinoza, we must take cognizance of what he omitted as well as of what he wrote. Consequently, one of the reasons for my argument is, that Spinoza deemed it worthy to insert a proposition to the effect that attributes are conceived through themselves, but did not inform us—anywhere—that they are in themselves. In fact, he did tell us in what the attributes are—they are in substance. This can be gathered from Prop. 10. Schol., where he says, "since all the attributes which substance possesses were always *In It* together."¹¹

However, the most compelling evidence for me is, that if the attributes were both in and conceived through themselves, then they would all be substances (Def. 2); and this would be in obvious contradiction with Prop. 14, which claims that there can be only one substance. In fact, Prop. 10, Schol., wherein it is said that attributes are in substance, as we have shown before, also says, that although two attributes are conceived through themselves, we cannot thence conclude that they are two substances: obviously, because they are not in themselves.¹²

We shall now examine another phase of the status of attribute. Prop. 9 says, "The more reality or being a thing possesses, the more attributes belong to it." To us, it may sound strange to speak of

ceived through themselves? This, however, cannot be Spinoza's meaning; if it were, then Prop. 2, which says, "Two substances having different attributes have nothing in common with one another," would be false. Because, in the first place, these two substances would both fall under the class of substance. And, if one persisted in maintaining that these two had absolutely nothing in common, then we could reply that they still had something in common—that of being subsumed under the class of things having nothing in common. According to this manner of thinking, no two things can have absolutely nothing in common with one another. Spinoza must, therefore, mean that the attributes share in common something positive in their "external beings," or, in their physical or psychical natures, and not merely a privation or an empty logical form; although, I cannot see how one can ultimately avoid understanding commonality except in a logical sense.

11. The italics are mine—J.E.

12. Likewise.

degrees of reality, of being, of existence; but to the Scholastics it was not strange. They had the concept of an hierarchy of being, ranging from inorganic matter to God. Man, for instance, had more and also a higher kind of being than inorganic matter. Together with the idea of "higher" and "lower" kinds of beings, was associated the idea that each kind of being was distinct and different from every other kind of being. It is not too much to assume that Spinoza was familiar with these concepts. And, it is only by means of this latter concept of completely distinct kinds of beings that I can understand Prop. 9; only if I understand by attribute a certain kind of being completely distinct from all other kinds of beings, can I understand that the more being or reality a thing has—that is, the more kinds of being it has—the more attributes does it possess. Man, for instance, expresses as a mode two kinds of being which are completely distinct from each other—extension and thought.

Perhaps, Spinoza did not believe that one attribute was "higher" than another, but he certainly believed that each was a completely different kind of being than every other attribute. This can be seen clearly in his letter (Letter XXXVI) to John Hudde. It reads as follows:

"But it (the attribute of extension, J.E.) can never be said to be imperfect because it does not think, since nothing of this kind is required of its nature, which consists only in extension, *That is, in a certain kind of being*, in respect of which alone it can be said to be limited or unlimited, imperfect or perfect. And since the nature of God does *Not* consist of a *Certain kind of being but of absolutely unlimited being*, His nature requires *All that Perfectly expresses being*; otherwise his nature would be limited and deficient."¹³

Therefore, everything besides God or substance, expresses only a certain kind of being; the only difference between attribute and mode is, that attribute expresses a certain kind of being purely or perfectly, whereas mode expresses it imperfectly. Since each attribute is completely different from every other attribute, no attribute can produce another attribute (Prop. 3). Consequently, there is nothing inherently impossible or contradictory in the idea of an attribute being both in and conceived in itself—that is, being a substance with only one certain kind of being, one attribute, and where substance and attribute are conceived as identical. In fact,

13. This is also in the neo-Platonic tradition of emanation.

we should be compelled to assert, that if an attribute had independent existence, then its essence would necessarily involve existence; and since it would not be produced by another, it would have to be the cause of itself (Prop. 7 and demonst.). However, since substance with one attribute cannot exist (Propositions 11 and 14)—or, which is the same thing, an attribute cannot have independent existence—all we can say is, that attribute has the “potentiality” of being substance; that is, not only of being conceived through itself, but also of being in itself. I must stress, that by “potentiality” I do not mean that an attribute can ever actually become a substance or be in itself; but I do mean that there is nothing inherent in the nature of the attribute itself (which is not true in the case of modes) which would prevent it from being a substance. An attribute cannot achieve independent existence—that is, become a substance—because Spinoza “proves” the existence of an Infinite Substance, whose nature prevents the establishment of other substances. But if substance did not exist—which can never be, for Spinoza—then an attribute would be qualified for the rank of substance.

This “potentiality” stems from the fact that an attribute is a perfect expression of a certain kind of being which is completely different from every other kind of being. That is also why an attribute is conceived through itself: since it alone perfectly expresses its particular kind of being, no other concept is required to aid us in understanding it; indeed, any other conception would vitiate the pureness, perfection, and distinctiveness of the concept of this kind of being. One may need Substance to explain the existence of attributes—Substance as the cause of the attributes—but one does not need the concept of Substance in order to understand the kind of being expressed by attribute. A mode, however, cannot be conceived through itself; the very thought of a modification of a certain kind of being, involves the concept of that kind of being. The idea of a modification of an attribute, necessarily requires the idea of the attribute. Therefore, a mode has not even the “potentiality” of becoming a substance.

God, however, or substance consisting “of absolutely unlimited being,” necessarily exists; and, “Besides God, no substance can be nor can be conceived.” If we recall, therefore, what has been demonstrated before—that if a whole is posited as existing, then Spinoza assumes that the parts have something in common with one another, and with their whole—then this must also apply to God and his attributes. However, Spinoza says (Letter XXXII),

that he cannot describe how each part of Nature accords with the whole and other parts: “For I said in my preceding letter that I do not know how the parts are really interconnected, and how each part accords with the whole; for to know this it would be necessary to know the whole of Nature and all its parts.” Since, therefore, we do not know all of God’s attributes—we know only of extension and thought—Spinoza could not expect of himself to give a detailed account of the relationship of attribute to attribute, and of attribute to substance. Spinoza was satisfied merely to demonstrate that God necessarily exists, and to leave it to us to deduce that his attributes (parts) shared something in common with one another. He was satisfied merely to demonstrate that only one substance could exist—that there could be only one entity which was both in itself and conceived through itself—and that we should deduce that the attributes although conceived through themselves, could be only in God, and not in themselves. *L1b*

Let us now, however, resume our investigation of the nature of substance or God. Is God only the sum-total of his attributes, or is he something more? I think he is more than the mere sum of his attributes. One of my reasons for holding this view-point is due to something Spinoza said concerning the attribute of extension. He said (Prop. 15, Schol.), that when we consider the nature of the attribute of extension—that is, when it is considered as an infinite essence—then we must say that it is not composed of finite parts and it is unmeasurable; infinite extension must be one and indivisible. However, we should all agree that the essence of finite extension—that is, when extension is expressed as a mode—is, measurability, and being composed of parts. It may seem paradoxical that extension or quantity when raised to the infinite is unmeasurable and not composed of parts, but Spinoza leaves no doubt that such is his meaning. He says, “Nothing can be concluded, excepting that infinite quantity is not measurable, and that it cannot be composed of finite parts.” It is only when infinite quantity or infinite extension is expressed as a mode, that we can measure and discover finite parts. Indeed, we are fortunate that Spinoza spoke of infinite quantity as well as of infinite extension. For when we examine what is meant by God consisting of an infinite *Number* (quantity) of attributes, we can say, now, that it does not mean that God is simply the sum-total of a tremendous number of attributes and is, therefore, composed of finite parts or quantities; we ought to say that God is one and indivisible. For when quantity is raised to the infinite, it is neither measurable nor composed of parts. What Spinoza says concerning infinite exten-

sion—that it “cannot be conceived except as infinite, one and indivisible,”—should apply also to infinite number. God, in his innermost being, is one and indivisible. It is only when according to the laws of his innermost being, his nature is expressed by attributes—similarly to the way in which attributes are expressed in modes—that we conceive each attribute to be completely distinct from every other attribute; but, in God’s innermost being, every kind of being is united into one, indivisible, all-encompassing being. This is no more difficult to understand, than it is how infinite extension is neither measurable nor composed of parts; both ideas are obscure, but they seem to be Spinoza’s meaning.

It is interesting to note, that we have discovered a scale of causation whose form is similar to that used in Cabalistic works,¹⁴ with which we have good reason to assume that Spinoza was familiar. The scale runs as follows: God is in himself, and is conceived through himself; the attributes are conceived through themselves, but are in another; the modes are in another and conceived through another. God is able to “produce” the attributes, although they differ in one respect, because they also have something in common; the attributes are able to produce the modes even though they differ in one respect, because they too have something in common. It is therefore, through the mediating function of the attributes, that Spinoza might solve the problem of how the infinite, one and indivisible God, could have produced the finite, numerous and divisible world of modes.

Indeed, Spinoza seems to imply this, in the following (Prop. 28, Schol.): “Since certain things must have been produced immediately by God, that is to say, those which necessarily follow from His absolute nature; these primary products being the *Mediating* cause for those things which, nevertheless, without God can neither be nor be conceived; it follows, firstly, that of things immediately produced by God He is the proximate cause absolutely, and not in their own kind (in suo genere), as we say; for effects of God can neither be nor be conceived without their cause (Prop. 15, and Corol. Prop. 24).”¹⁵ What are these mediating causes, which are immediately produced from God’s absolute nature? Shall we say they are the finite modes? This cannot be, because Spinoza says in the demonstration to this proposition (Prop. 28) that, “that which is finite and which has a determinate existence could not be

14. The italics are mine—J.E.

15. Likewise.

produced by the absolute nature of any attribute of God,”—let alone, from the absolute nature of God himself. Also, this would be in direct contradiction with Propositions 21, 22 and 23. Shall we then say that the infinite modes are the mediating cause of the finite modes? No; because this would contradict Prop. 22, which says, that only infinite modes can be produced by infinite modes. Our only remaining alternative is to say that the attributes are the mediating causes of the modes; and to this our scale lends support. Also, in the demonstration and Schol. to this proposition Spinoza speaks both of things following from the absolute nature of God, and of things following from the absolute nature of an attribute of God. He refers to the mediating causes which are immediately produced by God solely as things following from the absolute nature of God; this seems to indicate that “things following from the absolute nature of God” denotes something different from “things following from the absolute nature of an attribute of God,” and that the only things following from the absolute nature of God, are attributes.

This latter distinction was intentionally drawn by Spinoza, as is evident from the demonstration to Prop. 32, part of which reads as follows: “The will is only a certain mode of thought, like the intellect, and therefore (Prop. 28) no volition can exist or be determined to action unless it be determined by another cause, and this again by another, and so on *Ad Infinitum*. . . . and if the will be supposed infinite, it must be determined to existence and action by God, *Not in so far as he is substance absolutely infinite, but in so far as he possesses an attribute which expresses the infinite and eternal essence of thought* (Prop. 23).”¹⁶ Spinoza makes it a point to emphasize that even the infinite modes cannot be directly “determined to existence and action” by the absolute nature of God, but only through the absolute nature of an attribute of God. He also indicates, by his reference to Prop. 23, that such was his meaning in that Proposition which reads as follows: “Every mode which exists necessarily and infinitely must necessarily follow either from the absolute nature of some *Attribute* of God, or from some *Attribute* modified by a modification which exists necessarily and infinitely.”¹⁷

However, if we understand that it is the attributes which are the direct effects of God, and which serve as the mediating causes

16. Likewise.

17. Likewise.

of the modes, then we face the difficulty of interpreting the following: "for effects of God can neither be nor be conceived without their cause (Prop. 15 and Corol. Prop. 24)." This would mean then, so it would seem, that attributes are not in themselves nor can they be conceived through themselves. We are happy to grant that attributes are not in themselves, but that they cannot be conceived through themselves, would contradict Prop. 10.

How can we resolve this difficulty? First, let us point out that Spinoza does not say that the effects of God cannot be conceived through themselves, but only that they cannot be conceived without their cause." Secondly, that he refers to Prop. 15, which says, "Whatever is, is in God, and nothing can either be or be conceived without God," as proof of the above quotation (not to the definition of mode, which we would expect him to do, if the mediating causes were modes). Now, part of the demonstration to Prop. 15, depends upon, and refers to, Prop. 14, which says, "Besides God, no substance can be nor can be conceived." Here, too, let us note, it is not claimed that besides God, no substance can be conceived through itself. However, let us go on to examine the demonstration to Prop. 14. Spinoza proves that besides God no substance could be conceived, because, "if any other could be conceived, it would necessarily be conceived as *Existing*, and this (by the first part of this demonstration) is absurd."¹⁸ Consequently, the meaning of Prop. 14 is, that besides God, no substance can be, nor can be conceived *As Existing*; it does not mean that besides God, no substance can be conceived through itself. Obviously, we can have an idea of many different kinds of substances—denoting different kinds of being—and each one of the substances would have to be thought of as being in itself and as being conceived through itself. Consequently, all he means to say is that no substance can be conceived as existing independently of God. God is the cause of everything; and, therefore, nothing—not even the direct effects of God—can be "conceived without their cause," or, "besides God." But, all that "to be conceived through itself" means, as we have said before, is that one conception alone perfectly and completely denotes a certain kind of being—no other conception could possibly add to or subtract anything from this conception, without detracting from the pureness of the kind of being we mean to denote. The kind of being we wish to denote, however, need not necessarily exist. Consequently, since Prop. 15

depends upon Prop. 14, we must interpret Prop. 15 as saying that, whatever is, is in God, and nothing—not only substances, which was the subject-matter of Prop. 14—can either be, or be conceived as existing independently of God. Therefore, when Spinoza says (Prop. 28, Schol.), "for effects of God can neither be nor be conceived without their cause," and refers to Prop. 15 as proof of this statement, we must understand it to mean, that the effects of God can neither be nor be conceived as *Existing* without their cause; and not that they cannot be conceived through themselves. We may now say, without fear of contradiction, that it is the attributes which are the "direct effects of God," and the mediating causes of the modes.

Our approach is similar to the distinction that Spinoza makes, between "*natura naturans*" (God and his attributes), and "*natura naturata*" (the modes). Everything which is, he says, is divided either into "*natura naturans*," or "*natura naturata*." This distinction is made, probably, to enable us to understand how the modes, although finite, are nevertheless in God, and therefore, part of God. In the same manner—in order to make comprehensible, how God is conceived as one and indivisible, and yet each one of his attributes is conceived through itself—do we interpret there to be yet another division in "*natura naturans*." We divide "*natura naturans*" into an upper class, in which we consider God in his innermost being, or his absolute nature, as being one and indivisible, and a lower class, in which we consider God as expressed in his attributes (the direct effects of his absolute nature), each one of which is conceived through itself. All of these classes—two, of "*natura naturans*," and one, of "*natura naturata*"—are parts of Nature, or God.

I believe that the interpretations given in this essay, make Spinoza more consistent, and come closer to his meaning, than do those interpretations which claim that the opening propositions are not an essential part of the *Ethic*, or those interpretations which claim that Spinoza was hopelessly confused in his meanings of attribute and substance. Furthermore, in our interpretation, the aesthetic feeling derived from the geometric form is preserved; whereas for those who claim that the opening propositions are not essential to the main argument of the book, it is destroyed.

18. Likewise.

The Middle Way Re-examined

by

ARCHIE J. BAHM

*Professor of Philosophy, University of New Mexico; Fulbright
Research Scholar in Buddhist Philosophy, University of Rangoon*

The complex thesis of this study is (1) that Gotama was an intelligent fellow, (2) that he discovered a profound principle of human nature, (3) that his principle is philosophical in the sense that it holds true of all men at all times, (4) that, on the one hand, his principle is simple and easy to understand for all who can be led to a clear awareness of it, (5) that, on the other, it is both easy to forget and subtle, elusive, easily misunderstood, (6) that it has been much misunderstood, (7) that it needs to be reunderstood and reappreciated because it has lasting value for the human race, (8) that it deals entirely with "anguish and the stopping of anguish," (9) that his most significant contribution pointed a middle way between extremes of desiring too much and desiring too much stopping of such desiring, (10) that his principle is "psychological" only and hence anti-metaphysical, and (11) that those who have drawn metaphysical implications from it are likely to have been mistaken.

His principle is simply this: desire for what will not be attained ends in frustration; therefore, to stop frustration, stop desiring what will not be attained. But, to stop desiring what will not be attained involves a desire to stop such desiring. In so far as this additional desire is also a desire for what will not be attained, it too ends in frustration. Hence, to stop this additional frustration, one must also stop desiring more stopping of desire than will be attained.

Here a predicament seems to have arisen. To the extent that one desires more than will be attained, no matter whether he simply desires or desires to stop desiring, he will be frustrated. In seeking to avoid frustration, one finds he must be willing to be frustrated as much as he will be frustrated, and also be willing to

be frustrated relative to his desire to stop desiring as much as it will be frustrated. This double-willingness is called the "middle way."

But is not this double-willingness also, in some degree, desire which may be frustrated? Yes. To the extent that one desires to attain the middle way more than he will attain it, he will be frustrated. And this deeper, subtler desire entails both a deeper, subtler frustration and, again, a deeper, subtler desire to stop this desiring. Again one is involved in a second double-willingness, and in another deeper, subtler middle way.

Furthermore, one does not completely escape his grosser desires and frustrations by attending to subtler ones. They too remain, and their remaining entails a still subtler kind of struggle between the grosser and the subtler, between which there is a still much more subtle middle way. (Each such additional level of desire and desire to stop desire is called, or is a basis for what is called, a "jhana.")

The principle, i.e., the middle way, though more complex than mere stopping of desire, is not a different principle, but is merely the same principle applied to itself. Hence, it remains simple, i.e., in the sense that no additional principle is involved. Yet at the same time it becomes very complex (later thinkers, e.g. Hegel, called it "dialectical"), since it requires that both the principle and its opposing reflexive application be kept in mind at the same time. The middle way involves an uneasy balance of attention to both desiring too much and desiring too much stopping of such desiring. The more uneasy this balance, the more it commands attention and arouses desire to keep it steady. Then this interest in this middle way, this steady balance, automatically comes to be desired too much. And between this new too much and the balance of previous too much appears another middle way (second Jhana?). Then a third, a fourth, and so on, each requiring its own act of attention, struggle, and effort at calming. Does this series of stages go on, either in principle or actually, endlessly? One soon learns (here I speculate) that this too is folly—a folly of the same sort. For here one seeks the end of the series, the last step in the middle way, when there is no last step—a final stability on which one can gain leverage for calming all the rest. But here again one is frustrated and finds, again, need for another middle way (another Jhana?).

Whether or not there be other such series, one goes on and on until he realizes that, no matter how far he goes, the principle remains the same as in the beginning—to stop frustration, stop desiring what will not be attained, including stopping desire for more stopping than will be attained. Only when one realizes completely that, to stop frustration, he must want all of what he will get, including all the frustration that he will get, does he achieve all the freedom from frustration that can possibly be achieved.

Arriving at this realization, he shares in a widespread and recurrent conclusion of the wise men of mankind, stated in various languages in different contexts and times: Stoics: "I accept the universe." Calvinistic Christians: "Salvation consists in utter willingness to surrender individual will to the Will of God." Islam: Submission to Will of Allah. Rationalism: Submission to Reason. Romanticism: Submission to impulse; Existentialism: submission to anguish; Bhakti: submission to devotion. Lao-Tsu: Let each thing act according to its own nature (tao) and all will go well. Confucius: "Chih," or automaticness of good will. Contemporary scientific ideals: "Be objective." Contemporary psychology: "Mature personality."

Gotama (like Jesus after him) was a psychologist, not a metaphysician. Consider, for example, his answer to the question, "Is the world eternal?" "That, Potthapada, is a matter on which I have expressed no opinion." (*Dialogues of the Buddha*, Part I, p. 254. Tr. T. W. Rhys Davids, Oxford U. Press, London, 1899, 1923). His response is the same to the other often-debated questions: Is the world finite or infinite? Is the soul the same as the body or are soul and body different? Is there life after death? Or does one both live and not live, or neither live nor not live, after death? But why did he express no opinion? Because "this question is not calculated to profit, is not concerned with the Dhamma, does not redound even to the elements of right conduct, nor to detachment, nor to purification from lusts, nor to quietude, nor to tranquilization of heart, nor to real knowledge, nor to insight, nor to Nirvana. Therefore is it that I express no opinion upon it." "Then what is it that the Exalted One has determined?" "I have expounded what pain (i.e., anguish) is; . . . the origin of pain; . . . the cessation of pain; . . . what is the method by which one may reach the cessation of pain." "And why . . . ?" "Because that . . . is calculated to profit . . ." (*Ibid.*, pp. 254-255).

Here we have a clear statement of the spirit in which he treated all metaphysical questions. It consists simply in a reapplication of his principle to those specific desires for more solution of metaphysical problems than will be attained. Did he deny the existence of the metaphysical? No. "These things do exist and there are those who see them; and consequently he would be wrong in saying they were non-existent merely because he does not see them." (*Further Dialogues of the Buddha*, Vol. II, p. 115. Tr. Lord Chalmers, Oxford U. Press, London, 1927).

Did he deny that metaphysical problems could ever be solved? No. Many solutions had, indeed, been set forth, and some with more merit than others. To deny the possibility of solution would itself involve drawing inferences about the metaphysical, and desiring more certainty regarding the truth of such denial than can reasonably be attained. Did he himself discuss such metaphysical problems? Yes, for when the problems were presented to him by people in anguish about them, he sometimes tried to relieve their anguish by examining the problems with them, partly to gain their confidence that he had a sympathetic grasp of their predicament, and partly as a means of showing that their trouble lay really not in having failed to settle a metaphysical puzzle but in having failed to realize that over-desirousness must yield frustration in this area also.

Hence he was not completely anti-metaphysical, just as he was not completely against eating; he was against frustration, and as much against frustration from desiring too much in the realm of metaphysics as against frustration from desiring too much in the realm of eating. Dogmatists, and those who would be dogmatists, as evidenced by the tenacity of their search, are possessed by "greed for views." To the extent that anyone, in the absence of evidence, is dogmatic, his claiming to have attained more certainty than he has actually attained is an invitation to anguish. Even the desire for more certainty than will be attained, by one who does not yet claim to have attained it, is also conducive to anguish.

Hence whoever would avoid such anguish must remain in doubt, or become a sceptic. Only by being sceptical regarding solutions to problems which he will not solve (or to the extent that he will not solve them), will one be freed from anguish. However, if the avid seeker, accepting this advice to doubt, then doubts with equal avidity, he becomes, in turn, a dogmatic sceptic, "doubt

completely," or an agnostic, "no solution is possible." Going from one extreme to the other, he has then to be cautioned about agnosticism as greed for no view, or greed for the view that there can be no view. Since agnosticism is itself a view, one can as easily be frustrated by over-zealous attachment to it as to its opposite. The middle way, believing neither that one will attain more certainty than he will attain, nor that he will attain less certainty than he will attain, again needs to be sought. But here again too avid seeking for the middle way embodies a more subtle greed which must be rooted out by more subtle efforts, without pursuing such up-rooting greedily, by means of a more subtle middle way. The problem of stopping anguish is sufficiently difficult, complex, and attention-demanding so that anyone who pursues it with diligence will have little time left over for indulging unhappily in metaphysical pursuits.

Godhead in Sāṃkhya

by

KALYANI MALLIK

Is Sāṃkhya theistic or atheistic? To answer this question we must first ascertain what is Sāṃkhya and what is its aim. Sāṃkhya is a philosophical system in which there is a full enumeration and a clear exposition of the principles constituting and causing the Universe. This system is also known as Śānta Brahmayā, as its goal is the realisation of the principles, which include the Śānta Brahma. The means of realisation is termed Yoga, which is therefore a part of Sāṃkhya. The aim and the guiding principle of Sāṃkhya is the extinction of misery. Kapila, the greatest of sages, out of pity for the woes of humanity, expounded this system as a remedy and communicated it to Āsuri. He in his turn instructed Pāṇcāsikha, who put the tenets of the philosophy into aphorisms called "Sūtras", fragments of which are found in the form of quotations in Vyāsa's commentary on Yoga.¹ In these Sūtras the supremacy of the Brahman is clearly expressed, yet there is much speculation on the point whether Sāṃkhya is theistic or atheistic.

Īśvarakṛṣṇa, a disciple most probably of Pāṇcāsikha, was the author of Sāṃkhya Kārikā. This work is an abridgment of Śaṣṭhitantram, which was an exposition of the entire Sāṃkhya system by Pāṇcāsikha, and was so called as it dealt with sixty different subjects. Unfortunately Śaṣṭhitantram is lost to us, but the Kārikā by Īśvarakṛṣṇa is still available. In both the Sūtras and the Kārikās, the theory of extinction of misery is expounded. Our physical and mental constitution is peculiarly liable to misery. It is co-existent with our very existence. So Sāṃkhya has undertaken to eliminate this misery completely by the study of the principles which underlie our finite life. Sāṃkhya says that while pain clings to our finite life, there is also a promise of an existence that transcends finitude, and so leaves behind the shadow of suffering and decay. The method of elimination of misery is systematic introspection.^{1a}

1. *Ibid.*, p. 116.

1a. The Sāṃkhya Sūtras of Pāṇcāsikha and other Ancient Sages, by J. Ghosh, p. 3 ff.

Now the question is, "Does God come in anywhere in this particular philosophy, the aim of which is complete elimination of misery—or is He forsaken, and the end attained without His help?" In the Sāṃkhya system we find that it does not acknowledge One Eternal God as the Creator and the Destroyer; and the idea of a God creating something from nothing is foreign to Sāṃkhya philosophy. Hence we cannot call Sāṃkhya theistic in the ordinary sense. We have to remember that Sāṃkhya is not a theology but a philosophy in the strictest sense, and as such it is concerned with causes and the laws of all phenomena. At the same time, Sāṃkhya does not deny the existence of the Brahman or the Puruṣa, so we cannot call Sāṃkhya atheistic.

One may well ask, if Sāṃkhya is neither theistic in the ordinary sense nor atheistic, what is Sāṃkhya then? We agree here with the late revered Swami Hariharananda Aranya of Madhupore, and call Sāṃkhya non-theistic or Nirīśvara. This does not mean that Sāṃkhya is a Nāstika Darśana. The word Nāstika means those who do not believe in another world or Paralokaḥ, or those who do not admit the authority of the Vedas. The systems which mention Brahman or the Puruṣa, or Vāyu, Agni and Sūrya, but do not mention Īśvara, can be called Nirīśvara.² In the oldest Sāṃkhya Sūtras by Pañcaśikha and other ancient sages, there being no mention of the word Īśvara, Swami has called this system Nirīśvara. As a matter of fact, the word Īśvara is of a later origin; we do not find it also in the ten oldest Upaniṣads.

Sāṃkhya does not deny the existence of God, but says only that whatever there is, from the Almighty to the smallest particle of dust, comes under the twenty-five Principles enumerated in the Sāṃkhya system. Sāṃkhya is based strictly on rational grounds. It traces the course of evolution in the reverse order, starting from the palpable and the complex, and advancing step by step in logical order to principles of increasing generality and simplicity. There is nothing in this system which is beyond human comprehension. Beginning from the five gross elements to the Primal Energy Prakṛti and the Draṣṭā Puruṣa, the categories number twenty-five. Hiranyagarbha, who is the Draṣṭā of the Universe and presides over it, comes under the Principle of Mahat, as He is the Mahān-Ātmā, i.e., the Great Self. And the Puruṣa is the twenty-fifth Principle. Thus Sāṃkhya acknowledges two types of Brahman, the Saguna and the Nirguna.

2. Patanjal Yoga-Darśana. By Hariharananda Aranya, Calcutta University publication, 1938 Ed. p. 441 f.n. (in Bengali).

The Saguna Brahman is an individual, though marked off from other individuals as a Being perfected by Yoga, and is called Hiranyagarbha. And the Nirguna Brahman is the Puruṣa, who is also called the Draṣṭā. In the words of the sacred hymn of R̥gveda "Hiranyagarbha existed in previous cycles and reappearing in the present became the sole Lord of the manifold world."³ By His will the animate and the inanimate objects, that existed in the previous Kalpa or Universe and were submerged, come into existence once more. As such He is the Maker and not the Creator of anything new. But the Nirguna Brahman, unencumbered with the attributes of Divinity, is not concerned with the Universe or its inhabitants. He is the subject who is never the object, and the truth about this Nirguna Brahman or the Puruṣa in isolation was first comprehended by the great sage Kapila.

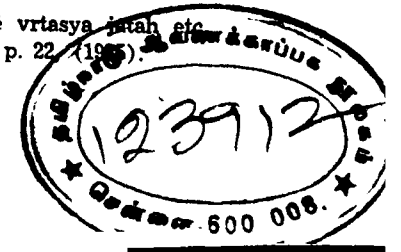
In Sāṃkhya philosophy there is a dualism between this Puruṣa and Prakṛti. Puruṣa is the efficient but immutable cause of all empirical consciousness, and Prakṛti is the primal energy which by its mutations produces all sorts of phenomena. It is to the Prakṛti that all creative powers are assigned; so Prakṛti is the source of our existence. Puruṣa does not produce anything and is like a mirror which receives all images without itself undergoing any change. Thus Puruṣa is known as the Draṣṭā or the passive and disinterested spectator of the evolution of Prakṛti. Prakṛti is nothing but the three Guṇas—Sattva, Rajas and Tamas, which are not qualities but constituent principles.⁴ These three Guṇas are present in every object of the phenomenal world, and the nature of the object is determined by the preponderance of the one or the other of the three guṇas. As different ornaments are made of the same gold, so are the different objects made of the same Prakṛti.

Hiranyagarbha, the Pūrvasiddha's omniscient and omnipotent mind acts upon our minds and causes external sensations, and we get from Him the materials to build our bodies with and to work them according to our Latencies or Saṃskāras. But even omniscience and omnipotence are phenomenal states and undesirable for a Yogi; and Hiranyagarbha being in the penultimate state of Yoga, eventually goes to Kaivalya, which is the Yogi's aim. When Hiranyagarbha attains Kaivalya-mukti, another such being takes his place. There being no measure for the interval of time be-

3. R̥gveda 10-121 Hiranyagarbhah samvavartatapē vṛtasya jatah etc.

4. The Sāṃkhya Cathecism, by V. Brahmachari, p. 22 (1935).

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tween the disappearance of one Hiranyagarbha and the appearance of the next, it may be regarded as a moment. The end of a Kalpa or Universe is Pralaya or submergence, and the beginning of another from it is Sṛṣṭi or emergence. The animate and the inanimate objects like those that existed before (*Sūryācandra-masau dhātā yathāpūrvam akalpayat*⁵) come into existence, and so it has been and will be for ever.

The world being Saguna cannot be the outcome of Nirguna. The very word Nirguna means one who is devoid of attributes; as such Nirguna cannot be the Creator of the Saguna world. Only the Saguna can produce the world, which is Saguna. The Sāṃkhyas, by saying that the world is not the creation of the Nirguna Brahman, do not deny the existence of God.

It is by the *Sāmyoga* of Puruṣa and Prakṛti that we have the phenomenal world. As Puruṣa and Prakṛti are both beginningless and have no cause beyond themselves, they are the causes or Mūlakārāṇas of the Universe. The *Sāmyoga* of Puruṣa and Prakṛti, which are opposite in nature—one being the Knower and the other the Knowable—could not have taken place at any particular time; hence the *Sāmyoga* is regarded as Anādi like the seed and the plant. But the Puruṣa of the Sāṃkhyas, being Eternal and Liberated from time without beginning, is unaffected by worldly affairs. It is the Hiranyagarbha of the Sāṃkhyas who is the omniscient and the omnipotent creator (*sarvavit* and *sarvakartā*).⁶ Sāṃkhya acknowledges such a Saguna Īśvara in the words *Idṛṣaśēśvarasiddhiḥ siddhā*.⁷

It has been mentioned before Sāṃkhya denies the existence of One Eternal and Liberated God as the Creator. Sāṃkhya explicitly states this point in the words *Īśvarāsiddhēḥ*,⁸ meaning thereby that a God who is Anādi and Mukta cannot be the Sṛṣṭā. Yet the opponents of Sāṃkhya quote this very Sūtra to prove that Sāṃkhya is a godless system, which is absurd. If Sāṃkhyas say that the phenomenal world is not the creation of the Nirguna Īśvara, the conclusion does not necessarily follow that the Sāṃkhyas are all atheists.

To prove that Sāṃkhya did not deny the existence of God, we may quote here a lost verse of the Sāṃkhya-Kārikā, which was

5. R̥gveda-Sṛṣṭi—No. 10 Sṛuti; Vṛhadaranayka 1-4-10.

6. Sāṃkhya Sūtra 3-56.

7. Sāṃkhya Sūtra 3-57.

8. Sāṃkhya Sūtra 1-92.

reconstructed by Tilak from the commentaries. The Sāṃkhya Kārikās were known as Ārya-Saptati in Sanskrit, and as Sūvarṇa-Saptati in the Chinese rendering of it by Paramārtha, a Buddhist of the 6th century A.D. In both the texts we get the doctrinal part of Sāṃkhya in 69 verses. Evidently one verse is missing and Tilak's reconstructed verse fills in the gap, thereby rendering the name "Saptati" significant. The missing verse, which should really be the 62nd, runs thus:—

Kāraṇaṃ Īśvaramēke Puruṣam kālaṃ parē svabhāṃvā
Prajāḥ katharṇ nirguṇato vyaktaḥ kālasvabhāvaca.⁹

This means—some say that the (nirguṇa) Īśvara is the cause of the world, some say that the (nirguṇa) Puruṣa is the cause. But how can the Saguna world evolve from either the Nirguna Īśvara or the Puruṣa? Again *kāla* and *svabhāva* are themselves *vyakta* or manifestations, so how can either of them be the Cause? From this verse it is clear that Sāṃkhya did not deny the existence of Nirguna Īśvara or Puruṣa, but did not accept Him as the ultimate cause of the world. Sāṃkhya holds that only Saguna can produce the Saguna world; as such Prakṛti or the three guṇas is the cause, while the Puruṣa is the witness of Prakṛti's mutations. So we may conclude that Sāṃkhya is neither theistic in the ordinary sense, nor atheistic, but non-theistic.

9. Sanskrit Research Vol. I, No. 2, Oct. 1915. Tilak's article, p. 107 ff.

Reality and the Real

by

SHRI S. K. CHATTOPADHYAYA

The Real and Reality are usually taken as synonymous terms. The distinction, if any, can at most be a verbal one—so it is thought. There is no substantial difference, no difference in meaning. This explains why the terms are frequently interchanged. The purport of this paper is to point out that there exists a fundamental difference between these two concepts and that many of our metaphysical disputes may be resolved once we recognise this distinction.

On the question of the nature of the Real (which is taken as the same as reality) we have four principal views, in which the real is taken to be some sort of an existence. Besides these we have the view that it is non-existence. Thus, altogether, we have five types of opinions. To some, it is the 'given', that which is forced upon us, the sensum, sense-datum or pure experience. To another school, the real is the objective, the neutral being, the most important characteristic of which is that it is absolutely independent of the subject or the knowing act. To a third group of philosophers, it is the rational, the superbly conceivable—which is self-consistent and uninfected by any contradiction. To a fourth, the real is the non-contradicted, *abādhita*. Lastly, those, who do not find anything which can be believed to be absolutely 'given,' or 'objective,' or anything which is uninfected by contradiction, or anything that is uncontradictable, take the real to signify the pure negation of any positive existence. The real is to them the void, nothing, or non-being. All these schools identify the real with reality and use the terms interchangeably.

Our case will be that reality is *not the same* as the real. Nor is it a characteristic of the real, the intrinsic quality that makes the real what it is. Nor, again, is reality equivalent to 'being real'. Reality is more basic than the real and is transcendent in the only legitimate sense of the term 'transcendent', viz., it is the absolute precondition of the real.

What is the real and its criterion? What is it 'to be real'? Of late, there have been through the Proceedings of the Indian Philo-

sophical Congress frequent searches for the real, and arduous attempts have been made to fix up a reliable criterion thereof. It has been made to appear as if the real is so very distant an object that to discover it we need a ceaseless 'sifting of evidence' or a transgression to a higher level of reflective thought or mystic experience. This seems to be born of a certain megalomaniac tendency which must fathom the deep to find water and cannot find any upon the surface. But the truth is that the real is not so elusive as our classical philosophers and their overzealous adherents would make us believe. The real is nearest to us, we are surrounded by it. Not only that, we cannot escape it without some sort of a self-contradiction. The real must be taken to mean *that which is believed in and acted upon*. It is that which is not doubted, but unreservedly and *naively* believed in.

That we always believe in something or other and cannot be absolute sceptics without self-contradiction is quite clear. The real is the content of such beliefs. That being so the real is *everywhere* and *always*; there is no space without it, no time which is empty of it. In fact, space and time are the forms in which the believed appears, only these forms are neither capable of *remaining empty* like the Newtonian space and time, nor can these be *thought* as devoid of all contents like the Kantian space and time. Not to believe means to believe in something else, and without a belief to stand upon there can be no withdrawal, partial or total, of belief from some given content.

In respect of this believed content, the real, reason is not a necessary condition. Where it becomes a condition, it becomes an additional condition, a secondary ground. We may believe and also know why we so believe, and in this way get a confirmation of our belief. But a belief is not created by reason—it is not reflective, it is naive, direct, unreserved, absolute and ready. A disbelief requires a reason—it is for some other belief or on account of our believing in something else *that* we disbelieve the suggested or previously believed content. A disbelief is conditional, but not so a belief, and when we know the *why* of a belief this reason does not constitute the primary ground of the belief—it is an appendage. If this is allowed in respect of the real or the believed, the look-out for a criterion seems to be quite meaningless and absurd. It is not by any 'trade mark' that we take the real as real. We take it unreflectively and readily and what we decide later on as to its character is its *nature* and *not* a criterion. Whatever is, or is believed to be, is real so long as it is believed.

That being so, a search for the real is meaningless since the real is what can be met anywhere. The search for the unreal is equally meaningless since it is nowhere to be traced or located.

We may now sum up the points made so far. The real is the believed content so long as believed. Its *is-ness* is its believedness, and this latter is its *nature*. The real is everywhere and always. The unreal is not believed in, and not posited, and so it is no-where to be found. It is not for any reason, provisional or conclusive, that we believe something as real. We believe first and later on look for a *confirmation* which strengthens our original belief but cannot create it. Lastly, where further enlightenment eliminates the original belief and dislodges its content, this enlightenment itself is not capable of creating a new belief, but has to work on the basis of another belief which is naive and not enlightened.

The above may satisfy the unsophisticated but it will fail to convince our philosophers. In the first place, it will be asked: if the real is everywhere and the unreal is no-where, how does the problem of unreality and false appearance arise at all? In the second place, in the absence of a criterion how do we distinguish the real from the unreal? In the third place, if whatever is once believed is real, the distinction between the real of the moment and the ultimately real, between the less real and the more real, between appearance and reality disappears. Our replies to these questions can, however, be short.

The problem of unreality is there not because there exists anything *as* unreal, not because the unreal is there or believed in *as such*, but because the *once* real is not so always. It is not true that there is anything unreal just as there is something real. The unreal is the *ceasing to be* of that which was once real—it is *the real extinguished*. The problem of unreality is thus incidental to the extinction of the heretofore real, its cancellation or its cessation. This extinction takes place by the withdrawal of the belief from it, the belief which made it real. The real-hood of the real is nothing more or less than its believedness. It is the belief which makes the real what it is and its absence kills it.

The distinction between the real and the unreal is not dependent on any criterion. If 'given-ness' be the criterion, or 'objectivity' of the content, then since the unreal, prior to its cancellation, enjoys the self-same characteristic it cannot be distinguished from the real on that ground. Bradley speaks of a criterion whereby he distinguishes the real from what is an appearance, but since the latter is not unreal his criterion is useless so far as the distinction

in question is concerned. The Advaita criterion of non-contradictedness characterises both the real and the illusory till the latter is contradicted and cancelled. That criterion can neither point out the unreal before actual cancellation nor can it assure that what is not contradicted so far will remain uncontradicted for ever. The liability to be contradicted is not dependent on the nature of the given as such. The immunity from contradiction similarly is not enjoyed by anything which appears or is posited as a *content*. What is posited may be negated, but continues to be real so long as the belief which sustains it is not withdrawn. But there is no absolute guarantee that the belief will last for ever. What may remain non-contradicted is pure consciousness, since it is not posited as a content nor is it the specific knowing act which posits any content. But the real in question is a content, and no content has absolute immunity from contradiction.

From the above it will be clear that ultimateness cannot be legitimately predicated of the real. Every real is so, only so long as it is believed, i.e. so long as it is not cancelled. This cancellation is a condition extraneous to the given. The rope cannot cancel the snake-appearance unless it is believed in. It is in being deserted by the belief which once upheld it and which now shelters its rival and asserts it that the snake is cancelled and eaten up by the rope. The circumstance leading to the cancellation of the previously known real is thus extraneous to it. That being so, the real admits of no degrees. Belief has no degrees—what it settles upon is grasped *unreservedly*, and when it withdraws from its content it does so *completely*. Doubting is not a lesser belief, and the dubitable is not a lesser real. It is a separate category.

The real in so far as it is a believed content is not self-conditioned or unconditioned. It is dependent on the belief which posits it, and so in its regard the criterion of being something in itself cannot be asserted. That which is something by itself exclusively, cannot be a *content*—cannot be what is *known* or is believed to be. It cannot be any given, cannot be any object independent or otherwise. Is real then the transcendent condition of all givenness and objectivity—itself ungiven and not a content? If this be so, the given cannot be real in any sense, since there seems to be nothing common to the given objectivity and its transcendental condition. If the one is real, the other cannot be real.

The given objectivity which is believed in so long as it is not cancelled and its transcendent condition are distinct categories altogether. The given, the believed, the objective is not self-

posited. When posited, it stays so long as the belief which sustains it is not withdrawn. This is true of all objectivity. In respect of this category the claim to ultimateness cannot be sustained. Yet so long as no contradiction takes place and the given is not cancelled and an alternative content is not posited in its place, it enjoys a spell of life. It is not *uncontradictable*, and nothing which is posited as a content, nothing that has objectivity, can claim to be absolutely immune from contradiction. In respect of a given objectivity, there always remains the possibility of an alternative objectivity which may dislodge it and eat it up. This is the real in respect of which 'reality' becomes a shifting glow now characterising this content and then again its rival. The category of reality however is very different from this, the real. It is not the same as the real. Nor again is it the character intrinsic to the real. It is not also the beinghood of the real, not the same as 'to be real.' 'To be real' means 'to be believed' and 'posited.' 'To be unreal' means 'to be negated' and 'cancelled.' Reality is the consciousness which posits *this content*, or *some other*, sustains and supports this real, or what dislodges it. It is the *manifesting*, as different from the manifested, and in so far as it is the condition of alternatively appearing objectivities, it is not limited to any and is not contradictable by any of them. The ground on which alternative reals appear and combat one another is itself no party to the conflict and is absolutely immune from conflict and contradiction. *This is Reality*, the transcendent ground of the reals.

Upon this reality, according to one line of thought, are superimposed the given objectivities alternately, and, as a result, these successively appear or figure as real. But it is difficult to believe that there is any agency extraneous to reality as pure consciousness which is accountable for this superimposition. What looks as a superimposition from the side of the given objectivity may be an *emanation* from the side of reality itself. The self-manifesting, self-asserting Light seems to assume phenomenally infinite modes, the beliefs and the believed contents, at any given moment (when the world with its infinite particularities becomes manifested) as also through the whole duration of infinite time (when alternative worlds of real contents successively appear.) The problem of the manifested and the self-manifest (which is also the ground of the dependently manifest) is the problem of the real and Reality, which is akin to the problem of appearances and the Reality.

Vedanta and the Modus Operandi of Paranormal Cognition

by

K. RAMAKRISHNA RAO,
*Lecturer in Philosophy,
Andhra University, Waltair.*

It is commonly believed that the East is the home of occult sciences. Prof. Price has put in a strong plea for a re-examination of the Eastern literature on the subject and for a critical study of supernormal phenomena, which, he believes to be more frequent in the East than in the West.¹ The Western Psychical researches have scientifically demonstrated the existence of such paranormal phenomena as telepathy and clairvoyance, but still the need for a plausible hypothesis to explain paranormal cognition is badly felt. Of the numerous suggestions made by investigators in the field, the hypotheses upheld by Dr. Rhine and Dr. Thouless and Weisner seem to be more satisfactory than those of others. It is surprising that these two theories are, in essence, remarkably similar to the Vedānta theory of perception, which may look odd to superficial students.

According to Rhine, mind can function independently of material body under certain conditions. All our perceptual experiences as far as they relate to the material world are organised into the framework of space. But with regard to extra-sensory perception (ESP), space apparently has no domain, for it has been demonstrated that the distance between the percipient and the agent has no effect either on the success or the failure of the percipient's calls in ESP experiments. Whether the distance between the percipient and the agent is two yards or two hundred miles it made no difference in success, provided other conditions remained unaltered.

Rhine suggests that in view of this strange phenomenon which cannot be explained by the physical sciences, there might well be some other agency which is radically different from these

1. Presidential address to S.P.R., P.S.P.R., Vol. XLV, Part 160.

material agencies. This agency should be something that transcends space and time. Rhine is convinced that mind alone could be the source of these mysterious manifestations.

Rhine goes on to argue that the mind "goes out" to perceive extra-sensorially. It is not that the mind receives the different patterns of stimulation from the objects in order to interpret them, but that the mind or an agency of it "goes out" in order to cognise them paranormally, and it is this "going out" that makes space and time, more or less, ineffective in extra-sensory perception.²

Rhine's suggestion that mind goes out to perceive is similar to the Vedānta theory of perception. The vedāntins maintain that the mind (*antahkaraṇa*) goes out in the process of perception. The mind travels like a beam of light through the sense to the object and takes on the form of the object perceived. This form is called *vṛtti* (mental mode), and generation of a *vṛtti* gives rise to the knowledge of the corresponding object.

Rhine, however, did not anywhere to my knowledge, extend his suggestion (viz. "going out" of mind in extra-sensory perception) to normal sense perception, but, according to vedantins, mind goes out and takes on the form of the object in all sense perception.

The conventional definition of perception as the interpretation of sensory stimuli is fatal to the concept of ESP, since the conventional definition eliminates the possibility of anything being perceptual and at the same time extra-sensory. Rhine's definition of perception as the cognition of the object external to the organism does not suggest anything regarding the *modus operandi* of ordinary perception; and even accepting this definition, one can accept something like the vedānta account of the perceptual process. So it would seem that if at all Rhine's hypothesis can explain ESP, then we may profitably extend it even to ordinary perception, which in fact would amount to an acceptance of the vedānta theory of perception.

Thouless and Weisner put forth a similar hypothesis. Their hypothesis starts from the confirmed similarities between the normal and the paranormal processes, and suggests that these two processes are not radically different, and in either case no unusual entity is operative. Thouless and Weisner assume that there is

2. Extra-sensory Perception by J. B. Rhine (Faber and Faber, London).

some entity which is involved in our processes of volition and perception, and it is not brain or mind. The limited and confused notions of brain and mind do not enable us to explain normal and paranormal processes satisfactorily. So Thouless and Weisner introduce another concept "Shin" (229) to replace mind.

Shin is not very different from soul, but they prefer to call it shin, as the term soul carries a certain connotation, which is partly outside the field of parapsychology. Shin is operative in both normal and paranormal processes. In normal processes sensory stimuli received from the object act on the sensory part of the nervous system and shin is informed by the processes in the nervous system. In the paranormal processes such as clairvoyance, on the other hand, direct connections are established between shin and the object, without the intervention of brain and nervous system in between.³

Thouless and Weisner, however, do not draw the logical conclusion from their argument, and as such fail to touch upon an important implication of their shin theory. They say that the direct contact of shin with the object, without the mediation of brain and nervous system, is the necessary condition of clairvoyant cognition, and that the direct contact of shin with the brain and nervous system other than its own is clairvoyance. Now, it may be asked, how is the percipient's shin able to reach the object, which is outside the body it occupies? The laws of causation do not permit us to assume that the shin sits inside and yet is capable of perceiving the distant objects without any causal connectors in-between. It is evidently impossible for shin to perceive the objects unless the radiating patterns of energy emanating from the object are reflected, without the sensory aid, on the shin, or the shin is assumed to be capable of forcing itself on the objects external to the organism and extending in space, without itself being subjected to the laws of space. The known laws of nature render the first alternative impossible. Hence the only way to make the operations of shin in paranormal processes consistent with the laws of nature is to assume that shin, or a part of it, or an agent of it, goes out to the object to cognise paranormally.

This is essentially the same in content as Rhine's hypothesis. The difference is only the difference in the use of terms, and it

3. "The psi-process in Normal and Para-normal Psychology" by R. H. Thouless and Weisner, P.S.P.R., Vol. XLVIII, Part 174.

may be that Thouless and Weisner are justified in giving currency to the new term, as shin has no previous connotations or philosophical perplexities.

Now, if there is no essential difference between normal and paranormal cognitions (as Thouless and Weisner opine), and if shin theory intrinsically implies that the shin goes out and meets the objects in clairvoyant processes, then why may not we extend this "going out" function of shin to normal perception also?

This is just what the Advaita Vedanta maintains, namely, in all cognitions, whether normal or supernormal, the internal organ, *antahkarana*, goes out and assumes the form of the object. It is a remarkable tribute to the genius of Indian thinkers that their theory, which looked so odd to many till recently, is today found to explain facts much better than many other theories.

Mysticism

by

G. R. MALKANI

Mysticism may be defined as the raising of consciousness to a higher level where it is in direct contact with the Supreme Reality and partakes in the life of that reality. Mysticism so defined can take different forms; and as a matter of fact, it has taken different forms in history. There may be some affinity between these forms. Again, some forms may be subordinate to others and may even lead on to them. If this is so, there must be the highest form beyond which it is not possible to go; and this form must depend upon the *objective nature* of the Supreme Reality, if there is any such thing. The mystic who is in direct contact with the Supreme Reality as it is in itself and partakes in the life of that reality is the mystic who has seen the Truth and has life in the Truth. He is the king among mystics. If mysticism is a genuine experience at all, there must be some way to achieve the status of the king-mystic; for he alone justifies mysticism as a true form of experience.

There is a view that the realization of the Supreme Truth does not involve the intellect in any form and does not involve the raising of consciousness to a higher level. There is some kind of non-intellectual or supra-intellectual intuition which knows the Truth, and knows it simply, without any exaltation or elevation of the inner man. Even if this intuition is possible, which we doubt, we cannot call such realization of the Truth *mystical* in our sense of the term. All we can call it is "mysterious", because it is not open to our intelligence and we do not understand it.

There is another view, according to which, the intuition of the Truth is indeed 'intellectual', but there is no elevation of consciousness in it. It is a matter-of-fact intuition like the one we have in science, where we get to know the truth about things, and any kind of exaltation is purely subjective or psychological, a by-product of the effort of discovery and the consciousness of the uses to which we can put our knowledge. We do not rejoice in the truth. We rejoice in our discovering it and in the social use to which we can put it. By our definition, such intellectual intuition of the Supreme Truth will not be mysticism. It cannot

enthuse us and has no value for our inner life. There is no joy in the Truth. It is a purely intellectual or speculative affair, whatever its value.

A distinction is sometimes made between natural mysticism and supernatural mysticism. It would shock some of us to think that there can be such a thing as natural mysticism. Mysticism cannot be a gift of nature. It is the result of extremely arduous effort of man. Nor can the mystical experience arise in a sort of vacuum and without any contact with some kind of supernatural reality. And yet Rev. R. Antoine, in his paper on "Christian mysticism" published in the "Bulletin of the Ramakrishna Mission Institute of Culture—June 1955", accepts such a thing as natural mysticism, only it is not his mysticism or Christian mysticism which he declares to be supernatural mysticism. But what is natural mysticism? In his words, (1) "natural mysticism tends to suppress the world in order to free the soul from the snares of activity....;" (2) "this radical detachment of natural mysticism is nothing but a supreme attachment to self....;" (3) "the result of natural mysticism is freedom gained by techniques considered infallible and establishing the soul in a motionless fixity..." p. 131. In all this description of natural mysticism, there is no reference to any kind of higher reality. The essence of it is supposed to be withdrawal and non-activity achieved through some kind of technique. And then there is more in it by way of positive disvalue. There is an element of selfishness or a supreme attachment to self. Where do we find such mysticism? Have we any instance of it? May be, it is Hindu mysticism in some form, although the writer does not say so. For, it is a familiar charge of Christians against Hinduism that it is a quietist religion, preferring non-activity to activity; and further that, its notion of salvation is too personal and even selfish, for Hinduism is more interested in the salvation of the individual soul than in the salvation of society or humanity at large. The highest good is not the working out of the plan and the purpose of God for man as such or the establishment of the kingdom of God on earth, but the release of the individual soul from the pain of existence. As to the means whereby the mystical state is attained, the so-called technique has clearly a reference to the yogic way, which involves postures, breathing exercises, exercises in contemplation, etc.

Whether this criticism of Hindu mysticism is justified or not is a different question. We think it is based upon misunderstanding. However that be, natural mysticism will not be mysticism

in our sense of the term; because the mystic is not in direct contact with Supreme Reality in any form. What he achieves is a state of pure passivity, quite negative in character! The faculties of his heart and head may be quite benumbed, for all we know; they are not awakened to a higher reality or life in that reality.

What now is the genuine form of mysticism, according to Rev. Antoine? It is what he calls supernatural mysticism. (1) This mysticism "tends to detach the soul from attachment to the world, thus safeguarding the possibility of future purified activity." (2) "The affective detachment of supernatural mysticism is an absolute welcome given to the Other, an emptying of self to make room for the Other." (3) "The result of supernatural mysticism is the freedom of a conscious instrument abandoning itself, in a surrender of active passivity, to the good pleasure of God". p. 131. The withdrawal of the soul from the world and its enticements is there. But this is the only common ground between natural mysticism and supernatural mysticism. The withdrawal however is only a preliminary step. There is positive activity on a higher level after that. There is self-surrender to God. The self indeed is there; and it has attained freedom. But it is not the freedom to be itself. It is the freedom to abandon itself to the good pleasure of God. The soul has sold itself to God and become the vehicle of the will of God. It accepts God freely, and freely yields to the influence of God. This is its active passivity.

The mysticism in question is understandable. The soul remains intact, but it ceases to be an isolated entity. It is in loving contact with God and partakes in the life of God both through feeling and will. This is supposed to signify healthy objectivity in religious life. But can we say that the soul also *knows* God? That will not be literally the case. It knows God only in a specious or wide sense. It can however be argued that the infinite God cannot after all be known by a finite creature. That is a necessity of God's own nature. But we can know Him and feel Him in love. The more we give ourselves to Him, the more He draws nearer to us, so that we are united to Him in love. We then become *like* God or *made in the image of God*—what is called *sādharmya* in Hindu philosophy. This is all the nearness that we can have to God, and this may be called the knowledge of God. For, although we do not see God—He not being an object to be seen with our eyes—we *feel* God to be a live God. We are absolutely certain about Him. What other knowledge of God can we expect?

This form of mysticism is unexceptionable. It does the least violence to our common experience, and withal adds a higher experience to it which transforms it. We realize the vanity of all things, but not their unreality. The world is real, but it is real in God. We can almost say that God is the one real substance behind it. It is an immanent God. What is certain is that the world is not unreal or illusory or non-existent. It is the living body of a living God. The souls too are not unreal. Every soul makes his own destiny, and his ultimate destiny lies in being united to God in a sort of spiritual marriage. Thus the world is real, the souls are real, and God too is real. This is not the only advantage of this type of mysticism. It is also inclusive. It brings into play every aspect of man's inner and outer being. Man sees with his senses, but he sees only the beauty and the presence of God everywhere. Man has a will, but it is not quiescent. It is active in the service of God. Man has love, but it is no longer directed to the vanities of the world, but to the supreme object of love; for God Himself loves and is nothing but love. We contact the Supreme Reality on all fronts and with the whole of our being. Shall we not say that it is the highest or the integral experience of God, and so mystical experience *par excellence*? Sri Aurobindo, the Vaishnavite saints and Christianity would agree with this view to a greater or less extent. There might be some small differences in detail, but there will be agreement about the main type of mystical experience. The images used by different mystics to stand for the Supreme Reality will differ. Again, some mystics may emphasise will, others devotion, and others again speculative thinking called philosophical knowledge. But all the elements of a man's conscious life go in more or less degree to make the mystic. The general outlines of philosophical thought for all these varieties of mysticism are just the same,—everything is real, and nothing wholly unreal or illusory.

We now contend that all these mystics are just on the path—but they do not know what lies at the end of the path. There is only one type of super-mystic who has reached the end, and he is the one who has literally known the truth, *seen* it. He has seen the Truth and become the Truth. God is for him no longer an external entity with whom he can enter into *human relations*. He has liquidated his own humanity and taken on the divinity of God as his own essential nature by right of being. He alone knows *what it is to be God*. While others enter into relation with God, he enters into the unrelated being of God. God is no longer a distant and in-

accessible God to him. He has found Him in his own Self. He is verily the king-mystic.

All other mystics cherish the soul as an indestructible individual who can enter into various kinds of relations. So long as this individual soul is real, everything is real. If I am real, then the world as given to me is real too. It lends individuality to me. If I am real, then other souls are equally real with whom I find myself in communication. If I, then all this. If I, then you. If I, then God. God is something that is superior to me, greater than I, and transcendent to me. Take this finite "I" away, and you take away the transcendence of God. He ceases to be the Over-soul. The mystic who knows God has taken this final step—he has taken his own finite self away.

If God and man are two individuals, there are bound to be limitations in any God-man relationship. The individual can love God, but only as he loves another individual. He can surrender everything that belongs to him to God, but he cannot surrender his individuality or his very self. God and man will remain apart, give love and take love, but remain separate in their being. The interest of the individual soul will remain *his* interest, not God's interest. God and man will meet more or less as one man meets another in society. The individual self is naturally the centre of selfishness or of isolated life. Self-dedication must necessarily have limitations. Again, the individual will possess a will of his own, however he may use it. But is it not a sign of finitude and of bondage to have an individual will and individual interests? Is not individuality the greatest bondage of all, dividing us from the universal life of God? Under the circumstances, even our disinterested activity will have a trace of self-interest. *Nishkāma karma* in a literal sense, in the absence of complete knowledge of God or knowledge of the complete identity of the Self of man and God, is an impossibility.

It is here that the mysticism of Advaita Vedānta comes in. We must contact the Supreme Reality above all things in knowledge. Love is not a form of knowledge, although it may help towards it. Knowledge is nothing if it is not a matter of a direct and immediate awareness of Reality as it is in itself. It is the contention of Advaita Vedānta that we have an intuition of super-sensible reality in the form of our own real Self. But this intuition in our present state goes with ignorance of the true nature of the Self. A method of knowledge must be found to remove this ignorance. Whatever the method, the Self is the key

On the Mathematical Approach to Philosophy

by

F. J. NORONHA,
University of Mysore.

Modern mathematics contains innumerable ideas which may be applied to philosophy. Whenever the processes of generalisation and abstraction of ideas are applied to a mathematical theory the subject inevitably expands into the domain of philosophy. Striking examples of this are to be found in the modern theories of algebra and topology. Besides, the mathematical concepts of "limit", "continuity" and "infinity," for example, are of considerable importance in philosophy. In this paper I propose to give a few illustrations to show how some mathematical ideas, theories and techniques can be used with advantage in philosophy.

The notion of a "limit" is fundamental in the entire theory of mathematical analysis. It is one of those ideas which, on first acquaintance, appear very simple; but on further examination they prove to be so subtle as to demand a considerable amount of reflection before they can be thoroughly grasped. I shall use two examples to illustrate the mathematical definition of a limit.

First consider two "variables" denoted by the symbols x and y . x will be called independent, as it will be free to assume any value, whereas the value of y at any particular moment will depend on the particular value of x at that moment. y is therefore termed a "function" of x , and for purposes of clarification I shall assume the relationship between the two variables to be given by the equation $y = \frac{x^2 - 4}{x - 2}$.

For every value of x there will be a corresponding value of y except for the value $x = 2$, when both the numerator and the denominator of the expression for y become zero. But although y has no value corresponding to $x = 2$, we find that as x approaches closer and closer to the value 2, y approaches closer and closer to the value 4. The idea of approaching "closer and closer" may be considered as the first approach to the idea of a limit. But the very notion of closeness or proximity is at best relative. The next step towards precision is to say that " y tends to the

to the knowledge of the Supreme Reality or Brahman. This knowledge is replete with all the highest spiritual values conceivable on other planes. Love is there. But it is not the external relation between two entities, which can never wholly surrender each to the other. If God is love, I too must become love. The very logic of love drives me to a final identity where there is no God separate from my Self, and where therefore there is no seeking by God of the individual soul and no seeking by the individual soul of God. Love achieves its complete fulfilment in the bliss of non-duality. Of-course, the lovers will still stick to duality in order to retain their feeling of love and the joys of separation and of union involved in it. They will regard love as an ultimate value for them. But it can be seen that it is no more than a human failing to require a sort of intercourse of love. We are loath to lose our humanity, and so we require the Supreme Reality itself to touch us in a human way. We have humanised this Reality, and we call it God, the Great Object of love, and adopt all kinds of human attitudes towards Him. It is a form of anthropomorphism very dear to us. We are almost afraid of the naked Truth which will oblige us to give up our humanity.

It is not only our affective apparatus that is transformed through the Truth. The same thing happens to our will. Will is an instrument of individuality, and is necessarily dominated by individual ends and purposes, however exalted. Desire in some form is at the back of the will. If this desire, which is a limitation, is liquidated in all its forms, will itself is liquidated. Will is possible only to an ignorant soul. It may be liquidated through suppression and negation. But then the negation itself will remain. No genuine mysticism can be based upon pure negation or Nihilism of any kind. All this is changed when we achieve the freedom from the will through knowledge. Knowledge cuts at the very root of the will. The real Self does not will. It is not an actor. Will is a false assumption of the ignorant individual. The Supreme Self is by nature free. To know this nature is to realize simultaneously all the values that are immanent in the Supreme Reality, and that we seek to realize inadequately and incompletely at different levels and in different forms.

This philosophy of non-dualism, with its own species of mysticism, is clearly opposed to all values of common-sense. When the individual is negated, everything finite is negated with it. The world is illusory, other souls are illusory, even the personal God is illusory. Brahman, the Absolute, alone is the reality. But

then who knows Brahman, and who has the mystical experience? If any-one called the mystic has it, then he at least must be real, and so must be his mystical experience. Do we not then contradict ourselves by saying that Brahman alone is the reality? Either then there are no real mystics and no mystical experience, or Brahman cannot be the sole reality. The philosophy of non-dualism contradicts itself.

We now contend that the Vedantic mystic who knows Brahman becomes Brahman. Thereby he sheds his separateness and his individuality; and although he is there as the basis of the experience in question, his own individuality forms no part of what he knows. Brahman alone is the object of his knowledge. If he could speak, he would certainly claim, on the basis of his knowledge, that his individuality was illusory, and so was the attendant mystical experience. Truth alone survives from this universal negation. There is no question here of any contact with Reality on any front whatsoever. All fronts are abolished and all speech is silenced. When there is Brahman only, who shall know whom, who shall love whom, who shall do the will of whom? The highest form of mystical experience is itself *a way only*, not the goal and the end. The end is beyond mysticism. It is Silence. Knowledge is in this sense the only way to the highest form of mysticism and to Absolute Freedom.

limit 4 as x tends to the value 2 since we can make the difference $y-4$ arbitrarily small in magnitude by making the difference $x-2$ sufficiently small." By expressing the idea of "closeness" in terms of the difference between the two quantities in question we certainly achieve a refinement in ideas, but it still remains to explain what we mean by "arbitrarily small." Here the mathematician imagines himself confronted by an adversary who challenges his statement about the limit. The mathematician then says: "If you deny the truth of my assertion that y tends to the limit 4 as x approaches the value 2, then I invite you to choose any positive number, ϵ , as small as you please. I will then show you that I can make the magnitude of $y-4$ less than your number ϵ by making $x-2$ sufficiently small." Thus by reducing the argument to a comparison between quantities the definition of a limit is brought to its ultimate degree of precision.

As a second example I take the sum

$$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \dots$$

Each term is half the preceding and the terms go on endlessly. Such an expression is called an "Infinite series." It has no sum in the accepted sense, because, however many terms we may add up, there will also be terms left over to be added. But the very definition of a sum may be generalised by using the idea of limit. In this case by successive addition of 2, 3, 4, ... terms, we obtain the "partial sums" $1\frac{1}{2}$, $1\frac{3}{4}$, $1\frac{7}{8}$, ... We can easily see that as we go on adding terms we obtain sums closer and closer to the value 2. In fact by taking a sufficient number of terms we can always make the difference between the sum and the value 2 less than any pre-assigned arbitrarily small quantity ϵ .

This is one example of the philosophic importance of the mathematical idea of a limit, namely, its application to the process of generalisation. We see how the simple idea of an arithmetical sum can be extended to the case where the number of terms is infinite. Another such application is to the case of irrational numbers like the square root of 2, which, though non-existent in the domain of rational numbers or ratios can be approached arbitrarily close by the process of limiting sequences of such numbers.

But from the point of view of philosophy perhaps the most significant aspect of the mathematical limiting process is that it plays the same role in mathematics as that of *idealisation* in philosophical reasoning. In the world of thought we conceive of potential degrees of knowledge, potential degrees of wisdom, of justice,

of beauty—indeed, of innumerable forms of excellence. These degrees may be considered as the values of a variable, and we may proceed from degree to degree towards a limit or an *ideal*, which though perhaps unattainable by human endeavour may yet be clearly conceived and approached arbitrarily close. Almost every type of human activity has an ideal, a dream of perfection, which may be pursued by passing from one degree of excellence to a higher degree within the type. Herein lies a fruitful method of studying the spiritual and psychological phenomena in the life of mankind.

I would like to touch briefly on one of the most important generalisations of modern mathematics—that which leads to the "group" concept. From the simple and oft-quoted arithmetical equation $2+2=4$ we pass through various stages of generalisation and abstraction to consider any class of elements and an associated "rule of combination". We postulate that by applying the rule to any two of the elements we obtain another element of the same class. Besides, the associative property should also hold good and there should be a "null" element which plays the same role as the number zero in addition.

The range of applicability of the mathematical theory of groups appears to be unlimited. It may be applied to phenomena in the world of sights and sounds and emotions. Can colours be combined so that the result of combination is another colour? If so, do such combinations have all the characteristic properties of a group? We may similarly consider shapes, sounds and other vibrational phenomena. We may even apply the group theory to mental phenomena, provided we are clear as to what we mean by these and we have a rule of combination.

Besides the topics which I have touched upon I should like to briefly mention in a general way other points of contact and other avenues along which intercommunication may be established between the domains of mathematics and philosophy. The close affinity that exists between pure mathematics and logic, both formal and abstract in nature, needs no emphasis. To quote the great mathematical philosopher Bertrand Russell, "logic and mathematics differ as boy and man: logic is the youth of mathematics and mathematics is the manhood of logic." The contributions of geometry to philosophy are manifold. Plato found in Euclid's geometry the guide to the logical analysis of all knowledge. Geometry has also suggested the idea of a demonstrative system of absolutely certain philosophical principles.

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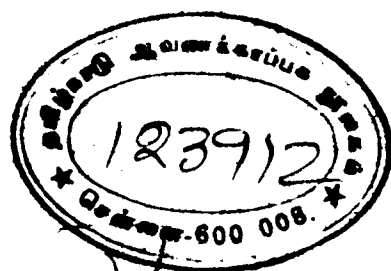
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One of the questions philosophy has to consider is the development of the universe. Does the universe proceed for ever without tending towards anything unattained? This, I understand is the Epicurean view. The mathematical counterpart of this idea is the manner in which an angle increases, assuming in a periodic way a set of finite values.

Again, is space unlimited and immeasurable as conceived by Euclid; or is it immeasurable but limited, the distant parts of any plane being a circle; or is it unlimited but finite, like the surface of a sphere, so that a finite journey along any straight line would bring one back to his original position? These ideas are related to the doctrine of the absolute.

I must now conclude by reiterating the stand I took at the beginning, namely, that mathematics has much to give and receive from philosophy. In this paper I have attempted to show how a "creative interaction" of these two intellectual disciplines can and ought to be developed to their mutual advantage.



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