

LOGICAL EQUIVALENCE, MUTUAL ENTAILMENT AND PHENOMENALISM

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I

Phenomenalism, as the name suggests, favours the phenomena, the given, the appearances as against the noumena, the beyond or the things-in-themselves. It refuses to accept everything that is trans-empirical or transcendental. Based on a very robust kind of empiricist epistemology, it has waged a war, as it were, to make philosophy free from mysticism, obscurantism and transcendentalism. Accordingly it tries to analyse all existence in terms of the given. A material object, for example, which is regarded by some philosophers as an unobservable locus of qualities is analysed by a phenomenalist in terms of sense-data.

Phenomenalism has two chief forms -- the Factual and the Formal or the Linguistic. According to Factual Phenomenalism a physical object is a logical construction of actual and/or possible sense-data. The first explicit formulation of it appeared in J.S. Mill's *An Examination of Sir William Hamilton's Philosophy*. Here he defined matter as nothing but a 'permanent possibility of sensation'.¹ A material object for Mill was, therefore, nothing apart from sensation and/or possibilities thereof.

Linguistic phenomenalism, on the other hand, holds that all statements about material objects can be completely analysed into statements about sense-data. In other words, a physical object statement, according to it, is equivalent to, or reducible to, or translatable into a statement or a set of statements about sense-data. Wolfgang Stegmuller has very nicely put the basic principle of Linguistic Phenomenalism in the following words :

"In the formal mode of speech, the phenomenalist thesis says in effect:
every statement about things (and their processes) is reducible to

statements about sense-data. If we limit our formulation to the physical domain, it may be so stated: any statement about physical objects is *translatable* into statements about sense-data; or statements about physical objects are *synonymous* with statements about sense-data."²

Professor Ayer has expressed the basic formula of the Linguistic Phenomenalism thus:

"... every empirical statement about a physical object, whether it seems to refer to a scientific entity or to an object of the more familiar kind that we normally claim to perceive, is reducible to a statement, or a set of statements, which refer exclusively to sense-data."³

It is to be noted here that phenomenalism is realism and not Subjective Idealism. Hence, according to it, physical objects exist even when they are not perceived. But the unperceived physical objects, too, have to be analysed into sensory terms as per phenomenalist thesis. The sense-data into which they are to be analysed must be possible and not actual, and correspondingly, the sense-datum statements into which the statements about unperceived physical objects are to be analysed have to be hypothetical. As R.J. Hirst puts it :

"...if the object is observed, there will be categorical sense-datum propositions to correspond to the actual data obtained, and, in addition, a larger set of hypothetical ones corresponding to the various data obtainable when observing the object; if the object is not being observed the set will consist wholly of hypothetical propositions."⁴

Ayer, too, avers :

"...the inclusion of possible as well as actual sense-data among the elements of the material things must be taken only to imply a recognition that some of these statements about sense-data will have to be hypothetical."⁵

A phenomenalist (a linguistic phenomenalist) will, therefore, translate the statement 'There is a tree existing unperceived behind my house' into 'If I will go behind my house with my eyes open and in order and the light being sufficient, I will have tree-sensations or tree-sense-data'. Even when an object is being perceived by me, some of the sense-datum statements into which the statement about that object is to be reduced have to be hypothetical, because I

cannot perceive all the sides and all the qualities of the object simultaneously. The linguistic phenomenologists admit the possibility of translating every physical object statement into a set of statements which refer only to sense-data. This programme of the phenomenologists to provide translations for every material object-statement into purely sensory terms is known as the Phenomenalist Programme. Since the Factual Phenomenologists claimed that the material object was the family of sense-data, neither more nor less, the Linguistic Phenomenologists had to admit that the set of sense-datum statements was logically equivalent to material object statement, and that these statements also entailed each other.

But Isaiah Berlin, in his famous essay 'Empirical Propositions and Hypothetical statements'⁶ has argued forcefully that there can be no logical equivalence between the categorical statement about physical object and the hypothetical statement or statements about sense-data. Similarly Professor A.J. Ayer arguing slightly differently in one of his most important works *The Problem of Knowledge* has clearly stated that there cannot exist between the two sorts of statements just mentioned the relation of mutual entailment either. This proves the very idea of translating categorical physical object statement into hypothetical statements about sense-data wrong in principle. And this surely constitutes one of the potent reasons why phenomenism has been declared to have failed. It is to be remembered here that Professor Ayer was once a staunch supporter of phenomenism and his earlier work *The Foundations of Empirical Knowledge* was "widely read as a defence of phenomenism."⁷ But later in *The Problem of Knowledge* he disavowed it and announced unequivocally that the phenomenalist programme could not be carried through. My aim in this paper is to examine Berlin's and Ayer's arguments and to see how far their objections can be met. I don't claim that I have answered them successfully, much less that I have met all the difficulties that phenomenism is beset with. I only consider my present endeavour as no more than a little attempt at restoring a bit the theoretical foundation of phenomenism which seemed to suffer a serious threat in the criticisms of Berlin and Ayer. I shall proceed now by having a brief look at the arguments of the two philosophers and then venture into a critical evaluation of the same in a bid to find some satisfactory replies thereto.

II

Berlin argues that hypothetical and categorical statements are two distinct and logically irreducible types of statements. Categorical statements assert or entail actual existence in a way in which hypothetical ones do not. If someone says that there is a table in the next room or that the clock in the dining room is fast, he is drawing attention to some actually existing state of affairs and is committing himself to an assertion about some actual entity at a given place and time. In the first of these examples he is doing this directly, and, although the second is less direct, even then it does entail the continuing existence of an entity, because it would be absurd to say 'the clock is fast but does not exist'. Hypothetical statements cannot do this kind of job. In other words, categorical existential statements, according to Berlin, tend to 'point' to their 'objects' even though the 'objects' 'pointed' to are not being perceived by any percipient. The hypothetical statements which the phenomenalist advances cannot do this, precisely because their import is logically different. As Prof. Berlin himself remarks :

"Existential propositions expressed categorically - in indicative sentences - tend, as it were, to 'point' towards their 'objects': and demonstratives which appear in existential propositions, like 'this is', 'there is', 'here we have', etc., often function as substitutes for such acts of pointing to things or persons or processes. The characteristic force of the categorical mode of expression is often exactly this - that it acts in lieu of a gesture, of an 'act of ostension'.... But hypotheticals normally do the opposite of this. Hypotheticals, whatever they describe or mean, whatever they entail or convey or evince, in whatever way they are verified, or fail to be verified, do not as a general rule directly assert that something has been, is being, or will be occurring, or existing, or being characterised in some way. This is precisely the force of the conditional mood."⁸

Since the hypothetical statements of the phenomenalist do not commit one to the assertion of existence, the phenomenalist analysis is surely inadequate, and it is this inadequacy which is responsible for the common-sense feeling that something vital is missing from the phenomenalist analysis. The hypotheticals of the phenomenalist only indicate different ways of verifying the truth of a categorical statement. They cannot constitute the meaning of the statement of which they are supposed to be the equivalent.

Prof. A.J. Ayer argues that the relation of mutual entailment cannot hold between a material object statement and a set of sense-data ones, because neither the statements implying the existence of physical objects can be logically deduced from finite sets of statements about sense-data nor can statements about sense-data be so deduced from descriptions of physical reality. The reason why statements about physical objects cannot be logically deduced from finite sets of statements about sense-data is that the occurrence of sense-data is not a sufficient condition for the existence of the relevant physical object, and the reason why the occurrence of sense-data is not a sufficient condition for the existence of the relevant physical object is that illusions are possible and they cannot be eliminated completely though they can be minimised considerably. A person senses an apple visual sense-datum and he thinks that he is seeing a real apple. But he might be having a hallucination. The next moment he has an appropriate tactual sensation in the same place, but this sensation, too, might be hallucinatory. There may be a long chain of sensory evidences in favour of the existence of a physical object, but the possibility of the entire chain being hallucinatory cannot be ruled out. This means that the sense-datum statements may all be true, but the physical object statement might still be false. The statements about physical objects cannot be deduced from a finite set of statements about sense-data also because it is impossible to exhaust all possible sense-data, for they are infinite in number.

On the other hand, the reason why statements about sense-data cannot be logically deduced from statements about physical object is that the existence of a physical object is not a sufficient condition for the occurrence of sense-data. The existence of a physical object can lead to the occurrence of sense-data only when appropriate perceptual conditions hold. Hence, the statement about the physical object can entail statements about sense-data only when it is combined with the statements specifying all the requisite perceptual conditions. But such conditions which relate to observer, his sense-organs, his nervous system, the doctor examining the observer, etc., etc., are infinite in number, and an infinite, by definition, cannot be exhausted. The specification of conditions under the circumstances, will require an infinite number of hypotheticals and will lead to many infinite regresses. Hence a physical object-statement cannot necessarily be followed by statements about sense-data.

Thus it is clear that neither the statements about sense-data entail statements about physical objects, nor do the statements about physical objects entail statements about sense-data. Hence, there is no mutual entailment between the two. This lack of mutual entailment, according to Ayer, is fatal to phenomenalism. And this is one of the main reasons why he disavowed it.

III

Let us now see how far and to what extent Berlin's and Ayer's criticisms can be met. Let us take Berlin's criticism first. The whole gamut of Berlin's argument is that the categorical and hypothetical statements cannot be regarded as logically equivalent because they perform two entirely different jobs. And if the two types of statements are not logically equivalent the one (the categorical) cannot be reduced to the other (the hypothetical). The phenomenologists, therefore, by reducing the categorical statements about physical objects to the hypothetical statements about sense-data makes the hypothetical statement do the job which on account of its very nature it cannot do. But we think this is not strictly correct. Even the hypothetical statements about sense-data perform the same job as is performed by the categorical ones about physical objects. Berlin has argued that the categorical statements perform the act of gesturing or pointing to the objects concerned. But the truth is that the hypothetical statements, too, perform the very same act of gesturing or pointing. For how otherwise can we point to an object which is not being perceived by us? Suppose there is a mango-tree in the backyard of my house. I am not perceiving it. And I want to convince someone about its existence. Now, the question is : How shall I do it? Am I not obliged to say in this situation that 'If I shall go to the backyard of my house, I shall have mango-tree-sense-experiences'? Obviously the function of the hypothetical statement is nothing but to assert that there does exist a mango-tree in the backyard of my house. In all such cases we have no other option but to use a hypothetical statement in order to assert the existence of unperceived objects. We do use hypothetical statements about sense-data for asserting the existence of the physical objects in the same way as we use hypothetical statements about experimental results and people's overt behaviours for asserting the existence of electrons and unconscious feelings respectively. It is wrong to call such a use a 'misuse' or a 'distortion of function', for without such a use we would not be

able to refer to unperceived objects. To use a hypothetical statement about sense-data tantamounts to saying that an unperceived physical object exists. And it is just this that the phenomenologists really intend to emphasize. It appears that Isaiah Berlin in the present controversy is whipping the wrong horse.

As regards Ayer's criticism we have no hesitation in admitting that Ayer's demand of entailment cannot be met in the present context. But this does not demolish the case of phenomenism. Because of the possibility of illusions and hallucinations, and of the impossibility of enumerating the infinite number of actual and/or possible sense-data, it is surely true that a finite set of sense-datum statements cannot entail a physical object statement. And it is also true that on account of the impracticability of specifying the infinite number of possible perceptual conditions a physical object statement cannot entail any sense-datum statement or any set of such statements. But then the point is that such a lack of entailment hardly affects our realistic beliefs about the existence of physical objects of the world. In our practical life whenever there is any doubt about the actual existence of a physical object we undertake just a few tests and get assured. If somebody says that there is a table in the next room, the hearer either takes his word for what he says or he just goes into the next room and sees the table for himself or also touches it and feels satisfied about the actual existence of the table. It is neither possible nor even necessary on the part of the hearer to keep himself eternally engaged in the task of testing the existence of the table in the next room. Thus it appears that even a few checks and tests are sufficient to guarantee the certainty of empirical statements. There may not be any mutual entailment in the strict sense between the sense-datum statement or statements on the one hand and the physical object statement on the other, but that has never affected our knowledge of the things of the world. For, otherwise our very living in the world would have been altogether impossible.

NOTES

1. J. S. Mill. *An Examination of Sir William Hamilton's Philosophy*. London, Longmans, Green, and Co., 1889, p. 233.

2. Wolfgang Stegmüller. *Collected Papers on Epistemology, Philosophy of Science and History of Philosophy*. Vol. I. D. Reidel Publishing Company. Dordrecht-Holland/Boston-U.S.A. 1977, pp. 165-166.
3. A.J. Ayer. *The Problem of Knowledge*. Penguin Books Ltd., Harmondsworth, Middlesex, England, 1964, p. 118.
4. R.J. Hirst. *The Problems of Perception*. George Allen and Unwin Ltd., London, 1959, p. 81.
5. A.J. Ayer. *The Foundations of Empirical Knowledge*, Macmillan & Co. Ltd., London, 1962, p. 232.
6. *Mind*. Vol. 59, 1950.
7. John Passmore. *A Hundred Years of Philosophy*. Gerald Duckworth & Co. Ltd., London, 1962, p. 390.
8. 'Empirical Propositions and Hypothetical Statements' in *Mind*. Vol. 59, 1950, p. 299.