

RELATION OF BODY-MIND STATEMENTS

Ever since Descartes introduced in Modern Philosophy the dualism of body and mind with their mutually exclusive characteristics of extension and consciousness, the problem of their interrelation has occupied the minds of almost all the Philosophers following Descartes. In the light of its analytic nature the contemporary philosophy also has engaged itself with the problem of body-mind relation. But here, to anticipate, the nature of this relation is more logical than causal, concerned more with the logical relation between body-statements and the mind-statements rather than the causal relationship between body and mind as entities. And it is the purpose of this small paper to explain and understand the nature of such a logical relation between these two types of statements.

A mind-statement is a statement which tells us or expresses a mental fact such as 'thinking', 'being angry', 'being in pain' etc. 'Such a statement can refer to one's own mind as also to other minds. Thus the statement 'I am angry' or 'He is angry', 'I am in pain' or 'He is in pain' are typical 'mental statements expressing a mental situation. A body-statement, on the other hand, is a statement which tells us or expresses a bodily or a physical fact such as 'behaviour' 'facial expression' etc. Such a statement, again, can refer to one's own body or bodily behaviour as also some one else's. Thus 'My body is quivering' or 'His body is quivering', 'My blood pressure has gone up' or 'His blood pressure has gone up' are typical body-statements expressing a physical situation.

Now our problem is to find out what logical relation, if any, holds between these two types of statements. To focus our attention we will frame these statements in the following way and consider them.

'He is now angry' is a mind-statement which we will call p and 'He is now showing such and such facial expression, such and such gestures,' is a body-statement which we will call q. The logical relations which we will consider between these two statements can be said to be the following :

1. q is the logical *consequence* of p; in other words q can be derived from p.
2. p is *logically equivalent* to q; in other words the truth values and truth conditions of p and q are the same.
3. p is *contradictory* of q and vice versa.
4. p is *independent* of q and vice versa, but is rather accompanied by it.

Let us consider these relations one by one.

1. *Is q the logical consequence of p ?*

There are two different ways in which the sentence q may be the consequence of p, or in which q can be derived from p. Carnap designates them as the "*rational*" and the "*intuitive*" methods. The *rational* method consists of inferring from some *protocol* sentence (or from several like it), more specifically from a perception sentence, about the behaviour of a person or about physical effects of a person's behaviour (e.g. about the characteristics of his handwriting). In order, however, to justify the conclusion, a *major premise* 'r' is still required, namely the general sentence which asserts 'that when I perceive a person to have this facial expression and handwriting he (usually) turns out to be angry'. But then the content of p does not coincide with that of q, *but goes beyond it*. This is evident from the fact that to infer q from p, some other statement 'r' is required.

In practical matters the *intuitive* method is applied more frequently than the rational one, which presupposes theoretical knowledge and requires reflection. In accordance with the intuitive method, p is obtained without the mediation of any other

sentence from the identically sounded protocol sentence p_2 , viz. 'He is angry'. Consequently, one speaks in this case of *immediate perceptions* of other minds e.g. of the anger of other person.

But in this case too the protocol sentence p_2 and the sentence p have different contents. Although both the sentences sound alike, they are not so. And we can clarify the difference by considering the possibility of error. It may happen that on the basis of further sentences I am required to say "I made a mistake. Further tests have shown that he was not angry, although I had the *intuitive impression* that he was".

Thus q cannot be validly derived from p whether directly or indirectly, and so cannot be taken as a consequence of p .

2. *Is p logically equivalent to q ?*

Two statements are logically equivalent if and only if the truth values and the truth conditions of both are the same. Put simply, it means that if, if p is true q is true, and if p is false and q is false, then p and q are equivalent. Truth conditions are the conditions which would make a statement true or false. In other words, conditions on which the verifiability or falsifiability of a proposition rests are the truth conditions. And so when it is claimed that these statements have the same truth conditions, it is implied that both have the similar conditions for their verifiability or falsifiability. In short both statements can be verified by the same method of verification. Can we then say that the statement 'He is now angry' and the statement 'He is now showing such and such facial expression and such and such bodily behaviour' are logically equivalent? Are the truth values and the truth conditions of both these statements the same? It will not need much of an argument to show that the method of verification of p and q is not the same, p being not publicly verifiable while q being publicly verifiable, and hence they cannot be claimed to be logically equivalent.

3. *Is p contradictory to q ?*

Two statements are contradictory to each other if and only if while asserting one, the other can be meaningfully denied and while denying one, the other can be meaningfully asserted.

Thus can we assert 'He is angry' and meaningfully say 'It is not the case that he is showing such and such facial expression and such and such bodily behaviour' and vice versa? In other words can we say (1) 'He is angry but he is not showing signs of being angry' and (2) 'He is showing signs of being angry but he is not angry'? I submit we cannot say that meaningfully.

4. *Is p independent of q, but is rather accompanied by q ?*

Following Descartes' characterization of mental and bodily states one can say that they are independent of each other and so have no direct relation whatsoever with each other. They might accompany each other and it might be designated as a relation of accompaniment or coexistence or congruity. But such a relation will be at best a contingent one and not a necessary one. Thus after giving the above explanations too, the original question of the relations between p and q and, their interrelation, is unanswered. If it is not consequence, or equivalence or contradiction or congruence, what sort of relation exists between them?

And it is interesting to note at this stage without going into details the views of Carnap and Waismann. They might throw more light on the problem. Carnap defends the view that p has the *same content* as q which asserts existence of physical structure characterized by the disposition to react in a specific manner to a specific physical stimuli. This enables him to maintain the *possibility of translating all psychological sentences into physical language*. ("Psychology in physical language") "Logical positivism" Ed. Ayer pp. 172).

Waismann, on the contrary, holds that a material object statement or a psychological statement *has a logic of its own* and for this reason cannot be reduced to the level of other statements. According to him the known relations of logic can only hold between statements which belong to a *homogeneous* domain. Accordingly, he holds, we may set ourselves the task of arranging the statements of our language in *distinct strata*, grouping in the same stratum all those statements linked by clearly apprehended logical relations. So long as we move only among the statements of a single stratum, all relations provided by logic remain valid. The real problem arises where two such strata make contact. He suggests that we may speak, in this context, of the *open texture of the chain of inference* (Porösität (porousness) der Begriffe—*open texture* (non-exhaustive) of an empirical concept) (poröse (porous) schlusse) which lead from statements of one stratum to those of another; the connection, he holds, is no longer coercive—owing to the incompleteness of all data. And it is, according to him, these *fracture lines of the strata of language which are marked by philosophical problems*. And problem of the relation between body and mind, besides problem of perception, of verification, of induction, is one such problem. ('Verifiability'—How I see Philosophy—p. 50.)

A word about his basic idea of what he calls '*open texture of an empirical concept*' will not, I think, be out of place. What does he mean by it ?

Suppose, he says, we have to verify a statement such as 'There is a cat nextdoor'. Suppose we go over to the next room, open the door, look into it and actually see a cat. Is this enough to prove my statement ? Or must I, in addition to it, touch the cat, pat it and induce it to purr ? And supposing that I had done all these things, can I then be absolutely certain that my statement was true ? Instantly we come up against the well-known battery of sceptical arguments. In other words, we could not be certain

whether something was a cat or some other animal. Waismann holds that the fact that in many cases there is no such thing as a *conclusive verification is connected with the fact that most of our empirical concepts are not delimited in all possible directions*. No concept, that is, is limited in such a way that there is no room for any doubt. We introduce a concept and limit it in *some* directions. This suffices for our present needs and we do not probe any further. We tend to *overlook* the fact that there are always other directions in which the concept has not been defined. In short, holds Waismann, it is not possible to define a concept with absolute precision i.e. in such a way that every nook and corner is blocked against entry of doubt. And that is what Waismann means by the *open texture* (poröse-porous) of a concept.

However, he is here concerned not so much with the open texture of empirical concept, although that is fundamental, but rather with the open texture of the *chains of inference* which 'lead' without 'coercion' (because of incompleteness) from statements of one stratum to those of another. Because it is in the '*fracture lines*' of the strata that the problem of relation of body-mind statements is marked.

Now I am not sure that I understand what Waismann means by this. There is no difficulty to understand what he means by open texture of an empirical concept. But in what sense can an *inference* have *open texture*? Does it mean that from given premises more than one inference is logically possible? I don't know.

Again, what does Waismann mean when he says that an inference *leads* from one stratum to another without *coercion*? Does 'coercion' here mean 'necessity'? If so, how can an inference be not 'necessary'? This again, I don't know.

Finally, his concept of '*fracture lines*' of the strata is not clear to me. This obviously is a physical concept. And in what sense can it be applied to language is not clear.

However to hazard a guess what Waismann is saying can be put as follows :

There are two independent sets of sentences. When these sets come in contact, the statements of one set, as if, '*trickle down*' in the other set through the open texture of the language strata. This '*trickling down*' takes place through the fracture lines or invisible gaps in the strata. And that is why one set of statements '*leads*' to the other. But what is the nature of these '*gaps*' or '*fracture lines*' is not clear. And unless it is made clear the relation of body–mind statements will elude us.

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