(i). "Would not" must be distinguished from "might not."[12]

Aside from the two points of this section, this paper has taken as its basis the tentative rule for counterfactual conditionals of Goodman's well-known essay, and revised the rule without circular use of counterfactuals. It has been shown that the negative clause should be dropped, and additional conditions inserted in the other clause. Also, the second section shows how analysis of the temporal aspect of causal situations justifies the intuitive distinction of acceptable and inacceptable subjunctive conditionals in this field.

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## PSYCHOLOGICAL CONCEPTS, EXPLICATION, AND ORDINARY LANGUAGE

### I. PHILOSOPHIC BEHAVIORISM

THE problem which I wish to examine might well be represented by the following sentence:

> Jones was exhibiting all the symptoms of anger, but it is possible that he was not *really* angry.

According to the philosophic view that I shall criticize, this sentence is "countersensical" if, in fact, Jones *was* exhibiting all the symptoms of anger. If no behavioral indicators of anger whose presence might reasonably have been expected were lacking in Jones' behavior at the time; if, admittedly, nothing that Jones was doing or not doing could at present be called evidence that Jones was not angry; then it can mean nothing to say that Jones might not have been having the experience of anger.

To express this position in another way: there are various things correctly called indications of anger—a flushed countenance, angry

[12] *FF&F*, p. 15; p. 32, Note I.2. Essentially the same mistake occurs in the article by R. M. Chisholm, "The Contrary-to-Fact Conditional," *Mind*, Vol. 55 (1946); reprinted with alterations in Feigl & Sellars, *Readings in Philosophical Analysis* (1949), see p. 492.

On the other hand, Professor Gilbert Ryle rightly says that the contradictory of "If I walk under that ladder, I shall meet trouble during the day" would be colloquially expressed by "No, I might walk under the ladder and not have trouble," or "I could walk under it and not have trouble." Of course, he is interpreting his conditional not truth-functionally, but as "I could not walk under the ladder without experiencing trouble during the day," or, we may add, as "If I were to walk under that ladder, I should meet trouble during the day" (*The Concept of Mind*, Hutchinson's University Library, 1949, pp. 127 f.).

words, etc. If only some of these indicators were present, it might make sense to say, "Jones might not really have been angry." But it can make no sense, it is a "violation of ordinary language," to say this if all of the indications of anger (and none of the counter-indications) were present.

So described, the position is an extreme one, and it is doubtful if anyone holds it in this form. But criticism of this admittedly oversimplified position seems worthwhile, for I believe that some of the defects which this position exhibits are also exhibited by the more complex and sophisticated positions which are actually held. Since it is my purpose to contrast idealized positions, and not to attack individuals (whose views, usually, cannot be neatly pigeonholed), this degree of oversimplification seems not only legitimate, but useful.

In particular, a philosopher who wished to espouse a view similar to the one just described would be likely to modify it in two distinct ways:

(a) He would certainly admit the possibility of *deception.* Thus, for it to be *certain* that Jones was angry it would be necessary that Jones' behavior be such as to rule out this possibility; and this refers not only to Jones' behavior at the time, but, possibly, to all of Jones' *subsequent* behavior.

(b) He would be likely to maintain that, for Jones to have been really angry, it is not enough that certain *behavior* have been manifest; it is also necessary that certain *dispositions* have been present. However, this is analyzed as meaning that if certain tests were performed, then or subsequently, certain indications would appear.

Thus the gist of the refined, as of the crude, position is that the truth of certain statements about behavior (possibly "if-then" statements) is enough to guarantee the truth of a statement about experience: "Jones was angry." And it is against this that I shall argue.

## II. Explication and Use

It is not essential to what we are trying to do that the analysis to be presented should be the only correct one; indeed, it is quite certain that it is not. But here the critic has an advantage: to show that a philosophic statement in general currency is not nonsense one has to provide only one *possible* explication of it, whereas to show that it is nonsense it is required to show that *no* explication can be given of it. In general, philosophers of ordinary language fudge this job. They do not show or even attempt to show that a statement cannot be given a reasonable meaning. What they do instead is to point out a use of the crucial term (e.g.,

"anger") that makes the statement incorrect or even countersensical, and then reject all alternative suggestions for the use of the term as mere stipulations, i.e., as not correct in ordinary language. In the process they exhibit a confidence in their ability to detect *the* correct use that has caused some annoyance to other professional philosophers.

While a philosopher who aims only at "debunking" can rest content with pointing out the *use* of the crucial term or terms which is "correct" and which is allegedly violated by the maker of the statement, the reconstructionist has a much more difficult task: he must explicate, or suggest a reasonable *meaning* for, the philosophically difficult terms.

To give the use of a term does not necessarily impart its full meaning. Thus one can give the use of the expression *agathē (h)ēmera* in Greek by saying that this expression is employed as a conventional greeting during the daylight hours, and especially during the afternoon; but one still does not know from what has been said that it *means* "good day." Furthermore, difference in use may or may not correspond to difference in meaning. Thus, (a) an example of a difference in literal meaning without a difference in use is afforded by "Pass me the butter" or "Pass me that dish," which may have the same use in a particular context; and (b) an example of a difference in use with no difference in literal meaning might be afforded by the use of "the door is open" to halt someone who is moving with the intention of opening the door ("the door *is* open"), and to command someone to shut the door ("the door is *open*").

In the last case we can say only that there is no difference in literal, or "cognitive," meaning; there is, of course, a difference with respect to the other, pragmatic, components of meaning. On the other hand, in the first case ("Pass the butter") there was no difference with respect to these components, although there was a difference in the cognitive meaning component.

The mistake in the position of Wittgenstein, who proposed to take "use" as an *Oberbegriff* for all kinds of "meaning," is that even this, admittedly very wide, concept is still too narrow. *Use* corresponds to what we have called the "pragmatic meaning components" for a particular term, whereas the cognitive meaning components are specified only when the "place" of a term (i.e., its syntactical and semantical relations to other terms in the language) is made clear. These always correspond to a *potential* difference in use, but not always (i.e., in every context) to an actual one. (In a formal language, a term has one and only one cognitive meaning; but it may still have many different uses.)

## III. Subjective Experience and Specification of Meaning

Our problem now is to suggest what may be meant by "a subjective experience," or specifically by "a feeling of anger." For the purposes of this paper let us adopt a Physicalist position, although we need not believe such a position to be a completely satisfactory one for the purposes of ultimate epistemological analysis.

This "Physicalism," expressed as a working hypothesis, amounts to this: a subjective experience (e.g., a particular feeling of anger) is a particular kind of physical state of the organism. This is of course a synthetic identity, if true (as Feigl has very well pointed out [1]). Philosophers are quite right in saying that "the sensation blue" cannot *mean* a physical state. But they are wrong when they maintain that it cannot *be* a physical state. (Thus, "the morning star" cannot *mean* "the evening star." But the morning star *is* the evening star—for both are identical with the planet Venus, to use the familiar example.) If one objects to the notion that a sensation can *be* a physical state, in spite of this distinction, he may say instead that the Physicalist hypothesis is that the particular sensation, *blue* or *anger,* is invariably *correlated* with a particular physical state; we should only say that if there is a physical state T correlated invariably and for all human beings with the occurrence of the sensation blue, then, as far as physical science is concerned, T *is* the sensation blue.

In particular, then, there is on this assumption a physical state which *is,* or has a complete bilateral correlation with, *anger.* I suggest that it is this at present not definable physical state that we should mean by the word "anger." This last assertion raises several problems.

(1) The term "physical state," in the first place, requires restriction. There is a trivial sense in which the Philosophic Behaviorist too thinks that anger is a physical state: namely, a behavioral disposition of the organism. Clearly what we have in mind is (a) a non-dispositional or structural property; (b) a micro-property, not a macro-property; and (c) a central, not a peripheral property. This last opposition is used in a technical sense: there is a micro-property of the human eye which is very highly correlated with the occurrence of the sensation blue. But even if this were perfectly correlated with the sensation blue, it would not be what we wish to mean by "blue." It is rather the

[1] Feigl, H., "The Mind Body Problem in the Development of Logical Empiricism," in *Readings in the Philosophy of Science,* ed. by Feigl and Brodbeck (New York, Appleton-Century-Crofts, 1953), especially pp. 620–626.

assumed state of the cerebral cortex correlated to the sensation blue that we wish to speak of as in fact identical with *blue*.

(2) The second problem is more serious: How can we mean by a term something that we are not able to define? But the answer is not difficult. Of course, we cannot give meaning to a term, say "glub," by saying, "By 'glub' we mean an at present not definable physical state." But we can incompletely specify the meaning of such a term (and thus make it usable in science) by *providing symptoms*.[2] This, then, is the full contention: at least at the physical science level, "anger" means a particular micro-state of the cerebral cortex [3] which we are not able at present to define, but for which we are able to provide symptoms.

The specification of the meaning of a term by means of a list of symptoms always involves a supporting hypothesis, of course: namely, that there exists a state whose presence would not merely enable us to predict (if we knew of it) the occurrence of the various symptoms under the appropriate conditions, but whose presence causally explains that occurrence. As Abraham Kaplan has pointed out,[4] we do not, in general, go directly from the list of symptoms to a definition; what rather happens is a long process of adding to and revising our list of symptoms as we search for a more and more narrowly specified term, before we reach a term which is, in the strict sense of the word, *definable*. A new indicator is added when it is shown that from its presence we can predict (with a higher probability than was hitherto possible) the occurrence of the already accepted indicators. Thus the process of specifying the meaning of a term is one of constantly improving the correlations in our group of indicators. In the course of this process some indicators may be dropped, because they show declining correlations with the newer indicators; or, very fre-

[2] The view that such terms should be regarded as theoretical constructs, rather than as intervening variables of the observation language, is at present shared by most logical empiricists, as Carnap points out ("On Belief Sentences," Reply to Alonzo Church, in *Philosophy and Analysis*, ed. by Margaret Macdonald, Oxford, 1954, pp. 1–2). It is presented with great force and clarity by Feigl ("Principles and Problems of Theory Construction in Psychology," in *Current Trends in Psychological Theory*, University of Pittsburgh Press, 1951) and by Hempel (*Fundamentals of Concept Formation in Empirical Science*, International Encyclopedia of Unified Science, Vol. II, 1952). The above stress on the role of *symptoms* is one for which I am indebted to conversations with Professor Carnap.

[3] A state of the cortex rather than a state of the fluid system, for the same reason that *blue* is not a state of the eye. One may be full of adrenalin, etc., but one does not *feel* anger until the necessary nerve impulses reach the central processes.

[4] Kaplan, A., "Definition and Specification of Meaning," this JOURNAL, Vol. XLIII (1946), pp. 281–288.

quently, our original term may be split into two terms as the indicators separate into distinct groups with high inner correlation but poor cross correlation. Our assumption or hope is that more precise indicators will be found for "anger" (or for various kinds of anger) until eventually an actual definition is possible; but the term "anger" (like other partially specified terms, e.g., "species," in zoology) is meaningful *now,* it does not merely become meaningful when it becomes possible to define it, strictly or "implicitly"—i.e., by incorporation into a theoretical system.

(3) It might be suggested that by "anger" we now mean, let us say, a dispositional property like the one described at the beginning; that the process which we have called "adding indicators" is one of progressively redefining the term; and that the term "anger" will not mean a micro-state until we are able to define that micro-state.

This seems like a last-ditch attempt to maintain the position that all meaningful terms are *definable.* It is a poor analysis for these reasons:

(a) There is a distinct difference between the relatively clear-cut process ordinarily called "redefinition" and the continuous process, which, following Kaplan, we have called specification of meaning. This analysis only serves to blur this methodological distinction.

(b) Redefinition is, in general, somewhat arbitrary. We can usually hold on to our old use of a term, provided we are willing to pay the penalty in more cumbrous and unsimple modes of expression; and usually some people do in fact do this. But when a term is specified by means of a list of symptoms, the adding of new indicators as they are discovered, and the progressive sharpening of the term, are in no sense arbitrary, in the actual process of science.

(c) When I discover that one of the indicators I have been using is a poor indicator (has declining correlation with the new indicators), I do not in fact say, "Well, this person has the condition C because that's how I define it"; rather I say, "This person does not have the condition C, for *I was mistaken* in regarding this as an indicator."

It appears to me that we can best do justice to the attitude expressed in this way of speaking ("I was mistaken") if we say that by "anger" I *now* mean the micro-state; that I regard the indicators not as defining characteristics but as symptoms; and that I anticipate that this list of symptoms will be progressively added to and revised so as to eventually determine an underlying condition (the micro-state) which causally explains the symptoms.

By way of comparison, let us consider the case of polio. Let us say that we are pretty sure that polio is caused by a virus, but we cannot say at present which particular virus. Then it makes sense to say that by polio we *now* mean the disease caused by a certain unspecified virus, and *not* the simultaneous presence of a certain group of symptoms. Even if a person has all the symptoms of polio, if it later turns out that he does not have the virus which is normally the cause of those symptoms, we should say that we had been mistaken in thinking he had polio. Thus it does make sense to say that a person may have all the symptoms of polio and not have polio: what this means is that he may have all the symptoms of polio, but it may later turn out, when we have discovered what virus produces those symptoms, that he does not have the virus. And in the same way, we can reasonably say that a person may exhibit all the symptoms of anger, but not be angry; and it may later turn out that we were right.

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## BOOK REVIEWS

*Creation and Discovery; Essays in Criticism and Aesthetics.* ELISEO VIVAS. New York: The Noonday Press, 1955. xiv, 306 pp. $5.00.

There is, in *Creation and Discovery* by Eliseo Vivas, a passionate searching through essential questions about the nature and contribution of fine art. I say *passionate,* because, although there is considerable philosophical vigor in it (and stamina, as in the careful reading of E. Jordan's essays in esthetics), it gathers force as persuasion rather than as argument. "Were I to write a system of aesthetics—something I shall not do—half of the work or more is already done in these essays," Mr. Vivas writes (p. xiii). The essays are collected from various sources and were written over a span of years reaching as far back as 1935. It would have been something of a minor miracle if the assortment—several hitherto unpublished pieces, book reviews, a number of pieces growing out of the Mahlon Powell Lectures delivered at Indiana University (1952), others of various lengths and subjects from the philosophical and literary reviews—had actually fallen into a consecutive, systematic, and uniformly weighted account. Nevertheless, there is an undeniable convergence among these separate pieces, which (I think) argues the curiosity of Mr. Vivas' insistence not to provide at the least a governing first essay. Each of the