Physicalism and Humanism

Robert Sheehan
Winona State College

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In recent years philosophers have been discussing the pros and cons of the “Identity Hypothesis” of Herbert Feigl (Feigl, 1958). The Identity Hypothesis holds that feelings, expressed or described in phenomenalist language, are identical to brain states as described by rapidly developing neural science. The discussions abound with Ockham’s Razor, attacks on and defenses of emergentism, and appeals to Turing Machines as analogues (Hook, 1960).

This paper does not propose to enter that particular dispute, although the author believes the Identity theorists have made the better case thus far. Rather, it is here proposed to widen the frame of reference surrounding such disputes. For, underlying the arguments, are considerations as to the promise of physical science for explaining our feelings, attitudes, language, acts, and behavior. An appraisal of such promise would seem to demand that account be taken of sciences other than neurophysiology which purport to explain our feelings, language, and acts. The three sciences particularly concerned are psychology, sociology, and linguistics.

The Self Pragmatically Considered

All too often individual psychology and social psychology have pursued their own lines of investigation without weighing the alternative explanations sufficiently. Individual psychology’s left wing assumes that the individual is free, given certain conditions, to change or alter considerably his basic pattern. “Self-actualization” has become a rallying cry for this very humanist trend, which has many parallels with certain notions in existentialism. The social psychologist, on the other hand, stresses the environmental factors determining one’s fundamental life pattern. The point here is not to take sides: freedom against determinism, or conversely, but to ask whether the language of either or both protagonists is irreducibly macroscopic in reference.

Writers such as Eric Fromm (1956), Abraham Maslow (1962), Carl Rogers (1961), and Everett Shostrom (1967) use the term “person” and “self” in ways which are emotionally significant as well as having some descriptive function. That is, their writing has a double purpose: to convey understanding and to stimulate psychological growth. The self, for the so-called “Third School of Psychology,” is to be cherished and cared for; if it is loved, it will provide entrance to constructive relations with others. But if the self is construed as a set of processes in the reticular activating system (Fair, 1963), then it appears that the pragmatic function of the language underpinning therapy is in jeopardy. For there are few, it seems, who would regard some redundant circuitry as worthy of self esteem. Men can find their feelings enhanced by a close awareness of ocean, of trees, of wind, of grass under the sun, or perhaps by practicing yoga; but to a configuration of neurons the response is generally interest—questioning perhaps—but not an enlargement of self-consciousness.

This state of affairs may be temporary; it may be an aesthetic lag. If so, it would be interesting to investigate the conditions surrounding it. It has nothing to do with a dualist view of man, for some of those who respond strongly to natural beauty both feel and understand man to be simply part of nature (Gibran, 1966). It may be the case that a negative response to physicalism, in either the reductionist or broad sense, is after all due to a reluctance to give up any vestige of hope for immortality. So long as man remains somewhat mysterious, so long as there is always “something more” which science cannot explain, thus far can one, even in secret, hope for the Great Survival.

If the last speculation is somewhat implausible, the following one is obvious. We gain our early notions about ourselves especially from what is, phenomenally speaking, outside ourselves; from others: their appearances, their movements, their shapes, their smells, their sounds. Our own bodies become part of the picture and a whole host of images, gestalten if you will, is developed, to become an integral part of our psychological life. These living functions seem to some to be destroyed when analyzed. “Seem” is emphasized here because there is a fallacy involved: that an explanans necessarily replaces its explanandum. I hope to show that micro explanations, in many cases, are unable to replace their explananda, not only from the pragmatic standpoint, but also from the theoretical one.

In spite of the imagined threats on the part of neurophysiology, the life of feeling goes on, around a dominant theme, a fearful one, or a confident one, but a set of feelings which is partly responsible for the kind of personal world we create. Clearly, from the standpoint of life in the living, it contributes nothing to consider these feelings as axonal firings with visceral reverberations.

Consider the example of face-to-face interaction with other people. Smiles, frowns, sneers, soothing or irritating talk are the currency of such transactions. As such they are meaningful units. A shrug of the shoulder or a brush of the hand are analyzable into processes of the efferent nervous system, together with the muscle and skeletal systems. But it is not as so analyzed that they are effective in social interactions; it is only as perceived phenomenally that they communicate. Inasmuch as the terms...
of social science and parts of psychology are concerned with describing the conditions making such transactions and relations possible, so much are they theoretically irreducible to any in micro science.

**Linguistics and Reductionism**

Arising out of the intersection of our needs, ecological and linguistic settings, human interactions and creativity, the concept of culture is both problem and point of departure for the social sciences. Culture thus has parameters in biology, as Morris (1968) and Lorenz (1966) attest. What must be remembered in such work is that, while the remote history of culture is phylogenetic, its recent past is shot through with symbol systems, both linguistic and otherwise, which are, of course, diverse throughout the world and in time (Manis and Meltzer, 1967). If, at some future time, a neurolinguistics develops; if we discover the physiological correlates of, say, Chomsky's (1957) syntactic structures, even in this case the symbol systems themselves, as artifacts, can be studied in terms of their organization and functions.

**Molecular and Organismic Biology**

In defense of biology itself as irreducible to physics and chemistry, Barry Commoner (1961) has offered a number of arguments. Commoner does not, of course, deplore recent advances in molecular biology; what he does deplore is the separation, even alienation, of the newer, more glamorous areas of research from the more classical studies. The following is one of his arguments:

Classical plant morphologists have produced monumental works on starch grains, which have unique structural organization closely correlated with the plant's specific character. In more recent years an equally impressive body of knowledge about the chemical substances extractable from the starch grain—amylose and amyllopectin—has accumulated. Moreover enzymes that synthesize these substances have been isolated. Yet an analysis of the information available from studies of extracts shows that we do not understand how the enzymes could possibly account for the presence together in the starch grain of both amylose and amyllopectin in proportions which are under genetic control. Clearly, our attention must now return to the developing starch grain, and we must learn how the cellular environment can give to a precise correlation between the two paths of biosynthesis that cannot be accounted for in terms of test tube chemistry.

Cooperative efforts may or may not have been made in this case, but the need for such continual cooperation is manifest. That cooperation is often lacking is discussed by Commoner (1961) in terms of a process of alienation which he sees setting in as soon as an important biological problem becomes susceptible to chemical or physical attack; in the end the question becomes lost to biology. But the rub is, Commoner claims, that in each case the chemical-physical researches run their course and come to a dead stop in the regions surrounding the living cell. The return to biology is, by this time, a practical impossibility, not the least reason for which is the reluctance of the mother to welcome back her prodigal, but fast-talking offspring.

Commoner further contends that misunderstandings of the popular DNA story have contributed to the widespread belief, represented in Asimov (1960), for example, that, "Modern science has all but wiped out the borderline between life and non-life."

"I sometimes think," Commoner (1961) retorts, "that the difficulties we now face in controlling water, air, and soil pollution, and the undue dissemination of radioactive materials, are the result of a common impression that, 'the boundary between life and non-life has all but disappeared.'"

While it is quite true that pre-Wittgensteinian modes of definition will simply not do for living systems, nevertheless a list of defining characteristics can be drawn up, reflecting the quorum feature of language, which will serve well enough. Borderline cases can be treated casually; rather than be disturbed by them, we should welcome them, since evolutionary theory does, after all, demand a continuum. In addition to a sophisticated view of definition, what is required is a theory of explanation which is pluralistic, thus allowing the explanandum a life even after it has been assigned an explanans.

For the sake of biology itself, to say nothing of social sciences, psychology, and, not least, human living, it is important to resist the tendency to think that, because our macroscopic units are analyzable into the molecular, such units are meaningless except as so considered. This suggests no return to vitalism; for, if the history of science has shown us anything, it is that vital processes are thoroughly physical. Nor is it to be urging that macro units be everywhere preserved; rather, it is here suggested that, insofar as macro units are given in explananda, insofar as they pose problems and have a phenomenal existence, thus far are they uneliminable. This is especially the case where the data are human beings, as in the social sciences; here the explanations require a macroscopic domain of discourse. It also can be the case with the non-human, and even the non-living, especially seen with the eyes of the artist, whose eyes we all ought to have even though we do not have the artist's hands.

**Aesthetics and Reductionism**

The area of aesthetics is particularly enlightening in discussions of reductionism. It is understandable why physics and chemistry fail to excite the artist, for he sees *sub specie vitae*. To be an aesthetic object is to be alive, to be growing. Susanne Langer (1967; 199-210) has put it this way:

> ... if feeling is a culmination of vital process, any articulated image of it must have the semblance of that vital process rising from deep, general organic activities and intense and concerted acts, such as we perceive directly ... as impacts or felt actions. Every artistic form reflects the dynamism that is constantly building up the life of feeling.

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A painting or statue is not, at first thought, growing or dynamic; Langer (1967) explains that in a work of art no parts retain their qualitative identity in isolation from other parts. They do not relate simply and directly to the whole, but, "... can only reflect each other, enhance or otherwise modify each other." In art, of course, the medium is illusion.

In a Cambodian Buddha statue, for instance, there is usually a perfect elaboration of the head, and a flowing line to the hands, which are given slightly less articulation; the torso and crossed legs are very simply treated as large surfaces and opposed curves. There is a gradient of development toward the head, culminating in the face, and a lesser one toward the hands that leads up to their delicate form and gesture. Such a figure has the living stillness of a plant; its inward action is concentrated in its apex, the head, which consequently predominate without being given any other emphasis by way of extraordinary proportion, posture or features.

The scientist must understand that the artist or humanist is frightened by reductionist views because what he prizes most highly, his feelings, are seen by him as subject to elimination when explained scientifically. What is clearly needed is a limiting principle on explanation. There seems to me to be a viable public-private distinction, one which places no limits on scientific investigation, but which preserves the values of the intuitionist. Explanation involves languages of public observation. Once it is recognized that feelings-as-lived are as irreducibly private as explanations are irreducibly public, then scientific explanations can be adequate without being threatening to the humanist. There is no paradox in this if a physicalism is accepted. Privacy does not entail a non-physical mind; rather, a physical mind entails privacy. Conscious experience is within one's own body: communicable, expressible, similar to the felt experiences of others, Nevertheless part of me. It is the distinctness of bodies which is the ground for privacy; non-physical minds have a way of becoming oversouls or cosmic consciousness. Consciousness is a phase of certain highly specific organic activity; it is not something different from that activity, arising out of it or running parallel to it.

The author believes that a non-reductionist physicalism, as roughly sketched in this paper, has a positive relationship to humanism. If explanations are looked upon as symbolic representations of what we experience or value: of artistic or political activity, of joyful feelings, of accelerations of distant stars, then men can be threatened by false explanations, but not by being signified in the language of science.

References


