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Facts and Values

Although the study of values traditionally has belonged to ethics, the behavioral sciences recently have entered this realm. As they penetrate deeper, however, they find themselves facing the same obstacles that halted their predecessors.

The first foray into this territory is easy. Despite their special quality, values can come under scientific study. A judgment of value, as opposed to a statement of fact, is neither true nor false. To express its special quality requires the notion of *should*. For example, in passing judgment on the proper use of administrative finances, one might say, "You *should* not pocket departmental funds." To bring a judgment of value under scientific scrutiny, an investigator need only ask a question of fact about it. For example, he might ask, "What does the administration in such and such a university think of the pocketing of departmental funds?" Additional questions are likely to concern how such values are learned and what functions they serve.

The use to which a given body of knowledge is put depends in part upon the values held by the person or persons using that knowledge. For example, to launch a satellite requires some knowledge about the laws of physics, but the decision to use that knowledge is not itself a matter of physics. The decision rests on a complex system of values which, although difficult to express, culminates in the judgment that available funds should be spent to further the IGY program rather than, say, to reduce the national debt.

The terrain now grows more difficult. Instead of the control of natural forces, consider the control of men through the manipulation of the values that affect their behavior. That is to say, suppose that a behavioral technologist seeks to apply the knowledge gained by a behavioral theorist. Since this use of knowledge must also be based on values, the following question arises: Are these values in turn to be the subject of an investigation, with the information so gained in turn to be applied?

There appear to be two answers to this question, neither of which is satisfactory. To answer the question in the negative is to deny the claim with which the behavioral scientists entered the field, namely, that science can deal with values. To answer in the affirmative is merely to pose the question again, but once removed. Consequently, science in pursuit of values is much like a donkey in pursuit of a bunch of carrots that has been suspended in front of its nose from a twig fastened to its harness.

At a recent meeting of the American Psychological Association in Chicago, two distinguished students of the behavioral sciences debated the use of science in the control of human behavior. Although the protagonists did not settle the relationship between facts and values to everyone's satisfaction, let alone each other's, the discussion was sufficiently illuminating to call for its publication in this issue of *Science*.

If important questions of ethics are still unanswered, it may be something of a comfort to remember that the behavioral sciences are not yet in a position to produce results on order, whether for universal well-being, total slavery, or a bit of both.—J. T.