

THE RELATIONSHIP OF EMPIRICAL SCIENCE TO MORAL THOUGHT

The extensive development of empirical sciences in the United States and abroad has had several consequences for moral thought, particularly for practical moral theology and ethics. The range of empirical sciences that impinge upon moral thought is almost as extensive as the range of actual problems that are discussed. Moral theologians have become intrigued with the rapid development of the social and/or behavioral sciences. It is no longer possible to discuss economic ethics, for example, at the level of generalization used in the great social encyclicals. Now one must have technical knowledge of the gross national product, the economics of development, the function of monetary and fiscal policies, etc. Nor is it possible to discuss political ethics without awareness of the structure and the functions of various political systems, the ways in which they operate in relation to law and constitutions, and even the behavior of voters. Sociology provides a basis for the critiques of moral thought itself, as one finds in Karl Mannheim's essays in sociology of knowledge, and particularly, for example, in his essay, "Conservative Thought."¹ Sociology also provides concepts and data about social behavior, institutions, and class structures. Psychology is used to understand the nature of moral agents, and also increasingly to assist in the definition of moral norms of fulfillment, happiness and well-being.

The harder data of the biological and physical sciences impinge on other areas of concern to moral theologians. The science of fetology bears in many ways upon the ethical arguments about abortion. The technology developing from the science of genetics has attracted the attentions not only of moral theologians such as Paul Ramsey, but also of the dogmatic theologian Karl Rahner.²

¹ Karl Mannheim, "Conservative Thought," in *Essays in Sociology and Social Psychology*, (London: Routledge and Kegan Paul, 1953), pp. 74-164.

² Paul Ramsey, *Fabricated Man* (New Haven: Yale University Press, 1970); Karl Rahner, "Experiment Mensch" *Schriften zur Theologie*, VIII,

Further suggestions about the general impingements of the empirical sciences on moral thought are not necessary. In this paper I shall address several foci of the relationship. The assigned task is a large one, and thus the paper is more an exercise in clarification and exploration than a thorough study. The relevant literature is relatively sparse.³ Philosophical issues whose development requires more intensive development than is possible in this paper will be alluded to.

The order of discussion in this paper is as follows: A) The areas of moral thought in which one finds significant use of empirical sciences. These are 1) the understanding of the nature of persons as moral agents, 2) the understanding of the circumstances in which decisions and actions occur, 3) the prediction of potential consequences of various courses of action, and 4) the development of moral norms. B) Major problems involved in the use of empirical sciences in moral thought. These all affect the selection of empirical materials: 1) the judgment about what data and concepts are relevant to the moral issue involved; 2) this first raises the issues of the principles of interpretation in the empirical studies, of what are involved in the selection and significance of the data used; and 3) it secondly raises the issue of the normative biases built into the empirical studies.

A. USE OF EMPIRICAL SCIENCES IN MORAL THOUGHT

1. Psychological, sociological and anthropological studies have had a very significant impact in recent decades on the *understanding of persons*. The question to which these sciences have offered tentative answers is this: How can the behavior of persons be explained? Included in human behavior is moral action. Explanations are offered not only to account for particular acts, but also for the kind

(Einsiedeln: Benziger Verlag, 1967), 260-85; "Zum Problem der Genteschen Manipulation." *Ibid.*, 286-321. The first Rahner article is digested in "Experiment: Man," *Theology Digest*, Sesquicentennial Issue, 1968, pp. 57-69.

³ See Gibson Winter, *Elements for a Social Ethic* (New York: Macmillan, 1966), pp 3-82; Max Stackhouse, "Technical Data and Ethical Norms," *Journal for the Scientific Study of Religion*, 5, pp. 191-203; and Wilhelm Koyff, "Empirical Social Study and Ethics," *Concilium*, 5, No. 4, pp. 5-13.

of person an individual has become, which in turn conditions, if not determines what one does. The central concern that erupts in these accounts is the degree of answerability that agents have for their conduct. It is not as if the question of free will and determinism is raised for the first time with the development of social and behavioral sciences in recent decades. The question has been answered by philosophers and theologians in different ways throughout the history of Western thought. But the discussion of answers has shifted from the realm of metaphysics to the realm of descriptive and analytical accounts of human persons and their behavior. Indeed, one might begin such an account at the pre-social level of the genotypes of individuals, which have some determinative significance on their capacities to become and to act.

Another concern that emerges from these accounts is the extent to which individual differences between persons have to be taken into account in moral judgments. One can ask whether on the basis of empirical accounts of individual differences, whether one does not have to make moral judgments about actions with reference to the specific persons who have acted, rather than to a class of actions. For example would we morally excuse one person for committing adultery, while morally blaming another?

In general it is clear that the persuasive power of scientific accounts of the development of persons, and explanations of their actions has deeply affected moral thought with regard to these two concerns. There has been a major trend toward the willingness to excuse persons from moral accountability for their actions in the light of knowledge we have about their relationships with their parents, about the moral values of the communities in which they grew up, and the social circumstances in which they have been nurtured. In the arena of legal accountability one sees that psychiatric data are used to warrant an excusing condition. Data and concepts from psychiatry (or other fields) are used to make a case for the limitations of answerability. Men are not as prone to believe that an agent has "free will" in the strong sense that they once believed, and thus in some circles there is an erosion of the notion of moral responsibility itself. Although the concept of causality employed in the social scientific account of behavior has been subject to rigorous

philosophical criticism in recent decades, partially in the interests of retaining a meaningful concept of moral responsibility, "blame" is often laid for moral faults not so much on the agent, as on the conditions over which he presumably has no control.

The accounts given of the formation of persons and of their actions also, quite consistently, has led to a trend to make judgments of moral actions increasingly specific with reference to the individuals who engaged in them. While this trend is ambiguous, it is nonetheless present: there are moralists who would suggest, for example, that adultery is morally indifferent, if not approvable, for two individuals who have particular needs under particular circumstances, while it is morally wrong for other individuals with other needs in other circumstances.

Thus far we have assumed that there is a vague and general agreement among the empirical sciences about the determination of human persons and behavior. It would appear at this point that one could speak of "the contemporary scientific understanding of man."⁴ That such a generalization is not warranted is apparent to the critical reader of psychology, sociology, and other fields. Thus our later discussion of critical problems in the employment of empirical sciences can be anticipated here by indicating that any moral theologian chooses from a number of renderings of the explanation of persons and behavior. Let us hypothetically suggest that he has read Freud, B. F. Skinner, and Rollo May, and has thought about the implications of the writings of each of these three persons for understanding the moral agent. The critical questions are which one should he choose, and why choose the one he does. It is likely that the moralist will choose the one whose interpretation is most in accord with his philosophical, moral, or theological predilections. If this is the case, one can ask whether he can claim "scientific" authority for the view of the agent that he adopts. If he chooses to claim such authority, he obviously has to make his case on scientific grounds, which implies that he will have to adjudicate

⁴ John Giles Milhaven, *Toward a New Catholic Morality* (Garden City: Doubleday, 1970). p. 118. This paper is in general a critical, but sympathetic, response to Milhaven's chapter, "The Behavioral Sciences," and to essays of Robert Springer, S.J.

between the scientific claims made by each of his three authors. The moral theologian could, however, make a weaker claim for one or more of the authors, namely that the authors are sources of "insight" into the nature of persons and into human behavior. If such a claim is made, he bears his own authority for the way in which he combines or uses the insights he gleans from one or more of the authors. He might take recourse to the justification that his own combination of insights "makes sense" to him, and hopefully to others—a justification which has its own implicit empirical references, but which does not rely upon the sorts of scientific evidences offered by Freud, Skinner, and May.

The choice actually is more difficult than we have thus far suggested, for it involves not only some selection of empirical data, but also the selection of certain concepts and principles of explanation. In each of the authors the data, concepts, and principles of explanation have been systematized to the degree that there is coherence in the overall position. Thus, as we shall note more extensively, the concepts and principles of explanation are already involved in the isolation of certain data about persons and behavior as being significant, and the ruling out of other data.

Enough has been said to rule out the simple use of a simple notion, namely "the contemporary scientific understanding of man" in developing a view of the moral agent. Here we only note the complexity of the issues involved in the use of empirical sciences in this area of moral thought.

2. The social and other sciences are often used to get a more precise and complete *understanding of the circumstances* in which a moral problem occurs, and thus in defining both the causes and options for action. This has been clear for a long time in the arena of medical ethics. For example, Catholic moralists have long been schooled in the biological processes of conception, and birth, and have argued their moral cases using the best available scientific data that pertain to the related moral issues. In areas of social morality some Protestants and Catholics have been operating in a similar way.

Let us take the interest in developing a social ethics for urban problems as a general instance in which empirical sciences would

pertain. All ethicists would readily admit that a study of the history of cities would not provide sufficiently accurate and insightful information for understanding contemporary urban existence, though Lewis Mumford's *The City in History* might provide insight and perspective.⁵ All would also admit that cities are much too complex for any one person to have a full range of experience of their life; each person is likely to have a partial experience of urban existence, as a participant in its productive economy, a resident of a particular neighborhood, a driver on its expressways, etc. Thus some supplemental information, some concepts for ordering it, and some principles for interpreting its significance are necessary beyond reliance on the knowledge of history and personal experience.

Among other things, one needs to know something of the structure and dynamics of the social order, the political order, and the economic order, to name but three factors. On the face of it, to turn to the social sciences makes sense. When one does, however, he is faced with choices comparable in principle to those above between Freud, Skinner, and Rollo May. Let us confine ourselves simply to the question of how best to understand the distribution of power in the city. A few years ago, for example, the social ethicist had choices to make between the model of *The Power Elite*, described by C. Wright Mills with reference to the nation as a whole, which had structural similarities to Floyd Hunter's *Community Power Structure*, a study of Atlanta, on the one hand, and on the other hand, Robert A. Dahl's widely acclaimed study of New Haven, *Who Governs?*⁶ Hunter and Mills found evidence for the existence of interlocking elites who by virtue of social and familial connections, responsibilities in industrial, political, military and other institutions, seemed to be in control of what was going on in American urban life. Dahl explicitly challenged this interpretation with evidences he gathered for the existence of much greater diversity of

⁵ Lewis Mumford, *The City in History* (New York: Harcourt, Brace and World, 1961). See also Max Weber's classic study, *The City* (Glencoe, Ill.: The Free Press, 1958).

⁶ C. Wright Mills, *The Power Elite* (New York: Oxford Univ. Press, 1956). Floyd Hunter, *Community Power Structure* (Chapel Hill: Univ. of North Carolina Press, 1953). Robert A. Dahl, *Who Governs?* (New Haven: Yale Univ. Press, 1961).

centers of power in a city. (The issue of locus and distribution of power is complicated even more by the shifts that are rapidly taking place; all of the books I refer to were written before the emergence of black power, chicano power, and other ethnic developments in American cities.)

How would the moralist decide between the option of Hunter and Dahl? First, he might review the evidences of each author, and seek to determine what evidences were omitted. He might assess the methods of research that were used, and judge which has the greater degree of sufficiency for the study of urban power structures. If he finds one to be a superior scientific study, he might use its authority for his work precisely on those grounds. But second, he might probe behind the scientific work to inquire into the concepts, the principles of interpretation, and indeed, the basic assumptions about the political and social process that inform each of the studies. Are there reasons why Hunter is pre-disposed to a power elite model of analysis? Is there a view of man involved in his choice? One which, in a sense, sees men as power-seeking (in a quiet conspiratorial sort of way) in their efforts to retain control of urban institutions for their own class interests? Are there reasons why Dahl is pre-disposed to an analysis which finds power more widely dispersed? Does Dahl's empirical work rest on confidence in the liberal democratic process, and does this confidence affect his analysis in crucial ways? Does it shade his awareness of power elites? Does it heighten his awareness of pluralism? If the moralist finds answers to these questions, he makes not simply a choice of the best scientific study, but a choice of a point of view that involves philosophical commitments, and that leads to certain pre-dispositions in the area of morality. The choice of model will have a significant influence on the kinds of social ethical policies he develops and supports; if these policies inform institutions and programs, they will in turn affect actions and their consequences.

3. Max Weber, in his sophisticated studies of the methodology of the social sciences, long ago indicated that one of the functions of such research for moral and policy choices is to assist one in *predicting the consequences of certain choices*.⁷ His argument is part of

⁷ Max Weber, *The Methodology of the Social Sciences* (Glencoe, Ill.: The Free Press, 1949). The essays in this volume were first published between 1903

a larger concern, namely one that attempts to limit the value biases in social sciences. Whatever one thinks of the total effort in this regard, one would have to admit that social and other empirical research can make the prediction of consequences more accurate. The point is this: if on moral grounds you choose course of action *a* under the known circumstances, then consequences *l*, *m*, and *n* are likely to occur; but if you choose course of action *b*, consequences *o*, *p*, and *q* are likely to occur.

The arena in which the moral choices are made is significant for the degree of accuracy in prediction. In the situation of a dying patient, predictions can have a high degree of accuracy. If a physician decides that patient *x* no longer has any right to use artificial life support systems, there is no question that by "pulling the plug" one creates the circumstances in which he will die. In the arena of social problems, however, the accuracy of predictions is not as precise. (I once read an article which indicated that the Ford Motor Company developed the Edsel on the basis of potential markets that were indicated by social research. As I recall, the research suggested that persons who moved from lower to higher priced cars tended to stay in the same automobile "family." Thus it was predicted that by building a car in the Ford family that was more elaborate than the Ford the company could increase its share of the total auto market. The illustration is trivial, but it makes the point.)

The moralist can make certain maximalist or minimalist claims for the authority of empirical research in the prediction of consequences for moral action. Hypothetically, he might establish a set of ends to be "good," and on the basis of social research define the policies and actions that would guarantee the achievement of those ends. (Max Millikan, in his essay on the uses of research in policy, in Daniel Lerner's, *The Human Meaning of the Social Sciences* indicates that researchers are often frustrated because persons who formulate policy and engage in the exercise of power rarely simply follow recommendations of the research. Millikan argues that policy makers have other matters to bring to bear than those in the purview of the researcher, and that the contribution of research is

and 1917 during the "method controversies" going on in German scholarship about the natural and "human" sciences. They, together with other literature of that struggle, are still worth serious study today.

"to deepen, broaden, and extend the policy-maker's capacity for judgment—not to provide him with answers."⁸) The moralist, however, is not likely to have so mechanistic a view of social developments that research would permit him to function as a social technocrat or engineer who can control events to guarantee their outcome.

A more modest claim is likely. In the light of empirical research the moralist is likely to gain insight into the potential consequences of various courses of morally determined action. Insofar as the consequences of action have moral weight, that is, insofar as they can be judged to be morally good or better, evil or less evil, calculation of consequences is of major importance. In this regard social research can fulfill an important role in more precise calculation. This is possible without accepting a view of absolute determinism; what one accepts is at least the degree of determinism that is assumed in all views of human action, namely that to initiate an act is to intend certain consequences and to exercise such powers as one has to make those consequences most likely to occur.

4. The more problematic use of the empirical sciences is in the *development of moral norms*. It is problematic because it raises the philosophical questions of the relations of fact to value, of the *is* to the *ought*. Our concern is not to rehearse that question in terms of the logical problems involved, or to review the hundreds of pages of discussion about it in the past seventy years. Rather we shall indicate some of the problems involved in the relation of empirical sciences to moral norms. Since the range of such sciences is so wide, and the applicability so multiple, our investigation takes on even more of an outline form at this point.

First, let us examine the possibility that the moral norms for economic justice might arise out of economic science, out of economic data. In the introduction I indicated that one no longer finds the level of generality of the great social encyclicals to be satisfactory for social ethics. Thus it is clear that I am positive about the contribution of economic science to economic ethics. But one immediately is pressed to ask: what are the principles used to judge

⁸ Max F. Millikan. "Inquiry and Policy: The Relation of Knowledge to Action," in Daniel Lerner, ed., *The Human Meaning of the Social Sciences* (New York: Meridian Books, 1959), p. 167.

a "good" economic system from the standpoint of economics? Not being well versed in economics, I can only indicate some hunches in this area; but it does not take much reading to find out that there are differences of opinion about what constitutes a good economic system. Clearly the science seeks to *minimize radical instability* in the economic system when economic knowledge is applied to policy. However, there are differences of opinion about how much instability is tolerable, and at what costs to whom in the society. Certainly *growth* has been a factor in recent decades in judging a "good" economic system. Growth clearly affects stability, and depending on where the growth is, it affects some persons adversely and other persons advantageously.

The more clearly ethical questions emerge when a word like *distribution* is introduced into the discourse, for it immediately evokes tones of justice. But it also calls attention to differences of opinion within the science itself. For example, I believe there was a strong opinion a few years ago that the way in which the economy might best grow would be for some persons to have sufficient resources beyond their needs in order to plow the surplus back into the economy in the form of capital investments. There was alongside of that the opinion that the pump should be primed at the other end, that is, by increasing the consumer power of the masses sufficiently to create increased demands which in turn would call forth increased capital investment. (I do not mean to suggest that these two opinions were not reconcilable at some levels.) My point is to suggest that the question of how wealth should be distributed is a factor within the development of the system, and does not necessarily, from the standpoint of the economist, immediately raise the questions of justice. But the question of distributive justice with all of its ramifications does enter rather quickly into a critical discussion. If one takes either of two famous formulas, "To each his due," and "Equals shall be treated equally," one quickly sees that economic science alone cannot determine what is due to each person, or who are the equals who ought to be treated equally, except on the assumption that the free market system takes care of the question of justice—that is, in a free market system persons would receive what was due them, and if they did not receive much they were not due much.

I hope it does not enlarge issues too swiftly or too much to sug-

gest that when economists address policy questions (and the purpose of their science is in large part to contribute to policy and the direction of society), the themes of liberty, justice, and power are always latent. Indeed, one difference between state controlled economies, such as that of the Soviet Union, and freer economies, such as that of the United States, is the difference between the allocations of liberty, justice, and power. One might argue, I suppose, that from an economic standpoint one reaches decisions about these distributions; that is, one might develop norms for the distribution of liberty, justice, and power out of assessments about what it takes to make the economy function with a minimum basis of instability and a necessary rate of growth. Yet, what might be judged to be best for the economic system to function as a system does not from various moral points of view satisfy, for example, the concern for distributive justice. What determines the norms of justice are non-economic judgments about whether persons are to be rewarded according to need, or according to productive contribution or other criteria of merit, or according to ascribed status due to inherited social class. Clearly, if need were the criterion, it would have significant consequences on the allocations of power and liberty in the society. These would be different from the consequences that occur if one or several criteria of merit were used, or if there were a mixture of need and merit. The moral norm of distributive justice does not arise from economic science, but is independent of it.

When one is addressing questions of economic *policy*, one is in an arena in which ethical considerations and economic science interact with each other. At this level a case might be made that policy norms, used to determine the exercise of economic power, take on a character that is both empirically and ethically informed. (In a sense, the encyclicals have not been policy statements, but guides for policy; the policies illumined or directed by them had to be worked out under particular economic, not to mention political and other social conditions). Yet even at the level of economic policy it is not possible to say that good economics is good ethics, since the references of the word good in each case is different. Good economics usually refers to the successful functioning of an economic system as this is interpreted from a particular point of view in that science,

and not to concepts such as distributive justice. Policy norms are informed by economic science, and refer to a given set of conditions in which the ends of human and moral values are sought, but policy norms are not in a restrictive sense purely moral norms.

In a paper, "What is the Normatively Human?" (to be published in the *American Ecclesiastical Review*), I have addressed the question of the relation of empirical sciences to the answer to that question in more detail. One example from that paper might be instructive at this point. In the area of obligations to keep life alive, at certain points the statistically human functions to establish the moral norm. These points pertain to birth defects. Birth anomalies of the grossest order are often called "monstrosities," and no moralist questions whether an obstetrician has the right not to sustain such living matter. Such monstrosities deviate so significantly from the statistical norm of the physically human that they are not judged morally to be human. At the other end of the spectrum are the "normal" infants, who are within the statistical range of the descriptively human, and here there is no argument about the obligations of obstetricians to sustain the life of such infants. Increasingly, questions are being raised about genetically defective fetuses, and about the relation of the statistical norm to the moral norm, or put in the form of a question, how defective (statistically deviant from the norm) does a fetus have to be before it is judged not to be normatively human from a moral point of view? Is the mongoloid fetus to be so judged? Is the fetus that has the dreaded Tay-Sachs disease? It is clear that the statistical norm refers not only to individual humans in such cases, but also to a normative conception of the human gene pool. A judgment about the benefits or cost to the future of the human race is based upon statistical extrapolations.

Clearly in the cases purported to be ambiguous the moral norm of the right to life is determined not merely by empirical evidence, but also by what the human community values as normatively human. There are appeals to moral values which are not imbedded in the empirically (physically) normative in all the instances in which the moralist would insist upon the right to life of fetuses or infants who deviate. Yet it should be clear that by permitting a

judgment in cases of gross deformities that is based on empirical evidence alone, the moralist has opened the door to the use of such evidence in other cases as well. There might be several responses to this dilemma. One, it could be argued that even in the cases of gross deformities there are appeals to moral values which enter into the judgment, and these support the contention that there is no obligation to sustain the living matter. Another might be an elaboration of the first, namely that there is a dialectic between the empirical and the ethical, and that this must be worked out with references to particular instances, or to classes of instances. If this is granted, however, one must accept a degree of necessary uncertainty of moral judgment, for one would be appealing both to "facts" and to "values" which do not cohere perfectly.⁹

B. MAJOR PROBLEMS INVOLVED IN THE USE OF EMPIRICAL SCIENCES

The purpose of this part of the paper is to specify some of the issues previously suggested. This can be done by formulating three major questions.

1. What data and concepts are relevant to the moral issue under discussion?

The answers to this question involve a number of difficult considerations. First, responses to "moral" problems are made in terms of the delineations of what empirically is the issue; such delineations are made in terms of experiential or empirical data. Thus what is included and excluded is crucial to what the actual moral issue is. One simple example will make the point clear. What is the situation of a dying patient? One has a different definition of the moral issues if the financial circumstances of his family is included in the situation than if it is excluded. If the use of artificial life support systems is draining the family resources, is this a relevant con-

⁹ The choice of both the previous example from economics and this one from medicine is intended to respond to John Giles Milhaven's statements in his "Exit for Ethicists," *Commonweal*, 91 (Oct. 31, 1969), 139. "Thus the ethical question can be purely a question of economics and an economics course appropriately replace the encyclicals." "Good medicine was good morality, and vice versa . . .".

sideration in the determination? From some moral points of view it is not, from others it is. To include such information reflects a moral point of view; at the same time the exclusion of the information would state the moral issues in a different way.

Second, in many instances the empirical studies used in moral theology and social ethics were not designed to help the moralist answer his questions; the studies were not done to resolve the moral questions. Thus the studies are in a profound sense "translated" from their own arena of purpose to another. Certain information which is crucial for the moralist might not have been crucial for another purpose. Great care must be taken in acknowledging the limitations and difficulties of this translation process, for it might not only distort the data used, but also require a reformulation of the moral questions in such a way that crucial aspects from an ethicist's point of view are ignored.

Third, it is possible that a pre-determination of which data and concepts are relevant to the moral issue might foreclose awareness of other studies, points of view, and information that are in the end of equal, if not greater relevance. For example, as one proceeds with a question of economic ethics, he might foreclose it if he is not aware that political and social issues studied by other sciences are at least as significant, if not more so, in coming to a resolution. The ethicist clearly needs to be open to a wide range of studies that might possibly pertain to the issues he is specifically attending to. The peril of openness should also be noted: since most human problems defy the boundaries within which research is conducted, it is possible to develop a degree of complexity of information and concepts that makes thinking unmanageable, and resolution impossible.

2. What interpretation of a field should be accepted? And on what grounds?

This question has been addressed at several points previously, and the considerations need only to be summarized here. If the moralist accepts an interpretation on its "scientific" adequacy, he has the burden of making his case for his choice on scientific grounds. Clearly most moralists are in no position to do that. Yet a counsel of despair is out of order. There are ways available to the moralist for determining which scholars are more reliable, and

which interpretations are at least most questionable. The moralist clearly needs to be in communication with scholars in the areas from which he borrows in order to avoid horrendous mistakes of judgment, but he has to accept responsibility for making choices within the best of his knowledge.

If he chooses those studies that have an affinity with his own philosophical or theological point of view, he must be prepared to defend such decisions. In such an instance he would argue for the researcher's philosophical point of view as being more adequate, accurate, or at least plausible with reference to the understanding of man and society. For example, if he has a preference for social research that maximally takes into account man's capacity to choose, decide and act (in short, a high measure of free will), he is in a sense not only under obligation to defend that philosophically, but also to argue that studies done from such a position are more likely to be empirically adequate.

The moralist's third possibility is more eclectic, namely to use empirical research for sources of "insight" into the nature of man and society. Here he takes full responsibility to be his own thinker, and not to borrow authority from the research. To defend such use he will probably make claims for interpretations and data on the basis of the "sense" that they make to him, and to his purposes. His uses are subject to critical judgment and to revision when the insights appear to be inadequate or the data invalid.

3. How does the moralist deal with the value biases of the studies that he uses?

If it is conceded that value preferences are involved in many dimensions of empirical research, this question can be difficult to answer. The researcher's choice of an area of study at least refers to his interests, if not to what he values as being significant for the human good. Thus there is a reference to value in the choice of what to study. In addition, his preference for certain values is likely to have a considerable measure of effect on how he defines his research problem, what he is looking for, and what he consequently sees. This has become clear in the conflicts within some of the social sciences between those who have revolutionary tendencies and those who are "liberal reformers."

Again, a counsel of despair is out of order, for while the post-empirical and even post-ethical (in the sense of decisions about values or ways of life that can never be fully defended on rational grounds alone) are at work, there are canons of evaluation about good research which mitigate some of the potential idiosyncratic consequences of these assumptions. As empirical sciences become more sophisticated about these matters, there is greater articulation of them by the researchers, and this facilitates the moralists' discourse.

The moralist has to accept responsibility for his own way of answering all three of these questions. He is, after all, finite. He can, after all, only do what he has the capacities to do. Within awareness of these questions, he is more likely to be a better moralist by being widely and deeply informed from the side of empirical research. But empirical research will never replace ethical arguments in the resolution of moral issues.

JAMES GUSTAFSON
Dept. of Religious Studies
Yale University