

## ETHICS—A MODEST SCIENCE?

*by Abraham Edel*

Traditional views place science and ethics at opposite poles among human disciplines. Science is objective, theoretical, concerned with describing and explaining the facts or what is, dealing with means; ethics is subjective, practical, prescriptive, concerned with values and what ought to be, focused on choice and decision, and dealing with ends (particularly ultimate ends). Science thus is value free, and so scientists make ethical decisions as citizens, not as scientists. And ethics, not leaning on science, must rest either on faith or on individual taste and intuition or else on group preference and tradition.

That the question whether ethics is a science is being raised now suggests that something has happened to these old dichotomies, that some kind of intellectual rapprochement is being negotiated. It is not hard to discern the practical background for this move. The traditional iron curtain between science and ethics served definite social functions. It insulated science from social responsibility, in earlier stages protecting it against charges of religious and moral subversion and in more recent times relieving it of responsibility for social effects. And it isolated established moral and social values from the currents of change. But both of these functions have been made obsolete by the twentieth-century changes of industrialization and urbanization, by the technological reshaping of life, the effects of war and revolution, demands for democratization and equality. It is difficult to spell out a value-free science in the midst of nuclear problems, recombinant genetics, and experiments with human subjects, or even simply where public investment of several billions is needed for supporting scientific research; scientists may claim that the responsibility is not theirs alone, but this is far different from not being responsible. And it is too late to isolate moral and social values when the established patterns already are profoundly altered; it becomes important to understand

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specific moral change, not merely the forms of moral discourse. The contemporary turn to problems of biomedical ethics, environmental ethics, the ethics of technology, etc., shows the penetration of largely new problems as well as the reshaping of the old ones. What has not been attended to sufficiently is the feedback of this movement on ethical theory itself in order to determine what roles science is now to play within the presuppositions, operations, and methods of ethics as a discipline.

The problem as we see it of whether ethics is a science is changed now in two respects. First, we no longer compare the nature of ethics and the nature of science in the expectation of a single, immutable answer; there is always a temporal and historical reference. Second, to be a science is only the extreme point along a continuum of being more or less scientific—let us speak, though awkwardly, of the degree of “scientificity”—where physics has furnished traditionally the model for the extreme. But even physics was once largely myth, and even Isaac Newton maintained a continuity with theology in his attempts to extract from alchemy evidence of divine shoring up of the world against processes of degradation. Today the question whether the ideal of physics is profitable for all sciences is actively raised. At any rate, even parts of a single scientific field may vary in the degree of systematic organization. The question therefore is not whether ethics is a science but how scientific ethics has been in various aspects and whether it can become more scientific by cultivating certain kinds of relations and whether it is important that it do so.

The discussion that follows is divided into three parts. The first reconsiders the traditional dichotomies and their present status. The second suggests what ethics would be like if it were more scientific and the advantages of turning it in this direction. The third distinguishes different degrees of scientificity and considers how likely they may be for ethics.

### TRADITIONAL DICHOTOMIES

Some of the dichotomies that kept science and ethics apart seem to have been quietly passing away, outmoded by scientific progress and the refinement of methods. For example, science as objective versus ethics as subjective was part of the metaphysical partition of matter and mind or spirit. Matter was regarded as regular, quantifiable, and simple enough to be subject to law, whereas spirit was complex and variable, qualitative and not subject to measurement, expressive of man's freedom. The social disciplines, not merely ethics, were disqualified from science. If the social disciplines now are established as moderately scientific, ethics need not be far behind. The psychological and

social sciences with the tools of statistics introduced measure into capacities and attitudes, and pretty soon measurement was venturing into all areas of life. About the mid-twentieth century anthropologists tackled values directly (including moralities) in relation to cultural setting and social problems. In ethics itself Francis Hutcheson in the eighteenth century offered an algebra for benevolence as a public benefit, and Jeremy Bentham's felicific calculus could be interpreted to yield partial success for legislative purposes. Contemporary reservations have begun to use the concept of quality of life to replace Bentham's greatest happiness of the greatest number partly because Bentham attempted a stronger measurement than appeared feasible but equally because of concern for the minorities neglected by the "greatest number." In any case, philosophers of science have long realized by this time that the relevant issue is not a metaphysical gulf between quantity and quality. Measurement is an attempt to establish ways of ordering things and properties and events; it has different degrees or strengths and can be done in different ways; indeed attention to the differences within the sciences themselves is required. There remains plenty of room for exploring types of order and for inventiveness in ordering in any field of inquiry.

Other dichotomies also have been blunted. In mid-century analytic ethics there was for a time a great to-do about ethics being practical and science theoretical, and there were attempts to develop a logic of practice distinct from the truth-valued logic. But concern with practice is no obstacle to a theory of practice; after all, engineering and medical sciences are concerned with practice, and ethics may be comparably scientific though practical. If a conception of pure practice as distinct from any theory is offered, doing without any thinking would be reduced to physical motion. Human action is purposive and intentional, and so most practical discourse has cognitive content, just as most theory has a prospective reference to practice.

The history of such dichotomies is instructive. They start off as if they referred to metaphysical distinctions or logical necessities or natural or structural joints of things. As we shall see, however, the moment they are applied to subject matters of this world they act as proposed categories in a tentative classification that are being tried on the material. Usually, when this is done, much more continuity turns up, and the distinctions are seen to be relative ones, usable in some contexts and for some purposes but not in others. Whether we keep them or abandon them depends on how they work out in experience. We would do better then to regard them as programs for research, not absolutely necessary cleavages.

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Let us try out such lessons on the two most formidable ones pertinent to our inquiry—the fact-value distinction (and its alternative is-ought distinction) and the means-end distinction. These are the ones most invoked in the separation of science and ethics.

The fact-value dichotomy has been proclaimed as a metaphysical one of ultimately distinct categories, as a linguistic one of the indicative and the imperative, as a methodological one of the descriptive and the prescriptive. But attempts to carry it out by separating off linguistic terms or phenomena have been notoriously unsuccessful. Moral terms such as “good” or “ought” have nonmoral uses (“That ought to do it” is predictive and largely factual, though perhaps tinged with a pro-attitude), and descriptive terms can carry moral standards (“Be a man”). And there are numerous terms, such as those indicating practices and roles (“promises,” “parent”) from which both “is” and “ought” statements can be unrolled. The attempt to distinguish moral and nonmoral uses of a term in some general or decisive way has proved equally unsuccessful. It sinks deeper into the context and eventually ceases to be an absolute distinction. As for phenomena, context is again determinative of fact status or value status. That a suit fits is a factual observation, but the fit of the suit can be used as a value criterion of well-made clothing. Similarly to have a given purpose is a definite phenomenon; but the purpose as an objective determines the criteria by which the behavior directed to it is evaluated. I shall not here repeat the long struggles that philosophers have waged in the most technical of terms about these issues. The outcome seems to me to be that fact and value are as relative as theory and observation, which positivism once sought also to capture in an absolute distinction. Theory in science has observational reference, and observations on no matter how primitive a level have theoretical or interpretive elements. It is also the case that no value is without its theoretical or interpretive elements and no fact without its context of selection and perspective in which values have entered. At this point there is no reason to think they can be unravelled into atomic facts and atomic values so that ordinary judgments are regarded as built up of a combination. It is much more likely that the so-called factual or value character arises from the context of use in different enterprises. Material has a factual character when used in the enterprise of describing, an evaluative character when construed as criteria for evaluating. Any material itself when analyzed can be seen to have embodied value criteria and factual determination in its own construction. As a general category, value indicates the selective aspect that enters into all experience, and knowledge or fact the outcome of experience organized.

In many contexts the distinction is quite useful—for example, the decision situation where it is best to gather all the information required before making the decision. But the gathering of information is not value free (“required” alone would show this); nor is the decision free from further factual encumbrance since it is provisional on the right kind of consequences ensuing. Hence the decision, once made, becomes a fact to be freshly evaluated by its consequences. Again the relative distinction of fact and value does not mean that science and ethics are correspondingly separated. Science may have plenty of values in it and ethics plenty of facts. The moralist can say that the way the world is going is immoral, but his judgment will require many factual supports; and the scientist can say that he does not let the moral judgment enter into his experiments and conclusions, but of course it is a moral commitment to truth that keeps the values out; hence it is a moral exclusion. Contextually relevant distinctions, yes; absolute dichotomy which separates the provinces, no.

The dichotomy of means and ends is perhaps the most vital to our problem. It may be objected that all we can say about scientificity in ethics concerns only the effectiveness of means toward achieving ends but that when we get to differences in ultimate ends we are up against a blank wall. There is no mode of adjudication, of rational decision, and so of the possibility of scientificity in ethics. Such an argument may be particularly appealing at the present time when whole peoples appear to take opposing sides on ultimate questions—the type of social system, the kind of life to lead—and there is a great deal of talk about choosing a whole style of life, such as the pursuit of inner spiritual peace as against material goods and success. Even the rational pursuit of truth in science has come in for rejection as people turn against the world of technology and its demands.

Two different ways of dealing with this question of means and ends are open to those who do not think of the issue as affecting the possible scientificity of ethics. One is to accept the formulation and deny its impact; the other is to question whether the means-end distinction is more than relative and contextual. Let us look at each.

Suppose we do have the possibility of greater use of science in ethics only with respect to means, within a context of agreement on ultimate ends. How much of ethics is affected as a result? It may be argued that the greater part of ethics is concerned really with structures and practices within ends that are common and unavoidable for human beings. Thomas Hobbes built a whole ethics on the need for peace and security, which he assumed all men sought; and it is quite possible that in the insecurities of today (international as well as national) the state of things is such that its constraints determine practically a whole

morality. Moreover, a morality can be built on necessary common means, not only on ends. Even if people's values differ, if peace and the abolition of war are necessary conditions for all value effort, however differently directed, then this means can be the basis for a large part of morality. Great instrumentalities and proximate ends do more of the heavy work of morality than is usually recognized. The emphasis on ultimate disagreement of ends as if it were the central problem of the possibility of a science-oriented ethics no doubt reflected the great social struggles of the twentieth century and the conflict of social systems. But it also was set in intellectual models for ethics. It posed issues as between individuals, on the assumption that statements about groups were to be reduced to statements about individual decisions; and it made the psychological assumption that the affective in a person is quite separate from the cognitive. Both of these are scientific and historical assumptions which may not be warranted. I have suggested elsewhere that we should distinguish between macroethics and microethics on the basis of the kind of problems and so avoid a dogmatic demand for reduction of large problems of mankind to individual will or fiat.<sup>1</sup> Certainly the great contemporary issues of, say, the extent to which our life is to be organized on the foundation of large-scale centralized technology or, to take a quite distinct type of issue, what kind of relations between men and women are morally desirable in our growing consciousness of the permeating role of sexist discrimination and what kind of institutions can support a moral reconstruction, are scarcely to be regarded as individual moral issues, however much individual decision can contribute to them. And the psychological assumption that the cognitive and the affective are utterly distinct is a constitutive scientific component of emotive ethical theories which has little scientific support. For a brief period in twentieth-century ethics emotive theory tried to make ethics pure expression. It was a passing phase which brought about some new lights, more about language than about morality, but scarcely got rid of the cognitive components in moral utterances. In fact it proceeded from an initial hypothesis that there were none. But there is no reasonable basis for viewing ethics as the effort of a person who has fixed attitudes to try to persuade others to hold them; ethics just as readily can be viewed as the effort of persons who share some values to widen the area of their value agreement by cooperative effort.

The view that the means-end distinction is itself relative and contextual is probably a more profound approach to the issue. It is basic to John Dewey's ethics and expounded by him in various writings that

deal with its psychological and social aspects as well as its philosophical analysis.<sup>2</sup> Let me add one point as sufficient here. An examination of how ultimate ends function in human life—or, for that matter, ultimate standards—will show that they are not isolated objects of wish or will or commitment and so cannot be simply accepted or rejected in an atomic fashion. That there can be long-standing disagreements about “ultimates” is not decisive, for there are long-standing disagreements about basics in a science like psychology as well. The point is rather long-range testability in some strong or weak form. Now ultimates in ethics function to organize the whole field of desires and values and commitments and paths of action and so can be themselves evaluated in spite of their phenomenological endlike character by their success in their tasks. In this respect they are like broad scientific theories that organize the domain of knowledge and are refined and altered as they prove satisfactory or unsatisfactory in the long run of experience.<sup>3</sup> So to regard them is to give an even broader scientific character to ethics. It is a matter of scientific study of human life and history to see whether such a view of ultimate ends does not correspond more closely to how moralities have functioned than the individualistic analysis that terminates in ultimate fiat. The character of morality and ethics is itself to be approached in scientific fashion.

#### TOWARD A MORE SCIENTIFIC ETHICS

Contemporary technical moral philosophy has shown great concern in drawing a fine line between doing philosophy and doing science. Under the restrictive view of philosophy that has dominated much of the twentieth century, to do philosophy was to engage in conceptual or linguistic analysis. To do moral philosophy (metaethics) was to analyze the language of morals. Beyond that there lay practical moral judgments (normative ethics), in which the philosopher had no special competence. But anything that savored of description or explanation was doing science. Thus if a moral philosopher invoked a theory of human nature or a psychological account of the affections or of the development of personality in dealing with obligation, or integrated a study of institutional structures in the analysis of moral rules, he risked being charged with doing psychology or sociology rather than ethics.<sup>4</sup> Science had no comparable restrictions. A political scientist could wander freely to gather psychological views of power as a foundation for political theory or deal with the mathematical aspects of decision systems. And it would be obvious nonsense to tell a physicist that he is not doing physics when he analyzes the distinction between force and momentum or works out the theory of dimensions for

concepts of mechanics, but rather doing philosophy. The same holds with respect to values: Medicine and psychiatry do not cease to be scientific when they adopt a pro-stance to health and work out the consequences of theories of growth and development for the refinement of the concept of health. In sum, there is no partition of analysis and evaluation on the one side as doing philosophy and description and explanation on the other side as doing science. Every discipline involves all four enterprises: It describes its phenomena or initial materials or data, it analyzes its concepts, it explains in causal or other theoretical terms, and it evaluates its aims and constructions. The important distinction is rather a different one: whether the descriptive and explanatory materials play a purely external role or a constitutive (internal) role in ethics itself. For example, if brain electrical conditions for feelings of remorse were discovered, they probably would be external and not add to the understanding of what is going on in the moral field. But a psychological theory of personality development as response to certain strivings in interpersonal relations plays an internal role both in relating moral criteria to underlying objectives and in enabling us to refine criteria of authentic and inauthentic striving.

What would happen to ethics if we opened the doors to a full exploitation of its materials in scientific terms and gave full scope to the descriptive and explanatory as well as the analytic and the evaluative? It surely could be as scientific as, say, political science. Its initial phenomena are the moralities that have existed on the face of the earth. There have been thousands of these, certainly as many as or more than there have been languages. Linguistics could not flourish on merely the introspection of a few users of a few languages. Ethics similarly needs a wide descriptive base. Again it could study its phenomena functionally, just as political science studies the conditions of the rise and forms of governing and states. Political science learns a great deal from studying historical shifts, such as from authoritarian to democratic systems and the role of economic and cultural factors in such processes. So too ethics could pay closer historical attention to great moral changes and the conditions under which they happened—both material and social conditions and the growth of knowledge. Let us sample a few. The discovery of how to preserve food made possible individual accumulation and so intensified moral ideas of individual property. (John Locke points to the invention of money as making accumulation possible.) The discovery of germs as causes of disease displaced an attitude of illness as a moral punishment. (Anthropologists actually have seen this happen in the accultu-

ration of peoples moving into the modern world.) The role of economic changes in the development of an individualistic success ethic replacing an ethics of resignation in one's allotted position is by now an old story in social history. The development of political techniques of voting and election has spread a moral idea of equality, and battery radio communication has given it a revolutionary impetus. The discovery of contraceptive techniques basically affected the relations of men and women in the family and revolutionized general attitudes toward sexual morality. The development of insurance as a social instrument eliminated many moral problems of allocating burdens and so gave a markedly different cast to problems of social justice. The growth of science itself brought a more fallibilistic attitude, almost an experimental approach, toward morality as one option.

Not only the content, structure, and changes of morality thus can be understood in a new light when approached in a spirit of scientific exploration but even the functions and concepts of morality as well. That is, ethical theorizing as philosophical reflection on morality itself becomes more self-conscious. It is largely relating ethics to psychology and social science that raises the question of the functions of morality—how far moralities have served as an instrument of social control more refined and internalized than legal institutions, how far they have been directed toward muting aggression in society, whether their objective has been to achieve greater social solidarity or to build certain kinds of selves, or whether the picture of the moral has changed in human history just as the picture of health has changed with the growth of medical knowledge. Analytic refinement too becomes possible when concepts are seen in relation to the contexts which beget and support them. In political science the concept of representation becomes highly refined with changing political forms and techniques of polling and rapid communication. So too in ethics a general concept of the prescriptive can be refined in the light of differences in social situations of command and advice as well as of psychological study of differences in modes of interpersonal influence; and a concept of justice can be attuned to all the investigations of the modes of distribution of gains and burdens inherent in different social structures. Even the most central ethical concepts—good, ought and duty, virtue—can be better understood and refined in the light of the concrete study of strivings and ideals, modes of inner group control, development of character. An excellent current example is the rise of the concept of human rights to a central place on the ethical stage. The very breadth of its use has produced confu-

sion which can be cleared up only by a study of its functioning in terms of contemporary needs and problems.

The consequences of such a scientific approach extend also into normative or value judgments. We see, instead of the sharp break between the factual and evaluative, the continuity that is inherent in the learning process. As we understand better human aims, conditions, and consequences of action and learn what is possible and what is not possible in the human condition, moral reconstruction and ethical reformulation become self-conscious. Such evaluation is not peculiar to ethics; it is part of every discipline. Pure science does it in aiming at a reliable and stable account of the world and in refining its methodological objectives in the light of changing ideas of what stability lies in and similarly in decision among concepts and many of its judgments of adequacy in statistical interpretation and research policy. Engineering, medicine, and agricultural science are all evaluative in their selections and decisions. Medicine would be a strangely truncated discipline if separated from the ideal of health, and the psychiatric decision whether to use a medical concept of health or social concepts of harmonious living (a much debated issue today) is both technical and evaluative. Engineering today has to make decisions between large-scale centralized technologies and medium-dispersed ones, and this too is nonetheless a value decision for being a technical one. In political science the study of social policy and its formation and conditions and techniques is a special part of the science, and the same can be done in ethics. Moreover, just as political decisions may be shaped largely by the use of the methods and techniques elaborated in political science (which include relations to other disciplines), so moral decisions may be shaped increasingly by the use of methods and techniques of analysis and relation to empirical conditions which ethical theory can elaborate. (The rapid rise of such fields as bioethics and technological ethics today shows the need for such an approach in ethics.) Moral decision is thus applied ethics in the same sense that engineering and medicine are applied science. Perhaps in both cases this description is simplistic. What we have rather is that certain crafts or enterprises take on altered shape as they involve in their work the discoveries and developed instrumentation of the several theoretical sciences. As crafts or enterprises they have been directed to certain purposes, and they gather their assistance from the theoretical sciences with these purposes in mind. The purposes of engineering and medicine have been fairly clear. Those of ethics have not been sufficiently explored, as we have seen; that is precisely because the question has not been approached in a scientific spirit.

DEGREES OF "SCIENTIFICITY"

Several different degrees of scientificity have been claimed for ethics in its history, and different strengths are possible. Interestingly the strongest claims for a science of ethics have come from scientists rather than moral philosophers. Usually these are imperialistic measures which reduce ethics to a particular science or integrate it with the scientific findings, the science having undergone a revolutionary development which has made it self-confident. In this way, after Charles Darwin, different patterns of evolution sought to lay down the lines which ethical progress must take or the biological needs it must service. Sociobiology is the most recent field to have such aspirations. On the whole, ethics proves richer than the bare bones thus captured. It is doubtful, however, that it could aspire to be a full-fledged science on its own terms insofar as physics is used as the model. That hardened stereotype insists on strict universality, rigorous deducibility, strong measurement, ample experimentation, an antihistorical attitude, as well as value neutrality. Many fields of science themselves retain their title only by courtesy on these terms, for there is much history in evolutionary biology, astronomy, and geology, not much strict universality in the social sciences, no empirical verification and experiment in mathematics, and definite values in engineering and medicine, etc.<sup>5</sup> It is scarcely worth asking whether ethics ever could approach such a strong degree of scientificity. It might do as well as political science in some respects or economics in others. It is premature to speculate whether, if the view of a science were released from the model of physics and different criteria developed for different kinds of materials, ethics might come to achieve moderately strong scientific status under the revised conditions. It might be the case conceivably that it is still in the position that physics was in the pre-Socratics.

A more plausible claim to scientificity would fasten on the possible use of scientific method in ethics. Of course what this consists in has not the sharpness that it was thought to have in positivistic philosophy. But doubtless a case can be made for the use in ethics of an inductive methodology as utilitarianism conceived it and even for many of its propositions being in fact so certifiable. Even affective indices may be employable, whether they invoke guilt or shame, sense of commitment or of unfairness, though they may lack the present precision of discriminated elements of sense perception as pointer readings. And if experiment in the controlled scientific sense is largely out of reach, there are the lessons of history about alternative institutions and the consequences of social change, and there may be exploratory

practice that comes from trying out fresh institutional forms in a period of social change. Again, even with respect to generalization, ethics can move from a rather wholesale notion of moral law to the refinements of logic with respect to types of statements and their truth or adequacy conditions. For example, too often moral discourse does not even distinguish a strict universal purporting to hold for all cases from one that claims to be of weight in all cases but allows of being outweighed. And there are many unexplored, unusual statement forms that broaden the variety of possibilities (e.g., "Never do this, but if you do, do it in such and such a way.") Now while there is no *a priori* ground against the use of scientific method in ethics, how successful it would be has itself to be judged in experience. It may prove more successful in macroethical than in microethical problems or provide conditions for validation rather than decision. Even in science, scientific method is more regulative than a method of discovery.

A further plausible claim to scientificity lies in using scientific attitudes in ethics—the scientific temper in exploring problems, due consideration for evidence, social cooperation in exploring, due consideration for alternatives, receptivity to accumulation of evidence and the lessons of experience. As compared to the dogmatism and intolerance that have characterized many fields of morality, this has much to recommend it. This should not, however, be interpreted as incompatible with moral firmness or be equated with a morally indifferent relativism.

A still further claim to being scientific is of a quite different sort. It maintains that ethics is becoming increasingly dependent in its pre-suppositions, assumptions, operations, and equipment on the results and products of the sciences. This is in part the same sense in which urban civilization has become dependent on technological knowledge and processes in its production and consumption and life generally. It is a familiar sense in which a field may be at one point unscientific and at a later point more scientific. For example, criminology both in the understanding of crime and in the detection of crime has become more scientific: As a branch of sociology it has achieved a fuller understanding of the problems that engender criminal action as well as the conditions of a society that determine what gets categorized as crime; and as an art of detection it has multiplied the products of science and technology that play a part in its operations. (Of course the mere use of scientific paraphernalia is not itself determinative; pseudosciences such as phrenology and racial psychology can use complex apparatus and make intricate calculations.) Perhaps the most refined sense of such dependence lies in the way in which ethical

formulations contain variables whose values are furnished by the results of the sciences. For example, traditional formulations of ethics about virtues and egoism are startlingly affected by the knowledge gained in the psychological study of aggression and psychopathy, and historical study has a comparable effect on analysis of the theory of justice. Advances of this sort show that ethics is not an isolated set of beliefs or convictions but a discipline that on both its theoretical and its practical side is capable of increasing organization, is corrigible, and can establish firm relations with the generally growing body of knowledge. It thus becomes more capable of learning in experience and refining itself.

Given the rapidity of technological and social change and the growth of scientific knowledge in all directions, we may conclude that a policy of affiliating ethics with the advance of science is warranted if ethics is to carry out the functions which it has in human life.

#### NOTES

1. See my "Toward an Analytic Method for Dealing with Moral Change," *Journal of Value Inquiry* 12 (Spring 1978): 81-99 (also in my *Exploring Fact and Value, Science, Ideology, and Value*, vol. 2 [New Brunswick, N.J.: Transaction Books, 1980], chap. 9).

2. See esp. John Dewey's *Human Nature and Conduct* (New York: Modern Library, 1930), pt. 4.

3. This is spelled out more fully in my *Method in Ethical Theory* (Indianapolis: Bobbs-Merrill Co., 1963), chap. 14.

4. John Rawls (*A Theory of Justice* [Cambridge, Mass.: Harvard University Press, 1971]) marks a definite break with these tendencies, for he deals in a systematic way with normative ethics and carries out analysis—all without stopping for analytic immigration inspection. The resultant structure is too imposing to gainsay its philosophical character.

5. See Max Black, "The Definition of Scientific Method" in *Science and Civilization*, ed. Robert C. Stauffer (Madison: University of Wisconsin Press, 1949), pp. 67-95.