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**The Impact of the Social Sciences.**
**by Kenneth Boulding.**
***New Brunswick, N.J.: Rutgers University Press, 1967. 114 pp. $3.75.***

Around the globe, and now stretching into space, is the "sociosphere" which includes all human beings and their intricate relations. This sphere has a dynamic of its own, although it clearly is mingled with the other spheres. We used to view the sociophere as being shaped by forces beyond our understanding and control. Over the last two hundred years we have become conscious of the fact that social nature, like nature's nature, is subject to human guidance once we understand its laws, and thus the social sciences were born. This new set of disciplines is itself part of the sociosphere, affected by it and affecting it. The more potent the social sciences become, the greater our capacity to "steer" our social life rather than being controlled by it.

Having set the stage, economist, "dove," and Quaker Boulding provides us with a quick, insightful review of the "state of the art" in economics, international relations, and the "sacred" aspects of life. Boulding selected economics because it illustrates social science at its best, international relations because it exemplifies the gap between the actual and potential achievements of social science, and the "sacred" because it is here that the mission of the social sciences is particularly "ambiguous."

At one point in the book Boulding reveals a deeper reason for his trinity: the world is composed of three kinds of relations—exchanges, threats, and "integrative" activities. While economics does not exhaust the study of exchanges—recently George Homans and Peter Blau applied it to the study of social relations—it provides the archmodel. Threats are used in any conflict, as Thomas Schelling has shown, but they are more central to international relations. Sacred elements may be found in all relations, but Boulding holds that they are best studied in the realm of law, religion, and ethics. Whatever settings one chooses to focus upon in one's efforts to explore this trinity (this reviewer focused on the study of utilitarian, coercive, and normative organizations),[1] such a triad, because it provides an exhaustive typology of social relations, leads to an understanding of the basic foundations of social life. We treat each other

[1] Amitai Etzioni, *A Comparative Analysis of Complex Organizations* (New York: The Free Press, 1961).

respectively as means (to an exchange), as objects (which have no rights, and hence can be forced), or as goals (in which case we treat others as an end in themselves, and we extend to them at least the same rights we accord ourselves). Thus, to fully comprehend these three relations, their derivatives, and their effects on each other, is to know the social realm.

Boulding is fully aware that the social sciences provide only one of three main approaches to the understanding of the sociosphere. He distinguishes among *folk* knowledge, such as common sense or oral traditions of primitive peoples; *literary* knowledge, in which the written word has high authority; and *scientific* knowledge, where empirical testing and logical relations prevail. Boulding seems to subscribe to a moderate evolutionary notion, that man's general knowledge progresses from folk via literary to more and more scientific knowledge, although we retain elements of all three. Our approach to the social life is still laced with many prescientific elements. Nor is Boulding completely sanguine about this evolution. He sees that folk knowledge has certain advantages over literary knowledge, because he believes folk-systems have built-in rapid "feedbacks" which do not allow unrealistic notions to prevail for long, while literary systems (he seems to have religious dogmas in mind) protect superstititions by the power of authority which is awarded to the written word. Nor is Boulding blind to the shortcomings of science, though in this little book (which is in part aimed at advancing the cause of the social sciences) he does not discuss in detail the tendency of the scientific perspective to abstract, dehumanize, and fragment our view of the world. Although we cannot rely exclusively for our knowledge of the social world on poets, journalists, and historians, without their kind of knowledge (which, by the way, is neither "folk" nor quite "literary," in Boulding's terms) we would miss half of what there is to know. Thus, to understand education in contemporary America, I would hate to have to do without Herbert Kohl (*36 Children*) or Jonathan Kozol (*Death at an Early Age)* just as I would be reluctant to give up the Coleman Report.[2] Some attention also should be paid to the procedure (methodology, if you wish) used in studies such as Edgar Friedenberg's *Coming of Age in America*. Is this folk, literary, or scientific knowledge? Or is it some kind of a combination, which makes for a fourth genre—more "scientific" than Kohl or Kozol, but also more "humanisstic" than Coleman (in the particular work referred to)—a genre of which Boulding's numerous books themselves are masterful samples?

Boulding subscribes to the proposition that scientific knowledge is based on the combination of formal (logical or mathematical) theory and an organized body of data. Keynesian economics and later developments, especially in econometrics, provide Boulding's model of a social science theory. He views the organized collection of national data on income as a model for the necessary factual input. He sees great hope in the theoretical works on international relations by Deutsch, Kaplan, McClelland, North, Richardson, Schelling, Singer, and others who use mathematical, logical, and "system" approaches. He advocates the establishment of an interna

[2] James S. Coleman, *et al.*, *Equality of Educational Opportunity* (Washington: U.S. Government Printing Office, 1966).

tional network of data-collecting stations to gather the needed facts.

Boulding points out here and in a previous publication (*Conflict and Defense*) that such a scientific approach in effect requires that the world be populated with a large number of units so that "random" variations (including personal ones) will cancel each other out. Some international data can be handled in this fashion—for instance, data about citizens and transactions. Data on governments and national leaders, on the other hand, are less amenable to Boulding's approach. Boulding seems to imply that this is a reason social science has not done much so far for international relations. (He once suggested that larger nations be broken into smaller ones, à la antitrust legislation.) As I see it, this is analogous to a tailor saying that the suit he has created does not fit the buyer because his bone structure is too broad. Perhaps a less formal science, less dependent on mass data and more amenable to institutional and personal analysis, could help out where the econometrics of international relations are being blocked.

Once Boulding has discussed the nature and evolution of the social sciences, he then asks about their impact. Although he is basically optimistic about the potential of the social sciences, the book is punctuated with Boulding's human impatience with policy-makers, especially those dealing with international affairs, who fail to listen to the findings of social science.

Boulding's latent rationalism comes to the fore in his almost complete disregard of politics and its mechanisms. In my view, social scientists know quite clearly how to avoid wars (do unto the world's nations as you did to the thirteen colonies: build a nation), to prevent riots (do unto the poor and minorities as you did for the working classes), and how to solve most other social problems. What we do not know is how to help the citizens and leaders see where their true interests lie and how to assist them to work out among themselves a program which will lead toward the good society. Our incapacity to control our fate is only in part "technological" (e.g., we need more effective birth control devices) or "managerial" (we need a way to provide more services with fewer bureaucrats); to a significant extent our problems are those of community-building and political maturation. It is here that the societal lack seems greatest and the contribution of the social sciences smallest. No wonder economics represents social science at its best; it is the science of means. And of course international relations seem to be the problem area; here the formation of new polities is of primary importance. It is no surprise that the status of the sacred realm is "ambiguous"; its normative content serves both to sanctify the obsolescent systems and to legitimate the new ones.

If the approach Boulding applies does full justice to economics and provides the foundations for a theory of international relations, his treatment of the sacred is more limited. He sees the tension between social science and the sacred as mainly institutional: while the social sciences are search-oriented, the sacred is ceremonial. Boulding contrasts the free atmosphere of laboratories with the awesome atmosphere of the courtoom or church. He says repeatedly that the social sciences and the sacred realm affect each other in ways that are partly complementary, partly competitive, but he has much less to say

about what these effects are or what the dynamic is.

As most social scientists have it, sacred institutions deal with value-judgments ("ought to") and social science with factual statements ("there is") and the two never meet (and should not). Actually, the sacred realm includes much folk-knowledge which is being undermined by social sciences in the way natural science drove religion out of cosmology. Just as the Copernican revolution forced men to change their notions of the earth's relation to the universe (which, in turn, affected their religious beliefs), the notion of society advanced by the social sciences forces us to adjust our attitudes toward the role of men as less adapting to and more the adaptors of social systems. The implications of such a change in perspective for a traditional thinker are far-reaching: he must acknowledge that the very social problems most condemned by society—e.g., crime, insanity and sexual nonconformity—are in fact created by society. He can no longer believe that individual men are solely responsible for these modes of behavior. Society, he must realize, is man-made and can be re-made by human efforts.

We are also aware, however, that "science does not conquer all." For one thing, scientific knowledge is always tentative and general, leaving to the sacred (including secular myths) the absolute pronouncements and the private explanations. (An anthropologist once asked a primitive man why he believed that a tribesman was killed by black magic; did he not know that the hut collapsed because the termites ate the foundations of a few huts each year? The man responded: Sure I know, but why did the termites pick on this one this year? Black magic answers *this question*, at least to the tribesman's satisfaction, *and* responds to his psychic need; science, in principle, cannot do either.)

Secondly, the explanations offered by the social sciences not only force the sacred to retreat from the arena of factual statements, but they also affect the value-judgments themselves. For instance, when criminology shows that capital punishment is not more effective than certain jail terms in deterring crime, it is harder for society to continue to sanction death sentences, although it could do so on abstract grounds (one *ought to* revenge the dead by death, "eye for an eye," etc.). The social sciences even penetrate so far as to explore the relations among values, e.g., by showing that separate *and* equal cannot be attained, that inequality and self-dignity are contradictory, and so forth.

Even more intricate is the disenchantment effect of science. Social science tends to weaken not only religious commitments but all normative ones, by making the individual aware of the relative, tentative, and "functional" nature of his values and moral upbringing. While there are various philosophical and ethical antidotes to this side-effect of science, it is a sociological fact that the social sciences tend to unmask society and in the process weaken those factors which give meaning to life and life to society.

Boulding touches upon these issues and states that he subscribes to a "mild optimism" that sacred systems *in toto* will be able to adapt to the impact of the social sciences as religion adapted to the rise of the natural sciences; however, he runs out of space before he develops his

reasons. Again, Boulding's latent rationalism shows in his favorable orientation toward a scientific critique of the value system itself, though he stops short of suggesting a Hume-like scientific ethic.

The educator and student of education will be gratified to see Boulding calling for more social-science concern with this realm.[3] He can also find here the tension between the aggregate statistical approaches (for instance, in survey studies and psychological testing) and the institutional and genetic approaches exemplified by societal, organizational, and personal case-studies. Finally, here too the increase in scientific knowledge offers a mixed blessing; it tends to detach as it dissects, and to fragment as it analyzes. Education, which still relies heavily on folk or literary knowledge, if not on sheer myth, will benefit most from what the social sciences have to offer if it does not lose sight of the need to temper the aggregative, fragmenting, meat-grinder approach of science with humanistic insights and sensibilities. Boulding's book itself offers a fine example of such a mix while his occasional rationalistic, ultra-scientific, apolitical lapses warn us of the traps which await those who do not constantly keep at least one eye on the world they seek to know as they evolve new methods of knowing it. Where Boulding occasionally slips, most of us are likely to fall.

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[3] The reader may benefit from a survey of the findings of social sciences provided by Berelson and Steiner, *Human Behavior* (New York: Harcourt, Brace & World, 1964) and a survey of the theoretical approach in McKenzie, *Politics and Social Science* (Baltimore, Md.: Penguin, 1967).

THE DYNAMICS OF MODERNIZATION: A STUDY IN COMPARATIVE HISTORY.
by C. E. Black.
*New York: Harper & Row, 1966. 207 pp. $5.95.*

This is an important and stimulating contribution to the relatively new study of modernization. As students of education have begun to investigate the role of education in modernization they, like others, have been hindered by several limitations in the basic literature: a culture-free and operational definition of the process *per se*; a competent historical study of different patterns and crucial variables in modernization; and a consideration of available data from all countries of the world, so that universal aspects of the process might be distinguished from those peculiar to a given country or culture. This book represents a courageous attempt to meet such needs.

Professor Black, a noted historian, is the first scholar to make systematic use of material on all countries of the world in a comparative study of modernization. Though cognizant of the problems posed by irregular sources, he feels "the time has now come to formulate generalizations about the whole of mankind in modern times." (p. 45) He does so in a highly intelligent, concise and clearly written manner. In the process he synthesizes a vast body of historical and social science monographs related to modernization and includes an excellent bibliographical essay on the literature. The result is a book that provides an important historical and worldwide frame of reference for those concerned with some aspect of modernization. It is also probably the best single introduction to the study of modernization as a whole.