THE SCIENCE OF SOCIOLOGY AND ITS METHODOLOGY:
DURKHEIM AND WEBER COMPARED

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It is perhaps a truism to say that the methodology of a sociologist depends on his definition and delimitation of the field of sociology. Yet it is also instructive to trace this relation and point out the connections between the two, because it enhances our understanding of why and how certain methodological principles were derived. The purpose of this paper is to discuss briefly the relation between the definition of sociology as a science and some of the resultant methodological principles of Durkheim and Weber, specifically the principles of objectivity and causal explanation in sociology.

Durkheim accepts sociology as a natural science and differentiates sociology from the other sciences by its subject matter. It is his definition of the subject matter that restricts his methodology of study. Weber in turn differentiates sociology from the natural sciences and it is the differences between the natural and social sciences that guide his methodology. Both men would agree that both the natural and social sciences must involve systems of general theoretical concepts and without these concepts logical proof would be impossible. Again both would agree that this system of concepts cannot possibly be conceived as a literal representation of the total reality of experience. Some standards are necessary for the selection of elements from the total reality, elements which are significant for the social sciences.

Durkheim, by his definition of sociology, delimits the phenomena to be studied. The cornerstone of sociology according to Durkheim is the axiomatic proposition that: "For sociology, properly speaking, to exist, there must occur in every society phenomena of which this society is the specific cause, phenomena which would not exist if this society did not exist and which are what they are only because this society is constituted the way it is." In other words, if sociology is to have its own field of study, collective ideas and actions must be different in nature from those that have their origin in the individual consciousness and must be subject to laws of their own. A corollary of the above proposition then is the position that social phenomena do not have their immediate and determining cause in the nature of individuals. If this were true, states Durkheim, the field of sociology would be reduced to that of individual psychology. Standards for selection of elements from the total flux of reality are contained then in the definition of the field of sociology. What must be selected out of the total flux of reality are social facts and these are identifiable by certain characteristics common to all social facts, their exteriority and their power of constraint.

Weber defines sociology as: "A science which attempts the interpretative understanding of social action in order thereby to arrive at a causal explanation of its cause and effects." This definition of the scope of
sociology by itself does not limit the field of sociology to a part of the total reality, social facts, but rather provides an approach to the study of a class of phenomena, social action. What then are the standards Weber proposes for the selection of phenomena from this class of phenomena? Weber states that in both the natural and social sciences these standards are found in the subjective direction of interest of the scientist. In the natural sciences, interest is centered on abstract generalities not the concrete individuality of an event. Therefore, the aim of the natural sciences is the formulation of a system of universally applicable general laws. These general laws constitute an end in themselves. In the social sciences, however, interest is in the individual uniqueness of an event or process. A particular event is not a case of a general law as in the natural sciences. Therefore, the formulation and verification of general laws cannot be an end in itself but only a means to the understanding of the unique and particular phenomena. According to Weber, this is one of the basic methodological differences between the two groups of sciences.

There is further another distinction on the level of the subjective interest of the scientist. In the natural sciences, there is a common interest of all scientists in control. Apart from this interest in control, natural phenomena are as an object of science indifferent to human values. In the social sciences, Weber states, human beings, their actions, and cultural achievements are the embodiments of value toward which the scientist must in some degree take a value attitude. Hence, interest is determined in the social sciences not by control but by the relevance to the values which the scientist either shares or which are significant to him. It is, therefore, the principle of value relevance which constitutes the selective organizing standard for empirical material of the social sciences. While stating this Weber also maintains that social science must be free from value judgments. These seemingly contradictory statements are most fully developed by Weber in an essay entitled "The meaning of ethical neutrality in sociology and economics."³

In this essay Weber is arguing against the position that an empirical science free of value judgments cannot treat subjective evaluations as the subject matter of its analysis. Sociology, he states, depends on the contrary assumption. The real issue is the intrinsically simple demand that the investigator should keep unconditionally separate the establishments of empirical facts (including the value-oriented conduct of the empirical individual whom he is investigating) and his own practical evaluation, i.e., his evaluation of these facts as satisfactory or unsatisfactory. According to Weber, while the subjective interest of the scientist in the natural sciences, that is control, is common to all scientists in this area, in the social sciences the subjective interest is not common to all scientists but rather is dependent on the individual investigator. Value systems are diverse and there is a plurality of different possible systems governing the interest of social science. Insofar as the selection of material is determined by relevance to value systems the same concrete materials will give rise, for example, not to one ideal type but to as many as there are points of view from which to study it. This discussion leads to important
implications for the role of concepts and general theory in the social sciences. First, concepts do not have as their purpose the production of mental pictures of objective reality, they are merely heuristic means for the purpose of organizing the chaos of the real world. They are tools that are created by the scientist. Secondly, conceptual formulations depend on the way a particular problem is put and on the interest of the scientist himself and as such depend on the social life itself. From this it follows that the process of sociological study will not produce one uniform system of general concepts and, therefore, there can be no universally valid system of general theory in the social sciences. Weber did not believe in the possibility or desirability of attempting to formulate a permanent generalized system of social theory.

Weber is forced into holding this view by his relativistic view that the problems investigated and, hence, the concepts useful for their solution were inevitably relative to the particular values involved in the situation and to the scientific interest of the observer. Durkheim, on the contrary, as Alpert points out, would state that social facts are linked by necessary general relations deriving from their very nature; they are subject to the principle of determinism; we can, therefore, discover invariant relations, i.e. laws, which express the necessary bonds between social facts. Whether Durkheim actually arrived at any invariant laws is another question.

Given the diverse number of value systems possible and the selection of social problems in accordance with the principle of value relevance, what claim to objectivity is left to the social sciences? In brief, Weber argues that objectivity in the social sciences lies in the logic of the scheme of proof, in the scientific method whose validity and objectivity remains, regardless of the problems or values under consideration. Once a phenomena is selected for study because of its value relevance, the establishment of causal relations between it and its antecedents or its consequences is possible only through the application of a formal scheme of proof that is objective and independent of any value system. Proof of causal relationships in any scientific field, Weber states, both the social and natural sciences, involves reference to the same logical scheme of proof.

Viewing sociology as a natural science, with standards of selection of phenomena determined by the definition of the subject matter of sociology, Durkheim arrives at a different answer to the question of how we are to deal objectively with subjective phenomena. If sociology is to be a natural science, with an objective method of proof, an objective body of rules and principles of procedure, this problem must be solved. First he states the object of study must be objectively delimited and this is accomplished by definition of the phenomena in terms of some property which is inherent in them. "Always take as an object of research only a group of phenomena precisely defined by certain external characteristics that are common to them..." and in this way objectively is gained because "the way in which facts are thus classified does not depend on him (the investigator) and the particular twist of his mind, but on the nature of things." Durkheim does not take
cognizance of the role of the investigator himself in the formulation of definitions or in the cultural and social milieu of the investigator. As Alpert states: "...because he failed to make explicit the prior rational considerations with which an investigator approaches his subject matter, Durkheim was led to attribute to definitions rather amazing powers of objectification."6

The second means to objective study of subjective phenomena is through the use of objective indexes. Because sociological phenomena are not amenable to direct observation, we must find an indirect method of observation and measurement. Finding the proper index of a sociological phenomena and operating it rationally for Durkheim are the necessary conditions of sociological objectivity. Such is the relation of law to social solidarity in his study of the Division of Labor. In addition, Durkheim states: "the more completely social facts are separated from the individual facts which manifest them, the more they are capable of being objectively represented."7 In other words, for Durkheim, a social fact by definition is exterior to the individual and, hence, objective. In studying this social fact objectivity is safeguarded by defining the social fact, not in terms of individual representations of this objective exterior social fact, but by defining it in terms of properties inherent in the social facts themselves, exterior to the individual. In addition, in studying a social fact which is subjective, such as social solidarity, objectivity is safeguarded by finding objective indexes of this social fact which are amenable to direct measurement.

Sociology must be an independent science according to Durkheim, that is, it must have a field of its own (social facts) and it must contain within itself its own principle of explanation (social facts must be explained sociologically, i.e., in terms of other social facts). This leads us to the third major comparison, that of Durkheim's and Weber's schemes of causal explanation. Explanation of a social fact for Durkheim means the determination of the causes, conditions, and functions of the social fact. The first step in the causal analysis is the definition of the object of explanation.

Durkheim's second step is the critical review of existing causal explanations. It is here that Durkheim and Weber begin to separate in their thought on causality. In his review of previous theories, Durkheim implies two premises, as pointed out by Alpert. One, that the theories eliminated include all the possible explanations save one, and two, that the factors treated as possible causes are mutually exclusive. "It is assumed that the causes must, for instance, be either cosmic, or psychological, or biological, or social."8 As Alpert points out, there remains the possibility that the causal factor is not any one of the alternatives taken separately, but several or all of them in interdependence and interaction. Moreover, these factors may all be different manifestations of another factor, not considered in the analysis, and, therefore, the factors do not have the independence with respect to one another that Durkheim often assumes. Weber, however, would be the first to admit, for instance, that the Protestant ethic is not the sole cause of the rise of capitalism, but is one of the causes. Another cause is the economic factors stressed by the Marxian school. What Weber tries to show is that economic factors do not constitute a sufficient explanation
of the phenomena of capitalism but ideological factors also play a role and indeed it is only when the joint product of the several social sciences are merged do we have as complete an explanation of a social phenomena as it is possible to obtain. In other words, a cause or causes can be social, and economic and political and it is not an either/or situation. A Durkheimian analysis would begin by eliminating all causes but the social as defined by him. While this probably overstates the case, it serves to point out the difference in the general orientation of the two men.

To return to Durkheim's scheme, having dispensed with previous theories, we now have a social phenomena, usually a correlation between two social phenomena, for which we are seeking a causal explanation. Having demonstrated the correlation between the phenomena we must posit a causal nexus and demonstrate the intelligibility of the causal nexus, that is, make it understandable by placing it in a given axiological system. In the causal nexus, we must include among the causal factors, the axiological significances attributed to things by human beings. By axiological significances is meant the ideals and values of human beings which in a given situation give direction to their behavior.

Next is the consideration of secondary factors for we are searching for causes and conditions. Secondary factors to Durkheim are the limiting conditions which either facilitate, interfere with, or impede a given phenomena. These factors, while they contribute to the existence of the phenomena in question, are not by themselves causally adequate to produce the phenomena. Durkheim does not explicitly state any justifications for distinguishing the causal factor from the conditions but merely states the proposition that: "A given effect has always a single corresponding cause." Having established the secondary factors, two steps remain, one to treat each of these factors in the same manner as one has analyzed the causes and two, to derive and critically review the consequences of the established propositions and laws.

We come now to the third part of the explanation of a social phenomena, the discovery of its function or effects. "When...the explanation of a social phenomena is undertaken, we must seek separately the efficient cause which produces it and the function it fulfills." A phenomena is not sufficiently explained when one has shown its utility, i.e., the need it satisfies. As Durkheim says: "To show how a fact is useful is not to explain how it originated or why it is what it is...The need we (individuals) have of things cannot give them existence...it is to causes of another sort that they owe their existence...Since each one of them (social facts) is a force, superior to that of the individual, and since it has a separate existence, it is not true that merely by willing to do so one may call them into being...It is, moreover, a proposition true in sociology...that the organ is independent of the function, in other words, while remaining the same, it can serve different ends. The causes of its existence are, then, independent of the ends it serves." It is for this reason then that the efficient cause and the function of a phenomena must be sought separately. While the utility of a phenomena does not explain its cause, it nevertheless does make intelligible why the phenomena persists and maintains itself. A function (according to
Durkheim) of a social institution or phenomena is the correspondence between the institution and some general need of the society in which it exists. For example, the answer to the question of the function of the division of labor in a given society is sought in the need of the society to which this function corresponds. This concept implies that there are social systems, which have necessary conditions of existence, and have a functional unity of the component parts.

In this total scheme of explanation it is the social reality sui generis that is being explained. This is, of course, consistent with Durkheim's delimitation of the field of sociology, that is the study of social facts, phenomena which would not exist if society did not exist and which are what they are only because the society is constituted the way it is. The cause of these phenomena is not the individual but the social. "The determining cause of a social fact should be sought among the social facts preceding it and not among the states of the individual consciousness. Moreover, we see quite readily that all the foregoing applies to the determination of the function as well as the cause of social phenomena. The function of a social fact cannot but be social, i.e., it consists of the production of socially useful effects. To be sure, it may and does happen that it also serves the individual. But this happy result is not its immediate cause. We can then complete the preceding proposition by saying: The function of a social fact might always be sought in its relation to some social end."[12] Durkheim's method is indeed "exclusively sociological" if one defines sociology as he does.

If one stays within the confines of Durkheim's system, this then is the end of sociological analysis, the discovery of the cause, conditions, and function of a social phenomena on the analytical level of society, not the individual.

Weber asks the further question of what leads the individual in the typical case to behave in a way which actually serves the survival value of the organized group. "The real empirical sociologist's investigation begins with the question: What motives determine and lead the individual members and participants...to behave in such a way that the community came into being in the first place and that it continues to exist?"[13] This is the unique distinction between the natural and social sciences, the ability to go beyond statements of causal and functional relationships, the ability to understand. This is, of course, Verstehen sociology. Proof of causal relationships in both the natural and social sciences involves reference to the same logical scheme of proof, Weber states, but having established the casual adequacy of interpretation, it is still necessary to establish adequacy on the level of meaning. One of the main distinctions between the natural sciences and the social sciences, Weber feels, is the ability to do this. In the natural sciences all that can be demonstrated are functional relationships and uniformities. The movements of atoms, molecules and the like cannot be understood in Weber's sense of the word, one can only observe or deduce uniformities present in such movements. In the social sciences, however, we can go beyond mere demonstration of functional relationships and uniformities, we can understand the actions and the subjective intentions of the actors. This is not to say that functional analysis is not useful to the sociologist or
important to him, rather it is not the stopping point of a sociological analysis. Weber holds that the functional view is useful for provisional orientation and in determining just what process of social action it is important to understand in order to explain a given phenomena.

Sociological analysis, however, Weber feels, only begins by demonstrating functional relationships and uniformities. Natural science stops at this level but sociology can accomplish the subjective understanding of the action of the component individuals. Subjective understanding is the specific characteristic of sociological knowledge. Causal adequacy on the level of meaning and vice versa is meaningless. "A correct causal interpretation of typical action means that the process which is claimed to be typical is shown to be both adequately grasped on the level of meaning and at the same time the interpretation is to some degree causally adequate. If adequacy with respect to meaning is lacking, then no matter how high the degree of uniformity and how precisely its probability can be numerically determined, it is still an incomprehensible statistical probability... On the other hand, even the most perfect adequacy on the level of meaning has causal significance from the sociological point of view only insofar as there is some kind of proof for the existence of a probability that action in fact normally takes the course which has been held to be meaningful."14

The question of the correspondence of "axiologic significance" and "verstehen" is beyond the scope of this paper. In general, it seems as Aron points out that: "although 'understanding' seems incompatible with one of Durkheim's rules of method (to treat social facts as things), it is not incompatible with the actual procedure of even the most orthodox partisans of French sociology."15

However, in the definition of sociology and its subject matter, and in his explicit statements of method, Durkheim restricts himself from analysis of sociological phenomena on the analytical level of the individual. He is logically forced into this position by his definition of the subject matter of sociology, social facts, and by his definition of social facts as exterior to the individual. Weber, on the contrary, holds that one of the distinguishing features of sociology as a science is the ability to understand individual behavior and this approach is built into his definition of sociology and permeates his conceptual framework, and scheme for causal explanation.

FOOTNOTES


10. Ibid., p. 95.

11. Ibid., pp. 90-91.

12. Ibid., pp. 110-111.


4. Some of the items of this scale have been adapted from: Thurstone, L.L., and E.J. Chave, The Measurement of Attitude, University of Chicago, Chicago, 1922.

5. Some of the items of this scale have been adapted from: Adorno, T. W., et al, The Authoritarian Personality, Harper, New York, 1950.

6. Thurstone, op. cit.


8. Adorno, op. cit.