

Review

Many arguments have been presented to support the case that a science of human behaviour and social life is not possible. Most of them derive from a view that any social uniformities are not the result of the same processes that produce regularities in physical or biological phenomena. They are seen to be the result of actions and decisions of human beings and can, therefore, be changed. It is claimed that not only do general laws of social life not exist but that even if they did their complexity, and the inappropriateness of experimental or mathematical procedures for their investigation, make it impossible to discover them. And even if they did exist and could be discovered, predictions based on them are likely to be confounded by the capacity of human beings to take such information into account in their actions.

Such arguments have not deterred the Positivists, the Critical Rationalists or the Interpretivists from providing answers to the question of whether the natural and social sciences should share the same methods. However, their approaches differ dramatically in terms of whether they accept the Negativist arguments and, if so, how they deal with them. A broad spectrum of answers has been offered, ranging from a dogmatic 'Yes' to a definite 'No'. However, answers to this question presuppose a view of what constitutes the methods of the natural sciences and, for many decades, one particular view prevailed.

The central debate within the philosophy of the social sciences has concerned the methodological unity of natural and social sciences. However, the way in which this debate has been conducted is fundamentally misconceived. This is because it has been viewed primarily in terms of the relevance of one particular conception of science, that of positivism, to the study of social phenomena. But ... there are a number of different conceptions of science and ... it is erroneous to discuss the methodological unity issue simply in terms of one particular characterisation of the natural sciences. (Keat and Urry 1975: 1)

Two such views of the natural sciences have been discussed in this chapter. Naturalism argues for the 'unity of method', but does so on the basis of a Positivist view of science. Positivism regards reality as discrete events that can be observed by the human senses. The only knowledge of this reality that is acceptable is that which is derived from experience, the recording of the 'unembroidered evidence of the senses'. The language used to describe this knowledge consists of concepts which correspond to real objects and the truth of statements in this language can be determined by observation, which are uncontaminated by any theoretical notions. It is assumed that there is order in this reality which can be summarized in terms of the constant conjunctions between observed events or objects. These regularities, which are considered to apply across time and space, constitute general laws but not causes; explanations are achieved by

demonstrating that any regularity is a specific case of some more general law. Positivism, but particularly the version known as Logical Positivism, rejects all theoretical or metaphysical notions that are not derived from experience. In the same way, value judgements are excluded from scientific knowledge as their validity cannot be tested by experience. That which cannot be verified by experience is meaningless.

The second view, Critical Rationalism, has supported Naturalism but has rejected many features of Positivism; it has advocated a very different view of the methods of the natural sciences. While adopting the assumption that there are uniformities in nature that can be discovered and described, it rejects the idea that 'pure' observation is possible. Observations are always made within a frame of reference, with certain expectations in mind. Therefore, generalizing from a limited set of 'impure' observations is not a satisfactory basis for scientific theories. Observations may furnish evidence of regularities that need to be explained, but the process of explanation must begin with a tentative theory, an idea that could account for what has been observed. Such a conjecture must then be subjected to critical examination and rigorous testing against 'reality'. Observations need to be made to collect data relevant to the theory. If these data are not consistent with the theory, the theory must be rejected, or at least modified and retested. If the data are consistent with the theory it can be provisionally accepted; it is corroborated. However, no theory is ever proved; its truth can never be established conclusively. The best that can be done is to eliminate false theories; corroborated theories will be used until such time as better theories are developed and tested.

These two views of science may share a common ontology but they adopt fundamentally different epistemologies. They both believe in the existence of an 'external' reality which is ordered, but they differ in the role that observation plays in discovering this order and in how the order is explained. Positivism views uncritically the activity of observing and the possibility of establishing the truth of a theory, whereas Critical Rationalism accepts the inherent limitations of observations and the impossibility of knowing whether a theory is true. Positivism places its faith in 'objective' procedures to arrive at the truth, while Critical Rationalism, as its name implies, is sceptical and rigorous in its evaluation of any theory that is proposed. The logics of their procedures are fundamentally different as are their products. Positivism produces descriptions of regularities which form a hierarchy of generality; lower level 'conjunctions' are explained as being specific cases of higher level regularities. Critical Rationalism, on the other hand, is interested in causal explanation which is regarded as a set of related and satisfactorily tested hypotheses. (The nature of these theories will be elaborated in chapter 5.)

Those founders of hermeneutics who were interested in establishing the social sciences with the same legitimacy and reputation as the natural sciences, rejected as inappropriate the concern of the natural sciences with explanation. Rather, they were interested in the understanding of human

activities that can be obtained from the interpretation of the meanings which underlie these activities. The methods of the natural sciences (and for early hermeneutics this was the Positivist approach) were therefore considered to be inappropriate for the study of human activities. From the beginning, the problem of how an interpreter from a particular time and culture could grasp the experiences of members of another culture, particularly from another historical period, was regarded as being fundamental. One approach was to try to reconstruct the mental activity of the author of a text or social activity, another was to reflect on the objectified expression and residues of cultural achievements. Both activities involve a process of constructing the whole meaning from the available fragments and then using the evolving whole to understand the parts, a process known as the *hermeneutic circle*.

A second fundamental issue which came to divide the hermeneutic tradition concerned the possibility of producing 'objective' knowledge from these activities, an understanding freed from the limitations of the social and historical location of the observer. The aspiration that human beings could exist in a state of pure consciousness gave way to a fully blown recognition that this is not only impossible but that it is also undesirable. The social world should be understood on its own terms in the same manner as its participants do, from the inside as it were, not from some neutral outside position occupied by an expert.

Hermeneutics and phenomenology provided the foundations for the Interpretivist view of the relationship between the natural and social sciences. This approach agreed that the natural scientist has to study nature from the outside and, therefore, at least in the Critical Rationalist view, has to invent suitable concepts and theories to describe and explain this reality. However, for the Interpretivist, social reality is the product of its inhabitants; it is a world which is already interpreted by the meanings which participants produce and reproduce as a necessary part of their everyday activities together. Hence, because of this fundamental difference in the subject matters of the natural and social sciences, different methods are required. The founders of this approach followed the branch of hermeneutics which sought to establish an objective science of the subjective with the aim of producing verifiable knowledge of the meanings which constitute the social world. The attention focused on the nature of meaningful social action, its role in understanding patterns in social life, and how this meaning can be assessed. Rather than trying to establish the actual meaning that a social actor gave to a particular social action, Interpretivists considered it is necessary to work at a higher level of generality. Social regularities can be understood, perhaps explained, by constructing models of typical meanings used by typical social actors engaged in typical courses of action in typical situations. Such models constitute tentative hypotheses to be tested. Only social action which is rational in character, i.e. which is consciously selected as a means to some goal, is considered to be understandable.

The question of whose meanings are used to construct these ideal types has been a matter of some dispute. Can the observer's point of view be used to attribute likely meanings or must they be taken from the social actor's point of view? The later contributors to Interpretivism raised the question of the relationship between the concepts and meanings of social actors and the concepts and meanings used in social theories, and argued that the latter must be derived from the former. Language came to be seen as the medium of social interaction and everyday concepts as structuring social reality. This everyday reality is paramount; it is argued that it is the social actor's not the social investigator's point of view that is the basis of any accounts of social life.

There are, therefore, three major classical positions which offer fundamentally different answers to the question of the relationship between the methods of the natural and social sciences. The Positivist approach, which emerged out of the philosophical discussions that accompanied the establishment of the natural sciences, made no distinction. Likewise, for Critical Rationalism, although this approach was based on a very different conception of the methods of the natural sciences. And running parallel to the emergence of Positivism was the negative responses of Hermeneutics and Interpretivism. While they did not necessarily challenge either of the Positivist or Critical Rationalist conceptions of the methods of natural sciences, they rejected them in favour of radically different methods for the social sciences. Chapter 3 explores more recent responses to the question, responses which largely reject Positivism and Critical Rationalism and incorporate aspects of Classical Hermeneutics and Interpretivism.

Further Reading

Key References

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