On the Logic of the Social Sciences

Jürgen Habermas

translated by
Shierry Weber Nicholsen
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Introduction

Thomas McCarthy

When it first appeared in 1967, *On the Logic of the Social Sciences* challenged the existing division of labor between the sciences and the humanities: “While the natural sciences and the humanities are able to live side by side, in mutual indifference if not in mutual admiration, the social sciences must resolve the tension between the two approaches and bring them under one roof.” At that time discussions of the methodology of science were still dominated by logical positivism. Kuhn’s pathbreaking work, published a few years earlier, had only begun to make itself felt among philosophers of natural science; in the philosophy of social science it was, and was to remain for some time to come, only a distant rumbling. Thus Habermas’s main concern was to challenge the hegemony of “empirical-analytical” conceptions of social science, to show, in particular, that access to the symbolically structured object domain of social inquiry called for procedures similar in important respects to those developed in the text-interpreting humanities. In making this point, he was already able to draw upon insights developed in the phenomenological (Schutz), ethnomethodological (Garfinkel, Cicourel), linguistic (Wittgenstein, Winch), and hermeneutic (Gadamer) traditions, and on this basis to mount an argument that anticipated in all essential respects the subsequent decline of positivism and rise of interpreti vism.

If this were all there were to the story, *On the Logic of the Social Sciences* would be primarily of historical interest as a striking anticipation of contemporary developments. But there is more. Habermas argued just as forcefully against swinging to the opposite extreme of “hermeneutic

idealism," which has since achieved something of a counterhegemony in the philosophy of social science (but not, of course, in the practice of social research). The point was—and is—to bring explanatory and interpretive approaches "under one roof," as Max Weber had already seen. Thus we have here not only an anticipation of the retreat of positivism, but a critique-in-advance of the absolutizing of interpretive approaches that followed. If social research is not to be restricted to explicating, reconstructing, and deconstructing meanings, we must somehow grasp the objective interconnections of social actions, the "meanings" they have beyond those intended by actors or embedded in traditions. We must, in short, view culture in relation to the material conditions of life and their historical transformation.

With this in mind, Habermas goes on here to examine functionalist approaches, in particular, the structural-functionalism of Talcott Parsons. He finds that the attempt to conceive of the social system as a functional complex of institutions in which cultural patterns are made normatively binding for action does furnish us with important tools for analyzing objective interconnections of action; but it suffers from a short-circuiting of the hermeneutic and critical dimensions of social analysis: "In the framework of action theory, motives for action are harmonized with institutional values.... We may assume, however, that repressed needs which are not absorbed into social roles, transformed into motivations, and sanctioned, nevertheless have their interpretations. Either these interpretations Overshoot' the existing order and, as Utopian anticipations, signify a not-yet-successful group identity; or, transformed into ideologies, they serve projective substitute gratification as well as the justification of repressing authorities." Habermas argues that if the analysis of social systems were fully to incorporate these dimensions, it could no longer be

understood as a form of empirical-analytical science on the model of biology; it would have to be transformed into a historically oriented theory of society with a practical intent. The form such a theory would take is that of a "systematically generalized history" that reflectively grasped the formative process of society as a whole, reconstructing the contemporary situation with a view not only to its past but to its practically anticipated future as well. This is, in fact, what the classical social theorists were after—from the natural history of civil society of the Scottish moralists, through Marx's historical materialism, to Weber's theory of rationalization. And yet, Habermas maintains, they were unable to grasp the methodological specificity of such a theoretically informed and practically oriented history; instead, they tried repeatedly, and in vain, to assimilate it to the strictly nomological sciences ornature.

Habermas finds in psychoanalysis the most suggestive model for reconceptualizing and reintegrating the explanatory and interpretive, functionalist and narrative elements required for social theory. Anticipating the extended discussion of Freud in *Knowledge and Human Interests* (which was published in the following year), he views psychoanalytic theory as a general interpretive scheme of psychodynamic development, whose application to the narrative reconstruction of individual life histories calls for a peculiar combination of interpretive understanding and causal explanation, and whose corroboration depends in the last analysis on the successful continuation of those same life histories. In an analogous way, critical social theory undertakes a narrative reconstruction of the self-formative process of society, with a view to its successful continuation: "In place of the goal-state of a self-regulating system, we would have the end-state of a formative process. A hermeneutically enlightened and historically oriented functionalism … is guided by an

emancipatory cognitive interest that aims at reflection.... The species too constitutes itself in formative processes, which are sedimented in the structural change of social systems, and which can be reflected, that is, systematically narrated from an anticipated point of view."

Since publishing *On the Logic of the Social Sciences,* Habermas has considerably expanded upon a number of its key elements. Thus, for example, symbolic interactionism and ethnomethodology, functionalism, and systems theory have come in for extended discussion in later writings. And although Habermas could write in 1982 that he still found the basic line of argument correct, he has altered his position in a number of important respects. The idea of founding social-scientific inquiry in a theory of language, which already existed in germ in *Knowledge and Human Interests,* came to dominate his work on universal pragmatics and rational reconstruction in the later sixties and early seventies. Toward the end of the 1970s he started the turn that culminated in *The Theory of Communicative Action,* a turn marked by the warning that methodology and epistemology are no royal road to social theory. Rather, questions concerning the logic of social inquiry can fruitfully be pursued only in connection with substantive questions—the theory of communicative action is not constructed in a methodological perspective. Despite these changes and developments, and despite the altered context of contemporary discussions in the philosophy of social science, the present work has somehow retained its power and fascination. Perhaps this is because it avoids the one-sidedness that still marks the views of the principal protagonists, and unlike them finds something of value in all of the major contending approaches to social inquiry, something worth preserving and reconstituting. Perhaps it is because Habermas here anticipates so many of the issues and themes that occupy us today, and does so with a

sharpness that has not been surpassed. Or perhaps it is because Habermas’s earlier sketch of a critical theory of the present—in the form of a systematically generalized narrative constructed with the practical intent of changing things for the better—has lost none of its appeal, even when viewed in the light of his later, more emphatically theoretical undertakings.

Translator’s Note

I would like to thank Arden Nicholsen and Jeremy J. Shapiro for their help in the preparation of this translation. Both of them read drafts of the manuscript and offered many valuable suggestions and criticisms.

Shierry Weber Nicholsen

Preface

This review of literature pertaining to the logic of the social sciences was written in the mid-1960s, when analytic philosophy of science, with its program for a unified science, still largely dominated the self-understanding of sociologists.[1] It contributed to the basic changes in that situation that took place in the following decade. My discussion not only continued Adorno's critique of positivism but also directed attention to the spectrum of nonconventional approaches—including the later Wittgenstein's philosophy of language, Gadamer's hermeneutics, and the phenomenological ethno-methodology stemming from Schutz—which, as Richard Bernstein noted a decade later, gave rise to a "restructuring of social theory."[2] The appropriation of hermeneutics and linguistic analysis convinced me then that critical social theory had to break free from the conceptual apparatus of the philosophy of consciousness flowing from Kant and Hegel.[3] The methodological (in the narrower sense) fruits of my efforts consisted chiefly in uncovering the dimension in which the symbolically prestructured object domain of social science could be approached through interpreting meaning.[4] This reconstruction of the buried hermeneutic dimension—whose rediscovery within analytic philosophy was to await the Popper-Kuhn debates[5]—had to be combined with an argument against hermeneutics' claim to universality.[6]

This review was written for a particular occasion. One reason for its cursory character is that I am not a specialist in this area. Moreover, the logic of research has always interested me only in connection with questions of social

theory. To be sure, I was convinced for a time that the project of a critical social theory had to prove itself, in the first instance, from a methodological and epistemological standpoint. This was reflected in the fact that I held out the prospect of "grounding the social sciences in a theory of language" in the preface to the 1970 edition of this work. This is a prospect I no longer entertain. The theory of communicative action that I have since put forward[7] is not a continuation of methodology by other means. It breaks with the primacy of epistemology and treats the presupposition of action oriented to mutual understanding *independently* of the transcendental preconditions of knowledge. This turn from the theory of knowledge to the theory of communication makes it possible to give substantive answers to questions that, from a metatheoretical vantage point, could only be elucidated as ques-tions and clarified in respect to their presuppositions.

Munich
August 1982

I

The Dualism of the Natural and Cultural Sciences

The once lively discussion initiated by Neo-Kantianism concerning the methodological distinctions between natural-scientific and social-scientific inquiry has been forgotten; the problems that gave rise to it no longer seem to be of contemporary relevance. Scientistic consciousness obscures fundamental and persistent differences in the methodological approaches of the sciences. The positivistic self-understanding prevalent among scientists has adopted the thesis of the unity of sciences; from the positivist perspective, the dualism of science, which was considered to be grounded in the logic of scientific inquiry, shrinks to a distinction between levels of development. At the same time, the strategy based on the program of a unified science has led to indisputable successes. The nomological sciences, whose aim it is to formulate and verify hypotheses concerning the laws governing empirical regularities, have extended themselves far beyond the sphere of the theoretical natural sciences, into psychology and economics, sociology and political science. On the other hand, the historical-hermeneutic sciences, which appropriate and analyze meaningful cultural entities handed down by tradition, continue uninterrupted along the paths they have been following since the nineteenth century. There is no serious indication that their methods can be integrated into the model of the strict empirical sciences. Every university catalogue provides evidence of this actual

division between the sciences; it is unimportant only in the textbooks of the positivists.

This continuing dualism, which we take for granted in the *practice* of science, is no longer discussed in terms of the *logic* of science. Instead of being addressed at the level of the philosophy of science, it simply finds expression in the coexistence of two distinct frames of reference. Depending upon the type of science with which it is concerned, the philosophy of science takes the form either of a general methodology of the empirical sciences or of a general hermeneutics of the cultural and historical sciences. At this time the work of K. R. Popper[1] and H. G. Gadamer can be taken as representative of state-of-the-art formulations of this specifically restricted self-reflection of the sciences. Neither analytic philosophy of science nor philosophical hermeneutics takes any notice of the other; only seldom do their discussions step outside the boundaries of their respective realms, which are both terminologically and substantively distinct.[2] The analytic school dismisses the hermeneutic disciplines as prescientific, while the hermeneutic school considers the nomological sciences as characterized by a limited preunderstanding.

The mutually uncomprehending coexistence of analytical philosophy of science and philosophical hermeneutics troubles the rigid self-consciousness of neither of the two parties. Occasional attempts to bridge the gap have remained no more than good intentions.[3] There would be no reason to touch on the well-buried issue of the dualism of science if it did not in one area continually produce symptoms that demand analytic resolution: in the social sciences, heterogeneous aims and approaches conflict and intermingle with one another. To be sure, the current state of the various social-scientific disciplines indicates a lack of even development; for this reason it is easy to ascribe

unclarified methodological issues and unresolved controversies to a confusion that can be remedied through logical clarification and a program of unified science. Hence the positivists do not hesitate to start from scratch. According to their postulates, a general and, in principle, unified *empirical-analytic behavioral science,* not different in structure from the theoretical natural sciences, can be produced from the purified corpus of the traditional social sciences.[4] Steps in this direction have been, taken in psychology and social psychology. Economics, with the exception of econometrics, is organized on the model of a *normative-analytic science* that presupposes hypothetical maxims of action. Sociological research is carried out primarily within the *structural-functional framework* of a theory of action that can neither be reduced to observable behavior nor reconstructed on the model of purposive-rational action. Finally, much research in sociology and political science is historically oriented, without any intentional link to general theories.

As I shall demonstrate, all three of these theoretical approaches can lay claim to a relative legitimacy. Contrary to what positivism assumes, they are not based on faulty or unclear methodological presuppositions. Nor can the more complex of these approaches be reduced, without damage, to the platform of a general science of behavior. Only at first glance does the confusion seem capable of being eliminated through clear-cut distinctions. Rather, the competing approaches that have been developed within the social sciences are negatively interrelated, in that they all stem from the fact that the apparatus of general theories cannot be applied to society in the same way as to objectified natural processes. Whereas the natural and the cultural or hermeneutic sciences are capable of living in a mutually indifferent, albeit more hostile than peaceful, coexistence, the social sciences must bear the tension of divergent

approaches under one roof, for in them the very practice of research compels reflection on the relationship between analytic and hermeneutic methodologies.

1 A Historical Reconstruction

1.1

Rickert was the first to try to grasp the dualism of the natural and the cultural sciences in a methodologically rigorous way. He restricted the claims of Kant's critique of reason to the realm of the nomological sciences in order to make a place for the cultural sciences, which Dilthey had raised to epistemological status.[5] Rickert's efforts remain within the framework of transcendental philosophy. Whereas phenomena are constituted as "nature" under general laws through the categories of the understanding, "culture" is formed through the relation of facts to a system of values. Cultural phenomena owe their unique historical significance to this individualizing value-relationship. Rickert perceived the logical impossibility of the strictly idiographic science that Windelband proposed.[6]

He acknowledged as a fact the unique achievement of the sciences based on understanding (*Verstehende Wissenschaften*): they grasp the unique, that is, unrepeatable meaning of historical events in expressions that are at the same time inevitably general and thus oriented toward what can be repeated. But he could not provide a satisfactory explanation for this fact.

Rickert presupposes—and here he is covertly in accordance with *Lebensphilosophie*—the irrationality of a

reality that is integrally present only in nonlinguistic experience: it disintegrates into alternative viewpoints under the transcendentally mediated grasp of the mind engaged in knowledge. These complementary aspects, in terms of which reality must be grasped in the form either of lawful continuity or of heterogeneous particularity, remain separate and distinct. In choosing an appropriate theoretical system we are presented with mutually exclusive alternatives in which the statements of one system cannot be transformed into statements of the other. Only the term "heterogeneous continuum" represents the unity of a reality that, from the transcendental perspective, has been divided; no synthesis produced by the finite understanding corresponds to this purely extrapolated unity. But how can the same reality that is grasped as nature under general laws be individualized through value-relational categories, if these categories themselves must have the logical status of universals? Rickert postulates that values do not have the same logical status as class concepts. He asserts that cultural phenomena are not subsumed by the values that constitute them in the same way that elements are subsumed in a class.[7] But this claim cannot be made good within the framework in which it is posed, that of transcendental logic. Rickert can only sketch the concept of a historical totality, because he distrusts the dialectical tools that would allow him to grasp it. A logic of the cultural sciences that proceeds on the basis of a transcendental critique of consciousness cannot avoid the dialectic of the particular and the general that Hegel identified. This leads beyond Hegel to the concept of the cultural phenomenon as that which is historically individuated, that which demands to be identified precisely as something non-identical.[8]

The philosophy of value (*Wertphilosophie*) itself arises from the same ambivalence of an uncompleted transition from Kant to Hegel. Rickert begins by constructing the

concept of culture on the basis of transcendental idealism. Like the category of nature, the category of culture, as representing a totality of phenomena under a system of prevailing values, has transcendental significance; it says nothing about objects themselves but rather determines the conditions of the possible apprehension of objects.

To this construction corresponds the optimistic assumption that a system of values can be deduced a priori from practical reason.[9] But Rickert soon had to abandon this idea.[10] The actual profusion of so-called values could be deciphered only in the real context of cultures in which the value-oriented action of historical subjects had been objectivated—even if the validity of those values was independent of these origins. If this is to be conceded, then the Neo-Kantian concept of culture succumbs to the transcendental-empirical ambiguity that found its dialectical development in Hegel's concept of objective spirit, but that Neo-Kantians had to reject. The cultural sciences encounter their object in preconstituted form. The cultural meanings of empirically functioning values systems are derived from value-oriented action. For this reason, the transcendentally mediated accomplishments of subjects whose actions are oriented to values are at once both incorporated into and preserved in the empirical form of historically sedimented and transmitted values.

With history, a dimension is brought into the object domain of science in which an element of transcendental consciousness is objectivated through the action of historical subjects; that is, a meaning is objectivated that in each case can claim validity only in terms of a transcendental network of values. Rickert tries to do justice to the objectivity of these historically real contexts of meaning with the concept of transcendental "ought."[11] But this concept only exemplifies the contradictions that the

firm distinctions between facts and values, empirical being and transcendental validity, nature and culture, seek in vain to resolve. Because Rickert will not abandon the distinctions made by transcendental philosophy, they crumble in his hands despite his intentions. Through the breach of the transcendental “ought” a restoration rushes in that, in opposing Rickert, openly acknowledges in the philosophy of value something that lay hidden in Rickert’s philosophy: an insipid ontology of ideal being (Max Scheler and Nicolai Hartmann).

Today the logic of science is no longer based on the Kantian critique of reason; it starts from the current state of self-reflection of the nomological and hermeneutic sciences. Analytic philosophy of science is content with rules for the logical construction and choice of general theories. It establishes a dualism between facts and pro-positions and refrains from understanding this dualism from a transcendental perspective.[12] Philosophical hermeneutics no longer defines itself in relation to a Kantian concept of nature and general law. It relinquishes the intention of constructing a world of cultural phenomena and is content with explicating traditional meaning. Nevertheless, I believe that a resumption of Rickert’s attempt to reflect on the dualism of the sciences, even on a non-Kantian basis, would once again set in motion the movement from Kant to Hegel that was so interestingly modified and then abandoned by Rickert. Today such a movement can no longer begin with a critique of consciousness; it must begin with a transcendental critique of language. Neo-Kantianism itself—not that of the Heidelberg school but that of the Marburg school—reached this point with Cassirer’s philosophy of symbolic forms.

1.2

Cassirer avoids the ambiguous category of value, which was supposed to capture the empirical significance of historically realized meanings without relinquishing the transcendental significance of a validity independent of its origins. Instead, he analyzes the logical structure of symbolic forms. In his own fashion Cassirer makes the same shift that positivist linguistic analysis makes, from the logic of judgments to the grammar of sentences. But he does not restrict himself to the formal relationships within the symbol systems used in everyday language or by the empirical sciences; the level of symbols interests him as a medium of transcendental production. Cassirer has read Humboldt from the perspective of a Kant enlightened, rather than rejected, by Hamann. The phenomenal object is no longer constituted directly through the categories of intuition and understanding, but rather through a transcendental achievement that can be grasped within the sphere of sense perception through the creation of systematically ordered symbols that give objectivity to sense impressions. The understanding alone cannot accomplish the synthesis of phenomena; symbols are required to make traces of what is not given apparent in what is given. The inner world presents itself to the mind to the extent to which the mind creates forms that are capable of representing a reality that is not accessible through intuition. Reality manifests itself as something represented. Representation is the basic function of transcendental consciousness; its achievements can be deciphered indirectly from the grammatical relationships of symbolic forms. The philosophy of symbolic forms, which supersedes the critique of pure reason, aims at a logical analysis of language from a transcendental point of view.

Clearly, the language of symbolic forms is richer than the symbol systems constructed for the use of the empirical sciences. In addition to science, it encompasses myth, religion, and art. Like Rickert, Cassirer tries to extend the

critique of strictly scientific knowledge to a universal critique of all cultural phenomena:

> Every authentic function of the human spirit has this decisive characteristic in common with cognition: It does not merely copy but rather embodies an original, formative power. It does not express passively the mere fact that something is present but contains an independent energy of the human spirit through which the simple presence of the phenomenon assumes a definite "meaning," a particular ideational content. This is as true of myth as of religion. All live in particular image-worlds, which do not merely reflect the empirically given, but which rather produce it in accordance with an independent principle. Each of these functions creates its own symbolic forms which, if not similar to the intellectual symbols, enjoy equal rank as products of the human spirit. None of these forms can simply be reduced to, or derived from, the others; each of them designates a particular approach, in which and through which it constitutes its own aspect of "reality."[13]

Each of the various symbolic systems poses a claim to truth from its own perspective. Science forfeits its privileged claim to truth; philosophy reserves it for itself, in reflexively limited form. "True" knowledge is now possible only with respect to the transcendental conditions of symbolic representation, no longer with respect to what is represented. According to Cassirer, it is only through the image-worlds that are articulated in symbolic forms that

> we see what call "reality," and in them alone we possess it: for the highest objective truth that is accessible to the spirit is ultimately the form of its own activity. In the totality of its own achievements, in the knowledge of the specific rule by which each of them is determined …, the human spirit now perceives itself and reality. True, the question of what, apart from these spiritual functions,

> constitutes absolute reality …, remains unanswered, except that more and more we learn to recognize it as a fallacy in formulation, an intellectual phantasm.[14]

Cassirer believed that with this self-reflection of representational reason he had opened the way to a new philosophy of the cultural sciences.

Cassirer makes a clear separation between the levels on which the natural and the cultural sciences operate. Rickert had accorded both the same status, that of empirical science. Now the cultural sciences have achieved the status of metatheory. The nomological sciences produce statements about reality within formally defined symbolic systems. In this respect they stand on the same level as myth, art, and religion, which also present a reality selectively comprehended within specific frames of reference. The cultural sciences, in contrast, concern themselves with formal relationships among symbolic forms. They provide no information about reality, but rather make statements about information that is pregiven. Their task is not empirical analysis of segments of reality that can be represented but rather logical analysis of the forms in which they are represented.

By this means the difficulties of Rickert's theory are avoided. The problem of the mediation of an individual particular with a non-classificatory universal does not arise as long as what is required is to analyze given symbolic relations from a formal point of view. Although the grammar of any specific symbolic language will prove to be an irreducible totality, Cassirer is convinced that the diverse grammars of art and myth, religion and science operate with the same categories. Cassirer then explains the transcendental universality of these categories, which synthesize unity in multiplicity, in terms of symbolic representation.

Nor is the place of cultural phenomena a problem. Although as physical signs, symbols extend into the sphere of sense perception, they are not to be equated with the empirical phenomena with which the natural sciences are concerned. Rather, they are the transcendental precondition of the world appearing to subjects in the first place. Thus the science of cultural forms operates in formal-analytic rather than causal-analytic terms. It directs itself to the structural organization of works rather than to factual connections between events. It shares the reflective viewpoint of transcendental logic, even though a moment of historical tradition, and thus empirical givenness, adheres to symbolic forms. But for Cassirer this moment is not, as it was for Rickert, an unanalyzed residue, because Cassirer, in the manner of Hegel, no longer separates reason from its objectivations or transcendental consciousness from its symbol expressions, which can be conceived both transcendentally and empirically. In this way, however, Cassirer elevates the cultural *sciences* to a level on which they can no longer be distinguished from a *philosophy* of symbolic forms. He divests them of their character as science.

Cassirer pays a high price for this interpretation of the dualism of science within the framework of a construction of representational reason. The statements of the nomological sciences can no longer assert their specific claim to empirical validity, because the scientific languages in which they are formulated are, in principle, on the same level as myth and fable. The validity of scientific statements could be legitimated only if Cassirer relinquished the idea of the equal primacy of symbol systems in favor of a developmental history of transcendental consciousness. But the dimension of history cannot be accommodated within the philosophy of symbolic forms. The cultural sciences share this deficiency. They are the exponents of a general

grammar of symbolic forms. But the historical process in which these forms are constituted, the contexts of tradition in which culture is transmitted and appropriated, the very dimension, that is, in which culture exerts its effects, remains closed to the cultural sciences. They proceed ahistorically. They are structural sciences under the gaze of which history evaporates. They retain only a morphology of forms immanent in cultural works, on the model of Wölffiin's principles. Thus the historical sciences, whose methodological status Rickert was attempting to clarify, elude Cassirer's grasp.[15]

In 1942 Cassirer once again began to work on the logic of the cultural sciences,[16] focusing on the phenomenology and psychology of the perception of expressions, which was supposed to extend the original unity of apperception to a new dimension that is logically prior to the operations of the understanding.[17] While this approach may have significance for the question of the constitution of the natural lifeworld (thereby for the first time placing Husserl's return to Kant in its true light), it does not provide a meaningful basis for the logic of science. Cassirer wants to derive the various types of science from specific sources of experience: it is in the polarity between the perception of things and the perception of expressions that the opposition that is explicity developed in the methodological frameworks of the natural and cultural sciences is supposed to reside.[18] But this view would accord with the philosophy of symbolic forms only if specific conceptual and perceptual structures were derived from the employment of specific symbolic systems.

Both of Neo-Kantianism's attempts to account for the dualism of the sciences were fruitless. The problem vanished from philosophical consciousness almost as completely as it did from the methodological self-

understanding of the empirical sciences—with one exception. Max Weber began where Rickert stopped and assimilated his methodological principles for the social sciences so effectively that the discussion of Weber's methodology of the social sciences is still going on today.[19] In terms of the history of philosophy this constitutes an anachronism. But it is also a symptom of the fact that, positivist logic of science to the contrary, the problem that Cassirer and Rickert addressed has not yet been resolved in the practice of the social sciences.

1.3

Max Weber was not interested in the relationship between the natural and cultural sciences from an epistemological point of view, as were Rickert and Cassirer. He was not troubled by the implications that the recently arisen *Geisteswissenschaften* might have had for the extension of the critique of pure reason to historical reason. From the philosophical investigations that, since Dilthey, had been concerned with this question, he took only what he needed to clarify his own research practice. He conceptualized the new social sciences as cultural sciences with a systematic intent. Clearly they combine methodological principles that philosophers had found in opposing types of sciences: the social sciences have the task of bringing the heterogeneous methods, aims, and presuppositions of the natural and cultural sciences into balance. Above all, Weber analyzed the combination of explanation (*Erklären*) and understanding (*Verstehen*), The connection between explanation and understanding involves quite different rules, however, depending on whether we are concerned with methods, with aims, or with presuppositions. Weber's intricate philosophy of science becomes easier to understand when one distinguishes among these cases.

The definition of sociology that Weber gives in the first paragraphs *of Economy and Society* applies to *method:* "Sociology is a science concerning itself with the interpretive understanding of social action and thereby with a causal explanation of its course and consequences."[20] We may consider this sentence as an answer to the question, How are general theories of social action possible? General theories allow us to derive assumptions about empirical regularities in the form of hypotheses that serve the purpose of explanation. At the same time, and in contradistinction to natural processes, regularities of social action have the property of being understandable. Social action belongs to the class of intentional actions, which we grasp by reconstructing their meaning. Social facts can be understood in terms of motivations. Optimal intelligibility of social behavior under given conditions is not, of course, of itself proof of the hypothesis that a lawlike connection does in fact exist. Such a hypothesis must also prove true independently of the plausibility of an interpretation in terms of motivation. Thus the logical relationship of understanding and explanation can be reduced to the general relationship between hypothesis and empirical confirmation. Through understanding, I may interpolate a rationally pursued goal as sufficient motivation for an observed behavior. But only when the resulting assumption of a behavioral regularity occurring under given circumstances has been empirically substantiated can we say that our understanding of motivation has led to an explanation of a social action.

This logical connection also makes clear why Weber accorded methodological primacy to purposive-rational action. As a rule, the interpretively interpolated goal, the assumed intention, will lead to an empirically convincing explanation only if the goal provides a factually sufficient motive for the action. This is the case when the action is

guided by the intention to achieve a result to be realized through means chosen in a purposive-rational manner, thus in the type of purposive-rational action that is oriented to the choice of adequate means to achieve an end grasped with subjective clarity. Theories that admit only this type of action proceed, like pure economics, normative-analytically. They can lead to substantive empirical hypotheses only within the very narrow limits in which social processes actually correspond to the methodological principle of purposive-rationality. Thus the discussion leads inevitably to the question how it is possible to form systematic assumptions about actions that are understandable but irrational in relation to ends. Only theories of this kind would combine understanding and explanation within an empirical-analytic framework.

Weber himself believed that, in an interpretive sociology, behavior that was not purposive-rational could be investigated only as a "deviation" from a model of purposive-rational behavior constructed for the sake of comparison. In view of these difficulties, the question emerged whether the social sciences should consider the intentionality of action at all. The problematic of understanding, insofar as it relates to methodology, would be resolved if the assumptions concerning lawlike regularities were restricted to connections among descriptive behavioral variables, whether or not these assumptions could be rendered perspicuous through the interpretation of motivation as well. Weber, too, reckoned with the possibility that "future research might discover non-interpretable uniformities underlying what has appeared to be specifically meaningful action."[21] It would adequately explain social action without fulfilling the requirement of adequate meaningfulness. But Weber excluded such laws from the domain of the social sciences on principle. Otherwise the social sciences would have the

status of *natural* sciences of social action, whereas, since they are oriented toward intentional action, they can only be nomological sciences *of mind and culture.*

In his essays on the philosophy of science, Weber often remarks that sociology must both understand social facts in their cultural significance and explain them as culturally determined. Here the relationship between explanation and understanding applies to the *aims* of the social sciences. Weber's statements are ambivalent, for two opposing intentions are involved.

On the one hand, Weber always emphasizes the empirical-analytic task of using proven lawlike hypotheses to explain social action and make conditional predictions. From this point of view, the social sciences, like all nomological sciences, yield information that can be translated into technical recommendations for the rational choice of means. They supply "knowledge of the technique by which one masters life—external things as well as human action—through calculation."[22] Technically exploitable knowledge of this kind is based on knowledge of empirical uniformities; such knowledge is the basis for causal explanations that make possible technical control over objective processes by means of conditional predictions. A social-scientific knowledge guided by this interest would have to develop and apply its instruments with the sole purpose of discovering reliable general rules of social behavior. Insofar as the subject at hand demands it, such an analysis can be mediated by an understanding of the meaning of social action. Nonetheless, the intention of understanding subjective meaning can do no more than open the way to the social facts. These are known only when the analysis proceeds beyond propaedeutic understanding and grasps their lawlike connection in causal terms. In the controversy over value judgments Weber adopted this position, which gives a methodologically subordinate status to the