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History: Theories and Methods

Since history turned into an academic discipline in the nineteenth century and professional historians claimed a privileged epistemological status for their approach vis-à-vis non-professional approaches to history, debates about the role of methods and theories in history have been characterized by a certain conjuncture. In periods of relative uncertainty and crisis about the status of history as a distinctive, academic discipline—such as the periods between 1880 and 1920 and 1965 to 1985 in the West—a substantial body of historians

participated in these debates. In those periods, *Metho- denstreit* is more or less intense and visible, while in periods of relative certainty and academic recognition, this type of debate usually recedes into the background. So, seen from a historical point of view, reflection on the role of methods and theories in history is in a sense a symptom of crisis; at least outside the small group of historians and philosophers who permanently reflect on history in their capacity as philosophers of history. This direct connection between a 'reflective mood' among professional historians and their sense of professional uncertainty makes sense because, as will be elucidated below, method and/or theory have usually been presented as the discipline's cognitive foundations, especially its claim to produce 'objective' knowledge of the past. Therefore, doubts and debates about method and theory in history are always doubts and debates about the discipline's cognitive status, its academic credentials, and its claim to objectivity.

Seen from the point of view of the sociology of science, debates about the role of methods and theories in history have usually been directly linked to battles waged by the proponents of different conceptions of history for academic legitimacy and supremacy, that is, for academic recognition and reputation. In periods of serious competition for 'intellectual capital' (Bourdieu) between several competing groups, operating within the same 'academic field,' debates about methods and theories in history have been intense. This not only holds true for history, but also for other social sciences such as sociology, economics, psychology, etc., and, therefore, are a characteristic of pluralistic or poly-paradigmatic disciplines.

Characteristic for the periods of increased interest in theory and method is also an increased interest in the history of the discipline in case from both an intellectual and from an institutional angle. This interest in disciplinary history is usually motivated by a desire to locate the origins of the preferred conception of historical theory and method in the discipline and to generate academic credentials by locating prestigious founding fathers or precursors of the preferred conception in the discipline's pedigree. Therefore, in history, an increased interest in the history of history writing alias historiography can usually be observed alongside an increased interest in theory and method: theoretical and methodical reflections usually are accompanied by reflections on the origins, nature, and variety of historiography.

Seen from a philosophical point of view, debates about the role of theories and methods in history often have a blurred character due to the vague philosophical status of the central concepts of theory and method. Therefore, some elementary conceptual clarifications are called for in order to answer the question why theory and method in history have turned into a heavily contested area at times since history turned into an academic discipline.

1. Theory and Method in History: Some Preliminary Distinctions

In discussing the role of theory and method in history, it is necessary to introduce some basic distinctions. Due to the double meaning of history as *res gestae* and as *historia res gestae* (see *History: Overview*), theory in history can refer both to history as a process and to the knowledge of that process. Therefore, the first basic distinction to make is the distinction between:

(a) theories, which deal with characteristics of history as a process (such as, for instance, Marx's theory of history as class struggle); and

(b) theories, which deal with the characteristics of knowledge of history (such as, for instance, that scientific knowledge of history has the form of law-like knowledge or the form of concrete particulars).

Theories of type (a) can be called substantial or material theories of history, while theories of type (b) can be called cognitive theories of history, i.e., theories of historical knowledge.

Cognitive theories of history can further be subdivided into:

(a) epistemological theories and

(b) methodological theories, while substantial theories of history can also be subdivided in finer subsets (see *History: Forms of Presentation, Discourses, and Functions*).

Substantial and cognitive theories usually have been interrelated, because presuppositions about what can be known about the past are linked to presuppositions of how the past can be known. Substantial theories, for instance, which hold that the historical process is characterized by underlying mechanisms and regularities, analogous to theories of classical mechanics, have been interrelated with cognitive theories that posit that real knowledge of history implies knowledge of general laws (see *Positivism, History of*). And the substantial theory that the historical process is characterized by a fundamental chaos or contingency and not by hidden regularities alias a 'motor,' has been interrelated with cognitive theories which posit that real knowledge of history is knowledge of particular facts instead of general laws (see *Historicism*).

Substantial theories, in this way, not only have consequences for methodological positions, but also for epistemological positions. Substantial theories, which posit some kind of affinity or even identity of the knowing subject and the object of history in contrast with nature (as was the case with Hegelian idealism and its offshoots in historicism, such as Droysen and Dilthey's versions of historicism), have usually been interrelated with methodological theories. These posit a distinct kind of method for the human sciences—such as understanding, or *Verstehen*, or interpreting—in contrast with the methods of the natural sciences (usually defined as some form of causal or law-like explanation). And these distinct methodological theories have, in their turn, usually been inter-

related with distinct epistemological theories, linking methods of understanding to hermeneutic or phenomenological theories of knowledge and methods of explanation to empirical theories of knowledge. Before taking a better look at this terrain, however, it is first necessary to clarify the central concepts of method and theory as well as their interrelationships in history. When analyzed more closely, both method and theory in history appear to have a broad variety of meanings.

2. Historical Method(s): Concept and History

Analyzing the meaning of 'method' in history, it is useful to start with a clarification of the term 'method' in other disciplines first (Meran 1985). In the mathematical sciences it is common to refer to axiomatic-deductive, to infinitesimal, and to inductive methods, meaning a set of formal, technical procedures in order to solve problems within a specified range. Outside the mathematical sciences, the meaning of method is usually far less defined. In philosophy, for instance, there is a long tradition referring to methods of all sorts, ranging from Descartes' discourse on method to Kant's transcendental method, from Marx's dialectical method to Husserl's phenomenological method, and to De Saussure's structuralist method, to name just a handful. These 'methods' in philosophy, however, do not constitute defined formal rules for specified ranges of problem solving, but constitute complex sets of ideas, concepts, and rules of thumb on how to analyze specified domains, such as:

- (a) scientific knowledge;
- (b) the human consciousness;
- (c) the history of mankind;
- (d) the meaning of concepts;
- (e) the meaning of language in use; or
- (f) language as a system of signs.

'Method' in philosophy, thus, is definitely not identical with a set of formal techniques, but a loosely circumscribed research program. This diffuse and nonformal meaning of method is also characteristic of the human sciences.

In history, the term historical method was first introduced in a systematic way in the sixteenth century by Jean Bodin in his treatise of source criticism, *Methodus ad facilem historiarum cognitionem* (1566). Characteristically, Bodin's treatise intended to establish the ways by which reliable knowledge of the past could be established by checking sources against one another and by so assessing the reliability of the information conveyed by them, relating them to the interests involved. Historical method was thus at the same time intended to defeat the skeptical doubts with regard to the possibility of reliable knowledge of the past. Skepticism (alias historical Phyrhronism) had been fed by a large quantity of scriptural forgeries parading as original historical documents, primarily produced by competing churches and nobles to back

up their claims to rights and property. Therefore, the traditional claims to impartiality, truth, and trustworthiness of historians, dating back to classical Antiquity, were no longer believed, and were now replaced by a claim to impersonal and intersubjective method.

This direct relationship between history's claim to truth and method would characterize all later treatises on historical method, although what was meant by method did change over time. In the eighteenth century, historians of the Enlightenment, such as Schlözer, included not only the source critical techniques as the historical method (*Forschung*), but also the way the results of historical research were synthesized into a textual whole (*Darstellung*) and presented to an audience. This broader conception of method had its roots in the classical rhetorical tradition and would only recently be rediscovered in historical theory, that is from the 1970s onwards. The German historian and historical theorist Johann-Gustav Droysen (Droysen 1977) has become one of the pivotal historians behind this 'rediscovery' of the textual and rhetorical dimensions of history, because his treatment of historical method in the earlier and the later versions of his *Historik* embodies the transition from the broader to the narrower conception of historical method (Meier and Rüsen 1988).

The larger part of the nineteenth and twentieth centuries would be dominated by the research-oriented conception of historical method of the so-called Historical School in Germany, led by historians as Leopold Ranke and Berthold Niebuhr. Their conception of history, long been regarded as the beginning of modern, 'scientific' history, harked back to the 'narrow' conception of historical method, limiting the methodical character of history to source criticism. The historical composition and presentation—the *Darstellung*—was no longer regarded as methodical and was now seen as the literary, artistic, or aesthetic component of history. Therefore, the question of whether history belongs to the arts or to the sciences could and did arise from the nineteenth century onwards, a question that became part of the continuing *Methodenstreit* (Stern 1970, Fay et al. 1998).

In the nineteenth century, during the process of rapidly increasing disciplinary differentiation and academic institutionalization, it became customary in the human sciences to identify disciplines with one specific method, which was presented as the guarantee of its 'truth' and 'objectivity.' In this process, sociology was identified with the sociological method and history with the historical method. Canonical formulations of this conception of historical method can be found in E. Bernheim's *Lehrbuch der historischen Methode* (1889) or in Ch. Langlois and Ch. Seignobos' *Introduction aux études historiques* (1897).

Historical method in the nineteenth century usually referred to the techniques on how to conduct historical research of written materials, the so-called sources.

These techniques were traditionally subdivided in three parts, corresponding to three subsequent steps in research:

(a) heuristics, that is the techniques how to locate the relevant sources;

(b) source criticism, the techniques by which the temporal and spatial origins of the sources are established as well as their authenticity; and

(c) interpretation, by which the 'cleansed' information derived from the sources is put together by means of interpretation in order to infer 'what really happened.'

Usually a distinction was made between primary and secondary sources. Primary sources consist of the written material produced more or less contemporaneously with the object of research, ideally recorded by eyewitnesses (model: the official records of parliamentary debates). The time span between primary sources and what they represent is thus as small as possible, because distance in time is regarded as a major source of unreliability of the information conveyed. Secondary sources consist of records written a considerable time after the fact and not by eyewitnesses (model: 'hearsay'). As the information in secondary sources is based on other sources, it is, at best, 'second hand'; therefore, it is regarded as less reliable than primary source information. According to the dominant, Western conception of history since the nineteenth century, serious academic history can only be based on primary sources, because those are the only reliable source of information on the past. Therefore, the archives (see *Archives and Historical Databases*) were usually considered the workshop of the professional historian. According to the same nineteenth century Western conception, non-scriptural or 'low' cultures were primitive by definition and simply had no history comparable with 'high cultures.' In this way the scriptural, source based conception of historical method defined, and limited, the object of academic history to the history of 'high cultures,' especially the history of the West. It would last until the second half of the twentieth century before these Western biases in the very conception of historical method would be seriously criticized, especially by postcolonial theory (see *Subaltern History*).

Another traditional distinction was that between internal and external source criticism. Internal source criticism is actually textual criticism, i.e., the hermeneutic procedures by which a text is reconstructed (if it is passed down in an incomplete form or in several variants) as a whole and the textual procedures by which authorship and textual authenticity are checked and its meaning established. External source criticism consists of those procedures by which a source is checked by information derived from other sources, written and material. The so-called auxiliary sciences, such as paleography, chronology, sillography, toponomy, numismatics, and diplomatics, usually play an important role in this phase when historians are

dealing with older periods. And when modern historians are dealing with nonscriptural, oral cultures or with cultures that left few or no scriptural traces, archeology and anthropology often function as auxiliary science. Reference to multiple methods within one discipline became the rule only in the course of the twentieth century, thereby reopening the problem of truth and objectivity and paving the way for a new wave of skepticism. For if the method can no longer be regarded as the procedural guarantee for the truth and objectivity of the discipline, what could, so an influential argument ran (Bernstein 1983, Megill 1994)? Recognition of plural methods within one discipline, therefore, has often been regarded as a threat of the disciplines academic credentials.

From the late 1960s onwards, the process of methodological differentiation within all of the human sciences took an unprecedented pace, leading to a temporary fragmentation of most disciplinary fields and a questioning of most traditional disciplinary boundaries and self definitions. Significantly, the new, 'poly-paradigmatic' self-image was at the same time regarded by many as a crisis of their discipline. This also held for history, in 1960s and 1970s regarded by many as one of the social sciences (Novick 1988, Appleby et al. 1994, Iggers 1997 see *History and the Social Sciences*).

Historians identified the quantitative method (see *Quantification in History*), the biographical method (see *Biography: Historical*), the comparative method (see *Comparative History*), the ideal typical method, understanding as a method (*Verstehen*), the causal method (*Erklärung*), discourse analysis as a method (see *Linguistic Turn and Discourse Analysis in History*), the micro-historical method and a psychoanalytical method in history (see *Psychohistory*). Other historians claimed that the concept of method had become severely overstretched, holding that most advertised methods in fact were theories about historical knowledge, which could only be checked by the historical method of source criticism. Therefore, a closer look at the relationship between historical method and theories is necessary.

3. Theories of Historical Knowledge

3.1 Empiricism and Anti-empiricism

The connections between historical method and historical theory can be located both on the level of epistemology and on the level of methodology. As epistemology is the theory of knowledge, historical epistemology deals with the theory of historical knowledge, i.e., the conditions of its possibility, range, sources, and foundations. Two epistemological positions have been defended in relation to historical knowledge from the nineteenth century onwards, empiricism and anti-empiricist idealism.

The problem of whether and how it is possible to acquire knowledge of other minds, i.e., the mental states of others, such as thoughts and intentions, separated from the knowing subject in both time and space—the typical problem of the historian—has been a fundamental one since mid-nineteenth century. According to empiricism, mental states could only be known as far as they correlated with empirically observable epiphenomena. The empirical dispositions or expressions of other minds are seen as the only access to other minds (Hempel 1966).

The proponents of phenomenological and hermeneutic views (hermeneutics is the theory of interpretation, originally of text interpretation), to the contrary, have always affirmed this possibility of a non-empirical access to mental phenomena. Phenomenology claimed introspective methods as the access to the mental universe; hermeneutics, far more influential in theory of history than phenomenology, claimed that 'reading' other minds could be conceived of as analogous to reading texts.

The fundamental cognitive activity in all hermeneutic theories is the interpretation of meaningful symbols and symbolically structured phenomena (like actions and cultural objects), whereas all empiricist theories regard the observation of objects as the fundamental cognitive activity. Just as it is possible to know the ideas expressed in a text by reading and interpreting, it is possible to know the ideas expressed in actions and in all human made objects by inferring the unobservable ideas from their observable expressions through re-enactment and interpretation by the historian (Droysen 1977, Dilthey 1981, Collingwood 1993). This possibility was guaranteed, according to the hermeneutic views, by the basic unity of humanity, implying the basic unity of subject and object of knowledge in the human sciences. Therefore, each alter was an alter ego, accessible through a process of intuitive identification and transfer in thought or in idea (therefore: idealism). So in historical epistemology, just as in the other human sciences, the basic divide between 1850 and 1970 has been the one between empiricist and anti-empiricist, idealist positions. It would last until the 1980s, with the rise of postmodernism and its offshoots in the discipline of history, before the unitary presuppositions of hermeneutic theories would be seriously criticized and questioned. Western (white) male was no longer accepted by all as the model of all humankind. This has led to a renewed emphasis on the basic diversity of knowing subjects and their epistemological and methodological relevance for disciplines like history (Scott 1991) (see *Gender History; Subaltern History and Linguistic Turn and Discourse Analysis in History*).

3.2 Unity vs. Duality of Method

Between 1850 and 1970, this basic divide in the domain of epistemology roughly corresponded with the basic

divide in the domain of historical methodology, i.e., the divide between the proponents of the theory of the unity of scientific method and the proponents of the theory of a fundamental methodological dualism of the human and of the natural sciences.

Methodology as such aims at the rational reconstruction of the normative rules, which are constitutive for a specific discipline and its development. Rational reconstruction, in contrast with historical reconstruction, presupposes that disciplinary practices and their development can be reconstructed in terms of logical and empirical arguments; this presupposition is, of course, an idealization of the rationality of real disciplinary practice, because apart from rationality, power and privilege also play their role in reality. Methodology abstracts from those non-rational factors in disciplinary life and aims to reconstruct the cognitive criteria and ideals, by which the practitioners of a discipline judge one another's products and evaluate their relative quality. Methodology, therefore, presupposes the existence of a basic cognitive consensus and rationality among the practitioners of a discipline. This presupposition, of course, has been criticized both for the natural as for the human sciences (Goodman 1978, Rorty 1986, Novick 1988).

Next to the basic ideal of truth, other cognitive ideals of a discipline are reconstructed by its methodology, such as the explanatory ideals of the discipline and its criteria of progress. At this level the basic methodological divide between the proponents of the unity of scientific method and the proponents of the dualism of scientific methods must be located, because the divide revolves around the question whether there is one explanatory ideal for all disciplines or not. This issue has dominated the methodological debates for more than a century since 1850 and is known under the labels of the explanation vs. understanding controversy (Gardiner 1959, Hausmann 1991). According to the unity of science view, also often labeled as positivism, there was just one model or logic of explanation and development for all empirical disciplines. Classical mechanics in the nineteenth century was usually considered the paradigm for all other disciplines, including human sciences like history. The only difference between the various disciplines was their phase of development. Underdeveloped disciplines (like history) showed little similarity to Newtonian mechanics while developed ones did. Immature disciplines only produced 'explanation sketches' (Hempel 1966), which had to be developed into real explanations. The only difference between disciplines was thus a matter of scientific maturity and not a matter of explanatory logic.

Real scientific explanation boiled down to subsuming an event to be explained under a general law. Therefore, the event to be explained can be logically deduced from the general law in combination with the given circumstances (the so-called initial conditions) and is at the same time, given the law and the initial

conditions, predictable. According to this view on the logic of scientific explanation, that is also known under the headings of the subsumption model, the deductive nomological model, or the covering law model of explanation, explanation and prediction in science are basically the same; explanation is really prediction in the past alias retrodiction. Scientific explanation, in this view, is showing why what happened, was—given the known laws and circumstances—expected to happen because it was bound to happen: explanation boiled down to show what happened was logically necessary. Given the fact that the general laws were usually (though not exclusively) interpreted as causal laws, formulating universal and invariant connections between causes and effects, scientific explanation was usually seen as causal explanation and explanatory necessity also as causal necessity: scientific explanation specifies the causes of what happened by formulating its causal determinations.

Now although this unitary theory of scientific explanation was amended and modified in time, in order to account for statistical and probabilistic forms of explanation in the natural sciences, its status was based on the assumption that 'positivist' theory at least provided an adequate reconstruction of natural science and its development from the seventeenth century onwards. This assumption has been increasingly undermined by postempiricist and postpositivist philosophies of science roughly since the 1960s and 1970s. Both the empiricist underpinnings of the covering law model and its logical claims were undermined by historical examples, arguing that the supposedly paradigmatic cases in the history of science did not fit the basic logical models of philosophy of science. Therefore, this 'turn' in the philosophy of science is often called the historical turn, because history was mobilized against explanatory logic (Lakatos and Musgrave 1970). However, before examining the implications of postempiricism and postpositivism in the philosophy of science for the opposition between classical unitary and dualistic methodological theories, an overview of the dualistic positions and arguments is called for.

3.3 *The Autonomy of History*

The philosophical defense of the autonomy of historical explanation vis-à-vis the explanatory models of natural science usually has started off with a critique of the unitary claim. From Droysen and Dilthey, through Windelband, Rickert, Weber, Collingwood, and Gadamer, to White and Ricoeur, the argument has been developed that historical explanation is not only empirically different, but logically different from the covering law model. This claim of autonomy has

traditionally been defended in three variants: an ontological version, an epistemological version, and a methodological version.

The ontological argument for methodological dualism was first systematically developed by Droysen and later by Collingwood and his school. It usually harks back to Vico and Hegel, because it is based on an idea of a subject-object identity in history: in history, humankind confronts themselves, and history, therefore, is the autobiography of humanity. History is fundamentally the process in which humankind expresses and develops themselves in the form of diverse cultures; and because humankind has made history, they are capable of knowing history in a direct way, according to this argument, just as the writer of an autobiography knows the history in case in a direct way. Historians try to reconstruct cultures and the particular ideas expressed in its cultural practices (such as religions and rituals) and its material artifacts (such as its temples and sacred objects). When historians offer explanations for the past, they construct intelligible and plausible connections between the culture and the ideas expressed in it on basis of their research of the sources in case. When they succeed in this task, they offer an understanding of the phenomena in case (*Verstehen*). Understanding history is conceived of as similar to understanding a text; the major difference is that the texts of history have more or less disappeared and therefore must be reconstructed first based on their traces by research. This type of intelligibility is possible, because in history, human beings confront themselves and therefore intuitive understanding is possible in contrast to the situation in the sciences of nature, where the knowing subject confronts an external object.

The intelligibility sought for by historians—historical understanding—is thus centered on connecting ideas to their expressions in particular spatio-temporal contexts, and proceeds by going back and forth between parts and whole in the so-called hermeneutic circle or spiral. Historical understanding is therefore logically different from scientific explanation: the type of connections, which historians present, is not causally determined and cannot be deduced from general laws. Historical connections are not necessary but contingent connections, which always could have been different from their actual form.

Neither are they based on empirical observation, but on plausible inferences, based on critical research of the sources and on analogical reasoning. Historical understanding at best produces plausible and probable knowledge and never certain or founded knowledge, as scientific explanation, based on sensory experience and logic presumably does. And being dependent on intellectual, interpretative activities by the historian, which can be trained but not formalized, historical understanding, thus, remains 'subjective,' i.e., embedded in the culture, time, and place of the historian. Based on this argument, Gadamer in his

Truth and Method (1972) would radically historicize the idea of historical understanding.

The second type of argument in defense of methodological dualism is not ontological, but epistemological. It was first systematically developed by Wilhelm Dilthey and bears a resemblance to Droysen's argument, because it also harks back to Hegel's idea of a subject-object identity in history with its implied 'history as the autobiography of mankind model.' However, Dilthey does not ground historical method directly in the subject-object structure of the historical process itself, but in the 'inner experience' (*innere Erfahrung*) of historical facts as 'mental facts' (*geistige Fakten*). The 'mental facts' of history and of other *Geisteswissenschaften* consist of feelings, thoughts, and strivings of human beings living in the past, which are only accessible through the mind and the inner experience of the historian. Like Droysen, Dilthey posits that the historian makes the mental facts of the past intelligible as expressions of ideas, by putting them in a particular spatio-temporal context alias in a *Lebenszusammenhang*. And, like Droysen, he contrasts historical understanding with scientific explanation by rejecting causal, law like reasoning for history. But unlike Droysen, Dilthey emphasizes the contrast of the 'inner experience' of the historian with the 'outer experience' of the scientist as the foundation of methodological dualism.

The third type of argument in defense of methodological dualism is of a methodological character. It is not based on an ontological claim that history deals with an object fundamentally different from nature, and neither is it based on an epistemological claim that the historical facts are different from natural facts, being accessible to an 'inner' way of knowing. According to the methodological argument, as developed by Windelband, Rickert, and Weber, two fundamental ways of knowing or methodological approaches can be distinguished, which are connected by two fundamentally different aims or knowledge interests. The first way to approach an object is a generalizing method; in this case, one abstracts from the particularity of the objects of knowledge and tries to detect and explain its general characteristics. According to Windelband, this generalizing method was specific for the nomothetic sciences (Greek: *nomos* = law, *tithemi* = to posit), such as the natural sciences.

The second fundamental approach to an object is the particularizing method; in this case one abstracts from the general characteristics of an object of knowledge and tries to describe its specific characteristics. According to Windelband this particularizing method was specific for the ideographic sciences (Greek: *ideos* = particular, *graphein* = to describe), such as history. However, both the generalizing and the particularizing methods are independent of the nature of their objects of knowledge; nature can be studied in an ideographic way (for instance, in geology) and history can be studied in a nomothetic way

(for instance, in developmental psychology). It all depends on one's methodological interest in case.

Rickert and Weber would develop Windelband's basic ideas by introducing the dichotomy between sciences of nature (*Naturwissenschaften*) and sciences of culture (*Kulturwissenschaften*). Rickert introduced the idea that knowledge interests behind disciplines were guided by values (*Wertbezogenheit*); Weber pointed out that values usually change through time. According to him, the change of the guiding values behind the sciences of culture could explain why those disciplines did not accumulate knowledge in the systematic form like the natural sciences, and why they seemed to enjoy an 'eternal youth' (Weber 1973). At best, the sciences of culture could accumulate knowledge at the intermediate level between individualizing descriptions and universal explanations in the form of ideal types, according to Weber. He suggested comparison as the method at this intermediate level. Lübke, Veyne, and Mink would develop the Weberian methodological position later, identifying history with the particularizing methodological interest (Lübke 1977, Veyne 1978, Mink 1987).

All in all, different conceptions of historical method are connected to different theories of historical knowledge. Since the characteristics of historical knowledge are usually defined in contrast with scientific knowledge as the major 'contrast class,' theories of natural science are also presupposed in theories of historical knowledge. Fundamental changes in theories of natural science, therefore, affect theories of historical knowledge by detour. The rise of postempiricism, postpositivism, and of the historical turn in the philosophy of natural science, thus have undermined most traditional, classical defenses of methodological dualism in an indirect way by undermining the classical unitary model of science. A few remarks must suffice.

Postempiricism has effectively undermined the presupposition that scientific knowledge can ever be grounded on certain foundations in sensory experience. The opposition between grounded and certain knowledge at the one side—traditionally attributed to the natural sciences—and inferential and probable knowledge at the other—traditionally attributed to the human sciences—has thus vanished. This opposition has been replaced by the insight that all sensory experience is guided and framed by concepts and theories. All empirical knowledge, therefore, is based on interpretative activities of the knowing subject because it is 'theory-laden.' Therefore, all knowledge is fallible and open to later reinterpretations. Postempiricism, thus, has dissolved the presupposed absolute contrast between a 'subjective' kind of knowledge, based on interpretation—characteristically for the *Geisteswissenschaften*, the *Kulturwissenschaften*, or the historical sciences—and an 'objective' kind of knowledge, based on empirical observation and experiment, not in need of interpretation. Postempiri-

cism has thus relativized both the distinction between theoretical knowledge and empirical knowledge, at the one side, and the distinction between interpretative knowledge and empirical knowledge, at the other. Thus, it has brought conceptualization and interpretation to the center of the stage in all disciplines. In doing so, postempiricism has undermined traditional underpinnings of the idea of fundamentally distinct scientific and humanistic methods and the idea of a fundamental contrast between the 'objectivity' of science and the 'subjectivity' of the humanities. Both scientific domains aim at empirical argument and inter-subjectivity (Megill 1994, Oexle 1998).

Postpositivism, based on postempiricism, in turn, has effectively undermined the presupposition that all scientific explanations can be reduced to one basic model, i.e., the subsumption model of explanation. By discrediting this presupposition for natural science, (Salmon 1990), postpositivism *a fortiori* has discredited the subsumption model for the humanities. Moreover, the fact that the explanation of mental states by nonmental states has not succeeded up to the present has also discredited unitary views. (Bohman 1991).

In the theory of history, postempiricism and postpositivism have led to a renewed reflection on the nature of historical knowledge in postmodernism and in a renewed interest in approaches inspired by literary theory (see *History and Literature*). Now the classical science model was discredited, the roots of history in rhetoric and literature were rediscovered, leading to a renewed interest in the linguistic forms in which history is represented, i.e., in theories of historical representation. The postmodern vanguard, oft identified with the linguistic turn (see *Linguistic Turn and Discourse Analysis in History*), pushed both theory and method in history into the background, locating historical representation beyond epistemology and methodology, on the terrain of aesthetics, rhetoric, and politics (White 1973, Ankersmit and Kellner 1995, Fay et al. 1998).

This move, in fact, harks back to the premethodical and predisciplinary roots of history, cutting history loose from its claim to constitute a truth-seeking discipline and to produce 'objective' knowledge (Rüsen 1983–89, Lorenz 1997). The history of theory and methods in history, thus, has come full circle at the turn of the twentieth century. Nevertheless, the pendulum is already swinging back, leading to broader approaches of history, which keep up the cognitive claims of the discipline based on both research (*Forschung*) and composition (*Darstellung*), while integrating the literary and the practical dimensions of history (see *History: Forms of Presentation, Discourses, and Functions*).

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C. Lorenz

HIV and Fertility

It is widely recognized that HIV had a catastrophic impact on mortality from the early 1990s in much of sub-Saharan Africa, and significant impacts in a few high prevalence countries of South East Asia. The interactions between HIV and fertility are not so well known, but they deserve the special attention of epidemiologists, demographers, and behavioral scientists since they influence our understanding of the epidemic trends and the sexual behavior which underlies this. Limited evidence of the impact of HIV on fertility is available from developed nations with low-level epidemics concentrated in high risk groups such as intravenous drug users, recipients of blood transfusions, and men who have sex with men, but this review concentrates on the situation in African countries with generalized, heterosexually transmitted epidemics. The fertility effects in these populations are much more clear cut, both because the high numbers involved make it relatively easy to collect representative data, and because historically low rates of contraceptive use make it feasible to distinguish between involuntary, biological effects and behavioral responses to the epidemic.

1. The Nature of HIV and Fertility Interactions

Early speculation on the likely effects of the HIV epidemic on fertility tended to concentrate on change in intentional behavior, and predicted resulting fertility increases. Some authors believed that increases in child mortality might fuel increases in childbearing activity, as parents would want to have many children to ensure that at least a few survived (Caldwell et al. 1992). Others feared that in their quest for safe, uninfected partners, men would seek partnerships with progressively younger girls, thereby lowering the starting age for childbearing. Later writing (e.g., Gregson 1994) has given much more weight to biomedical factors and to unintended consequences of changing behavior.

1.1 Biomedical Factors

HIV lowers fertility directly in several ways, not all of them yet fully understood. Most importantly, it causes