

Critical Realism and Historical Sociology. A Review Article

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Perhaps the fiercest conflict within the social sciences today is one that is not even articulated as a recognizable "debate." Nevertheless, this conflict has generated bitter divisions between academics who only a decade ago might have stood together on the left or the right and has forged equally strange alliances. I am referring, of course, to the split between epistemological and ontological positions which are usually described as radical constructivism and realist positivism. The recent debate provoked by Alan Sokal's article in *Social Text*¹ brought into sharp focus the growing sense of distrust and anger that divides these academic camps. And, yet, the heterogeneity of each supposed grouping suggests that the dichotomous model masks what is actually a much more complex, multi-dimensional field. On the one hand we find a motley assemblage of positions variously characterized as constructivism, culturalism, neo-Kantian idealism, and postmodernism; the other pole throws together a set of even stranger bedfellows, including rational choice theorists, survey researchers, and traditional historians alongside "realist" philosophers of various stripes.

In this article I will disaggregate these artificial groupings in order to clarify the issues in the debate which are important for historical social research. I start from the observation that the actual writing of most historical social scientists is not accurately captured by the description of either of the two camps. To make better sense of our own practical epistemological and ontological views, we need first to break open the two caricatured positions of relativist discursivism versus hard-headed positivism. Each of these actually consists of several distinct positions. The supposedly unitary positivist-realist pole encompasses positivism and several varieties of realism. The explanatory

¹ See Alan D. Sokal, "Transgressing the Boundaries—Toward a Transformative Hermeneutics of Quantum Gravity," *Social Text* (Spring-Summer 1996), 217–52; and *idem*, "A Physicist Experiments with Cultural Studies," *Lingua Franca* (May-June 1996), 62–64. The key response is Stanley Fish's article, "Professor Sokal's Bad Joke," in *The New York Times* (Opinion-Editorial page, May 21, 1996); see also the responses in the July-August 1996 issue of *Lingua Franca*; Michael Albert, "Science, Post Modernism, and the Left," in *Z Magazine* (July-August 1996); Steven Weinberg, "Sokal's Hoax," *New York Review of Books* (August 8, 1996), 11–15; and Tom Frank, "Textual Reckoning," in *These Times* (May 27, 1996). I am grateful to Michael Rosenfeld for references to the latter two pieces.

practice of most historical social scientists is best captured by the philosophy of science position known as critical realism. This form of realism must be carefully distinguished from the stance Peggy Somers² has aptly called "theoretical realism." As we will see, one is no more justified in collapsing these different versions of realism than in eliding realism in general with positivism. My comments concerning the realism and positivism pole are based mainly on the work of the British philosopher, Roy Bhaskar.³ I will argue that most historical researchers, whatever their self-description, are critical realists rather than theoretical realists, positivists, or neo-Kantian idealists, and that this stance is the most defensible one for the social sciences in general on ontological and epistemological grounds.⁴

What about the other pole, the seemingly homogeneous camp of "constructivism"? This, too, is a false unity. We need to distinguish claims for the causal importance or even the causal primacy of discourse and culture in social explanation from the position which combines such culturalism with an epistemological stance of "judgmental relativism" or conventionalism. Belief in cultural determination does not necessarily entail the supplementary argument that all interpretations, including one's own, are equally valid because they are equally "interested" or value-laden. If this distinction seems obvious, culturalism and judgmental relativism are often lumped together as expressions of postmodernism or irrationalism.⁵

² In her essay, "We're No Angels," forthcoming in *American Sociological Review*. I am grateful to Somers for a discussion of these issues at the workshop in Social Theory at the University of Chicago in 1995. My main disagreement with her essay is the need for a new term ("Pragmatic Historical Realism") to designate what is already the well-established position of transcendent critical realism. Bhaskar's writings are fully compatible with both the historical and pragmatic features of Somers' discussion. The same goes for Gorski (1994), who suggests yet another adjective: "constructive" realism. Both Somers and Gorski differ from Bhaskar in accepting the traditional positivist definition of "law" as a "constant conjunction of events"; see below for Bhaskar's reappropriation of the concept of law. Sismondos' position (1993a, 1993b, 1996) also seems quite compatible with that of Bhaskar, whom he cites. For a discussion of various non-critical forms of realism, see Bhaskar (1986:5–10).

³ I can claim no special competence in the specifically philosophical issues discussed here. Yet aside from the work of Bhaskar himself, which is not well known in the United States, the relationship of critical realism to methodological questions in the social sciences has been explored in only a handful of works (see especially Outhwaite 1987; Collier 1994; Sayer 1992; Archer 1995; Suchting 1992; Chambers 1988; Lloyd 1993, and the articles in the *Journal for the Theory of Social Behaviour* listed in the bibliography).

⁴ Although most of my discussion of the social sciences is focused on historical writing, the arguments for critical realism apply to the social sciences in general. See Wright (1989) for a discussion of critical realism with respect to class analysis, and Jessop (1990) with respect to the analysis of the state and Collier (1994:205–36) for linguistics, psychoanalysis, and economics.

⁵ Cultural primacy cuts both ways with respect to the ontological program of critical realism. On the one hand, social reality is "concept-dependent" in Bhaskar's terms, suggesting there may even be an ontological basis for prioritizing cultural analysis in a sociology that aims at explanation of events in open systems. On the other hand, the notion of ontological emergence (see below) suggests in a very general sense that the level of the social cannot completely free itself from the constraints of the biological and physical levels.

ALTERNATIVES TO CRITICAL REALISM

Although formal positivists are somewhat difficult to find these days, a watered-down version of positivism is still widespread within U.S. sociology, psychology, and political science.⁶ It is found in graduate and undergraduate methodology courses, statistics textbooks, and essays in the leading journals. This mainstream positivism is not the logical positivism of Carnap or Schlick nor the Deductive–Nomothetic version associated with Hempel but a less rigid hybrid of empiricist ontology and positivist epistemology. This mainstream positivism is characterized by the search for “constant conjunctions of events” and by an ontological belief in what Bhaskar (1978:69ff.) calls regularity determinism. Science is thought to be built up through empirical generalizations expressed as universal statements of the “covering law” type. Even where textbooks in methodology and statistics use the language of causal inference, they are often referring to more sophisticated ways of recording constant conjunctions of events.⁷ Positivism is closely related but not reducible to empiricism, an ontological position which rejects the positing of theoretical or invisible entities. This distrust of theoretical entities might seem paradoxical in fields like sociology, whose master signifier, society or “social relations,” is hardly an immediately observable object (see Frisby and Sayer 1986). This empiricism is expressed less in strict Humean terms than in a vaguer “actualism”—that philosophy which “denies the existence of underlying structures which determine . . . events, and instead locates the succession of cause and effect at the level of events” (Collier 1994:7). The untheorized presentation of empirical regularities is preferred to so-called “metatheory.”

As Somers (forthcoming) has argued, positivist empiricism needs to be distinguished from theoretical realism, a position most strongly associated in the social sciences with rational choice theory (see Kiser and Hechter 1991). On the one hand, theoretical realism is post-positivist (and Kuhnian) in its acceptance of the “primacy of theory” and of a strong ontology “that tells us what really exists” (Somers forthcoming). Theoretical realism’s prioritizing of ontology over epistemology and its acceptance of unobservable causal entities are features that it shares with critical realism, as discussed in the next section.

⁶ For a recent defense of positivism against “postmodern relativism,” see Jonathan Turner (1992).

⁷ For an influential and typical example, see King, Keohane, and Verba (1994), who distinguish what they call “description” from “causal inference” and both of these from the search for “causal mechanisms.” Causal inference involves familiar multivariate statistical or quasi-experimental methods, in which the effect of some variable is discovered independent of other variables. This independent effect is termed “causal.” They continue that “we can define a causal effect without understanding . . . the causal mechanisms involved” (1994:86). In the language of critical realism, the emphasis on identifying causal effects but not causal mechanisms is none other than “description” of empirical conjunctions. At a later point, the authors express skepticism about the value of concepts referring to unobserved theoretical entities (1994:109–110). Unobservable concepts are described as an inferior alternative to empirical ones rather than as a fundamentally different and equally important part of explanation (see part II).

Yet in sharp contrast to critical realism, theoretical realism deploys its causal entities within general covering laws and abhors conjunctural causation or contingency. Here, theoretical realism resembles positivism. Contingency in this context refers to situations in which complex events are determined by variable constellations of causal factors rather than a single factor or constant set of factors. Contingency thus includes both the idea that an event is not explicable in terms of a single causal mechanism (that is, not explicable in terms of a single theory) and the notion that the same type of event may be caused by different (sets of) mechanisms (Ragin 1987). Like formal positivism, theoretical realism is strongly deductivist.⁸

At a different extreme from positivism are the forms of “postmodern” and “constructivist” thought exemplifying the epistemological position Bhaskar calls conventionalist super-idealism. The term conventionalist in this formula (also labelled judgmental relativism) refers to the idea that there can be no rational criteria for choosing between different theoretical frameworks or explanations and that “moral, aesthetic, or instrumental values” or conventions always play an essential part in such choices.⁹ The second component, super-idealism, denies the existence (or the accessibility, which has the same consequences) of an external reality existing “independently of our theoretical beliefs and concepts” (Keat and Urry 1975:5).¹⁰ Conventionalism and idealism obviously have a weaker presence in the social sciences than in the humanities. One symptom of this relative underdevelopment is that social-

⁸ The notion of contingency is discussed in more detail below. Theoretical realism is deeply indebted to Popper’s deductivist account of science (1983, 1989). Like both critical and theoretical realists, Popper rejects empiricism and accepts theoretical entities. Yet unlike critical realism, which relies on *retroduction* (see below) for theory development, Popper says that scientific theories take a *deductive* form from which testable conditional predictions can be derived (Popper 1989:339–41, 1959). For Popper (like Kiser and Hechter), science consists of statements of universal regularities (although one of the terms in such a regularity may be a theoretical entity). Popper does not embrace the concepts of ontological stratification and transphenomenality (according to which mechanisms may exist without being expressed at the level of the actual). The concepts would undermine Popper’s most famous argument: that scientific theories are defined by their *empirical falsifiability*. For as Sayer notes, unambiguous evidence for falsification is impossible in open systems unless all possible mechanisms are known, in addition to the one centrally in question:

those who try to use purely predictive tests of causal hypotheses in open systems . . . are liable to be guilty of ‘näfve falsification,’ in which an anomaly due to interference from some other mechanisms is treated as a falsification of the causal claim in question, e.g. “aeroplanes are heavier than air but can fly, therefore the law of gravity is refuted” (1992:212–4).

⁹ Along similar lines, see D’Amico (1992:142): “Postmodernism appears to be an anti-realist account of knowledge and science because it treats representation, correspondence, and reference as dependent on a conceptual framework or scheme.”

¹⁰ It is inconsequential for science whether reality is argued not to exist independently of human thought or simply to be inaccessible. In either case, the connection between the levels of the “actual” and the “empirical” (see below) is severed. Some super-idealists insist that they believe in the existence of a concept-independent external reality and that the only question is its accessibility to the scientific observer. This counter-argument is irrelevant or disingenuous, since either alternative has the same implications for science. See Latour and Woolgar (1986) and Woolgar (1988) for “super-idealist” arguments about science creating the objects it purports to discover.

science collections on “postmodernism” often feel obliged to include essays criticizing so-called postmodern theory, which in this context means some variant of conventionalist idealism.

Positivism, theoretical realism, and conventionalist idealism are not related to one another linearly along a single dimension. They differ in terms of their emphasis on ontology versus epistemology, their acceptance of unobserved theoretical entities, and their stance on judgmental relativism. But all three positions would agree that what most historical social scientists are actually doing is methodologically flawed—either they are too scientific or not scientific enough, too wedded to the notion of explanation or to an indefensible form of explanation. The confusion felt by many social scientists around these issues can be seen in the search for a general theory such as rational choice and in the acceptance of arguments against a multicausal, contingency-based approach to historical explanation (see Kiser and Hechter 1991). Yet, as we will see below, multicausal, contingency-based approaches are the most appropriate ones for capturing the ontological specificity of social reality. Critical realism offers a defense and a clarification of the practices of “actually existing historical sociologists.” Critical realism provides a powerful rebuttal to the positivist doctrine of uniform covering laws and also provides arguments against judgmental relativism (Bhaskar 1979:73, 1986:64). And while Bhaskar has presented his system primarily as an alternative to positivism and conventionalism, it also provides an incisive critique of theoretical realism.¹¹ Theoretical realism disparages explanations which invoke unique, nonrepeatable constellations of causal mechanisms in accounting for specific historical conjunctures. In sharp contrast, critical realism suggests that explanations of this sort are not inferior but in fact more adequate to the “open” and ontologically stratified structure of reality (both natural and social) outside of the experimental laboratory.

Despite his critique of judgmental relativism (the claim that conventions and not rational criteria determine theory choice), Bhaskar fully accepts the epistemologically relativist view of science as a social and historical process, a position associated with Kuhn and others.¹² Surprisingly, Bhaskar synthesizes this epistemological relativism with a strong scientific and ontological realism. Scientific realism is the thesis that “the objects of scientific enquiry exist and act, for the most part, quite independently of scientists and their activity,” although Bhaskar limits this thesis in an important way in the case of

¹¹ Collier (1994) provides a good introduction to Bhaskar’s writings; see also Sayer (1992), Outhwaite (1987), Manicas (1987), Keat and Urry (1975), and Lloyd (1986, 1993). After developing his critique of positivism and conventionalism, Bhaskar has moved in recent years to a critical realist engagement with the concepts of dialectic and negativity. This should be enough to indicate the distance separating Bhaskar’s critical realism from most of the other positions typically grouped under the rubric of realism.

¹² Bhaskar also rejects correspondence theories of truth, arguing that objects cannot be known except under particular descriptions (1975:249) and that propositions cannot be compared with states of affairs (1975:249), and he accepts fallibilism: “All beliefs are socially produced, so that knowledge is transient” (1979:73).

the social sciences, which I will return to below. Idealists fail to distinguish explicitly between ontology and epistemology, between “the . . . intransitive objects of science . . . and the changing (and theoretically-imbued) transitive objects which are produced within science” as a practice. But “without an intransitive dimension, things become a mere manifestation . . . of thought, devoid of extra-discursive or empirical controls; and without a transitive dimension, thought becomes a mere impress . . . or *Doppelgänger* of things” (Bhaskar 1986:52, also 24, 51). Indeed, if one agrees that the objects of science have an intransitive existence, one is forced by the sheer evidence of massive historical change in scientific theory to accept epistemological relativism (Bhaskar 1975:31). The fact that science continually uncovers more formerly unobservable or basic, “lower-level” mechanisms also prohibits one from believing that knowledge can ever be “complete.” Scientific change is only intelligible if we assume the existence of a constant (intransitive) universe of objects. Yet epistemological relativism in this sense does not entail judgmental relativism. While science is indeed a social production process, it is also knowledge “of” things which exist and act independently of science.

Critical realism thus reverses the post-Kantian primacy of epistemology and revindicates ontology. Bhaskar’s is a “philosophical” rather than a “scientific ontology,” insofar as it concerns the “type of world presupposed by a philosophical account of science” in general and does not concern “the particular types of entities and processes postulated by some substantive scientific theory” (Bhaskar 1986:36). Bhaskar’s approach also marks a switch within ontology “from events, states of affairs, and the like, to the structures and mechanisms that generate them” (Bhaskar 1989:181), for reasons discussed below.

Bhaskar’s first book, *A Realist Theory of Science*, emphasized the physical and natural sciences, especially sciences like physics that are both experimental and practically successful (in the sense of “intervening” successfully in the world; compare Hacking [1983]). In *The Possibility of Naturalism* (1979) and in more recent works, Bhaskar has turned his attention to the social sciences. His position here is “naturalist,” insofar as it argues for the possibility of an explanatory social science (that is, a social science whose basic goals are similar to the natural sciences), but it is a tempered naturalism insofar as it recognizes that the social world differs from the natural one in specific ways. Bhaskar also argues that his is a critical naturalism insofar as any explanation of the mechanisms that systematically produce false beliefs about society automatically entails a criticism of those mechanisms and a recommendation that they be “absented.”¹³ Bhaskar’s philosophical position thus came to be described as “critical realism” by commentators who collapsed its critical

¹³ It is difficult to argue that all social explanation necessarily involves theorizing mechanisms which produce false beliefs about society. Fortunately, Bhaskar’s main arguments for a tempered naturalism do not hinge on this claim. See especially *Plato Etc.* (1994) and *Dialectic: The Pulse of Freedom* (1993).

naturalism with its transcendental realism.¹⁴ Before turning to critical naturalism and the specificity of socio-historical explanation, however, we first need to present the arguments for realism in some detail. Indeed, the key arguments for the critique of positivism, theoretical realism, and conventionalist super-idealism are already present in Bhaskar's first book.

CRITICAL REALISM

Bhaskar's "transcendental" argument for realism borrows from Kant its transcendental form of questioning but inverts Kant's idealism, asking not what must be true about categories of mind in order for synthetic a priori judgments to be possible but instead what must be true about the world for science to be possible.¹⁵ More specifically, Bhaskar asks what must be true about reality for scientific experiments to be intelligible. He notes, first, that experiments would be unnecessary if the positivist's "constant conjunctions of events" were not in fact extremely rare in nature. Constant conjunctions have to be produced artificially. Scientists rely on experiments to create closed systems, since most domains of nature—and not just social systems—are open systems. Science's ability to apply knowledge gained through experiments to the outside world implies that the same causal laws are operative inside and outside the laboratory. The experimenter is responsible for triggering the mechanism under study and preventing interference from other mechanisms, but she does not create the mechanism that is revealed by the sequence of events.

The argument thus suggests an ontological difference between the operation of causal mechanisms and the patterns of events they codetermine. Only if we assume that underlying causal mechanisms are independent from the events they generate can we assume that they endure and continue acting outside of the experimentally closed conditions which allow scientists to identify them empirically. This out-of-phase-ness between causal laws and actual phenomena leads Bhaskar to differentiate between what he labels the domains of the real and the actual, which correspond respectively to the realms of mechanisms and events (see Figure 1). He further distinguishes the actual from the empirical, noting that mechanisms may be realized (at the level of the actual) without being perceived (at the level of the empirical). A scientific experiment aligns these three levels: Real mechanisms are isolated, assuring that they can produce actual events without their powers being overridden or combined with those of other mechanisms; in a successful experiment, these events are then recorded by the scientist. In sum, things have unexercised powers, as well as powers that are exercised unrealized, and powers that are realized unperceived (Bhaskar 1975:19, 33).

¹⁴ Bhaskar adopted this self-description until his recent expansion into "dialectical critical realism" (1993, 1994).

¹⁵ That science is possible and successful is amply demonstrated by, for example, Hacking (1983). Theory postulated subatomic particles and then found them, and now "you can spray them." This does not imply that the current theory of subatomic particles is finally and eternally true but does suggest that reality exists independently and that the theory grasps some aspect of it.

Bhaskar's Depth Realism

	<i>Domain of Real</i>	<i>Domain of Actual</i>	<i>Domain of Empirical</i>
Mechanisms	X		
Events	X	X	
Experiences	X	X	X

FIGURE 1. Bhaskar's depth realism. SOURCE: Bhaskar, *A Realist Theory of Science*, 13.

This analysis suggests that in open systems, unlike the artificial closure characteristic of the experimental situation, mechanisms combine to produce actual events conjuncturally, that is to say, in concert with other mechanisms (Bhaskar 1975:17). As noted in the previous section, contingency here means that complex events are codetermined by constellations of causal mechanisms. Contingency also implies that such constellations are not repeatable in a general way and also that the components that make up the causally effective constellation may vary.¹⁶ Recognition of the ontological reality of contingency thus rules out the search for constant conjunctions of events as a normal feature of science.¹⁷ But because events are caused, contingency is combined with "necessity" (see Jessop 1990:12).¹⁸ Bhaskar provides a clear way of visualizing the conjunctural determination of an event (or a nexus of events) by a combination of mechanisms, as reproduced in Figure 2.

Bhaskar does not reject the term "causal law" but defines it differently from positivists. Within critical realism, a law is not a constant conjunction of events but the characteristic pattern of activity, or tendency, of a mechanism.¹⁹ More specifically, real structures possess causal powers which, when

¹⁶ For an explanation involving causal contingency in the natural sciences (biological evolution), see Gould (1989).

¹⁷ Note that formal positivists are sometimes willing to accept historical narrative as a form of explanation, provided that each consecutive event is amenable to rephrasing in terms of an empirical covering law (e.g., Nagel 1961). Obviously historical narrative construed in this way does not reveal the form of causal contingency described in the text. What is contingent here is the sequence of explananda, not the explanans.

¹⁸ As Jessop writes, "Contingent" is a logical concept and concerned with theoretical indeterminability, 'necessity' is an ontological concept and refers to determinacy in the real world. Thus 'contingent' means 'indeterminable within the terms of a single theoretical system'; it can properly be juxtaposed to the notion of 'necessity', which signifies the assumption underpinning any realist scientific enquiry that 'everything that happens is caused'" (1990:12).

¹⁹ Generative mechanisms are "tendencies" rather than "powers" because they are not just potentialities but potentialities that may be exercised without being manifested (Bhaskar 1975:50).

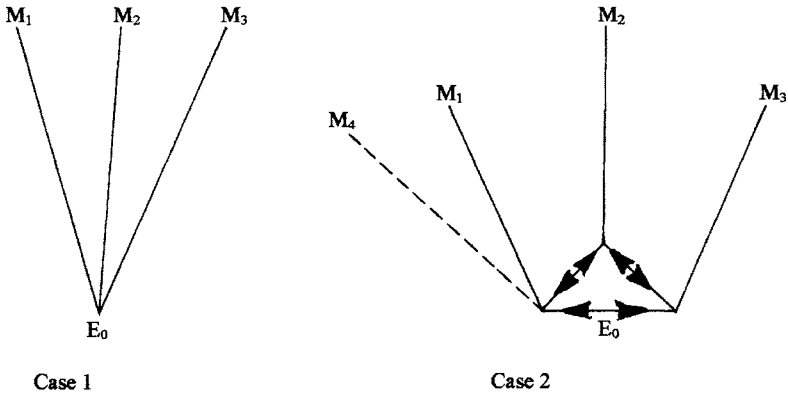
Conjunctural Determination

FIGURE 2. Conjunctural determination of the nexus of events by a totality of mechanisms. Case 1 is the determination of events in an open system. Case 2 is the determination of a nexus of events by a totality of causal mechanisms in an open system. SOURCE: adapted from Bhaskar, *Scientific Realism and Human Emancipation*, 100.

triggered or released, act with natural necessity and universality as generative mechanisms (Bhaskar 1994:23). Yet what is happening may be happening in an unmanifest way: “Something may be real without appearing at all” (Collier 1994:6). Laws are statements about the things that are “really” happening, the ongoing ways of acting of independently existing things, which may not be expressed at the level of events. The intransitive objects of scientific inquiry are thus “the mechanisms of the production of phenomena in nature that combine to produce the actual flux of phenomena” (Bhaskar 1975:17). Laws are *transfactual* (or transphenomenal), not counterfactual or subjunctive.²⁰ A mechanism’s tendency may not be expressed at the level of events or may be expressed in varying forms, due to the activity of other mechanisms. For example, an alcoholic may be characterized by a constant tendency to drink, a tendency rooted in some psychological or biological structures. This ongoing tendency may be counteracted by a variety of other factors, which can also be construed as casual mechanisms: educative and family systems encouraging self-control, state structures presenting a threat of punishment, economic mechanisms regulating opportunities to drink, and so forth.

A final important ontological principle presented by Bhaskar is the notion of the emergence of specific structural levels of reality. Emergence is defined as the relationship between two levels such that one arises diachronically (or perhaps synchronically) out of the other but is capable of reacting back on the

²⁰ Bhaskar (1975:51, 102). According to the thesis of transphenomenality, knowledge may go beyond the level of observation statements or appearances (Collier 1994:6).

lower level and is causally irreducible to it (Bhaskar 1993:73). The emergence of human agency from the biological, for example, is a necessary condition of possibility for an autonomous science of psychology.²¹ Similarly, the “emergence” of social structures is a precondition for the possibility of an autonomous social science. Critical realism is opposed to the form of reductionism which asserts “the ultimate unreality of the higher strata” (Collier 1994:111). A higher-order stratum such as biology may be based in a lower-level one like physics, in the sense that its mechanisms are limited or enabled by the lower one and that it emerges historically from the lower level. But certain events can only be explained if the irreducible mechanisms at the higher level are taken into account:

Consider the example of the different sets of mechanisms involved in a given speech event, such as physiology, grammar, and psychological mechanisms. I cannot speak in ways that contravene the *limits of physiology* (for example while holding my breath or staying under water indefinitely); and when I speak I am *enabled* by the rules of *grammar*; the actual words will also be determined at least in part by my intentions as well as other irreducible psychological mechanisms such as the unconscious.

Thus, there are two types of ontological stratification: Within reality, there is a differentiation between the domains of the real, actual, and empirical; and within the domain of the real, there is a stratification of lower- and higher-level mechanisms. There may also be a plurality of mechanisms within any one level, for instance, economic, political, and cultural structures coexist within the social (Bhaskar 1994:75).²²

Turning from ontology to epistemology, Bhaskar makes two significant arguments for the critique of positivism and theoretical realism, one concerning the difference between theory and explanation, the other concerning the impossibility of prediction in open systems. Positivism collapses theory and explanation at the level of the actual, making theory essentially little more than another name for explanation-descriptions of “constant conjunctions.” For Bhaskar, by contrast, theories are models of causal mechanisms and their characteristic ways of acting at the level of the “real.” Causal mechanisms will be expressed directly at the level of the actual only in closed systems. Here, explanations of empirical phenomena can be called “theoretical explanations” (1996:68). (This does not mean that such explanations can forgo the identification of the underlying causal mechanism, however, as in positivist accounts.) In contrast to theoretical realism, Bhaskar insists that theory even here is developed not through deduction but through *retroduction*, “exploiting analogies with already known phenomena, to possible explanations” of empirical law-like behavior (1986:68). When we turn to open systems where the

²¹ Bhaskar also notes that the emergence of human agency can be deduced transcendently from the nature of the experiment, since “scientists co-determine an empirical result” in an experiment “which would not have occurred without their intentional causal agency” (1993:52).

²² Bhaskar refers to the codetermination of social action by mechanisms at different levels as “dual” (or “multiple”) control rather than codetermination in a conjuncture (1994:75).

real the the actual have not been aligned through experimental closure, the task of explanation diverges sharply from the work of theory. In open systems and the practical or applied sciences, "explanation is accomplished by an account of the . . . mode of combination or inter-articulation, in some specific 'conjuncture', of antecedently known mechanisms" (Bhaskar 1986:60).

Explanations of particular concrete phenomena in open systems involve the six stages of the so-called RRREI(C) model (Bhaskar 1986:68, 1994:27–28):

1. The *Resolution* of a complex event into its components;
2. The *Redescription* of these components in theoretically significant terms,
3. *Retrodiction* to possible antecedents of the components;
4. *Elimination* of alternative possible causes. This involves a return to the level of empirical experience. Experience is thus epistemically decisive even though its objects are not ontologically ultimate and even though facts are themselves theory-laden in undeterminable proportions and ways.²³
5. The fifth stage is the positive *Identification* of the generative causes at work in the production of the conjuncture.

6. Finally, there may be a sixth stage of secondary *corrective* work returning us to the beginning of the cycle, in which "the initial phenomenon is redescribed in the light of its causes" (Bhaskar 1993:133, 1994:27).

Clearly this approach to a multicausal explanation of codetermination in a conjuncture is feasible only for the non-human sciences in which real mechanisms can be discovered and empirically validated through experimentation (Collier 1994:162–4). The next section addresses the question of what recourse the social sciences have in the absence of experiments.

CRITICAL REALISM AND THE SOCIAL SCIENCES

Although centered on the natural sciences, Bhaskar's transcendental deduction in *Realist Theory of Science* is crucial to his subsequent discussions of social science, in both a negative and a positive sense.²⁴ By dispelling various positivist, theoretical realist, and idealist misconceptions about the natural sciences, it undermines an entire series of restrictive notions about the sort of knowledge the social sciences should aspire to. Most important, if regularity

²³ Bhaskar (1975:38). This step is obviously the one that has been most conflicted and analyzed since Kuhn in terms of the categories of irrationality or incommensurability. Bhaskar criticizes the notion of incommensurability within paradigm shifts (1975:191ff.) and argues against judgmental relativism as follows: If Theory 1 can explain more significant phenomena in terms of its descriptions than Theory 2 can explain in terms of its descriptions of the same or overlapping theory-independent world, then there is a rational criterion for choosing T1 over T2, whether or not it is 'newer' or even if they are 'incommensurable'" (Bhaskar 1994:51).

²⁴ There is not enough space here to go into Bhaskar's substantive social theory, except to note that much of it clearly relates to and possibly anticipates the work of Giddens, while differing in significant ways (see Archer 1995 for a systematic comparison of the two). I also cannot discuss Bhaskar's project of "moral realism," which is presented in part as a resolution to the communitarian-liberal impasse within political philosophy. Bhaskar dissolves the fact-value distinction in favor of a "moral realism" (see Bhaskar 1991; see also the recent development of a non- or post-Hegelian "dialectics" in Bhaskar 1991, 1993, 1994).

determinism is implausible in open systems, there is no reason to expect anything but contingent, conjunctural causality to apply in the social sciences. Second, and as a consequence of this openness, sociology may be able to produce powerful explanations, but it cannot expect to generate systematic, theoretically-grounded predictions (Collier 1994:58, ch. 5). Third, because the social sciences cannot “shut off the effects of processes which are not being tested in order to isolate and test a single mechanism,” it cannot engage in genuine experimentation (Collier 1994:161).

Bhaskar argues that the human sciences are sciences in the same sense but not the same way as the natural sciences (1979:203). If social reality is emergent, in the sense defined above, it should also be internally stratified, as in Figure 1; that is, stratified into real, actual, and empirical levels.²⁵ If so, the goal of social theory will be to identify the real, underlying structures; and social explanation will seek to identify the mechanisms that combine to produce actual (social) events (Reed and Harvey 1992). As in the natural sciences, the level of experience will be epistemically decisive in ascertaining the “reality of the conjectured mechanisms” and in eliminating possible alternatives.²⁶ This is the argument against purely theoretical social science and against the strong substantive ontologies of theoretical realism, such as the model of human subjectivity at the core of rational choice approaches.

On the other hand, the differences between the natural and social sciences are rooted in ontological differences among their objects. These differences are therefore necessarily epistemological as well. The most distinctive of these ontological differences is the concept-dependency of social life. Unlike natural structures, social structures “do not exist independently of the agents’ conceptions of what they are doing in their activity” (Bhaskar 1979:48). This means that a hermeneutic dimension is intrinsic to real social research. The aspect of analysis that is left out in pure rational choice approaches is precisely that aspect which defines the social sciences’ specific difference. But in contrast to some forms of hermeneutics, concept-dependency for Bhaskar does not undermine the realist premise of the object’s intransitivity. Although there is often a causal connection between social objects and the “knowledge of which they are the objects,” the relationship between subject and object is not one of identity. The codetermination of social structure by social knowledge thus introduces an obligatory reflexivity into the social sciences.²⁷

This points to an important epistemological advantage which historical

²⁵ In *Possibility of Naturalism*, Bhaskar does not attempt to “deduce transcendently the nature of social reality from the contours of social science,” parallel to his transcendental deduction of the nature of physical reality from natural science experimentation (Reed and Harvey 1992:367). But a specific sort of transcendental argument—retroductive arguments are discussed below—play a central role in the social sciences.

²⁶ See Bhaskar (1986:61–62); see also Wright (1989).

²⁷ Even if the natural sciences also need to be reflexive in the sense of “sensitive to the potentially destructive effects of science on nature,” they typically cannot alter the basic tendencies of the underlying mechanisms they study.

social science may have over, say, survey research. The objects of survey or ethnographic research are determined at least in part by the social scientist (Burawoy forthcoming). By contrast, while our knowledge of the past is constantly changing, the past itself is “existentially intransitive and determined” (Bhaskar 1994:72). Of course, past historical structures may have been partly—or even wholly—constituted by past forms of (scientific) knowledge, and the latter will therefore need to be reconstructed. But it will be more difficult, *ceteris parabus*, for a survey researcher or social psychologist to perceive the causal impact of her own theories than for a historical social scientist to discern the causal impact of earlier theories on her object of explanation. This is only a general rule, since historians whose beliefs closely resemble those of past actors may also fail to recognize the causal role of those actors’ beliefs. Reflexivity is also required of historical researchers, but that is reflexivity of a different sort.

A second key difference between the social and natural sciences concerns the greater space–time specificity of social as opposed to natural mechanisms, such that even the underlying tendencies they ground may not be invariant across more than a limited period or territory. This provides yet another argument against the enthronement of universal laws along either positivist or theoretical realist lines. And this difference vindicates in another sense the historical social sciences, which typically have been much more prone to emphasize changes in causal structure across time and space than to view such changes as a barrier to scientificity.²⁸

The obvious drawback to the social as opposed to (most of) the physical sciences is the impossibility of true experimentation. The use of the RRREI(C) model (see above) becomes more difficult in the social sciences. Since experiments are implausible, there is less security about the existence of causal mechanisms, which complicates the passage through the third, fourth, and fifth stages in particular. In place of experiments, Bhaskar has suggested the use of “transcendental arguments from premises familiar from social practice” (Collier 1994:167), for example, arguments about “what must be the case for the experiences grasped by the phenomenal forms of capitalist life to be possible” (Bhaskar 1979:51). More recently, Bhaskar (1994:94) has suggested that an alternative model which he proposed in an earlier work (1986),

²⁸ Such variations in causal structure are a central, explicit part of my account of local and national social policy development in nineteenth-century Germany, for example (Steinmetz 1993). Reviewers inclined toward positivism or theoretical realism have misunderstood the explanatory complexity which results from explicit acknowledgment of conjunctural, multi-causal and historically shifting causality as a kind of theoretical “polymorphous perversity” (one reviewer’s particularly revealing choice of terms, given Freud’s status as a preeminent critical realist thinker), or less colorfully, as a “toolbox” approach to theory. Accounting for the determination of complex objects in open systems necessarily involves an “eclectic” mix of theories relating to the relevant causal mechanisms. This is quite different from the empiricist “variabilism” found in much multivariate statistical research, where variables are connected to theoretical mechanisms in a loose and ad hoc way.

the so-called DREI model, may be applicable in the social sciences. DREI stands for the “description of law-like behavior; retroduction, exploiting analogies with already known phenomena, to possible explanations of the behavior; elaboration and elimination of alternative explanations; issuing (ideally) in the empirically controlled identification of the causal mechanism(s) at work” (Bhaskar 1986:68). Collier (1994) is justifiably doubtful about the applicability of the DREI model in the social sciences, however, citing in particular the impossibility of the final stage which is “tied to experimental closure” (1994:163). He suggests instead an amalgam of the two models (1994:163–4). We begin with the first stage of the RRREI(C) model, resolving a complex event into its components through abstraction (see Sayer 1992, for a good discussion of abstraction in this sense). This step would seem to be necessary in the social sciences, since it is not only true that the mechanisms producing events are multiple but also that events themselves are “overdetermined” in Althusser’s (and Freud’s) sense (see E_0 in case 2, Figure 2). The next three stages are drawn from the DREI model: description, retroduction, and elaboration and elimination of alternative explanations. “Elimination” is the final stage, however, since definitive identification is impossible.

There is nonetheless a “compensator” for the lack of experiments. This compensator starts from the “protoscientific” theories about society held by social actors but transforms these into theory. Theoretical transformation of this sort involves “retroductive” transcendental arguments “from premises familiar from social practice” or from actors’ own understandings of society (Collier 1994:167). A retroductive argument is one that necessitates “the building of a model of the mechanism which, if it were to exist and act in the postulated way, would account for the phenomenon concerned” (Bhaskar 1986:61). But we cannot stop here, without empirical testing, without falling into the trap of neo-Kantian super-idealism:

Whether or not the postulated mechanism acts in the postulated way cannot of course be decided by theory alone, since in general a plurality of possible explanations will be consistent with the phenomena . . . So the reality of the conjectured mechanism must be empirically ascertained, and the variety of plausible alternative explanations sorted, elaborated and eliminated until the explanatory mechanism at work has been, in the fallible judgement of the scientists concerned, successfully identified and adequately described (Bhaskar 1986:61).

CONCLUSION

Bhaskar notes that critical realism “transposed to the human sciences appears immediately liberating.” It allows social scientists who are attracted to cultural theory and complex conjunctural forms of explanation to defend themselves against being lumped together into undifferentiated categories of “postmodernism” or “eclecticism.” Arguing for the reality of a historical “postmodern condition” qua “cultural dominant” (Jameson 1984, 1991) does not require adoption of “postmodern” judgmental relativism, any more than understand-

ing post-1789 Prussia requires that one become a Hegelian.²⁹ By the same token, arguing for the powerful causal effects of discourse on social practice is not equivalent to the claim that society is a text for which all interpretations are equally valid. And scaling back the predictive claims of sociology does not entail relinquishing explanation.

Critical realism is especially “liberating” for historical sociology. It provides a rebuttal to the positivist and theoretical realist insistence on the dogmas of empirical invariance, prediction, and parsimony (see Bhaskar 1989:184). Critical realism guards against any slide into empiricism by showing why theoretical mechanisms are central to all explanation. At the same time, critical realism suggests that contingent, conjunctural causality is the norm in open systems like society. Yet critical realism’s epistemological relativism allows it to accept the results of much of the recent history and sociology of science in a relaxed way without giving in to judgmental relativism. Historical social researchers are reassured of the acceptability of their scientific practice, even if it does not match what the mainstream misconstrues as science. Critical realism allows us to safely steer between the Scylla of constricting definitions of science and the Charybdis of solipsistic relativism.

²⁹ Similarly, arguing that scientific discourse codetermines social objects is different from arguing that science creates the only world we can know.

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