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The agent-structure problem in international relations theory

Alexander E. Wendt

Two theories, neorealism and world-system theory, strongly influence contemporary academic discourse about international relations. Both claim to provide “structural” explanations of how states behave in the international system. Despite their common commitment to structural analysis, however, their understanding of system “structure,” and therefore of structural explanation, is quite different. Neorealists define international system structures in terms of the observable attributes of their member states (the “distribution of capabilities”), and as a result, they understand the explanatory role of those structures in individualist terms as constraining the choices of pre-existing state actors. World-system theorists, on the other hand, define international system structures in terms of the fundamental organizing principles of the capitalist world economy which underlie and constitute states, and thus they understand the explanatory role of structures in structuralist terms as generating state actors themselves. These differences, and their implications, have yet to be explicated in the international relations literature.¹ In

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1. There are a number of discussions of the meanings and uses of “structural theory” in neorealism and world-system theory, but as far as I know, none explicitly compares or differentiates the neorealist and world-system approaches to structure and structural analysis. On neorealism see, for example, Kenneth Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979), and Robert Keohane, “Theory of World Politics: Structural Realism and Beyond,” in Ada Finifter, ed., *Political Science: The State of the Discipline* (Washington, D.C.: APSA, 1983). The best critique of neorealism’s conception of structure is Richard Ashley’s “The Poverty of Neorealism,” *International Organization* 38 (Spring 1984), pp. 225–86. On world-system theory see Immanuel Wallerstein, “The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis,” *Comparative Studies in Society and History* 16 (September 1974), pp. 387–415, and Christopher Chase-Dunn and Richard Robinson, “Toward a Structural Perspective on the World-System,” *Politics and Society* 7 (no. 4, 1977), pp. 453–76. The critique of world-system theory that comes closest to my concerns in this article is probably Theda Skocpol’s “Wallerstein’s World Capitalist System: A Theoretical and Historical Critique,” *American Journal of Sociology* 82 (March 1977), pp. 1075–90.

this article, I want to begin to clarify and contrast the nature of structural analysis in each of these two traditions. My primary interest, however, is to critique the conceptions of structural theory found in each of them, and to use this critique to motivate the development of a new approach to structural theorizing about international relations adapted from the work of “structuration theorists” in sociology.² This approach and the research agenda it implies, in turn, require a foundation in realist philosophy of science (or “scientific realism”³), arguably the “new orthodoxy” in the philosophy of natural science, but as yet largely unacknowledged by political scientists.⁴

As structural theories of international relations, neorealism and world-system theory differ, and thus might be compared, along a number of dimensions: substantive claims, predictive power, scope, and parsimony, among others. While these differences are important, they are, I think, strongly conditioned by a more fundamental difference of ontology: neorealism embodies an individualist ontology, while world-system theory embodies a holistic one. A useful way to capture the nature and implications of this difference is to evaluate the two theories in terms of their underlying assumptions about the relationship of system structures to human agents. Despite their commitment to “structural” rather than “agentic” theorizing, like all structural theories they both presuppose *some* theory of what is being

2. The term “structuration theory” is sometimes narrowly identified with the work of Anthony Giddens, who has articulated its basic problematic in his *Central Problems in Social Theory* (Berkeley: University of California Press, 1979) and *The Constitution of Society: Outline of the Theory of Structuration* (Cambridge, U.K.: Polity Press, 1984). In “On the Determination of Social Action in Space and Time,” *Society and Space* 1 (March 1983), pp. 23–57, however, Nigel Thrift uses the term more broadly as a generic label for a group of social theories which share certain fundamental assumptions about the agent-structure relationship; this group includes, but is not limited to, Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977), Roy Bhaskar, *The Possibility of Naturalism* (Brighton, U.K.: Harvester Press, 1979), and Derek Layder, *Structure, Interaction, and Social Theory* (London: Routledge & Kegan Paul, 1981). Since my purpose in this paper is less to advance Giddens’s ideas (indeed, I will rely more on Bhaskar than Giddens) than to demonstrate the relevance of the overall problematic for international relations theory, I shall follow Thrift’s more inclusive use of the term.

3. Scientific realism (or simply “realism”) is not related to political realism or neorealism in international relations.

4. Whether or not scientific realism is the “new orthodoxy” in the philosophy of natural science is undoubtedly a contentious issue among realists and empiricists, but it has in any case made sufficient inroads that the Minnesota Center for the Philosophy of Science, long an important bastion of empiricism, held a year-long institute in 1985/86 which, among other things, focused explicitly on that question. American political scientists generally seem to be unaware of or uninterested in this debate and its potential implications for political science. To my knowledge, the only discussions of scientific realism in international relations are British: John Maclean, “Marxist Epistemology, Explanations of Change and the Study of International Relations,” in Barry Buzan and R. J. Barry Jones, eds., *Change in the Study of International Relations: The Evaded Dimension* (London: Frances Pinter, 1981), pp. 46–67, and Richard Little, “The Systems Approach,” in Steve Smith, ed., *International Relations: British and American Perspectives* (Oxford: Blackwell, 1985), pp. 79–91.

structured, human or organizational agents, and of their relationship to social structures. Put more generally, all social scientific theories embody an at least implicit solution to the “agent-structure problem,” which situates agents and social structures in relation to one another. These solutions help determine a theory’s understanding of, and the relative explanatory importance it attaches to, structural analysis. While generating very different understandings of structural theory, however, I shall argue that the neorealist and world-system solutions to the agent-structure problem are, in at least one respect, very similar, and that this similarity creates a *common* fundamental weakness in these theories as “structural” approaches to international relations. Structuration theory, in turn, is a response to this common weakness which both subsumes and points beyond neorealism and world-system theory.

In Section 1, I examine the nature of the agent-structure “problem” and briefly identify the principal kinds of solutions to it. I argue in Section 2 that neorealism and world-system theory embody two of these solutions, the methodological individualist and structuralist ones, respectively. Despite important differences between them, each of these approaches solves the agent-structure problem by making either state agents or system structures ontologically primitive units. The resulting effect on neorealism and world-system theory is an inability to explain the properties and causal powers of their primary units of analysis, a weakness which seriously undermines their potential explanations of state action. This situation can be prevented by adopting an approach to the agent-structure problem which does not preclude a priori making both agents and structures “problematic” or “dependent variables.” In Section 3, I describe this third, structurationist approach, and its foundations in realist philosophy of science. Since the utility of structuration theory as a meta-theoretical framework for international relations ultimately depends on its ability to enrich substantive theorizing and concrete empirical research, its value cannot be convincingly demonstrated in a programmatic article such as this one. It is possible, however, to indicate some of the changes which a structurationist perspective suggests are necessary in the contemporary research agenda in international relations. Towards this end, in Section 4, I examine some general epistemological and theoretical implications of structuration theory for the explanation of state action. In the conclusion, I return to some implications of scientific realism for social scientific research.

1. The agent-structure problem

The agent-structure problem has its origins in two truisms about social life which underlie most social scientific inquiry: 1) human beings and their

organizations are purposeful actors whose actions help reproduce or transform the society in which they live; and 2) society is made up of social relationships, which structure the interactions between these purposeful actors. Taken together these truisms suggest that human agents and social structures are, in one way or another, theoretically interdependent or mutually implicating entities. Thus, the analysis of action invokes an at least implicit understanding of particular social relationships (or “rules of the game”) in which the action is set—just as the analysis of social structures invokes some understanding of the actors whose relationships make up the structural context. It is then a plausible step to believe that the properties of agents and those of social structures are *both* relevant to explanations of social behavior. And in fact, although in very different ways, neorealism and world-system theory do use the properties both of states (powers, interests) *and* of system structures (polarity, relations of unequal exchange) to explain state behavior. The “problem” with all this is that we lack a self-evident way to conceptualize these entities and their relationship. This absence of a single, immediately compelling conception of the agent-structure relation has spawned a variety of conceptualizations of the relationship across the social sciences,⁵ each reflecting the particular philosophical and practical commitments of its parent theoretical discourse. (My own adoption of the language of “agents” and “structures,” therefore, is not theory-neutral.) Despite their many differences, however, the “agent-structure,” “parts-whole,” “actor-system,” and “micro-macro” problems all reflect the same meta-theoretical imperative—the need to adopt, for the purpose of explaining social behavior, some conceptualization of the ontological and ex-

5. The agent-structure problem has, in various guises, recently emerged as something of a cottage industry throughout the social sciences. For a sampling of this work: in geography, see Derek Gregory, “Human Agency and Human Geography,” *Transactions of the Institute of British Geographers* 6 (no. 1, 1981), pp. 1–18, and Derek Gregory and John Urry, eds., *Social Relations and Spatial Structures* (London: MacMillan, 1985); in sociology, in addition to the work of Giddens and Bhaskar already cited, see Alan Dawe, “Theories of Social Action,” in Tom Bottomore and Robert Nisbet, eds., *A History of Sociological Analysis* (London: Heinemann, 1979), and Karin Knorr-Cetina and Aaron Cicourel, eds., *Advances in Social Theory: Toward an Integration of Micro and Macro-Sociologies* (London: Routledge & Kegan Paul, 1981); in social history, see Philip Abrams, *Historical Sociology* (Ithaca: Cornell University Press, 1982), and Christopher Lloyd, *Explanation in Social History* (Oxford: Blackwell, 1986); in the philosophy of social science, see John O’Neill, ed., *Modes of Individualism and Collectivism* (New York: St. Martins, 1973), and David-Hillel Ruben, *The Metaphysics of the Social World* (London: Routledge & Kegan Paul, 1985); in Marxist theory, see Edward Thompson’s polemic in *The Poverty of Theory and Other Essays* (New York: Monthly Review Press, 1978) against the structural Marxism of Louis Althusser, and the commentaries on this debate by Perry Anderson, *Arguments within English Marxism* (London: Verso, 1980), and Nicos Mouzelis, “Reductionism in Marxist Theory,” *Telos* 45 (Fall 1980), pp. 173–85; and in international relations, see Waltz, *Theory of International Politics*, and James Rosenau, “Before Cooperation: Hegemons, Regimes, and Habit-Driven Actors in World Politics,” *International Organization* 40 (Autumn 1986), pp. 849–94.

planatory relationship between social actors or agents (in this case, states)⁶ and societal structures (in this case, the international system).

The agent-structure problem is really two interrelated problems, one ontological and the other epistemological. The first, and more fundamental, issue concerns the nature of both agents and structures and, because they are in some way mutually implicating, of their interrelationship. In other words, what kind of entities are these (or, in the case of social structures, are they entities at all?), and how are they interrelated? There are two basic ways to approach this question: by making one unit of analysis ontologically primitive, or by giving them equal and therefore irreducible ontological status. Depending on which entity is made primitive, these approaches generate three possible answers to the ontological question, which I will call individualism, structuralism, and structurationism. Neorealism and world-system theory embody, respectively, the first two of these positions, both of which ultimately reduce one unit of analysis to the other. Thus, neorealists reduce the structure of the state system to the properties and interactions of its constituent elements, states, while world-system theorists reduce state (and class) agents to effects of the reproduction requirements of the capitalist world system. The structurationist approach, on the other hand, tries to avoid what I shall argue are the negative consequences of individualism and structuralism by giving agents and structures equal ontological status. Far from being a mindless synthesis of the "best of both worlds," however, the structuration project requires a very particular conceptualization of the agent-structure relationship. This conceptualization forces us to rethink the fundamental properties of (state) agents and system structures. In turn, it permits us to use agents and structures to explain some of the key properties of each as effects of the other, to see agents and structures as "co-determined" or "mutually constituted" entities.

The manner in which a social theory addresses these ontological issues conditions its approach to the epistemological aspect of the agent-structure problem, the choice and integration of different types of explanations within theories of social behavior. This problem actually raises two epistemological issues. The first is the choice of the form of explanation corresponding respectively to agents and structures. This choice depends largely on the kinds of properties of agents and structures that have been deemed causally

6. Recent theoretical work has conceptualized the state both as an agent and as a structure; see, for example, Roger Benjamin and Raymond Duvall, "The Capitalist State in Context," in Roger Benjamin and Stephen Elkin, eds., *The Democratic State* (Lawrence, Kans.: University of Kansas Press, 1985), pp. 19–57. For purposes of this paper, I assume with neorealists that the state is an agent, a move which can be justified in part because the organizing principles of the state system constitute states as individual choice-making units which are responsible for their actions. My subsequent arguments about the way in which system structures constitute states as agents should not, however, be seen as excluding a conception of the state as a structure of political authority in which governmental agents are in turn embedded.

significant. Thus, approaches to social inquiry that conceive of human beings as reflective, goal-directed subjects, such as rational choice theory, generate agent-explanations that are, broadly speaking, “interpretive”—that is, cast in terms of the goals, beliefs, and self-understandings of agents. On the other hand, approaches that conceive of human beings as nothing more than complex organisms processing stimuli—such as behaviorism—generate agent-explanations that are more mechanistically causal in form. The situation is similar with respect to “structural” explanations. Social theories that reduce system structures to the properties of individuals usually construe the explanatory role of structures as one of *constraining* the choices of pre-existing agents, while those that conceptualize system structures as irreducible entities underlying agents typically understand structures as *generating* or explaining agents themselves. The second epistemological issue concerns the relative importance of agent-explanations and structure-explanations, of whatever type, in social theory. This issue is of secondary importance in this article because neorealists and world-system theorists agree that an adequate international relations theory must be more structure- than agent-oriented. They understand this requirement in very different ways, however—a disagreement which I will later show is linked to the way they approach the ontological dimension of the agent-structure problem.

2. Reductionism and reification in international relations theory

In this section I want to: 1) compare the conceptions of “structural” theory found in neorealism and world-system theory; and 2) show that, despite important differences, these conceptions share a common approach to the agent-structure problem, and that this approach precludes an explanation of the essential properties of their respective primitive units. This inability leads to assumptions about primitive units that are without theoretical foundation, a move which in turn undermines the theories’ explanations of state action in the international system. I shall argue that this common limitation is a function of the basic assumptions and internal logic of each theory’s approach to the agent-structure problem, and that they therefore cannot overcome it within the terms of their basic ontological and epistemological commitments.

a. Neorealism

On the surface, at least, neorealists have strong structural and anti-reductionist commitments. In his discussion of the nature of systemic and

reductionist theories, Kenneth Waltz defines the latter as theories which explain the foreign policy behavior of states exclusively in terms of causes at the national level of analysis.⁷ Lenin's theory of imperialism, for example, is reductionist because it explains expansionist behavior in terms of the accumulation dynamics of national capitalism. Waltz criticizes such theories, correctly I think, for ignoring the intervening role played by international system structures in the translation of domestic imperatives into foreign policy behavior. Neorealists avoid this type of reductionism by adopting the systemic (but, I shall argue, not "structural") logic and conceptual apparatus of micro-economic theory.⁸ This move permits neorealists to integrate within a coherent theoretical framework the state-centric approach of classical political realism with the systemic approach of international systems theory, and thus to develop a conception of the agent-structure relationship in international relations which recognizes the causal role of both state agents and system structures.

In view of neorealists' desire to avoid micro-level reductionism, however, it is ironic that their solution to the agent-structure problem is, in a different and deeper sense, reductionist. The kind of "reductionism" which neorealists oppose is defined as theory which tries to explain behavior in terms of strictly agent-level properties. This rejection of what might be called *explanatory* reductionism does not in itself, however, impose any particular restriction on the *ontological* issue of how system structures should be defined, since an opposition to agent-level explanations is analytically independent of how system structures, once recognized as causally significant, should be theorized. Thus, neorealists' individualist definition of the structure of the international system as reducible to the properties of states⁹—to the distribution of capabilities—is perfectly consistent with the important role that

7. Waltz, *Theory of International Politics*, p. 18.

8. Robert Gilpin, *War and Change in World Politics* (Princeton: Princeton University Press, 1981); Richard Ashley, "Three Modes of Economism," *International Studies Quarterly* 27 (December 1983), pp. 463–96; Robert Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press, 1984); Duncan Snidal, "The Game Theory of International Politics," *World Politics* 38 (October 1985), pp. 25–57.

9. Ashley thoroughly critiques the individualist (and empiricist) foundations of the neorealist conception of international system structure in his "Poverty of Neorealism," especially pp. 238–42. It is important to keep in mind, however, that in *Theory of International Politics*, Waltz starts out with *three* defining features of political structures: 1) the principle according to which they are organized, 2) the differentiation of units and their functions, and 3) the distribution of capabilities across units. This definition can be used to support a generative approach to structural theorizing, as John Ruggie shows in his Durkheimian reconstruction of Waltz in "Continuity and Transformation in the World Polity: Toward a Neorealist Synthesis," *World Politics* 35 (January 1983), pp. 261–85. Despite this promising beginning, however, Waltz and other neorealists argue that the first two features of this definition don't apply to international political structures, leaving us in practice with an individualist conception of structure as the distribution of capabilities. For an argument that links this result to a lingering neorealist commitment to positivism, see Little, "The Systems Approach."

system structures play in neorealist explanations of state behavior. Indeed, in both its decision- and game-theoretic versions¹⁰ neorealism, like microeconomics, is characterized by “situational determinism,” by a model of action in which rational behavior is conditioned or even determined by the structure of choice situations.¹¹ The point is not that neorealists engage in explanatory reductionism (which they do not), but rather that their definition of system structure is characterized by ontological reductionism. This definition leads to an understanding of system structures as only *constraining* the agency of preexisting states, rather than, as in world-system and structuration theory, as *generating* state agents themselves. This follows inevitably from its (ontologically) reductionist definition of system structure: system structures cannot generate agents if they are reduced to the properties of agents in the first place. Despite its strongly systemic focus, then, neorealism’s view of the explanatory role of system structures is decidedly state- or agent-centric. It sees system structures in the manner in which they appear to states—as given, external constraints on their actions—rather than as conditions of possibility for state action.

From the perspective of international relations theory, the most important weakness of neorealism’s individualist approach to the agent-structure problem is that it fails to provide a basis for developing an explicit theory of the state. It is not hard to see why this must be the case. Theorizing about a particular kind of individual unit, like the state, can take either of two forms (or both). The first, “reductionist” strategy is to explain the individual in terms of its internal organizational structure.¹² While this approach may explain some of the causal properties of the individual, it neglects the irreducibly social content of many individual-level predicates.¹³ Thus, while the internal physiological structure of a capitalist may explain some dispositions and actions, we cannot explain his or her behavior as that of a “capi-

10. Bruce Bueno de Mesquita, *The War Trap* (New Haven: Yale University Press, 1981); Snidal, “The Game Theory of International Politics.” Despite important differences between the two versions over the conceptualization of choice situations in international relations, both are based on an individualist definition of the structure of the international system as the distribution of capabilities.

11. See Spiro Latsis, “Situational Determinism in Economics,” *British Journal for the Philosophy of Science* 23 (August 1972), pp. 207–45, and the reply by Fritz Machlup, “Situational Determinism in Economics,” *British Journal for the Philosophy of Science* 25 (September 1974), pp. 271–84.

12. Examples of such an approach in international relations might include Graham Allison, *Essence of Decision* (Boston: Little Brown, 1971) and John Steinbrunner, *The Cybernetic Theory of Decision* (Princeton: Princeton University Press, 1974).

13. This is probably the most persistently cited problem in the individualist program of reducing all social scientific explanations to the properties of individuals or their interactions. See, for example, Maurice Mandelbaum, “Societal Facts,” *British Journal of Sociology* 6 (1955); Steven Lukes, “Methodological Individualism Reconsidered,” *British Journal of Sociology* 19 (June 1968), pp. 119–29; Harold Kincaid, “Reduction, Explanation, and Individualism,” *Philosophy of Science* 53 (December 1986), pp. 492–513.

talist'' except in terms of the individual's social relations to other agents. The second approach, then, is to explicate and theorize these relationally or structurally defined properties, that is, to develop a social theory of the state. Yet these are precisely the properties that neorealism abstracts away from when it reduces system structures to a distribution of properties of preexisting individuals. The neorealist's individualist conceptualization of system structure is therefore too weak to support a social theory of the state: system structures cannot generate agents if they are defined exclusively in terms of those agents in the first place. The consequence of making the individual ontologically primitive, in other words, is that the social relations in virtue of which that individual is a particular kind of agent with particular causal properties must remain forever opaque and untheorized.

One response to this might be to argue, as Waltz does,¹⁴ that the development of an explicit theory of the state is not integral to the development of systemic theories of international relations. Yet clearly some model of the state is necessary to build systemic theories of international relations, and this model can strongly affect the content of those theories. Thus, to argue that the structure of the industrialized states' interaction with respect to international trade is an *n*-person iterated Prisoner's Dilemma, and that free trade is therefore always problematic, requires a certain understanding of those states and their interests and powers. The issue, then, is not whether some understanding of the state is necessary to build systemic theories (it is), but whether that understanding follows from a *theory*, grounded in a coherent set of propositions with some correspondence to reality, or simply from a set of pre-theoretical *assumptions*, grounded in intuition or ideology. Whatever its advantages in terms of analytical convenience, a reliance on untheorized assumptions about primitive terms leaves us unable to justify particular conceptualizations of interaction situations and leads, therefore, to an untenable "as if" approach to systemic theory building.¹⁵ Thus, without an explicit theory of the state's powers and interests in international trade, without a theory of the "rules of the game," it cannot be determined whether or not this game really is a Prisoner's Dilemma rather than, as some

14. "Reflections on *Theory of International Politics: A Response to My Critics*," in Robert Keohane, ed., *Neorealism and Its Critics* (New York: Columbia University Press, 1986), p. 340.

15. The debate over the validity of theories built on the assumption that the social world operates "as if" certain things were true is a long one, so my saying that such reasoning is "untenable" is, of course, contentious. The terms of the debate were first defined by Milton Friedman's "The Methodology of Positive Economics," in his *Essays in Positive Economics* (Chicago: Chicago University Press, 1953), a piece which initiated a lively debate with Paul Samuelson and others in the pages of the *American Economic Review* in the early 1960s. For a particularly cogent argument that "as if" reasoning is inconsistent even with the logical empiricist conception of scientific explanation that informed Friedman's seminal contribution, see Terry Moe, "On the Scientific Status of Rational Models," *American Journal of Political Science* 23 (February 1979), pp. 215-43.

neo-Marxists might argue, a pure cooperation game.¹⁶ And, without a compelling argument to that effect, we cannot know if a failed prediction is due to an error in our systemic theory or to a misspecification of the (pretheoretical) rules of the game. Without a theory of the state, in other words, neorealists' efforts to build compelling *systemic* theories of international relations are seriously compromised.

This consequence does not mean that the actual, micro-economic, assumptions neorealists make about the state are wrong or misleading (although I think they probably are)—just that they lack a theoretical foundation with some demonstrated correspondence to reality. The result is a tendency to argue that states act “as if” they maximize, for example, power and wealth, and a corresponding inability to build credible systemic theories of international relations. Waltz's separation of theories of the state and of international relations notwithstanding, if neorealists want to avoid these problems they must ultimately develop a social theory of the state, that is, they must make the state theoretically “problematic.” This would require an attempt to theorize directly about the generative structures of the world and domestic political-economy which constitute states as particular kinds of agents with certain causal powers and interests. Neorealists already have an implicit theory of these social relations (if they did not, they could not attribute any causal powers or interests to state agents), but they cannot make this theory explicit, and therefore falsifiable, as long as they treat the state as ontologically primitive. Since the social relations which constitute states as states will be potentially unobservable and irreducible to the properties of states themselves, however, such a theoretical reorientation will require a non-individualist and non-empiricist understanding of system structures and structural analysis, an understanding of structure as something more than a distribution of capabilities.

b. World-system theory

World-system theory offers such an understanding of structure and thus, at least with respect to its conceptualization of structure and structural analysis, can be seen as a progressive problem shift over neorealism. In one crucial respect, however, world-system theorists duplicate the neorealist

16. As far as I know, no neo-Marxist has used game-theoretic language to characterize international economic relations between the advanced industrialized countries. But clearly, because of their very different theoretical understanding of the state, neo-Marxist scholars are much less likely than neorealists to see those relations in mercantilist, and therefore politically fragile, terms; see, for example, Robin Murray, “The Internationalization of Capital and the Nation-State,” *New Left Review* 67 (May–June 1971), pp. 84–109, and John Willoughby, “The Changing Role of Protection in the World Economy,” *Cambridge Journal of Economics* 6 (June 1982), pp. 195–211. The issue in this article, of course, is not which view is actually correct, but rather how to develop an approach to the agent-structure problem which ensures at least the possibility of *determining* which is correct, that is, of developing a *theory* of states in international economic structures.

approach to the agent-structure problem: they at least implicitly make one entity primitive, in this case the structure of the world system, and then try to reduce other entities, such as state and class agents, to its effects. The result of this strategy, I shall argue, is that world-system theorists reify the structure of the world system and thus, like neorealists, are unable even in principle to explain its essential properties. A social structure is reified when "it is treated as an object analytically independent of the actions by which it is produced."¹⁷ A solution to the agent-structure problem, then, engages in reification when it objectifies social structures without recognizing that only human action instantiates, reproduces, and transforms those structures. I should emphasize that reification presupposes at least an implicit conception of the relationship of agents to social structures: structures have reproductive requirements which, for whatever reason, agents passively implement. The problem with reification, therefore, does not concern the inclusion or exclusion of agents per se from social scientific theories (since they must be included), but rather the terms of their inclusion into those theories.

Immanuel Wallerstein's solution to the agent-structure problem has the same general form, and thus the same strengths and weaknesses, as Louis Althusser's structural Marxist solution.¹⁸ Like Althusser's insistence on the "absolute ontological priority of the whole over the parts,"¹⁹ the core of Wallerstein's approach is the proposition that the only meaningful unit of analysis in comparative or international political economy is the whole world system. Moreover, both scholars accept the concept and discourse of "totality,"²⁰ of social wholes that are irreducible, even by composition laws, to their constituent elements. As a result, Wallerstein, like Althusser, conceptualizes "structure" in structuralist or generative terms rather than in terms of the observable relations between, or properties of, primitive individuals. That is, in contrast to the neorealist definition of system structure as

17. Douglas Maynard and Thomas Wilson, "On the Reification of Social Structure," in Scott McNall and Gary Howe, eds., *Current Perspectives in Social Theory*, vol. 1 (Greenwich, Conn.: JAI Press, 1980), p. 287.

18. The structural Marxist approach to the agent-structure problem is discussed in Louis Althusser and Etienne Balibar, *Reading Capital* (London: New Left Books, 1970), pp. 180–81, and in Steven Smith, *Reading Althusser* (Ithaca: Cornell University Press, 1984), pp. 192–200. It should be noted, however, that despite the similarities between world-system theory and structural Marxism with respect to their understandings of the agent-structure relationship, they differ in important ways on other issues, such as the conceptualization of the capitalist mode of production. See, for example, Gary Howe and Alan Sica, "Political Economy, Imperialism, and the Problem of World-System Theory," in McNall and Howe, *Current Perspectives in Social Theory*, pp. 235–86.

19. Smith, *Reading Althusser*, p. 177.

20. They disagree, however, about the exact meaning of this term, that is, about whether totalities are "expressive" or "structured." On these differences, see Michael Burawoy, "Contemporary Currents in Marxist Theory," in Scott McNall, ed., *Theoretical Perspectives in Sociology* (New York: St. Martins, 1979), pp. 16–39, and Harvey Kaye, "Totality: Its Application to Historical and Social Analysis by Wallerstein and Genovese," *Historical Reflections* 6 (Winter 1979), pp. 405–19.

the distribution of capabilities across preexisting states, world-system theorists define the structure of the world system in terms of the underlying organizing principles of the world economy, and in particular of the international division of labor, which constitute or generate state and class agents.²¹ The existence and identity of agents as agents, and therefore of their causal powers and real interests, is produced, and therefore explained, by their relation to the totality of the capitalist world system. Thus, state agents are *effects* of the structure of the world system in much the same sense that capitalists are effects of the structure of the capitalist mode of production, or slaves are effects of the structure of master–slave relationships.

This generative reading of world-system theory presupposes an ontological and explanatory distinction between “internal” and “external” relations.²² Internal relations are necessary relationships between entities in the sense that the entities depend upon the relation for their very identity. Standard examples of internal relations are parent–child and master–slave; neither entity is conceivable without the existence of the other. This implies that an internal relation cannot be reduced to the properties or interactions of its member elements; on the contrary, the relationship itself explains essential properties of each entity, and thus the character of their interaction. External relations, on the other hand, are contingent relationships or interactions between entities, each of which can exist without the other. The fact that two states go to war or sign a peace, for example, is not essential to their identity as states. External relations are important for explaining what happens to entities in the course of their interaction, but they do not explain the essential characteristics of those entities themselves.

Generative structures are *sets of internal relations*. To adopt a generative approach to theorizing about the structure of the international system, therefore, is to understand the state as an *effect* of its internal relations to other states and social formations in the world political-economy, rather than purely as an untheorized *cause* of international events. The strength of a generative approach to structural theorizing, then, is that in contrast to

21. My generative reading of world-system theory’s conceptualization of structure is characteristic only of the “qualitative” (and at this point, apparently the minority) school of world-system theorists represented, for example, by Wallerstein and Terence Hopkins. Actually, the recent debate between qualitative and quantitative world-system theorists is an interesting example of a quite explicit tension within a single research community between scientific realist and empiricist conceptions of the ontology and methodology of structural analysis. On this debate see, for example, Richard Little, “The Systems Approach,” in Steve Smith, ed., *International Relations, British and American Perspectives* (Oxford, U.K.: Blackwell, 1985), pp. 71–91, and Peter Taylor, “The Poverty of International Comparisons: Some Methodological Lessons from World-Systems Analysis” (Department of Geography, University of Newcastle-upon-Tyne, 1985).

22. Useful discussions of this distinction include Bertell Ollman, *Alienation: Marx’s Conception of Man in Capitalist Society* (Cambridge: Cambridge University Press, 1976), pp. 26–40, and Bhaskar, *The Possibility of Naturalism*, pp. 53–55.

neorealism's individualist approach it is able, in principle, to explain the causal powers and interests of state and class agents, to make these theoretically and empirically problematic.

A generative approach to structural analysis does not, however, require that system structures be reified. World-system theorists begin to reify social structures when they assert, or imply in their concrete research, not only that certain social relations are irreducible and constitute the state and class agents which are their elements, but that these relations are analytically independent of, and ontologically prior to, those agents. Such a view is implied by the tendency of world-system theorists to follow Althusser in treating state and class agents as no more than passive "bearers" of systemic imperatives, a tendency which manifests itself in a reliance on functional explanations of state behavior.²³ Functionalism is evident, for example, in world-system theorists' explanation of general wars directly in terms of the reproduction requirements of the world-system,²⁴ requirements which become translated (or translate themselves) into bellicose state interests, as well as in the interpretation of the rise of socialist states in such a way that it is consistent with the reproduction requirements of the world system.²⁵ This is not to say that world-system theorists would consciously argue that the reproduction of the world-system occurs without state agency—they probably would not. But nonetheless in many explanations the world system in effect seems to call forth its own reproduction by states; this suggests that at least in their concrete research, world-system theorists treat the world-system as at some level operating independently of state action, that in practice they reify the world-system. While this result may be unintended, I do not think it is accidental. On the contrary, it follows inevitably from the fundamental premise of Wallerstein's holism—that the whole is ontologically prior to its parts.

The principal weakness of a structuralist solution to the agent-structure problem is that, because it cannot "explain anything but behavioral conformity to structural demands,"²⁶ it ultimately fails to provide a basis for explaining the properties of deep structures themselves. It may be, for example, that the division of the world system into three distinct structural

23. This tendency is one of the most persistently cited criticisms of at least the early work in world-system theory. See, for example, Robert Duplessis, "From Demesne to World-System: A Critical Review of the Literature on the Transition from Feudalism to Capitalism," *Radical History Review* 3 (Fall 1976), pp. 3–41, and Skocpol, "Wallerstein's World Capitalist System."

24. Christopher Chase-Dunn and Joan Sokolovsky, "Interstate Systems, World-Empires and the Capitalist World-Economy: A Response to Thompson," *International Studies Quarterly* 27 (September 1983), pp. 357–67.

25. Christopher Chase-Dunn, "Socialist States in the Capitalist World-Economy," in his *Socialist States in the World-System* (Beverly Hills: Sage Publications, 1982), pp. 21–56.

26. Derek Layder, "Problems in Accounting for the Individual in Marxist-Rationalist Theoretical Discourse," *British Journal of Sociology* 30 (June 1979), p. 150.

positions (core, semi-periphery, periphery) is functional for the reproduction of capitalism, but this does not explain why the system developed that particular structure, nor does it guarantee that that structure will endure.²⁷ Because of their passive conception of state and class agency, world-system theorists tend to fall into an historical determinism which, by ignoring other possible historical trajectories, implicitly assumes that the evolution of the world system could not have turned out any other way. The limitations of world-system theory's solution to the agent-structure problem, and also its similarities to that of structural Marxism, are in this respect no more apparent than in Wallerstein's explanation of a fundamental structural change like the transition from feudalism to capitalism.²⁸ Without a recognition of the ontological dependence of system structures on state and class agents, Wallerstein is forced into an explanation of that transition in terms of exogenous shocks and the teleological imperatives of an immanent capitalist mode of production. This explanation opposes Robert Brenner's more or less structurationist one, which describes the transition in terms of a dialectic of endogenous class struggle and structural conditioning.²⁹ This explanation reflects difficulties remarkably similar to those structural Marxists have had in theorizing the transition from one mode of production to another.³⁰

World-system theorists, then, like neorealists, treat their primitive units, in this case the structure of the world system, as *given and unproblematic*. This treatment leads them to separate the operation of system structures from the activities of state and class agents—in other words, to reify system structures in a way which leads to static and even functional explanations of state action. The world system is not treated as an historically contingent, and therefore continuously problematic, creation and recreation of state and class agents. I think the greater attention Wallerstein's later work gives to problems of agency indicates an awareness of this difficulty,³¹ and these efforts have helped to move world-system theory away from the excessive functionalism evident in his early contributions and, perhaps, in my por-

27. Emile Durkheim makes exactly this point in *The Rules of Sociological Method* (Chicago: Chicago University Press, 1938), p. 90, when he says that "to show how a fact is useful is not to explain how it originated or why it is what it is. The uses which it serves presuppose the specific properties characterizing it, but do not create them. The need we have of things cannot give them existence, nor can it confer their specific nature upon them. It is to causes of another sort that they owe their existence."

28. See, for example, Wallerstein, *The Modern World-System I* (New York: Academic Press, 1974), especially chap. 1.

29. Brenner, "The Origins of Capitalist Development: A Critique of Neo-Smithian Marxism," *New Left Review* 104 (July-August 1977), pp. 25–92.

30. See, for example, Stephen Resnick and Richard Wolff, "The Theory of Transitional Conjunctures and the Transition from Feudalism to Capitalism," *Review of Radical Political Economics* 11 (Fall 1979), pp. 3–22, and the response in the same issue by Herbert Gintis, "On the Theory of Transitional Conjunctures," pp. 23–31.

31. See, for example, I. Wallerstein, *The Politics of the World-Economy* (Cambridge: Cambridge University Press, 1984), pp. 112–46.

trayal of world-system theory. Indeed, in contrast to the complete neglect of generative structures by neorealists, world-system theorists seem to be aware of the need to arrive at a solution to the agent-structure problem that integrates generative structures and state and class agency. World-system theory's evolution towards a greater focus on agency thus, in some ways, parallels the development of structural Marxism in the later work of Nicos Poulantzas.³² As with Poulantzas, however, it is difficult to see how agency can be brought on an ontological and explanatory par with system structures without explicitly jettisoning the strict holism and structural reification which characterize the structuralist approach to the agent-structure problem. Nonetheless, if only because it at least recognizes the existence and explanatory role of generative structures, the world-system solution to the agent-structure problem is considerably closer to that of structuration theory than is the neorealist solution.

c. Summary

In this section, I have tried to identify important differences between the neorealist and world-system understandings of "structural" explanation, and to link these differences to their different social ontologies. I have also attempted to show that, despite these differences, neorealism and world-system theory share a common, underlying approach to the agent-structure problem: they both attempt to make either agents or structures into primitive units, which leaves each equally unable to explain the properties of those units, and therefore to justify its theoretical and explanatory claims about state action. The obvious implication of this argument is that neither state agents nor the domestic and international system structures which constitute them should be treated always as given or primitive units; theories of international relations should be capable of providing explanatory leverage on both. This does not mean that a particular research endeavor cannot take some things as primitive: scientific practice has to start somewhere. It does mean, however, that what is primitive in one research endeavor must be at least potentially problematic (or function as a "dependent variable") in another—that scientists need *theories* of their primitive units. Notwithstanding their apparent aspiration to be general theories of international relations, the individualist and structuralist ontologies of neorealism and world-system theory preclude the development of such theories. In contrast, a structurationist approach to the agent-structure problem would permit us to develop theoretical accounts of both state agents and system structures without engaging in either ontological reductionism or reification.

32. *State, Power, Socialism* (London: Verso, 1978); see also Bob Jessop, *Nicos Poulantzas: Marxist Theory and Political Strategy* (New York: St. Martins, 1985).

3. An alternative approach to the agent-structure problem

Structuration theory is a relational solution to the agent-structure problem that conceptualizes agents and structures as mutually constituted or co-determined entities. What this means will become more apparent later, but first I want to consider the philosophical foundations of structuration theory in scientific realism, and the current debate of the latter with empiricism in the philosophy of science. This digression is important to my argument because of the continuing hegemony of empiricist discourse on social scientists' conceptualization of "science," and the real possibility that skeptics might use that discourse to write off structuration theory's generative approach to structural theorizing as "metaphysical."³³ In contrast to empiricism, scientific realism can, in principle, call an ontology "scientific" even if it includes unobservable generative structures. While scientific realism does not mandate such an ontology for social life (or, for that matter, any other solution to the agent-structure problem), it is a necessary condition for the ontology of structuration theory.

a. Scientific realism

The philosophy of science community is currently in the midst of a wide-ranging debate between empiricists and scientific realists about what might be called the "theory of science."³⁴ At issue in the debate are fundamental questions of ontology, epistemology, and the rational justification of research practices in both the natural and social sciences. Rather than attempt to review the entire debate, I will concentrate on contrasting the "hard

33. This kind of dismissal is an old individualist move; see, for example, May Brodbeck's juxtaposition of methodological individualism with "metaphysical" holism in her "Methodological Individualisms: Definition and Reduction," in O'Neill, *Modes of Individualism and Collectivism*, pp. 289–90. More recently, "analytical Marxists" have resurrected this argument to motivate a reconstruction of Marxist theory on "micro-foundations"; see Jon Elster, *Making Sense of Marx* (Cambridge: Cambridge University Press, 1985), pp. 3–8. In this latter context, it is perhaps worth noting that a number of social scientific realists have argued that Marxist theory is best understood in realist, rather than empiricist, terms and therefore does not need to be reconstructed on microfoundations to be "scientific"; see Russell Keat and John Urry, *Social Theory as Science* (London: Routledge & Kegan Paul, 1982), pp. 96–118, and James Farr, "Marx's Laws," *Political Studies* 34 (June 1986), pp. 202–22.

34. The terms "empiricist" and "scientific realist" are the labels the participants in this debate, most of whom are philosophers of natural science, use to describe themselves. Some of the important contributions and overviews are Hilary Putnam, *Mathematics, Matter, and Method* (Cambridge: Cambridge University Press, 1975); Bas van Fraassen, *The Scientific Image* (Oxford: Clarendon Press, 1980); Ian Hacking, *Representing and Intervening* (Cambridge: Cambridge University Press, 1983); Richard Boyd, "On the Current Status of the Issue of Scientific Realism," *Erkenntnis* 19 (May 1983), pp. 45–90; Jerrold Aronson, *A Realist Philosophy of Science* (New York: St. Martins, 1984); Jarrett Leplin, ed., *Scientific Realism* (Berkeley: University of California Press, 1984); Wesley Salmon, *Scientific Explanation and the Causal Structure of the World* (Princeton: Princeton University Press, 1984); and Paul Churchland and Clifford Hooker, eds., *Images of Science: Essays on Realism and Empiricism* (Chicago: Chicago University Press, 1985).

core" empiricist and realist positions on two issues that are relevant to the agent-structure problem and to structuration theory in particular: 1) the legitimacy of ascribing ontological status to unobservable entities like generative structures, and 2) the nature of causal claims and scientific explanation. If the realist positions on these issues seem upon reading to be unexceptionable, that is because they are: one of the principal arguments for scientific realism is that it claims to make better sense than empiricism of the actual research practices of natural and, to a lesser extent, social scientists. In other words, realists assume that scientists, not philosophers, are the final arbiters of what is "scientific." This contrasts with the empiricist position, which is quite explicitly an artificial reconstruction of what scientists are or should be doing. Indeed, it could be argued that neorealists and world-system theorists are, at least in some respects, "closet" scientific realists.³⁵ The explicit metatheoretical statements of both remain within an empiricist discourse,³⁶ however, and thus their research practice does not follow through on the methodological implications of the scientific realist model. This failure suggests an ironic twist on the old behavioral argument that the social sciences are "immature" because they are not "scientific" enough: a realist might argue that, far from being part of the solution, the empiricist conception of natural science upon which mainstream social science is based is part of the *cause* of its theoretical impoverishment.

The first axis of debate between empiricists and realists is the ontological status of unobservables. Empiricists tend to "equate the real with the experientially knowable" in the sense that they are unwilling to say that entities exist if we cannot, at least in principle, have direct sensory experience of them. They argue that we should remain, at most, agnostic about the existence of unobservable entities like quarks, utilities, or generative structures, and that we should instead interpret the theoretical terms describing such entities, and the theories in which those terms are embedded, "instrumentally" rather than "realistically."³⁷ Theories and theoretical terms are useful

35. Neorealists might be seen as scientific realists to the extent that they believe that state interests or utilities are real but unobservable mechanisms which generate state behavior, while world-system theorists would be realists to the extent that they believe that the structure of the world-system is a real but unobservable entity which generates agents.

36. The most explicit recent discussion of the philosophy of science underlying neorealism of which I am aware is the symposium around Bruce Bueno de Mesquita's "Toward a Scientific Understanding of International Conflict: A Personal View," *International Studies Quarterly* 29 (June 1985), pp. 121–36. Bueno de Mesquita's emphasis on deductive analysis and logical proof, rather than the identification of potentially unobservable causal mechanisms, as the foundation of scientific explanation displays a clearly empiricist epistemological orientation. The explicit statements on philosophy of science by at least the quantitative school of world-system theorists show a similar reliance on empiricist arguments; see, for example, Christopher Chase-Dunn, "The Kernel of the Capitalist World-Economy: Three Approaches," in Thompson, ed., *Contending Approaches*, pp. 55–78.

37. The best recent defense of instrumentalism and empiricism more generally is van Fraassen, *The Scientific Image*.

instruments for organizing and predicting experience, but there is too much epistemic risk of positing false entities to justify an “abductive inference,”³⁸ an inference that theoretical terms refer to *real* but unobservable entities and processes. Empiricists, then, in effect subordinate ontology to epistemology—what *exists* is a function of what can be *known* experientially.³⁹ In contrast to empiricists’ rejection of abductive inference, scientific realists argue that such inferences are, in principle, justified if the entity in question can produce observable effects,⁴⁰ or if its manipulation permits us to intervene with effect in the observable world.⁴¹ Thus, the fact that we can use theories about the (unobservable) internal structure of atoms to build nuclear weapons which can destroy cities is a good reason for the realist to believe that such structures exist, as we understand them today. This thesis is important to structuration theory because, in contrast to empiricism, talk of unobservable and irreducible social structures can be scientifically legitimate in this view. As long as they have observable effects or are manipulable by human agents, we can, in principle, speak meaningfully about the “reality” of unobservable social structures. “Generative structure,” in other words, is a (potentially) scientific rather than metaphysical concept.

Scientific realists commonly adduce two basic arguments in favor of abductive inference and, more generally, of the ontological status of unobservables.⁴² Proponents of the “indispensability argument” argue that a realist construal of theoretical terms is necessary to make sense of the actual research practices of natural and social scientists.⁴³ Physicists would not posit and build tests around quarks, and social scientists would not posit and build tests around utilities or modes of production, if they thought that these entities, despite being unobservable, were not *real* and causally efficacious. Proponents of the “miracle argument,” in turn, go one step further by arguing that not only is scientific realism necessary to make scientific practices rationally intelligible, but it is also necessary to explain the instrumen-

38. Abduction is also known as “retroduction.” Useful discussions of abduction are found in Norwood Hanson, “Retroduction and the Logic of Scientific Discovery,” in Leonard Krimerman, ed., *The Nature and Scope of Social Science* (New York: Appleton-Century-Crofts, 1969), pp. 73–83, and Boyd, “On the Current Status of Scientific Realism,” especially pp. 72–89. An unusually detailed and explicit illustration of abductive reasoning in the social sciences (and thus supporting my earlier suggestion that some social scientists are practicing scientific realists) is found in Elinor Ostrom’s “An Agenda for the Study of Institutions,” *Public Choice* 48 (no. 1, 1986), p. 19.

39. Aronson, *A Realist Philosophy of Science*, p. 261.

40. Bhaskar, *The Possibility of Naturalism*, p. 16.

41. Hacking, *Representing and Intervening*; Thomas Cook and Donald Campbell, “The Causal Assumptions of Quasi-Experimental Practice,” *Synthese* 68 (July 1986), especially pp. 169–72.

42. Alison Wylie, “Arguments for Scientific Realism: The Ascending Spiral,” *American Philosophical Quarterly* 23 (July 1986), pp. 287–97.

43. Bhaskar, *The Possibility of Naturalism*, p. 22. Geoffrey Hellman, “Realist Principles,” *Philosophy of Science* 50 (June 1983), especially pp. 231–32.

tal success of science in controlling the world.⁴⁴ If mature scientific theories did not at least partially correspond to the deep structure of reality, the success of science would be an unexplainable "miracle." Certainly both of these arguments depend on "mature theories" for their force, and thus might be less convincing in the social than natural scientific context (although micro-economic theory and Marxist theory might be candidates for such a status). But the relative weakness of extant social scientific theories does not jeopardize the scientific realist's basic point: it is a well-established and perfectly legitimate scientific practice to posit unobservable entities to account for observable behavior. Acceptance of this practice does not imply that any posit is a good one; scientists must still adduce direct or indirect evidence for the validity of their ontological claims, and this evidence is always revisable. But by the same token, scientists, not philosophers of science, are the arbiters of that evidence.

The differences between empiricists and scientific realists over ontology fuel debate on a second axis, the nature and requirements of scientific explanation. Traditionally, there have been two competing ideals of scientific explanation: the empiricist or "nomothetic" view that explanation involves the *subsumption* of a phenomenon under a lawlike regularity; and the realist or "retroductive" view that it involves the identification of the underlying causal *mechanisms* which physically generated the phenomenon.⁴⁵ The resurgence in recent years of the scientific realist view coincides with renewed attacks on the Humean model of causation, which supports the empiricist account of explanation.⁴⁶ In the Humean model, a causal relation is a "constant conjunction" of temporally sequenced observed events that stands in a relation of logical necessity to certain initial conditions and laws.⁴⁷ On the Humean view, our inability to experience causal mechanisms directly prevents us from imputing any *natural* necessity to causal relations. Scientific realists criticize this model because constant conjunctions and generalizations are not their own explanation, and argue instead that to

44. See, for example, Putnam, *Matter, Mathematics, and Method*; Boyd, "On the Current Status of the Issue of Scientific Realism"; Richard Schlagel, "A Reasonable Reply to Hume's Skepticism," *British Journal for the Philosophy of Science* 35 (December 1984), pp. 359–74.

45. See Ernan McMullin, "Two Ideals of Explanation in Natural Science," in Peter French, et al., eds., *Causation and Causal Theories* (Minneapolis: University of Minnesota Press, 1984), pp. 205–20, and the three-way debate between Philip Kitcher, Bas van Fraassen, and Wesley Salmon in "Approaches to Explanation," *The Journal of Philosophy* 82 (November 1985), pp. 632–54.

46. Rom Harre and Edward Madden, *Causal Powers* (Totowa, N.J.: Rowman and Littlefield, 1975); Salmon, *Scientific Explanation*; Schlagel, "Hume's Skepticism."

47. Hence behavioral social scientists' emphasis on quantitative analysis to discover law-like regularities, rather than qualitative analysis and theory to identify causal mechanisms. On the empiricist model, we cannot have science without (relatively) "constant" conjunctions. For a useful more or less realist critique of this model of causation as it relates to social science, see Daniel Hausman, "Are There Causal Relations among Dependent Variables?" *Philosophy of Science* 50 (March 1983), pp. 58–81.

make a true explanatory claim, it is necessary to identify the underlying causal mechanisms which make an event naturally necessary. The disagreement here ultimately hinges on the legitimacy of abductive inference. Realists argue that if we can explain the physical dispositions and causal powers of unobservable entities, we can make a legitimate abductive inference about the existence of naturally necessary relations between cause and effect, and thereby transcend Hume's skepticism about causation.⁴⁸ In effect, the realist's focus on causal mechanisms is an attempt to explain the empiricist's constant conjunctions. These different models of causation, then, generate very different models of scientific explanation. Whereas the empiricist explains by generalizing about observable behavior, the realist explains by showing how the (often unobservable) causal mechanisms which make observable regularities possible *work*. The scientific realist, in other words, argues that "answers to why-questions require answers to how- and what-questions."⁴⁹

I want to conclude this brief overview of the empiricist/realist debate with three points about its implications for structuration theory and, more generally, for social scientific research practice. First, scientific realism attempts to make sense of what practicing natural and social scientists in fact *do*, rather than prescribing on the legitimacy of certain research practices versus others. Abduction and the *de facto* positing of unobservable causal processes and entities, whether those are quarks, utilities, or modes of production, go on constantly in scientific research, and scientific realists see no reason to write this practice off as unscientific. For this reason, and this is the second point, in contrast to empiricism, scientific realism can make scientific sense of unobservable generative structures, of structures that are irreducible to and generate their elements. This outflanks a key motivation for individualism, namely that structural theorizing of the generative variety is necessarily "metaphysical" or "unscientific." Finally, although there are important problems in translating the protocols and discourse of natural scientific practice directly to the social sciences—what Roy Bhaskar calls "limits to naturalism"⁵⁰—the basic realist idea that scientific explanation

48. Some realist accounts of causation, and particularly the account of Harre and Madden, have been accused of implying an Aristotelian "essentialism"—the explanation of observable phenomena in terms of occult and impenetrable "essences"; see, for example, David Miller, "Back to Aristotle," *British Journal for the Philosophy of Science* 23 (February 1972), pp. 69–78, and Fred Wilson, "Harre and Madden on Analyzing Dispositional Concepts," *Philosophy of Science* 52 (December 1985), pp. 591–607. Other realists, however, emphasize that this objection can be vitiated by explaining causal powers in terms of the physical properties and social relations which underlie them; Schlagel, "Hume's Skepticism."

49. Russell Keat and John Urry, *Social Theory as Science* (London: Routledge & Kegan Paul, 1982), p. 31.

50. Perhaps the most difficult problems in making this translation concern the role of human motivations and self-understandings in social scientific explanations, and the ambiguity of the notion of causal "mechanisms" in social life. For a sample of the recent debate among scientific realists on the limits of naturalism in the social sciences, see Bhaskar, *The Possibility of Naturalism*, and Keat and Urry, *Social Theory as Science*, especially the postscript.

consists in the identification of underlying causal mechanisms rather than in generalizations about observable regularities does apply to the social sciences, and its adoption there would have important implications for the explanation of social action. Moreover, and perhaps more provocatively, this idea suggests that social scientific practice must be “critical” to be “scientific.” The rest of this paper begins to consider the nature and implications of this point within a specifically structurationist perspective on the agent-structure problem.

b. Structuration theory

Scientific realism provides a philosophical basis for a generative approach to structural theorizing in the social sciences, and in so doing, it provides a foundation for working out the implications of one of the intuitions about social life with which I opened the discussion of the agent-structure problem: that the capacities and even existence of human agents are in some way *necessarily* related to a social structural context—that they are *inseparable* from human sociality. The implications of this insight, however, can be worked out in at least two different ways—one reifies the social relations that constitute agents, and one does not. I argued earlier that world-system theory embodies a structuralist approach to the agent-structure problem that is prone to reification and determinism. Structuration theory attempts to preserve the generative and relational aspects of structuralism while taking explicit conceptual and methodological steps to prevent the analytical separation of generative structures from the self-understandings and practices of human agents to prevent structural reification.

It may be useful to preface the discussion with some comments on what structuration theory, as a theory, is about. Structuration theory is an “analytical” rather than “substantive” theory, in the sense that it is about the analysis rather than the substance of the social world.⁵¹ Structuration theory says something about what kinds of entities there are in the social world and how their relationship should be conceptualized, and as such it provides a conceptual framework or meta-theory for thinking about real world social systems, but it does not tell us what particular kinds of agents or what particular kinds of structures to expect in any given concrete social system. Structuration theory, then, does not compete directly with neorealism or world-system theory, but instead with their individualist and structuralist approaches to the agent-structure problem—that is, with their social ontologies. As a social ontology, however, structuration theory does have

51. Ira Cohen makes this particular distinction in “The Status of Structuration Theory: A Reply to McLennan,” *Theory, Culture, and Society* 3 (no. 1, 1986), pp. 123–34. Nigel Thrift makes a similar point, arguing that structuration theory is more meta-theory than theory in “Bear and Mouse or Bear and Tree? Anthony Giddens’ Reconstitution of Social Theory,” *Sociology* 19 (November 1985), pp. 609–23.

implications for the potential content of substantive theories about real-world social systems, and for the methodology that social scientists should use to study those systems. These implications in turn define a research agenda for social inquiry. I shall suggest in Section 4 how neorealism and world-system theory relate to this research agenda, and indicate some of the gaps in contemporary international relations research that emerge from this comparison.

In keeping with structuration theory's character as a conceptual approach rather than a substantively-defined theory, the group of "structuration theorists" is also quite diverse and, indeed, may only be recognizable as such from outside the structurationist problematic. Thrift, for example, identifies five major social theorists (Philip Abrams, Roy Bhaskar, Pierre Bourdieu, Anthony Giddens, and Derek Layder) as structurationists, even though most of these would probably resist the structurationist label (perhaps because it is Giddens's).⁵² Despite their internal differences, however, they all share four basic analytical objectives that can be seen as defining the "hard core" of the structuration research program.⁵³

- 1) In opposition to individualists, they accept the reality and explanatory importance of irreducible and potentially unobservable social structures that generate agents.
- 2) In opposition to structuralists, they oppose functionalism and stress "the need for a theory of practical reason and consciousness that can account for human intentionality and motivation."⁵⁴
- 3) These oppositions are reconciled by joining agents and structures in a "dialectical synthesis" that overcomes the subordination of one to the other, which is characteristic of both individualism and structuralism.⁵⁵
- 4) Finally, they argue that social structures are inseparable from spatial and temporal structures, and that time and space must therefore be incorporated directly and explicitly into theoretical and concrete social research.⁵⁶

52. Thrift, "On the Determination of Social Action in Space and Time," p. 30.

53. Adapted from *ibid.*, pp. 28–32.

54. *Ibid.*, p. 30.

55. This synthesis requires the development of mediating concepts that can link structure and agency in concrete situations, and as such is probably the key source of disagreement among structuration theorists. But whether this linkage is established through a "position-practice system" (Bhaskar), a "habitus" (Bourdieu), or a "system-institution" nexus (Giddens), they all serve the same theoretical function in concrete research, namely, binding agents and structures into mutually implicating ontological and explanatory roles.

56. This point is more than a ritual admonition for social scientists to be sensitive to the historical and geographical context of their subjects: substantive "social theories must be about the time-space constitution of social structures *right from the start*." (Thrift, "On the Determination of Social Action," p. 31, italics in original.)

The following discussion elaborates these points by first discussing the nature of social structures, then of agents, and finally of their interrelationship. My account relies primarily on Bhaskar's work, which of the five theorists displays the most explicitly scientific realist orientation.⁵⁷

Structuration theorists start out much like structuralists by defining "structure" in generative terms as a set of internally related elements.⁵⁸ The elements of a social structure could be agents, practices, technologies, territories—whatever can be seen as occupying a position within a social organization. The fact that these elements are internally related means that they cannot be defined or even conceived independently of their position in the structure. Thus, in contrast to the neorealist definition of international system structures as consisting of externally related, preexisting, state agents, a structurationist approach to the state system would see states in relational terms as generated or constituted by internal relations of individuation (sovereignty) and, perhaps, penetration (spheres of influence). In other words, states are not even conceivable as states apart from their position in a global structure of individuated and penetrated political authorities. The nature and configuration of the internal relations that comprise a social structure, in turn, define a set of possible transformations or combinations of its elements. As a set of *possible* transformations, social structures are, by definition, *not* reducible to the relationships between a structure's elements that are observed in a given concrete context. Structures make a given combination or instantiation of elements possible, but they are not exhausted by whatever particular manifestation is actual.

Structuration theorists argue the scientific realist thesis that because social structures generate agents and their behavior (in the sense that they make the latter possible), that because social structures have observable effects, we can potentially claim that they are *real* entities despite being possibly unobservable. This thesis raises the issue of when we can legitimately claim that a social structure exists. The key weakness of abductive inference is the danger of circular reasoning and self-confirmation; we assert that a structure exists because it has the observed effects which we posited for the structure in the first place. This weakness is, I think, at the heart of

57. In his *Profiles and Critiques in Social Theory* (Berkeley: University of California Press, 1982), Giddens indicates (p.14) that he also accepts a realist conception of science, but his realism is generally less explicit and thus more attenuated than Bhaskar's. A more important reason for relying on Bhaskar rather than Giddens, however, is the latter's weaker conception of social structure as rules and resources rather than as a set of real but unobservable internal relations, a conception which is arguably ultimately voluntarist in its implications; see for example, Alex Callinicos, "Anthony Giddens: A Contemporary Critique," *Theory and Society* 14 (March 1985), pp. 133–66.

58. See, for example, Bhaskar, *The Possibility of Naturalism*, especially pp. 47–56; Peter Manicas, "The Concept of Social Structure," *Journal for the Theory of Social Behavior* 10 (July 1980), pp. 65–82; Keat and Urry, *Social Theory as Science*, p. 121; Andrew Sayer, *Method in Social Science: A Realist Approach* (London: Hutchinson, 1984), pp. 80–87.

the frequently heard complaint of mainstream social scientists, who claim that Marxist and other structural theories in social science are, in principle, “non-falsifiable.” The appropriate response to this problem is to find evidence for a structure’s existence or workings that are *independent* of the particular observations from which the structure was abducted,⁵⁹ and to recognize and attempt to control for the radical openness of social systems.⁶⁰ This is, of course, what *natural* scientific practice is all about: scientists work backward from an observed phenomenon to a postulated entity or causal mechanism, and then they try to develop tests in *closed* systems to determine independently whether the inference is justified. Clearly such independent evidence is harder to obtain in the social sciences, but this does not invalidate the basic idea of using unobservable structures and causal mechanisms to account for social behavior. Indeed, in view of the individualist’s rejection of generative structures as “metaphysical,” it is ironic that the generative approach is much closer to the conceptualization of structure in mathematics and the natural sciences than is the individualist’s definition as a distribution of unit-level properties.⁶¹

Up to this point, the structurationist understanding of structure is identical to the structuralist’s. Each conceives of structure in combinatorial terms as an irreducible entity that “generates” its elements and their possible transformations. Structuration theorists diverge from structuralists, however, in arguing that social structures differ in at least two fundamental respects from natural structures, and that a recognition of these differences is essential to avoid the reification of social structures characteristic of structuralism. The first difference is that “social structures, unlike natural structures, do not exist independently of the activities they govern.”⁶² While it may make sense to say that a natural structure has an existence apart from the behavior

59. Keat and Urry, *Social Theory as Science*, postscript.

60. An open system is one in which invariant constant conjunctions do not obtain. Although the complexity and open-endedness of open systems limit the possibilities for decisive tests of social scientific claims (see Bhaskar, *The Possibility of Naturalism*, pp. 164–65), this problem afflicts not only those theories which refer to unobservable entities. For an interesting and explicitly realist argument about how open systems might, in some cases, be studied in a way that would permit relatively controlled tests, see Cook and Campbell, “Quasi-Experimental Practice.”

61. On the definition of structure in mathematics see, for example, Marc Barbut, “On the Meaning of the Word ‘Structure’ in Mathematics,” in M. Lane, ed., *Structuralism: A Reader* (London: Jonathan Cape, 1970), Michael Resnick, “Mathematics as a Science of Patterns: Ontology and Reference,” *Nous* 15 (November 1981), pp. 529–50, and Stewart Shapiro, “Mathematics and Reality,” *Philosophy of Science* 50 (December 1983), pp. 523–48. Modern physics, in turn, is based on group theory (the mathematical theory of binary systems), which is explicitly combinatorial and possibilistic in its view of structure. I should probably note, however, that although I emphasize this similarity in social and natural scientific conceptions of structure, I am *not* saying that social science should be social physics. I am only trying to justify a certain kind of thinking and explanation in social science by pointing out that it pervades the natural sciences as well.

62. Bhaskar, *The Possibility of Naturalism*, pp. 48–49; on the differences between natural and social structures, see also Giddens, *Studies in Social and Political Theory* (London: Hutchinson, 1977), pp. 118–19.

of its elements, social structures are only instantiated by the practices of agents. The deep structure of the state system, for example, exists only in virtue of the recognition of certain rules and the performance of certain practices by states; if states ceased such recognition of performances, the state system as presently constituted would automatically disappear. Social structures, then, are ontologically dependent upon (although they are not reducible to) their elements in a way that natural structures are not. The second difference is that "social structures, unlike natural structures, do not exist independently of the agents' conceptions of what they are doing in their activity."⁶³ In other words, social structures have an inherently *discursive* dimension in the sense that they are inseparable from the reasons and self-understandings that agents bring to their actions. This discursive quality does not mean that social structures are reducible to what agents think they are doing, since agents may not understand the structural antecedents or implications of their actions. But it does mean that the existence and operation of social structures are dependent upon human self-understandings; it also means that social structures acquire their causal efficacy only through the medium of practical consciousness and action.

Just as social structures are ontologically dependent upon and therefore constituted by the practices and self-understandings of agents, the causal powers and interests of those agents, in their own turn, are constituted and therefore explained by structures. The structures that constitute agents are of two distinct kinds: external, or social, structures; and internal, or organizational, structures. Each type explains a distinct set of the causal powers and interests of agents—social and intrinsic ones, respectively. Thus, all agents possess three intrinsic capacities or powers in virtue of their internal organizational structure or "anatomy":⁶⁴ 1) to have a theoretical understanding (however inaccurate) of its activities, in the sense that it could supply reasons for its behavior; 2) to reflexively monitor and potentially adapt its behavior; and 3) to make decisions. These causal powers differentiate agents from the non-sapient elements that comprise natural structures, and to the extent that states can be considered goal-directed units of action, they can be considered agents by this definition. Internal organizational structures are also important, however, for explaining the subjectively perceived interests of agents. Individual and organizational decision-making pathologies in the state, for example, may be crucial for determining how social structural or objective imperatives for competent state practice—a state's "real interests"—translate into subjective interests and actual performance.⁶⁵

63. Bhaskar, *The Possibility of Naturalism*, pp. 48–49.

64. Adapted from Giddens, *The Constitution of Society*, pp. 5–6.

65. Structuration theorists have yet to tackle in a sustained way the nature and role of interests in social scientific explanations. Although some of the more materialistically inclined structuration theorists might reject the explanatory use of interests altogether, I am inclined to

The importance of their internal organizational structures notwithstanding, however, other causal powers and the real interests of agents are dependent upon and thus explainable only by the external or social structural context in which they are embedded. For example, the causal powers of capitalists (for example, to invest and disinvest capital, to extract a surplus from labor) and their real interests (to maximize profits, and so forth) are a function of the organizing principles of the capitalist mode of production which define their position and interests as a capitalist's. Similarly, the causal powers of the state—to maintain control over the resources and violence potential in a given territory, to act in an international environment free of legal compulsion, and so on—are conferred upon it by the domestic and international social structures in virtue of which it is a state in the first place. These structural relations may be as general as the organizing principles of the interstate system (for example, sovereignty, penetration) which constitute states as such, or they may consist of the more localized organizing principles of concrete international systems, like the balance of power, which define particular kinds of states. Thus, the "balancer" in a balance-of-power system, or a core state in the capitalist world economy, has certain powers, responsibilities, and interests which it possesses only in virtue of its social structural position.⁶⁶ Social structures, then, constitute the conditions of existence of states and state action; indeed, without social structuring principles one could not talk meaningfully about the fundamental building blocks of international relations: "states," "state powers," "foreign policy," and so forth. Put in another way, international and domestic structures generate the "rules of the game" (broadly defined to include state agents themselves) within which states interact.

Structuration theory, then, conceptualizes agents and structures as mutually constitutive yet ontologically distinct entities. Each is in some sense an effect of the other; they are "co-determined." Social structures are the result of the intended and unintended consequences of human action, just as those actions presuppose or are mediated by an irreducible structural context. This understanding of the agent-structure relationship is made possible by conceptualizing each from the start as ontologically dependent upon the other, by conceptualizing agents in terms of the internal relations that define them as such, and by conceptualizing social structures as existing only through the medium of the agents and practices that they constitute. This is

think that their agent-structure framework presupposes at least an implicit distinction between "subjective" and "real" interests. The best overview of the various conceptualizations of "interest," and of the difficulties in explaining interests, is probably still William Connolly's "Interests in Politics," in his book, *The Terms of Political Discourse* (Princeton: Princeton University Press, 1974), pp. 45–84.

66. For a discussion of the balance of power that is consistent in its substance, if not in its philosophical rationale, with the interpretation I suggest, see Ashley, "The Poverty of Neorealism," pp. 276–79.

what Giddens means by the “duality of structure,” that “the structural properties of social systems are both the medium and outcome of the practices which constitute those systems.”⁶⁷ Structuration theory is therefore more than an attempt to introduce a greater balance of structure and agency in social theory than is found in individualism and structuralism. Its social ontology radically reconceptualizes the fundamental properties of agents and social structures in such a way to make them ontologically interdependent, and it is only virtue of this reconceptualization that the “errors” of reduction and reification characteristic of individualism and structuralism are avoided. As I shall indicate in the next section, the ontological and conceptual interdependence of agents and structures in structuration theory has important implications for the explanation of social action. Put very generally, it forces us to see agents and structures as simultaneously involved in the production of social phenomena. In Bhaskar’s words:

Thus society is not the unconditioned creation of human agency (voluntarism), but neither does it exist independently of it (reification). And individual action neither completely determines (individualism) nor is completely determined by (determinism) social forms.⁶⁸

4. Implications for international relations theory

The discussion of structuration theory so far has focused on its social ontology, on its conceptualization of the nature and relationship of human or organizational agents and social structures. While structuration theory does not by itself generate claims or hypotheses about particular international system structures or the causes of state action, the realist/structurationist problematic does have both epistemological and theoretical implications for the study of international relations. Thus, on the one hand, structuration theory’s social ontology strongly conditions its approach to the explanation of state action. This idea is consistent with the effort of scientific realists to reverse the subordination of ontology to epistemology, which is characteristic of empiricism, and instead to make the form of scientific explanations dependent on the nature and causal properties of entities. Beyond this general concern with the form of explanations, however, structuration theory also has implications for the content of substantive international relations theories or, perhaps more precisely, for the nature and scope of the research agendas which underlie those theories. In particular, structuration theory suggests that, while neorealism and world-system theory provide important insights into the structure and dynamics of international systems, they leave

67. Giddens, *Central Problems in Social Theory*, p. 69.

68. Roy Bhaskar, “Emergence, Explanation, and Emancipation,” in Paul Secord, ed., *Explaining Human Behavior* (Beverly Hills: Sage Publications, 1982), p. 286.

important gaps in the theorization of the two basic building blocks of international relations theory, states and international system structures.

a. Epistemological implications

Relatively little empirical research has been explicitly informed by structuration theory, which might illustrate its implications for the explanation of state action.⁶⁹ In this article, I cannot develop an extended empirical illustration of my own; instead, I shall adapt materials from the few structuration theorists⁷⁰ and realist philosophers of social science who have tackled issues of social scientific explanation in order to make two general epistemological arguments: 1) that structural and agent-based analyses have distinct and irreducible functions in the explanation of social action, but that 2) they are both necessary elements of a complete explanation of social action. These two arguments have important implications for our understanding of the nature and limits of structural and what I shall call historical explanations, as well as for their integration in “structural-historical” analysis.

Explanations are answers to certain kinds of questions. What counts as an adequate explanation therefore depends on the object of the question, on what is taken to be *problematic*.⁷¹ From a structurationist perspective, two kinds of questions are particularly relevant to the explanation of social action: “How is action X possible?” and “Why did X happen rather than Y?” The domains of these two questions, and therefore the kinds of answers we would expect, are different. “How-questions” are concerned with the domain of the possible, whereas “why-questions” are concerned with the domain of the actual. To remain clear on the nature and limits of structural explanation, an explicit epistemological and methodological distinction must be maintained between the logic of these questions: “structural” analysis explains the possible, while “historical” analysis explains the actual. Historical analysis focuses on what actually happened or will happen, and thus takes as unproblematic the possibility that those events *can* happen. Actual behavior, rather than the range of possible behaviors, is the explanandum. While this historical analysis of conjunctural causes is an essential component

69. The most extensive use of an explicitly structurationist perspective in empirical research is probably Allan Pred, *Place, Practice, and Structure* (Cambridge, U.K.: Polity Press, 1986). In his *Explanation in Social History*, however, Lloyd argues (p. 306) that the work of a number of prestructuration theorists has a distinctly structurationist “structure,” including, for example, the works of Barrington Moore, *Social Origins of Dictatorship and Democracy* (Boston: Beacon Press, 1966), and Alain Touraine, *The Self-Production of Society* (Chicago: Chicago University Press, 1977), and Abrams, *Historical Sociology*.

70. Sayer, *Method in Social Science*; Sylvan and Glassner, *A Rationalist Methodology*.

71. The implications of the epistemological distinctions between different kinds of questions are brought out systematically in Alan Garfinkel, *Forms of Explanation* (New Haven: Yale University Press, 1981), especially pp. 21–48. Despite its explicitly anti-realist ontological perspective, van Fraassen’s *The Scientific Image* is also quite good on the logic or “pragmatics” of different types of explanations.

of the explanation of state action, however, it is only a necessary, not a sufficient, condition for scientific explanation. Within a scientific realist epistemology, why-questions require answers to how-questions; that is, to explain why a state did X rather Y, we need to know how that state and its choices were possible in the first place. It is therefore necessary to make the actual behavior and properties of states and state systems “problematic” rather than simply accepting them as given. It is necessary, in other words, to engage in structural analysis to explain the causal properties of states in virtue of which their actions are possible. The following discussion of structural and historical analysis expands on the distinct, but nonetheless interdependent, epistemological roles of these two forms of explanation.

Structural research starts with actual events, with history, and by a process of critique and abduction—that is, by asking what must exist for those events to happen—abstracts to the social and internal organizational structures which make those events possible. These structures might then be modeled formally with qualitative techniques (mathematical or grammatical) which describe their possibilistic relationship to observable events,⁷² although such modeling may not always be possible in open systems. In any case, structural explanations contribute to the explanation of observable events by showing that they are instances of the possible ways of acting of social agents, where those possibilities are defined by the structurally determined causal powers and interests of those agents. Put another way, structural explanations reveal the conditions of existence or “rules of the game” of social action. In this sense structural theory is necessarily “critical,” since it forces us to look beyond given appearances to the underlying social relationships that generate (in a possibilistic sense) phenomenal forms. While structural analyses are thus part of a complete explanation of actual events, however, they do not explain those events directly; they only answer the question of how they are possible, of what combinations or transformations of a structure’s elements are consistent with its organizing principles. Although structural analyses may uncover “tendencies” for structures to be actualized in certain ways, neither generalization nor point prediction is an important aspect of structural explanations, and any attempt to use them to account directly for the production of particular events would risk overextending them beyond their proper explanatory domain.⁷³

Historical research, on the other hand, “studies actual events and objects as ‘unities of diverse determinations,’ each of which have been isolated and examined through abstract [structural] research.”⁷⁴ Historical explana-

72. An excellent introduction to some of the formal methods that could be used in generative structural analyses is found in chaps. 5 and 6 of Sylvan and Glassner, *A Rationalist Methodology*.

73. In *Method in Social Science*, Sayer argues (p. 217) that a failure to recognize these limitations of structural analysis is responsible for the deterministic, or what he calls “pseudo-concrete,” quality of much Marxist research.

74. Sayer, *Method in Social Science*, p. 216.

tions⁷⁵ take the interests and causal powers of agents as given (or reconstruct them without trying to explain them), and then attempt to explain particular events by focusing on how those powers and interests are affected by the incentives facing actors. Neorealism proceeds at this level; it stipulates the structural context and the interests and causal powers of agents and then attempts to answer the question “Why did state X do Y rather than Z?” Beyond this, however, it is important to note that one of the intended or unintended effects of state action is to produce or reproduce system structures; consequently, historical analysis is necessary to explain the emergence and persistence of the structural conditions which constitute the medium and conditions of possibility for state action. This recursive quality of structural and historical explanations is the “unity” beneath their “diversity,” and thus it is the ultimate basis of their epistemological interdependence. It is nonetheless necessary to maintain the distinction between and autonomy of each explanatory mode: each ultimately explains the properties of the central objects of the other.

The respective explanatory limitations of structural and historical analyses suggest, however, that a complete explanation of state action—that is, one that explains both how that action was possible and why that possibility was actualized in a particular form at a given moment—will have to combine these methodologies into a “structural-historical” or “dialectical” analysis.⁷⁶ This combination will require abstract structural analysis to theorize and explain the causal powers, practices, and interests of states, and concrete historical analysis to trace the causally significant sequence of choices and interactions which lead to particular events (and to the reproduction of social structures). Given the difficulty of doing structural and historical research simultaneously, structural-historical analysis may require “bracketing” first one and then the other explanatory mode,⁷⁷ that is, taking social

75. By my use of the term “historical” to describe this form of explanation, I do not mean to suggest that this is the explanatory mode historians always use, or that the research practice of historians is necessarily astructural or atheoretical. On the contrary, it seems to me that just as good social science is historical, good history is structural and theoretical. I am only trying to argue that “historical” and “structural” explanations are epistemologically distinct but interdependent forms of inquiry, regardless of who uses them.

76. The term “structural-historical” is from Fernando Cardoso and Enzo Faletto, *Dependency and Development in Latin America* (Berkeley: University of California Press, 1978), pp. ix–xiv, while “dialectical” is from Sylvan and Glassner, *A Rationalist Methodology*, pp. 154–59; both terms parallel the relationship between “abstract” and “concrete” research in Sayer’s *Method in Social Science*. Although he does not use either of these terms, Peter Manicas provides a good illustration of the logic and implications of this form of inquiry in his critique of Theda Skocpol’s *State and Social Revolutions* (Cambridge: Cambridge University Press, 1979); see his review in *History and Theory* 20 (no. 2, 1981), pp. 204–18.

77. Giddens, *Central Problems in Social Theory*, pp. 80–81. This notion of “bracketing” is a focal point of some of the major critiques of structuration theory; see, for example, Margaret Archer, “Morphogenesis versus Structuration: On Combining Structure and Action,” *British Journal of Sociology* 33 (December 1982), pp. 455–83, and Nicky Gregson, “On Duality and Dualism: The Case of Structuration Theory and Time Geography,” *Progress in Human Geography* 10 (June 1986), pp. 184–205.

structures and agents in turn as temporarily given in order to examine the explanatory effects of the other. This methodological difficulty, however, should not obscure the epistemological interdependence of structural and historical analysis, the fact that the respective explanatory roles of agents and social structures cannot be understood apart from their interrelationship. This conclusion follows directly from the ontology of structuration theory. Agents are inseparable from social structures in the sense that their action is possible only in virtue of those structures, and social structures cannot have causal significance except insofar as they are instantiated by agents. Social action, then, is "co-determined" by the properties of both agents and social structures.

b. Theoretical implications

While this discussion of some epistemological implications of structuration theory is admittedly very general, it is nonetheless relevant to the scope and content of substantive international relations theories. A key implication of the argument in Section 2 about the agent-structure relationship was that theories of international relations must have foundations in theories of both their principal units of analysis (state agents and system structures). Such theories are more than simply convenient or desirable: they are necessary to explain state action. This requirement follows directly both from the scientific realist's conception of explanation as identifying causal mechanisms, and from the ontological claims of structuration theory about the relationship of agents and structures. If the properties of states and system structures are both thought to be causally relevant to events in the international system, and if those properties are somehow interrelated, then theoretical understandings of both those units are necessary to explain state action. Waltz's suggestion that the theory of the state is not integral to the task of developing systemic theories of international relations must therefore be rejected. Structuration theory provides a conceptual and methodological framework to overcome this separation, and as such it defines a research agenda for theorizing about both state agents and the system structures in which they are embedded. The core of this agenda is the use of structural analysis to theorize the conditions of existence of state agents, and the use of historical analysis to explain the genesis and reproduction of social structures. Although even preliminary remarks about the possible content of such theories would require another article, I can indicate some of the directions and bodies of research which might be relevant to such a research agenda.

"Theorizing the state" implies a research endeavor which seeks to develop a theoretically and empirically grounded understanding of the causally significant properties (such as powers, interests, practices) of the state as an organizational agent or entity. Ideally such a theory would define exhaustively the possible ways of acting of state agents, rather than generate deter-

minate predictions about particular state behaviors. The possible ways of acting of an agent are constituted and therefore explained by the social structural context in which it is embedded and by its internal organizational structure, and as such they are amenable to structural explanation. Thus, structural analysis can be used to explicate the social structural organizing principles which generate the state as a particular kind of social actor, that is, in virtue of which the state is a state in the first place. This use would recognize the state as an inherently *social* entity, rather than as a Hobbesian primitive individual. Structural analysis could also reveal the internal organizational structures of the state which condition its perceptions and responses to social structural imperatives and opportunities. International relations theorists have tended to discount the importance of such internal organizational structures in explaining state action,⁷⁸ but given that these structures will be the proximate cause of any state action, they are likely to constitute important mechanisms in the production of state behavior.

To elaborate a little further, at least four social structures might constitute states: domestic-economic, domestic-political, international-economic, and international-political structures.⁷⁹ Recent work consistent with the critical-structural orientation of structuration theory has examined all these structures, although much remains quite preliminary and unintegrated with other bodies of structural research. The most sustained analyses of the state's structural conditions of existence are found within the neo-Marxist tradition and within the debates of the latter with Weberians.⁸⁰ While the neo-Marxist literature is concerned primarily with the relationship of the (capitalist) state to domestic economic structures, world-system theorists have concentrated on the state's role in international economic structures. Although the world-system understanding of the structure of global capi-

78. Stephen Krasner, "Are Bureaucracies Important?" *Foreign Policy* 7 (Summer 1972), pp. 159-79; Robert Art, "Bureaucratic Politics and American Foreign Policy: A Critique," *Policy Sciences* 4 (December 1973), pp. 467-90.

79. This multiplicity of structures implies a rejection of what might be called structural monism, that is, the view that there is only one set of underlying organizing principles, such as those of the economy, that can be explicated in generative terms and therefore constitutive of agents. This anti-monism is consistent with the critique of structural Marxism developed by post-Althusserians like Barry Hindess and Paul Hirst in *Mode of Production and Social Formation* (London: MacMillan, 1977), and Ernesto Laclau and Chantal Mouffe in *Hegemony and Socialist Strategy* (London: Verso, 1982). But their discourse-theoretic solution to the problem of structural monism in many ways fundamentally opposes my suggestion that we build theories of multiple social structures on the basis of scientific realism.

80. Prominent examples of neo-Marxist state theory include John Holloway and Sol Picciotto, eds., *State and Capital: A Marxist Debate* (London: Edward Arnold, 1978); Poulantzas, *State, Power, Socialism*; and Goran Therborn, *What Does the Ruling Class Do When It Rules?* (London: New Left Books, 1978). Weberian critiques include Theda Skocpol, "Political Response to Capitalist Crisis: Neo-Marxist Theories of the State and the Case of the New Deal," *Politics and Society* 10 (no. 2, 1981), pp. 155-201, and Michael Mann, "The Autonomous Power of the State," *European Journal of Sociology* 25 (no. 2, 1984), pp. 185-213.

talism is arguably marred by an overemphasis on exchange relationships,⁸¹ both the neo-Marxist and world-system literature offer important insights into the economic conditions of existence of the state, and therefore some of its causal powers and liabilities. Less research, I think, has been done from a critical-structural perspective on the political structures that might constitute the state. Nonetheless, at the domestic level, innovative work is being done which takes as its starting point a Gramscian rejection of the economism of most neo-Marxist theory and instead attempts to theorize political forms in critical-structural terms.⁸² This line of analysis is now being extended to the international level by a number of scholars who have focused on the nature and implications of such fundamental organizing principles of the state system as sovereignty, the balance of power, and hegemonic domination for the conceptualization of the state and explanation of state action.⁸³

Purely schematic though these remarks are, I think all these bodies of research would potentially contribute to a single overall problematic generated by a structurationist approach to international relations—the development of a critical theory of the causal powers and interests of the state. An implication of a rejection of structural monism, however, is that it will be necessary to theorize the relationships or “articulations” between the different structures which constitute the state. In other words, a “structure–structure” problem emerges from the structurationist problematic. This problem is at the core of the literature on the “articulation of modes of production,”⁸⁴ and is implicit in much of the recent “post-Marxist” debate. Ironically, this problem is strongly reminiscent of J. D. Singer’s original

81. Examples of the “productionist” critique of world-system theory include Brenner, “The Origins of Capitalist Development,” and Howe and Sica, “Political Economy, Imperialism, and the Problem of World-System Theory.” The alternative conceptualization of the structure of the capitalist world economy (in terms of a global mode of production) has been most fully developed by the “internationalization of capital” school of Marxist political economy; see Christian Palloix, “The Self-Expansion of Capital on a World Scale,” *Review of Radical Political Economics* 9 (Summer 1977), pp. 1–28.

82. Poulantzas, *State, Power, Socialism*; Nicos Mouzelis, *Politics in the Semi-Periphery* (New York: St. Martins, 1986); Samuel Bowles and Herbert Gintis, *Democracy and Capitalism* (New York: Basic Books, 1986).

83. Bruce Andrews, “Social Rules and the State as a Social Actor,” *World Politics* 27 (July 1975), pp. 521–40; Robert Cox, “Gramsci, Hegemony, and International Relations: An Essay in Method,” *Millennium* 12 (Summer 1983), pp. 162–75; Ruggie, “Continuity and Transformation”; Ashley, “The Poverty of Neo-Realism,” and “Social Will and International Anarchy: Beyond the Domestic Analogy in the Study of Global Collaboration,” in Hayward Alker and Ashley, *Anarchy, Power, Community: Understanding International Cooperation* (forthcoming). Despite the potential usefulness of this research to the structurationist problematic, however, some of these scholars would probably reject association with that theory, especially insofar as it is grounded in realist philosophy of science.

84. Aidan Foster-Carter, “The Modes of Production Controversy,” *New Left Review* 107 (January–February 1978), pp. 47–77; Harold Wolpe, ed., *The Articulation of Modes of Production* (London: Routledge & Kegan Paul, 1980).

discussion of the levels of analysis problem,⁸⁵ although the latter would be seen here as one instance of a more general theoretical and methodological problem of apprehending the relationships between different structures of whatever type (political or economic) or level of analysis (domestic or international). Although as a theoretical and methodological issue the “structure–structure problem” points beyond structuration theory, its treatment clearly has implications for the attempt to build satisfactory theories and explanations of state action. Each structure in which the state is embedded will have its own logic, reproduction requirements, and thus prescriptions for competent state practice. Developing a structural theory of the state and state action, then, involves more than simply explicating the different structuring principles which generate states; it also requires isolating and assessing the causal role of and interrelationships among different and sometimes competing structural determinations of state action.

The need for a theory of the state in international relations is mirrored by the need for theories of the system structures which constitute the state. In general terms, these theories would have at least two main elements: 1) a synchronic model of the organizing principles, logic, and reproduction requirements of the structure in question, and 2) an historical account of the genesis and reproduction of the structure. Structural theorists have generally been reluctant or unable to grasp the contingent nature of structural genesis and reproduction, and have tended instead towards functional or teleological readings of that process. This tendency can be corrected by the emphasis of structuration theory on the historical specificity and contingency of the structuring of social structures. Given the structurationist conceptualization of social structure as only instantiated and reproduced by the activities of social agents, an historical analysis of social structuring must begin with the intended and unintended consequences of state action (and the action of other agents). Although the relevant methodological tools to such an analysis are potentially quite varied, the game-theoretic methodology characteristic of recent work in neorealism is potentially well-adapted to this analytical task. The analysis of iterated games and the “new institutionalism” in the study of political institutions in particular have proven useful in generating insights into the emergence of and reproduction of social institutions as the unintended consequences of strategic interactions,⁸⁶ and there is no a priori reason why we cannot extend the logic of such analyses to the analysis of generative structures. We must recognize, however, that

85. J.D. Singer, “The Levels of Analysis Problem in International Relations,” in Klaus Knorr and Sidney Verba, eds., *The International System: Theoretical Essays* (Princeton: Princeton University Press, 1961), pp. 77–92.

86. Michael Taylor, *Anarchy and Cooperation* (New York: Wiley, 1976); Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984); James March and Johan Olsen, “The New Institutionalism: Organizational Factors in Political Life,” *American Political Science Review* 78 (September 1984), pp. 734–48.

game-theoretic models focus attention on the technical decision problems of *given* agents, and that they therefore tend to neglect the ways in which the structure of social interactions constitute or empower those agents in the first place. The use of game theory to develop an historical understanding of the emergence of social structures, therefore, would have to be complemented by a generative understanding of the construction of agents and situations of strategic interaction.

These remarks on the implications of structuration theory for the scope and content of international relations theories are obviously purely schematic and are intended only to illustrate the kinds of research that might be relevant to a structurationist approach to international relations. Indeed, I should emphasize that structuration theory by itself cannot generate specific theoretical claims about international relations. The theory has epistemological implications for the form which explanations of state action should take, and it suggests a research agenda for subsequent theorizing, but it does not make a direct contribution to our substantive understanding of international relations *per se*. This point raises the issue of the criteria by which structuration theory should be evaluated by scholars of international relations. Given that its analytical or meta-theoretical quality prevents an empirical assessment of the theory, it seems to me that structuration theory should be evaluated on pragmatic grounds, on its ability to solve problems in existing substantive theories, to suggest new areas of theoretical and empirical inquiry, or to integrate different bodies of research. By this criterion, I think structuration theory clearly improves on its principal competitors, individualism and structuralism. It provides a framework for explaining the properties of both state agents and system structures which is denied to the individualist and structuralist ontologies of neorealism and world-system theory, and it defines a research agenda for international relations that organizes and subsumes under a single problematic a potentially greater variety of extant social scientific research. The potential contribution to international relations research is there, but we cannot assess the importance of the contribution until theorists attempt to use a structurationist perspective to ground and inform their theoretical and empirical research.

Conclusion

Rather than trying to summarize a long argument about the agent-structure problem and structuration theory, I want to conclude this article by picking up its other main thread, the implications of scientific realism for social scientific research. Whether or not structuration theory provides a satisfactory resolution to the agent-structure problem, social scientists' adoption of a scientific realist perspective on ontology and epistemology could have potentially revolutionary consequences for their theoretical and empirical

research. The hegemony of empiricist discourse in social science has led social scientists into an apparent dichotomy between “science” (that is, *empiricist* science) and the allegedly “un-scientific” paradigms of hermeneutics and critical theory.⁸⁷ Whatever the limits to naturalism in the social sciences, scientific realism undermines this dichotomy by challenging the core of the empiricist’s argument, the interpretation of natural science upon which her appropriation of the mantle of “science” rests. Scientific realism, then, offers an alternative to the standard positions in the *Positivismstreit*, one which enjoins social scientists to think “abductively” about “causal mechanisms” to build their theories, instead of trying to find law-like generalizations about observable regularities. Among the more important consequences of such an ontological and epistemological shift is a scientific motivation for structural theorizing in the generative or relational sense. This methodological prescription is inherently “critical” since it requires a critique and penetration of observable forms to the underlying social structures which generate them.⁸⁸ An implication of scientific realism, then, is that “critical theory” (in a broad sense) is essential to the development of social science, and by extension international relations, as a “science.”

87. Brian Fay, *Social Theory and Political Practice* (London: Allen & Unwin, 1975).

88. Roy Bhaskar, “Scientific Explanation and Human Emancipation,” *Radical Philosophy* 26 (1980), pp. 16–26; Christopher Dandeker, “Theory and Practice in Sociology: The Critical Imperatives of Realism,” *Journal for the Theory of Social Behavior* 13 (July 1983), pp. 195–210.