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Power and Interdependence revisited

Robert O. Keohane and Joseph S. Nye, Jr.

Ten years ago we published *Power and Interdependence*.¹ The passage of a decade makes this an appropriate time to reread and reevaluate that book, and to take stock of the research program to which it contributed. In doing this, we hope to deepen and enrich scholarly understanding of the politics of interdependence and to stimulate reflection on directions for the field of international relations over the next decade.²

Such a reappraisal seems particularly opportune given the changes in world politics, and especially in American policy, that have marked the intervening years. Stanley J. Michalak commented in 1979 that the authors “may cringe from the analogy but *Power and Interdependence* may well become the *Politics Among Nations* of the 1970s.”³ But from the perspective of the late 1980s, the world may look different: while the 1970s were seen as the decade of interdependence, many observers regard the use of force and concern for security as characteristic of the 1980s. Indeed, the view is widespread in some circles that the 1980s resemble the 1950s more than the 1970s, and that Hans J. Morgenthau’s work is more relevant to contemporary issues of world politics than *Power and Interdependence*.

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1. Boston: Little, Brown, 1977.

2. Raymond Vernon, always a pioneer, exemplified this evaluative process by looking back at his important book, *Sovereignty at Bay*, ten years after its publication; he responded to criticisms and added his own. See Vernon, “Sovereignty at Bay Ten Years After,” *International Organization* 35 (Summer 1981), pp. 517–30. In a recent special issue of *International Studies Notes* 12 (Spring 1986), James N. Rosenau, Kenneth E. Boulding, John H. Herz, William T. R. Fox, and Robert C. North also reflected on their work.

3. Stanley J. Michalak, “Theoretical Perspectives for Understanding International Interdependence,” *World Politics* 32 (October 1979), p. 150.

During the 1970s, Americans were reacting against the Vietnam War; détente seemed to reduce the importance of the nuclear arms race; oil crises and the collapse of the Bretton Woods system of pegged exchange rates seemed to reflect fundamental shifts in the world political economy. A representative view among “modernist” writers was that “the forces now ascendent appear to be leaning toward a global society without a dominant structure of cooperation and conflict—a *polyarchy* in which nation-states, subnational groups, and transnational special interests and communities would all be vying for the support and loyalty of individuals, and conflicts would have to be resolved primarily on the basis of ad hoc bargaining in a shifting context of power relationships.”⁴

By the 1980s the mood in the United States had changed, under the impact of the Soviet invasion of Afghanistan, the seizure of hostages by Iran, and a continuing build-up of Soviet strategic forces. American policy focused on East-West confrontation rather than on North-South issues and the activities of multilateral institutions. Under the Reagan administration, the defense budget increased for five straight years for the first time since the beginning of the Cold War, and the United States was more willing to use military force, albeit against such extremely weak states such as Grenada and Libya. Arms control was downgraded and the modernization of nuclear forces was accelerated.

Yet the differences between the 1970s and 1980s can easily be exaggerated. Psychology and mood have changed far more than military and economic indices of power resources. The diffusion of economic production continues as measured by shares in world trade or world product. Sensitivity interdependence in finance and trade continues to increase, although vulnerability to supply shocks has eased in a period of slack commodity markets. Moreover, despite some of their rhetoric, the relations between the superpowers do not show a return to the Cold War period. Not only are alliances looser, but there are more contacts between the superpowers on arms control and a variety of other issues. In our view, therefore, the analysis that we put forward in *Power and Interdependence* has not been rendered irrelevant by events. The real questions are not about obsolescence, but about analytical cogency.

The first section of this article examines the three most important themes of the book: the relationship between power and interdependence, the ideal type of complex interdependence, and explanations of changes in international regimes. In the second section, we critique our concepts and theories, and examine which elements of our argument have been most fruitful for later work. The third and fourth sections raise questions about concepts, such as those of “systemic political process” and “learning,” that we did

4. Seyom Brown, *New Forces in World Politics* (Washington, D.C.: Brookings Institution, 1974), p. 186.

not explicate clearly in *Power and Interdependence* but which we think suggest fruitful directions for future research.

1. Principal themes of *Power and Interdependence*

In *Power and Interdependence* we identified “political realism” with acceptance of the view that state behavior is “dominated by the constant danger of military conflict,” and we argued that “during the 1960s, many otherwise keen observers who accepted realist approaches were slow to perceive the development of new issues that did not center on military-security concerns” (p. 5). As we had done in our edited volume, *Transnational Relations and World Politics*,⁵ we pointed to the importance of “today’s multidimensional economic, social and ecological interdependence” (p. 4). Yet *Power and Interdependence* had a different tone from that of our earlier writings, or of popularizers of economic interdependence. We criticized modernist writers who “see our era as one in which the territorial state, which has been dominant in world politics for the four centuries since feudal times ended . . . is being eclipsed by non-territorial actors such as multinational corporations, transnational social movements, and international organizations” (p. 3). In our view, to exchange realism “for an equally simple view—for instance, that military force is obsolete and economic interdependence benign—would condemn one to equally grave, though different, errors” (p. 5).

We did argue that the use of force has become increasingly costly for major states as a result of four conditions: risks of nuclear escalation; resistance by people in poor or weak countries; uncertain and possibly negative effects on the achievement of economic goals; and domestic opinion opposed to the human costs of the use of force. But we also noted that the fourth condition had little impact on the policies of totalitarian or authoritarian governments, and we warned that “lesser states involved in regional rivalries and nonstate terrorist groups may find it easier to use force than before. The net effect of these contrary trends in the role of force is to erode hierarchy based on military power” (p. 228).

Upon rereading, we think that the general argument we made about systemic constraints on the use of force has held up rather well. The utility of nuclear force remains principally limited to deterrence of attack by others. The social mobilization of populations has acted as a constraint on the superpowers, as both the failure of Soviet intervention in Afghanistan and the weakness of the American response to Iran’s taking of hostages have indicated. Even in Central America, the Reagan administration, despite its ideological commitments, has been cautious about introducing U.S. ground

5. Robert O. Keohane and Joseph S. Nye, eds., *Transnational Relations and World Politics*. (Cambridge: Harvard University Press, 1972).

forces. Compare the relatively low cost and effectiveness of the Eisenhower administration's interventions in Iran (1953), Guatemala (1954), and Lebanon (1958) with the more recent difficulties encountered by the United States in Iran, Nicaragua, and Lebanon during the 1980s. The use of force against a narrowly based regime in the mini-state of Grenada and the limited air strikes against Libya are the apparent exceptions that prove the rule: Grenada was virtually powerless, and against Libya, the United States avoided commitment of ground troops. Furthermore, the use of force by smaller states and terrorists has conformed to our description, and the effectiveness of American uses of force against terrorism has been quite limited.

Our argument about constraints on the use of military force laid the basis for our analysis of the politics of economic interdependence. This analysis contained three principal themes, which we did not explicitly distinguish from one another:

1. A power-oriented analysis of the politics of interdependence, drawing on bargaining theory;
2. An analysis of an ideal type that we called "complex interdependence" and of the impact of the processes that it encompassed;
3. An attempt to explain changes in international regimes—which we defined as "sets of governing arrangements that affect relationships of interdependence" (p. 19).

Our analysis of interdependence is developed in chapter 1, which links interdependence to power through the concept of asymmetrical interdependence as a power resource. "It is *asymmetries* in interdependence," we wrote, "that are most likely to provide sources of influence for actors in their dealings with one another" (pp. 10–11, italics in original). This concept, that asymmetrical interdependence is a source of power, can be found clearly in Albert Hirschman's *National Power and the Structure of Foreign Trade*,⁶ as well as in Kenneth Waltz's article on "The Myth of National Interdependence."⁷

Our analysis linked realist and neorealist analysis to concerns of liberals with interdependence. Rather than viewing realist theory as an alternative to liberal "interdependence theory," we regarded the two as necessary complements to one another. This approach was analytically justified, in our view, because realism and liberalism both have their roots in a utilitarian view of the world, in which individual actors pursue their own interests by responding to incentives. Both doctrines view politics as a process of political and economic exchange, characterized by bargaining. Broadly speaking,

6. Albert Hirschman, *National Power and the Structure of Foreign Trade* (Berkeley: University of California Press, 1945).

7. In Charles Kindleberger, ed., *The International Corporation* (Cambridge, Mass.: MIT Press, 1970).

both realism and liberalism are consistent with the assumption that most state behavior can be interpreted as rational, or at least intelligent, activity. Realism and liberalism are therefore not two incommensurable paradigms with different conceptions of the nature of political action.⁸

Nevertheless, realist and liberal theory are in several respects sharply at odds with one another. The realist-liberal dispute focuses especially on the goals of actors in world politics and on the nature of their environment. Realism emphasizes states' demands for power and security and the dangers to states' survival. Military force is therefore, for realism, the most important power resource in world politics. States must rely ultimately on their own resources and must strive to maintain their relative positions in the system, even at high economic cost. Liberalism also examines state action but directs its attention to other groups as well. For liberal thinkers, economic incentives are important as well as concerns for security. Among republics, at any rate, military threats may be insignificant, expanding the potential area for cooperation and reducing both the role of force and the emphasis states place on their relative power positions in the international system.

The discussion of realism in *Power and Interdependence* was deliberately incomplete. We were less interested in describing the realist tradition than in examining some of its central assumptions and assessing their relevance for the analysis of the politics of interdependence. Some reviewers took us to task for, in K. J. Holsti's words, "attempting to apply old approaches or models to areas for which they were never intended," and therefore "setting up straw men." Stanley J. Michalak commented that our "straw man may well be 'parsimonious' and easy to test, but it has little to do with realism."⁹ Liberalism as a traditional theory escaped mention entirely: although our analysis was clearly rooted in interdependence theory, which shared key assumptions with liberalism, we made no effort to locate ourselves with respect to the liberal tradition. As we now see the matter, we were seeking in part to broaden the neofunctional strand of liberalism that had been developed by Ernst B. Haas and others in the 1950s and 1960s, but that had been largely limited to the analysis of regional integration. We presented a version

8. For a recent analysis that makes this point well, using somewhat different terms, see K. J. Holsti, *The Dividing Discipline: Hegemony and Diversity in International Theory* (Winchester, Mass.: Allen & Unwin, 1985).

9. K. J. Holsti, "A New International Politics?" *International Organization* 32 (Spring 1978), p. 525; Michalak, "Theoretical Perspectives," p. 148. For a mea culpa and a systematic attempt to articulate realist and neorealist assumptions, see Robert O. Keohane, "Theory of World Politics: Structural Realism and Beyond," in Ada Finifter, ed., *Political Science: The State of the Discipline* (Washington, D.C.: American Political Science Association, 1983), pp. 503–40, reprinted in Robert O. Keohane, *Neorealism and its Critics* (New York: Columbia University Press, 1986), pp. 158–203. Keohane's later volume, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, N.J.: Princeton University Press, 1984), explicitly seeks to build a theory of institutions, with what could be considered liberal implications, on premises that are consistent with those of political realism.

of that theory that avoided teleological arguments and that took the distribution of military power, economic power, and the role of states fully into account.¹⁰ If we had been more explicit about locating our views in relation to the traditions of realism and liberalism, we might have avoided some subsequent confusion.

Interdependence generates classic problems of political strategy, since it implies that the actions of states, and significant non-state actors, will impose costs on other members of the system. These affected actors will respond politically, if they have the capacity, in an attempt to avoid having the burdens of adjustment forced upon them. From the foreign policy standpoint, the problem facing individual governments is how to benefit from international exchange while maintaining as much autonomy as possible. From the perspective of the international system, the problem is how to generate and maintain a mutually beneficial pattern of cooperation in the face of competing efforts by governments (and nongovernmental actors) to manipulate the system for their own benefit.¹¹

In analyzing the politics of interdependence, we emphasized that interdependence would not necessarily lead to cooperation, nor did we assume that its consequences would automatically be benign in other respects. The key point was not that interdependence made power obsolete—far from it—but that patterns of interdependence and patterns of potential power resources in a given issue-area are closely related—indeed, two sides of a single coin. Thus we sought not merely to place realist and liberal perspectives side by side, but to link them together in an integrated analysis. As David Baldwin later observed, “it should not be necessary to develop a separate theory to cover each issue-area of international exchange relations.”¹²

The concept of “complex interdependence,” introduced in chapter 2, reflected our dissatisfaction with the bargaining analysis of interdependence alone, and our attempt to add insights from theories of regional integration to its spare realist assumptions. It is important to recognize that “complex interdependence,” as used in chapter 2, is very different from “interdependence,” as used in chapter 1. “Interdependence” is a very broad term that refers to “situations characterized by reciprocal effects among countries or among actors in different countries” (p. 8). It is as applicable to the political-

10. For our account of the connections between integration theory and theories of interdependence, see our article, “International Interdependence and Integration,” in Fred I. Greenstein and Nelson W. Polsby, eds., *Handbook of Political Science*, vol. 8 (Reading, Mass.: Addison-Wesley, 1975), pp. 363–414. Karl Deutsch’s work on regional integration was equally important to the field as Haas’s; although we discuss both in our 1975 article, our own analysis owes a greater debt to Haas’s neofunctionalism.

11. In contrast to this position, Holsti asserts that interdependence does not have a problem focus: “The fact of interdependence,” he says, “has to lead to a *problem* before it warrants serious attention, just as concern with war, peace, order and power led to our field centuries ago.” (Holsti, *The Dividing Discipline*, p. 47).

12. David A. Baldwin, “Interdependence and Power: A Conceptual Analysis,” *International Organization* 34 (Fall 1980), pp. 471–596.

military interdependence between the Soviet Union and the United States as it is to the political-economic interdependence between Germany and Italy. "Complex interdependence," by contrast, is an ideal type of international system, deliberately constructed to contrast with a "realist" ideal type that we outlined on the basis of realist assumptions about the nature of international politics. Complex interdependence refers to a situation among a number of countries in which multiple channels of contact connect societies (that is, states do not monopolize these contacts); there is no hierarchy of issues; and military force is not used by governments towards one another (pp. 24–25). We begin chapter 2 by stating that "we do not argue . . . that complex interdependence faithfully reflects world political reality. Quite the contrary; both it and the realist portrait are ideal types. Most situations will fall somewhere between these two extremes."

Like the frequently ignored labels on cigarette packages, our warning at the beginning of chapter 2 was forgotten by a number of readers, who treated our discussion of complex interdependence as if it were our description of the real world rather than our construction of a hypothetical one. For instance, Robert Art's association of interdependence theorists with the claim that a "nation whose economic interests are deeply entangled with another's *cannot* use force . . . interests intertwined render force unusable . . ." portrays some theorists in the liberal tradition, but not us.¹³ On the contrary, in chapter 1 we argued that "it must always be kept in mind furthermore that military power dominates economic power . . . yet exercising more dominant forms of power brings higher costs. Thus, relative to cost, there is no guarantee that military means will be more effective than economic ones to achieve a given purpose" (pp. 16–17). J. Martin Rochester associates us with a "globalist" or "modernist" view, even though we declared at the beginning of *Power and Interdependence* that "neither the modernists nor the traditionalists have an adequate framework for understanding the politics of interdependence" (p. 4).¹⁴ In contrast to the modernist position, we disavowed the view that complex interdependence is necessarily the wave of the future (pp. 226–29). Indeed, although we began our research on *Power and Interdependence* largely to confirm the importance of transnational relations, as discussed in *Transnational Relations and World Politics*, our investigations produced a much more qualified judgment.

Chapter 2 of *Power and Interdependence* treats all real situations in world politics as falling somewhere on a continuum between the ideal types of realism and complex interdependence. Thus our emphasis in chapter 2 is

13. Robert J. Art, "To What Ends Military Power?" *International Security* 4 (Spring 1980), pp. 16–17. Prof. Art should be commended, however, for forthrightly acknowledging in print that he had misinterpreted our views. *International Security* 4 (Fall 1980), p. 189.

14 J. Martin Rochester, "The Rise and Fall of International Organization as a Field of Study," *International Organization* 40 (Autumn 1986), note 52, p. 792. A similar mistake occurs in Ray Maghroori and Bennett Ramberg, eds., *Globalism Versus Realism: International Relations' Third Debate* (Boulder: Westview Press, 1982).

quite different from that in chapter 1. Instead of seeking to explain bargaining outcomes structurally in terms of asymmetrical interdependence, we ask whether the location of a situation on the realism-complex interdependence continuum can help account for the political processes that we observe. The theoretical lineages of the two chapters are also quite different: chapter 2 is more indebted to liberal theory in general, and theories of regional integration in particular, than chapter 1, which relies on a modified neorealist analysis. Like integration theory, our discussion of complex interdependence focuses on transnational and transgovernmental as well as interstate relations, and it seeks to examine how certain patterns of political processes affect actor behavior rather than to employ a structural explanation to account for action.

The third major theme of *Power and Interdependence* concerns international regimes, which we define in chapter 1 as "governing arrangements that affect relationships of interdependence" (p. 19). Our concept of international regimes was indebted to the work of John Ruggie, who defined regimes in 1975 as "sets of mutual expectations, generally agreed-to rules, regulations and plans, in accordance with which organizational energies and financial commitments are allocated."¹⁵ Despite a claim made by Susan Strange, social scientists did not invent this concept: it has a long history in international law.¹⁶

Chapter 3 of *Power and Interdependence* elaborates our conception of international regimes and offers four roughly-sketched models which purport to account for changes in those regimes. One model relies on economic and technological change. Two are structural: one uses overall power structure to predict outcomes, the other relies on the distribution of power within

15. John Gerard Ruggie, "International Responses to Technology: Concepts and Trends," *International Organization* 29 (Summer 1975), p. 569; see also Richard N. Cooper, "Prolegomena to the Choice of an International Monetary System," *International Organization* 29 (Winter 1975), p. 64. *Power and Interdependence* cites the works by Ruggie and Cooper on p. 20.

16. Susan Strange, "Cave! Hic Dragones: A Critique of Regime Analysis," *International Organization* 36 (Spring 1982), reprinted in Stephen D. Krasner, ed., *International Regimes* (Ithaca, N.Y.: Cornell University Press, 1983), where this claim is made on p. 344. For early uses of the regime terminology, see Fernand de Visscher, *Le Régime Nouveau des Détroits*, (Brussels: 1924), in *Extrait de la Revue de Droit internationale et de Législation comparée* (1924), nos. 1-2; L. Oppenheim, *International Law*, 5th ed. (New York: Longmans, Green, 1937; edited by H. Lauterpacht), vol. 1, pp. 207, 366, on regimes for Luxembourg and the Elbe River; David M. Leive, *International Regulatory Regimes* (Lexington, Mass.: D. C. Heath: Lexington Books, 1976), 2 vols.; and a variety of articles in the *American Journal of International Law*, including: 1) William L. Butler, "The Legal Regime of Russian Territorial Waters," vol. 62 (1968), pp. 51-77; 2) Richard Young, "The Legal Regime of the Deep-Sea Floor," vol. 62 (1968), pp. 641-53; 3) Leo J. Harris, "Diplomatic Privileges and Immunities: A New Regime is Soon to be Adopted by the United States," vol. 62 (1968), pp. 98-113; 4) W. Michael Riesman, "The Regime of Straits and National Security," vol. 74 (1980), pp. 48-76; 5) John Norton Moore, "The Regime of Straits and the Third United Nations Conference on the Law of the Sea," vol. 74 (1980), pp. 77-121.

issue-areas. The fourth is an “international organization model,” in which networks of relationships, norms, and institutions are important, independent factors helping to explain international regime change.

The three themes of *Power and Interdependence* are to some degree distinct. Interdependence can be analyzed politically without endorsing the concepts of complex interdependence or international regimes; and the concept of international regimes does not depend for its validity on accepting complex interdependence as a useful simplification of reality. Yet we sought to relate our themes to one another. In particular, we argued that the explanatory power of overall structure theories of regime change would be lower under conditions of complex interdependence than under realist conditions (p. 161). Nevertheless, since our argument was to some extent “decomposable” into its parts, it should not be surprising that some parts of it fared better in the later scholarly discussion than others.

2. The research program of *Power and Interdependence*: a critique

In *Power and Interdependence*, we sought to integrate realism and liberalism by using a conception of interdependence which focused on bargaining. We were cognizant of the realities of power, but did not regard military force as the chief source of power, nor did we regard security and relative position as the overriding goals of states. Ironically, in view of our earlier work on transnational relations, the result of our synthetic analysis in *Power and Interdependence*, and of subsequent work such as Keohane’s *After Hegemony*, has been to broaden neorealism and provide it with new concepts rather than to articulate a coherent alternative theoretical framework for the study of world politics. Of the themes discussed in Section 1 those of strategic interdependence and international regimes were both most compatible with realism and most thoroughly developed in *Power and Interdependence* and later work. Complex interdependence remained a relatively underdeveloped and undervalued concept.

Interdependence and bargaining

In our analysis of interdependence, we emphasized that asymmetries in military vulnerability remain important in world politics: “Military power dominates economic power in the sense that economic means alone are likely to be ineffective against the serious use of military force” (p. 16). Nevertheless, since in our view the cost of using military force was rising, “there is no guarantee that military means will be more effective than economic ones to achieve a given purpose” (p. 17).

Indeed, we were so cautious about downgrading the role of force that David Baldwin criticized us for not going further in our rejection of realism: "Although Keohane and Nye are clearly skeptical about the fungibility of power resources, they appear unwilling to place the burden of proof on those who maintain that power resources are highly fungible. . . . Whereas Sprouts and Dahl reject as practically meaningless any statement about influence that does not clearly indicate scope, Keohane and Nye confine themselves to the suggestion that 'we may need to reevaluate the usefulness of the homogeneous conception of power.'" He further complained that we "sometimes seem to exaggerate the effectiveness of military force as a power resource."¹⁷

Baldwin was right to point out that *Power and Interdependence* is not a "modernist" manifesto, however much some of our friends would like it to have been one. On the contrary, it consistently seeks to ask, without dogmatic presuppositions, *under what conditions* liberal or realist theories will provide more accurate accounts of world political reality. The extent to which military force is important in a given situation is to us an empirical question, not one to be decided on the basis of dogmatic realist or modernist fiat.

Bargaining theory has subsequently clarified some concepts and has qualified the analysis that we, following Hirschman, offered. Baldwin's work has helped to emphasize the difficulties of using tangible resources successfully to "explain" behavior, as well as the theoretical perils of introducing factors such as "intensity," "skill," or "leadership" on a post-hoc basis to patch up inadequate accounts. Harrison Wagner¹⁸ has shown that being asymmetrically less dependent than one's partner is neither a necessary nor a sufficient condition to exercise influence in a bilateral relationship. It is not necessary because a weaker actor with intense preferences on one issue may make great concessions on other matters to attain its objectives. It is not sufficient because in equilibrium, with the terms of agreements fully reflecting bargaining power, even a more powerful actor will not exercise influence on a particular issue if this requires concessions on other issues that outweigh its gains. Nevertheless, we believe that asymmetrical interdependence can still be a source of power in bilateral relationships. As Wagner himself is careful to point out, less dependent actors will be able to make bargaining concessions at lower cost than more dependent actors. Furthermore, relationships between powerful and weak actors are often defined by multilateral rule or convention, without bilateral bargaining.

17. David A. Baldwin, "Power Analysis and World Politics: New Trends Versus Old Tendencies," *World Politics* 31 (January 1979), pp. 169, 181.

18. Harrison Wagner, "Economic Interdependence, Bargaining Power and Political Influence," unpublished paper, University of Texas, Austin, October 1986.

Under such conditions, strong states that are willing to break the rules or alter the conventions may have unexploited bargaining power.¹⁹

A bargaining approach to interdependence necessarily raises questions about linkages among issues, since, unless unexploited bargaining power exists, to exercise influence on one issue means making concessions on another. *Power and Interdependence* may have miscategorized this problem by placing its discussion in chapter 2, which analyzes complex interdependence, rather than in chapter 1. After all, many of the highest-level issue linkages take place between economic and security affairs in relationships such as that between the United States and the Soviet Union. That is, linkage is a phenomenon of realist international politics as much as of complex interdependence. Indeed, we suggested in chapter 2 that under conditions of complex interdependence, linkages might become *less* effective than under realism (pp. 30–32).

The lack of extensive analysis of issue linkage in *Power and Interdependence* must have struck some observant readers as one of the oddest aspects of our book. Our analysis of regime change focused on issue-specific sources of power and developed an “issue-structure theory.” Yet as Arthur Stein pointed out, “Linkage is the central analytic problem with an issue approach to international politics. Issue compartmentalization only goes so far. . . . Because there are situations amenable to linkage politics, the viability of an issue-area approach to the study of international politics is itself context-dependent.”²⁰ Despite the importance of the subject, we failed to develop any theory of linkage that could specify under what conditions linkages would occur. We argued that under conditions of complex interdependence, a variety of linkages would be made, particularly by weak states (pp. 122–24), but we left the matter there. This was not for lack of effort: the truth is that we drafted a chapter on the subject, but since it turned out to be a collection of vague generalizations and illustrative anecdotes, we consigned it to the wastebasket.

Significant progress has been made on this issue since 1977. In the first place, Kenneth Oye, Ernst Haas, and Arthur Stein have developed typologies of linkage that have provided more sophisticated categories for analysis. Of particular interest are Haas’s threefold distinction between tactical, fragmented, and substantive issue-linkage, and Oye’s distinction between “blackmailing” (making a threat one does not wish to carry out) and “back-scratching” (offering a quid pro quo bargain). Oye’s distinction is

19. Our analysis of the 1971 change in the international monetary system illustrates this point. We emphasized not American weakness, but the underlying strength of the U.S. position, quoting Henry Aubrey to the effect that “a creditor’s influence over the United States rests on American willingness to play the game according to the old concepts and rules.” *Power and Interdependence*, p. 140.

20. Arthur A. Stein, “The Politics of Linkage,” *World Politics* 33 (October 1980), p. 81.

paralleled by Stein's distinction between coerced and threat-induced linkage. Both recall Thomas Schelling's distinction between a promise and threat: that "a promise is costly when it succeeds, and a threat is costly when it fails."²¹

Other work on issue-linkage has gone beyond typology by applying a rigorous economic or public choice approach to issue-linkage. The basic insight of this argument is that issue-linkage is like economic exchange: up to a point, one can increase one's utility by acquiring more of a scarce good in exchange for a plentiful one. Robert E. Tollison and Thomas E. Willett wrote a pioneering article to this effect in 1979, and James Sebenius has employed game theory, and an analysis of the Law of the Sea Negotiations, in an attempt to specify the conditions under which linking issues together can create new possibilities for mutually beneficial bargaining.²² By using a rational choice approach, Tollison, Willett, and Sebenius have laid out a framework for understanding the elementary conditions for issue-linkage within a rational-choice framework.

It should be noted that this progress has been made at the cost of using simple two-actor models. Yet a key feature of issue-linkage in world politics is that it necessarily involves intragovernmental as well as intergovernmental struggles. If a government seeks to make a gain on issue X by linking it to issue Y, it is in effect exchanging some of the good involved in issue Y for that in issue X. For example, if the government seeks to stop nuclear proliferation by threatening to stop a potential proliferator from receiving equipment for nuclear plants, it sacrifices the goal of expanding exports for the goal of stopping proliferation. This policy is hardly likely to be welcomed by the governmental agencies charged with the task of export promotion. Indeed, there is likely to be an intragovernmental conflict over the policy, which may, in some circumstances, become a matter for transgovernmental coalitions. Future work on linkage will need to combine the analytical rigor of rational-choice approaches with insights into the complex multi-level games that typically accompany issue-linkage in world politics.²³

The major contribution of *Power and Interdependence* to the study of interdependence and bargaining was to stress that the analysis of the politics

21. Thomas Schelling, *The Strategy of Conflict* (New York: Oxford University Press, 1960), p. 177. Oye's discussion of linkage appears in the introduction of Kenneth A. Oye, Donald Rothchild, and Robert J. Lieber, *Eagle Entangled: U.S. Foreign Policy in a Complex World* (New York: Longman, 1979), especially pp. 13–17; see also Ernst B. Haas, "Why Collaborate? Issue-Linkage and International Regimes," *World Politics* 32 (April 1980), pp. 357–402.

22. Robert Tollison and Thomas Willett, "An Economic Theory of Mutually Advantageous Issue Linkage in International Negotiations," *International Organization* 33 (Fall 1979), pp. 425–49; James Sebenius, *Negotiating the Law of the Sea* (Cambridge: Harvard University Press, 1984), especially chap. 6; Sebenius, "Negotiation Arithmetic," *International Organization* 37 (Spring 1983), pp. 281–316.

23. For a brief discussion that draws on empirical work in this special issue of *World Politics*, see Robert Axelrod and Robert O. Keohane, "Achieving Cooperation under Anarchy: Strategies and Institutions," *World Politics* 39 (October 1986), especially pp. 239–43.

of interdependence requires a sophisticated conception of bargaining, and that patterns of economic interdependence have implications for power and vice versa. We did not successfully develop a theory of linkage, which would indeed have furthered our understanding of world politics. Instead, we simply moved the neorealist research program a little further towards taking into account relationships between political-economic interactions and patterns of military-political conflict.

Complex interdependence

The concept of complex interdependence is clearly liberal rather than realist. We made no attempt to integrate complex interdependence with realist conceptions of power and structure. On the contrary, we set up complex interdependence in opposition to a realist ideal-typical view of world politics. Yet precisely because we insisted that complex interdependence is an ideal type rather than an accurate description of world politics or a forecast of trends, its relevance to contemporary world politics is ambiguous.²⁴

We did not pursue complex interdependence as a theory, but as a thought experiment about what politics might look like if the basic assumptions of realism were reversed. We therefore did not draw upon liberal theory as fully as we might have. Had we done so, perhaps the concept would have been better developed and more readily understood. We did, however, carry out quite an extensive set of empirical investigations to explore the political processes of complex interdependence, and closely examined two issue-areas (oceans and international finance, in chapter 5) and two country relationships (U.S.–Canada and U.S.–Australia, in chapter 7) for the period 1920–70. These cases function as paired comparisons: for oceans and the U.S.–Canada relationship, there is much evidence of complex interdependence; whereas for finance (due to its political-economic centrality for governments) and for U.S.–Australia (due to distance and the primacy of security concerns), complex interdependence was much less evident.

The incompleteness of our treatment of complex interdependence is, we fear, partly responsible for the fact that its theoretical implications have been largely ignored. As mentioned earlier, our discussion in chapter 2 was organized around the continuum between realism and complex interdependence: In effect, the position of a given situation along this continuum constituted the independent variable for our analysis. Yet the relationship between this independent variable and what we sought to explain was somewhat muddled. In *Power and Interdependence*, complex interdependence has three main characteristics: 1) state policy goals are not arranged in stable hierarchies, but are subject to trade-offs; 2) the existence of multiple

24. Considering the fondness for philosophical jargon in contemporary writing on international relations theory, we should refer to this as the “ontological status” of complex interdependence. Somehow we cannot quite bring ourselves to do this.

channels of contact among societies expands the range of policy instruments, thus limiting the ability of foreign offices tightly to control governments' foreign relations; and 3) military force is largely irrelevant. Table 2.1 of *Power and Interdependence* (p. 37) lists five sets of political processes that we expect to be different under conditions of complex interdependence than under realist conditions. These include the goals of actors, instruments of state policy, agenda formation, linkages of issues, and roles of international organizations.

A methodological problem immediately arises. Since we define complex interdependence in terms of the goals and instruments of state policy, any general arguments about how goals and instruments are affected by the degree to which a situation approximates complex interdependence or realism will be tautological. Thus our propositions about political processes must be limited to issue-linkage, agenda formation, and the roles of international organizations. Since, as we have seen, discussions of linkage are as relevant to a realist world as to one of complex interdependence, we are left essentially with two dependent variables: changes in agendas and in the roles of international organizations. Ideally, we would have provided conditional statements that specified the conditions under which agendas change and international organizations are important. How much progress is actually made on these questions?

Chapter 5 discusses both processes. We argue that agenda change results from "poor operation of a regime in a coherent and functionally linked issue-area" (p. 121). But we do not specify any model of agenda change that would permit an observer to anticipate intelligently when it would occur, and in what direction. Richard W. Mansbach and John A. Vasquez later made an interesting contribution to the understanding of agenda change by presenting their view of an "issue cycle, involving genesis, crisis, ritualization, dormancy, decision making and authoritative allocation."²⁵ As in most models of stages, the causal processes at work were not clearly specified by Mansbach and Vasquez—as they point out, the issue cycle is more a framework for analysis than a theory. Nevertheless, it goes beyond the brief observations about agenda change in *Power and Interdependence*.

We had more to say about international organizations, partly because of our "international organization model," and partly because of our earlier work on international organizations.²⁶ We viewed international organizations not as sources of definitive law but as entities that institutionalized policy networks and within which transgovernmental policy coordination and coalition-building could take place. We observed that in oceans politics,

25. John A. Vasquez and Richard W. Mansbach, "The Issue Cycle and Global Change," *International Organization* 37 (Spring 1983), pp. 257–79, quotation on p. 274. See also Mansbach and Vasquez, *In Search of Theory: A New Paradigm for Global Politics* (New York: Columbia University Press, 1981), especially chap. 4.

26. See especially Keohane and Nye, "Transgovernmental Relations and International Organizations," *World Politics* 27 (October 1974), pp. 39–62.

international organizations seemed to have a greater effect on the agendas of states, and on states' influence over outcomes, than in international monetary relations. This perspective on international organizations as facilitators rather than lawmakers has held up well in the intervening decade. Such organizations have proliferated, and the activities of a number of them, such as the International Monetary Fund, have expanded—but they have shown little tendency to develop genuinely supranational capabilities. Keohane's *After Hegemony* integrates this view on international organizations into a broader theory of international regimes; and most recent analyses of international organizations view their activities in this way.

In the interest of parsimony, we limited our analysis in *Power and Interdependence* to the level of the international system: it was essential, in our view, "to know how much one can explain purely on the basis of information about the international system" (p. ix). We admitted the importance of factors at the domestic level, but sought first to sort out the systemic forces at work.²⁷ As a result of this decision, we had to view interests as formed largely exogenously, in a way unexplained by our theory. Thus, domestic politics and the impact of international relations on domestic politics—what Peter Gourevitch later called "the second image reversed"—were ignored.²⁸ Yet changes in definitions of self-interest, by the United States and other countries, kept appearing in our case studies—both in oceans politics and monetary relations—without adequate explanation.

An example of this difficulty appears in chapter 5, which describes the extent to which the ideal type of complex interdependence is approximated in the monetary and oceans issue-areas and concludes that its applicability is greater in the latter. From a realist perspective, this evidence could be seen as suggesting that processes of complex interdependence are irrelevant to issues of great importance for states—such as monetary policy. Furthermore, within the oceans issue-area, many observers have viewed processes of complex interdependence as shrinking rather than expanding since 1977 (U.S. refusal to sign the Law of the Sea Convention reinforced this perception). Yet such a quick dismissal of complex interdependence as trivial would be too simple. The original American position in favor of narrow coastal jurisdiction and sharing of seabed resources had been determined by the U.S. Navy on the basis of security interests. But the navy's position was defeated by transnational and transgovernmental coalitions in the context of

27. As a strategy for research, this approach was probably wise, since it is terribly difficult to link domestic politics and the international system together theoretically without reducing the analysis to little more than a descriptive hodgepodge. Recent efforts to bridge this gap, using the concept of state structure, have made notable progress. See Peter J. Katzenstein, ed., *Between Power and Plenty: Foreign Economic Policies of Advanced Industrialized States* (Madison: University of Wisconsin Press, 1978); and Peter J. Katzenstein, *Small States in World Markets* (Ithaca, N.Y.: Cornell University Press, 1985).

28. Peter A. Gourevitch, "The Second Image Reversed," *International Organization* 32 (Autumn 1978), pp. 881–912; and *Politics in Hard Times* (Ithaca, N.Y.: Cornell University Press, 1986).

the Law of the Sea Conferences. The United States reversed its conception of its national interest before it refused to sign the treaty. For realists to say that the United States refused to sign because of "self-interest" on security interests begs the critical question of how such interests are defined and redefined.

Our failure to theorize about the domestic politics of interest-formation had particularly serious effects on our analysis of the politics of complex interdependence, since complex interdependence was defined in terms of the goals, as well as the instruments, available to governments. Understanding changes in complex interdependence must necessarily involve understanding changes in priorities among state objectives, which could only be achieved through an analysis of relationships between patterns of domestic and international politics. Furthermore, the characteristic of "multiple channels of contact" means that states are not unitary actors—that is, the sharp boundary between what is "domestic" and what is "systemic" breaks down. It is not difficult to see how our acceptance for research purposes of the system-unit distinction weakened the prospects for a deeper analysis of complex interdependence. The concept was "left hanging"—intriguing to some, misunderstood by many, incapable of being developed without relaxing the systemic perspective whose theoretical parsimony is so highly valued by students of international relations.

International regime change

The alacrity with which the concept of international regimes has been accepted in the international relations literature contrasts sharply with the relative neglect of complex interdependence. The concept of international regimes has proven its value, identifying important phenomena to be explained and clustering them together. It has served as a label for identifying patterns of what John Ruggie called "institutionalized collective behavior"²⁹ on a variety of subjects. And it has even been extended to include the analysis of international security issues.³⁰ Indeed, "regimes" seem now to be everywhere!

29. Ruggie, "International Responses to Technology."

30. Robert Jervis identified a Concert of Europe regime in the 19th century; in his discussion of contemporary international politics, however, he looked for a regime in the central strategic relationship between the United States and Soviet Union and failed to find one. Janice Gross Stein and Joseph S. Nye have focused on narrower realms of activity and have discovered meaningful security regimes in contemporary world politics. See Stein, "Detection and Defection: Security 'Regimes' and the Management of International Conflict," *International Journal* 40 (Autumn 1985), pp. 599–627; and Nye, "Nuclear Learning and U.S.–Soviet Security Regimes," *International Organization* 41 (Summer 1987). See also an article by Roger K. Smith, which appeared just as this essay was being revised, "The Non-Proliferation Regime and International Relations," *International Organization* 41 (Spring 1987), pp. 253–82. Smith makes a number of perceptive criticisms of regime theory.

Although *Power and Interdependence* did not introduce the concept of international regimes, it showed how it could be used in systematic empirical analysis, and therefore promoted its widespread employment as a descriptive concept to encompass clusters of rules, institutions, and practices. Furthermore, it advanced four models for understanding regime change. During the last ten years, a large body of literature on regimes has followed this line of analysis, which Ruggie pioneered and which we sought to extend. Much of this work has sought to test the theory of hegemonic stability—associating a decline in international regimes with erosion of American hegemony during the last quarter-century. The result of this work, on balance, has been to increase skepticism about the validity of the hegemonic stability theory. But the literature on international regimes has not been limited to testing the theory of hegemonic stability: characteristics of international institutions, domestic politics, and learning by elites, as well as shifts in relative power capabilities, can account for the nature of international regimes or for changes in them.

During the last decade, research on international regimes has made substantial progress. A wide consensus has been reached on a definition of international regimes as principles, rules, norms, and procedures around which expectations converge in a given area of international relations.³¹ Problems exist in operationalizing this definition: in particular, when the concept of international regime is extended beyond the institutionalized results of formal interstate agreements, the boundaries between regime and non-regime situations become somewhat fuzzy.³² Most empirical work on regimes, however, deals with the results of formal interstate agreements, and is therefore immune to the charge of operational obscurity sometimes raised against the concept in general.

31. Krasner, ed., *International Regimes*, p. 2.

32. See Stephan Haggard and Beth Simmons, "Theories of International Regimes," *International Organization* 41 (Summer 1987).

33. See Keohane, *After Hegemony*, which discusses money, trade, and oil; and the articles in the Krasner volume, *International Regimes*, on trade and the balance of payments by Charles Lipson, Jock A. Finlayson and Mark Zacher, and Benjamin J. Cohen. In addition, see articles in *International Organization* on regimes for: Antarctica, "Antarctica: The Last Great Land Rush" (vol. 34, Summer 1980), by M. J. Peterson; nuclear proliferation, "Maintaining a Non-Proliferation Regime" by Joseph S. Nye (vol. 35, Winter 1981), and "The Non-Proliferation Regime" (vol. 41, Spring 1987); by Roger K. Smith; civil aviation, "Sphere of Flying: The Politics of International Aviation" (vol. 35, Spring 1981), by Christer Jönsson; Third World debt, "The International Organization of Third World Debt" (vol. 35 Autumn 1981), by Charles Lipson; international shipping, "The Political Economy of International Shipping: Europe versus America" (vol. 39, Winter 1985), by Alan W. Cafruny; and international commodity regimes, "Trade Gaps, Analytical Gaps: Regime Analysis and International Commodity Trade Regulation" (vol. 41, Spring 1987), by Mark Zacher. Three recent book-length studies seeking to account for the evolution or persistence of international regimes are: Charles Lipson, *Standing Guard: Protecting Foreign Capital in the Nineteenth and Twentieth Centuries* (Berkeley: University of California Press, 1985); Stephen D. Krasner, *Structural Conflict: The Third World Against Global Liberalism* (Berkeley: University of California Press, 1985); and Vinod K. Aggarwal, *Liberal Protectionism: The International Politics of Organized Textile Trade* (Berkeley: University of California Press, 1985).

Questions of definition and operationalization aside, much has been learned from this empirical work during the last decade about how and why international regimes change—in particular, about conditions under which cooperation is facilitated, and about why governments seek to establish, and are willing to conform to the rules of, regimes.³³ Furthermore, policy-makers—not only from Western countries but from the Soviet Union as well—have begun to think and talk about international cooperation in terms of international regimes.³⁴

Nevertheless, our understanding of international regimes remains rudimentary. Although we have a clearer idea now than in 1977 of how and why international regimes change, we do not have well-tested empirical generalizations, much less convincing explanatory theories of this process. Nor are we likely to have such theories of change without better incorporation of domestic politics into our models. The nature of international regimes can be expected to affect domestic structures as well as vice versa: the flow of influence is surely reciprocal between international institutions and bargaining, on the one hand, and domestic politics, on the other. Although social scientists can understand some aspects of the operation of international regimes on the basis of stylized systemic theories that are indebted to microeconomics, we are unlikely, without close investigation of domestic politics, to understand how states' preferences change. Yet as long as we continue to regard preferences as exogenous, our theories will miss many of the forces that propel changes in state strategies and therefore in the patterns of international interaction.

We know even less about the effects of international regimes on state behavior than about regime change. Indeed, students of international regimes often simply assume that regimes make a difference because they can alter actors' calculations of their interests or change their capabilities.³⁵ This assertion has been elaborated but not rigorously tested. *Power and Interdependence* made some observations about how regimes can alter capabilities, making use of the concept of "organizationally dependent capabilities" (p. 55); later work has focused on the impact of regimes on the self-interests of governments, and therefore on state strategies.³⁶ According to this argument, the principles, rules, and institutions of a regime may have two types

34. On 3 June 1986, for instance, Soviet First Secretary Mikhail Gorbachev stated in a message to the Secretary-General of the United Nations that "it is quite obvious that there is a practical need to start, without delay, setting up an international regime for the safe development of nuclear energy." *New York Times*, 4 June 1986, p. A12. We do not presume to know what led Secretary Gorbachev to use the language of regimes; but Soviet scholars have informed us that they began to use the term in relation to the law of the seas conference in the 1970s. Personal conversations, Moscow, June 1986.

35. Stephen D. Krasner, "Regimes and the Limits of Realism: Regimes as Autonomous Variables," in Krasner, ed., *International Regimes* (New York: Cornell University Press, 1983), pp. 355–68.

36. For an early and insightful attempt, see Oran R. Young, *Compliance and Public Authority* (Washington, D.C.: Institute for the Future, 1979).

of effects on strategies. First, they may create a focal point around which expectations converge, reducing uncertainty and providing guidelines for bureaucrats about legitimate actions and for policymakers about feasible patterns of agreement. In the long run, one may even see changes in how governments define their own self-interest in directions that conform to the rules of the regime. Second, regimes may constrain state behavior by prohibiting certain actions. Since regimes have little enforcement power, powerful states may nevertheless be able to take forbidden measures; but they may incur costs to their reputations, and therefore to their ability to make future agreements.

Arguments such as these emphasize that regimes can be understood within an analytical framework that stresses self-interest: states may conform to the rules and norms of regimes in order to protect their reputations. But neither these works nor other works on regimes have established to what extent, and under what conditions, the impacts of regimes on state interests are significant enough to make much difference in world politics. Our relatively poor understanding of the impact of regimes provides opportunities for future research. In particular, we need more careful empirical work, tracing the behavior of states to see how closely policies follow regime principles, rules, and institutions. Yet this is only a first step, since if our attention remains focused on the level of the system, it may be very difficult for an investigator to ascertain the causal status of the regime. Perhaps the states would have followed similar policies in the absence of the regime. Regimes could merely reflect interests, without exerting any impact of their own.

To ascertain the impact of the regime, we must trace internal decision-making processes to discover what strategies would have been followed in the absence of regime rules. We could seek to identify issues on which regime rules conflicted with the perceptions of self-interest (apart from the regime) held by governments—what Keohane has called “myopic self-interest.”³⁷ We would then ask whether the reputational and other incentives to abide by regime rules outweigh the incentives to break those rules. How much impact do the regime rules have? Only by examining internal debates on such issues could the analyst go beyond the self-justificatory rhetoric of governments (which is likely to exaggerate their respect for regimes) to the factors affecting their decisions. If this sort of research were carried out on a number of issues involving fairly well-established international regimes, in which the governments under investigation had a range of moderate to substantial incentives to violate the regime rules, we might learn quite a bit about the efficacy of international regimes. And if the research

37. Keohane defines myopic self-interest in terms of “governments’ perception of the relative costs and benefits to them of alternative courses of action with regard to a particular issue, *when that issue is considered in isolation from others.*” *After Hegemony*, p. 99, italics in original.

examined how decisions were made to strengthen or enlarge the scope of regime rules over a substantial period of time, in a given issue-area, it could help to test the notion that regimes themselves help to promote their own growth. It might even yield some insights about the question of whether international regimes help to change governments' definitions of their own self-interests over time.

Admittedly, work that has been done on national decisions and international regimes, although not explicitly designed as we have suggested, indicates the relative weakness of regimes in situations involving high incentives to break the rules.³⁸ On the other hand, the fact that governments conform to most regimes most of the time suggests that regimes do indeed perform a coordinating function—but it tells us little about their own efficacy in altering incentives, through effects on governments' reputation or in other ways. We need studies examining a wider range of incentives, defined in terms of myopic self-interest, to break or evade the injunctions of international regimes, before we will have a better idea of their efficacy in situations involving different amounts of stress. Little such work has yet been done, but the impact of pioneering research along these lines could be substantial.³⁹

In studying changes in international regimes, structural theory remains useful: its very simplifications help to highlight how self-interest can be consistent with the formation and maintenance of international institutions. But structural theory should not be equated with systemic theory, since systems incorporate not only power structures but political processes, including regularized patterns of practice which we refer to as institutions. Yet these processes merge with domestic politics: once one adopts a broad conception of systemic theory, it becomes clear that such theory alone will be insufficient either to explain changes in international regimes over time or to account for their impact on policy. Both structural theory, and the broader process-oriented version of systemic theory that we sought to develop in *Power and Interdependence*, are therefore inadequate by themselves. The task that researchers now face is how to link a process-oriented version of systemic theory closely with the analysis of domestic politics

38. On the demise of the Bretton Woods international monetary regime, for example, see Joanne Gowa, *Closing the Gold Window: Domestic Politics and the End of Bretton Woods* (Ithaca, N.Y.: Cornell University Press, 1983), and John S. Odell, *U. S. International Monetary Policy: Markets, Power and Ideas as Sources of Change* (Princeton, N.J.: Princeton University Press, 1982). On rule-evasion and circumvention of textile restraints under the umbrella of the Multi-Fiber Arrangement, see David Yoffie, *Power and Protectionism: Strategies of the Newly Industrializing Countries* (New York: Columbia University Press, 1983).

39. Abram Chayes's study of the role of law in the Cuban Missile Crisis is an exception to this statement about the absence of work on international norms, as embodied, for instance, in international regimes. Chayes does not use the language of regimes, but he discusses the impact of international norms for the peaceful settlement of disputes, as embodied in various international practices and agreements, including the Organization of American States and United Nations Charter. See Abram Chayes, *The Cuban Missile Crisis and the Rule of Law* (New York: Oxford University Press, 1974).

without suffering the loss of theoretical coherence that advocates of systemic theory have always feared.

3. Limitations of structural theory: systemic political processes

Although we acknowledged the importance of domestic politics, *Power and Interdependence* assumed that we could learn a good deal about world politics by having a more subtle and sophisticated understanding of the international system. We argued that systems have two dimensions: structure and process. We used the term “structure” in the neorealist sense to refer principally to the distribution of capabilities among units.⁴⁰ Process refers to patterns of interaction: the ways in which the units relate to each other. To use the metaphor of a poker game, the structure refers to the players’ cards and chips, while the process refers to the relationships among the formal rules, informal customs or conventions, and the patterns of interactions among the players. Variations in the ability of the players to calculate odds, infer the strength of opponents’ hands, or bluff are at the unit, or actor, level.

The processes that take place in a system are affected by its structure and by the characteristics of the most important units in the system. The preferences of the states predispose them towards certain strategies; the structure of the system provides opportunities and constraints. One needs information about preferences as well as about structure to account for state action. For example, it is not enough to know the geopolitical structure that surrounded Germany in 1886 or 1914 or 1936: one also needs to know whether German strategies were the conservative ones of Bismarck, the poorly conceived ones of the Kaiser, or the revolutionary ones of Hitler. Yet even if we understand both state preferences and system structure, we will often be unable to account adequately for state behavior unless we understand other attributes of the system, such as the character of international and transnational interactions and the nature of international institutions.⁴¹ Examining these systemic processes leads the investigator to look more carefully at the interactions between system and unit characteristics—for example, to examine how actors’ preferences are affected by the constraints and opportunities in their environments and vice versa. That is, focusing on systemic processes directs our attention to the reciprocal connections between domestic politics and international structure and the transmission belts between them.

40. Kenneth N. Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979).

41. For a critique of Waltz’s work along these lines, see John Gerard Ruggie, “Continuity and Transformation in the World Polity: Toward a Neorealist Synthesis,” *World Politics* 35 (January 1983), pp. 261–85; reprinted in Robert O. Keohane, ed., *Neorealism and its Critics* (New York: Columbia University Press, 1986), pp. 131–57. An extended argument to this effect is provided in Keohane, *After Hegemony*, especially chaps. 1, 4–7.

Clearly, there is a great deal of variance in international political behavior that is not explained by the distribution of power among states. Neorealists do not deny this, but assign all other determinants to the unit level.⁴² This response, however, is not satisfactory. Such factors as the intensity of international interdependence or the degree of institutionalization of international rules do not vary from one state to another on the basis of their internal characteristics (unlike the degree to which democratic procedures are followed internally, or whether the domestic political economy is capitalist or socialist), and are therefore not unit-level factors according to Waltz's earlier definition. Furthermore, making the unit level the dumping ground for all unexplained variance is an impediment to the development of theory. Not only does it complicate the task of analysis by confusing unit-level factors referring to domestic political and economic arrangements with factors at the level of the international system, it also leads some neorealist analysts to forego the opportunity to theorize at a systemic level about non-structural determinants of state behavior.

These non-structural systemic factors affecting state strategies can be placed into two general categories: 1) non-structural incentives for state behavior, and 2) the ability of states to communicate and cooperate. Non-structural incentives present opportunities and alter calculations of national interest by affecting expected ratios between benefit and costs or risks, without affecting the distribution of power among actors. For instance, increases in the destructiveness of weaponry may produce incentives for states not to engage in warfare, even if the distribution of military power resources between them is not altered by these technological advances. Or reductions in transportation costs may increase the benefits to be gained from trade and therefore encourage policies of greater economic openness, without altering either the relative bargaining power of the actors or the differences among them at the unit level.

The ability to communicate and cooperate can provide opportunities for the redefinition of interests and for the pursuit of strategies that would not be feasible in a world where the only information available to states was about other states' preferences and the power resources at their disposal. Just as allowing players of Prisoners' Dilemma to communicate with one another alters the nature of the game, so also institutions that increase the capability of states to communicate and to reach mutually beneficial agreements can add to the common grammar of statecraft and thus alter the results that ensue.⁴³ To return to our poker metaphor, the size of the piles of chips in front of each player matters, but so does whether they agree on the nature and the rules of the game.

42. Kenneth N. Waltz, "Response to My Critics," in Keohane, ed., *Neorealism and Its Critics*, pp. 322–46.

43. For discussions about the analogy between grammar and systemic processes that facilitate cooperation, we are indebted to Hayward Alker, Jr.

Liberals have traditionally emphasized these two aspects of systemic process—non-structural incentives and variations in the capacity to communicate and cooperate. For example, liberal theorists have stressed (with different degrees of sophistication) the ways in which gains from trade and economic incentives may alter states' behavior. Similarly, liberal theorists often stress the effects of increased transnational (and transgovernmental) contacts on attitudes and communication. And, of course, the role of institutions and norms has always been a pre-eminent part of liberal theory. All these themes were prominent in integration theory between the late 1950s and early 1970s. They are necessary components of a systemic conception of international relations, lest "system" should become equated with only one of its aspects, system structure—a mistake Waltz makes.

This is not to say that liberals have a monopoly of thinking about systemic processes. Technological changes, for instance, are central to realist thought even when they do not alter the distribution of power. Nor do we argue that all factors emphasized by liberal theory belong at the systemic level. But we do contend that adding the process level to the concept of structure in defining international systems enriches our ability to theorize. This emphasis on process as well as (rather than instead of) structure moves us towards a synthesis of, rather than a radical disjunction between, realism and liberalism. Neorealism is appropriate at the structural level of systemic theory; liberalism is most fruitful at the process level. We aspire to combine them into a system-level theory that incorporates process as well as structure.

This approach towards a synthesis of neorealist and liberal theories does raise a danger of tautological reasoning. If dependent variables are vaguely defined as "how nations behave" and the system-level process is how they behave, the tautology involved in "explaining" behavior by reference to process is evident. To guard against this, dependent variables must be defined carefully in terms of specific behavior. In addition, a clearly delineated typology of the causal elements involved at the process level—in terms of factors altering non-structural incentives and affecting the ability to communicate and cooperate—is also needed. Technological change, economic interdependence, and issue density are among the forces affecting non-structural incentives.⁴⁴ The characteristics of international rules, norms, and institutions—"international regimes"—are crucial in affecting ability to communicate and cooperate. Finally, the causal processes that connect forces affecting incentives and ability to cooperate and communicate, on the one hand, and behavior, on the other, have to be traced: we cannot be satisfied with correlation alone.⁴⁵

44. On issue density, defined as the number and importance of issues arising within a given policy space, see Robert O. Keohane, "The Demand for International Regimes," *International Organization* 36 (Spring 1982), reprinted in Krasner, ed., *International Regimes*. The reference is to p. 155 of the latter volume.

45. On this method of "process-tracing," see Alexander L. George and Timothy J.

Any system-level analysis will necessarily be incomplete. As we have emphasized in this article, to understand systemic processes such as those of complex interdependence, we need to know how domestic politics affects patterns of interdependence and regime formation. This entails a reciprocal comprehension of how economic interdependence and institutions such as international regimes affect domestic politics. Both structural theory and the broader process-oriented version of systemic theory that we sought to develop in *Power and Interdependence* are inadequate by themselves.

Consider, for instance, the ability of states to communicate and cooperate. Although this depends, in part, on whether they agree on rules governing their interactions, it is also affected by the goals that states pursue; these goals are, in turn, affected by domestic politics. The classic distinction between status quo and revolutionary goals is relevant to understanding the ability to cooperate.⁴⁶ When deciding whether a stable or turbulent pattern of behavior exists, we must look at the ways in which states' formulation of their goals affects the process of the system. Changes in goals may arise from the domestic processes of a single state—witness the effects of the French Revolution on the classical 18th-century balance of power. They may also arise from transnational processes that affect the domestic politics and foreign policy goals of a number of states simultaneously—witness the effects of the spread of democratization and nationalism on the 19th-century balance of power. To say that the 19th-century European system remained multipolar in its structure is true if structure is defined in a strict manner, but the inability of this concept to account for change illustrates the necessity of adding process to structure in the concept of system.⁴⁷ Moreover, a focus on the systemic process dimension of communication and cooperation enriches research programs by directing attention to interaction between system- and unit-level changes.

Such a concern with the ways that state goals affect systemic processes (and vice versa) lets us look anew at questions of perceptions and learning.

McKeown, "Case Studies and Theories of Organizational Decision Making," *Advances in Information Processing in Organizations* 2 (1985), pp. 21–58; or Alexander L. George, "Case Studies and Theory Development: The Method of Structured, Focused Comparison," pp. 43–68 in Paul Gordon Lauren, ed., *Diplomacy: New Approaches in History, Theory and Policy* (New York: Free Press, 1979).

46. There is actually a spectrum of goals between revolutionary and status quo. Moreover, these goals may be affected by the types of means available to states. See Barry Buzan, *People, States and Fear* (Chapel Hill: University of North Carolina Press, 1983).

47. The bipolar-multipolar distinction is emphasized by Kenneth N. Waltz, whose *Theory of International Politics* carefully and systematically develops the notion of political structure whose explanatory inadequacy we are criticizing in this article. For a recent discussion of the 19th century, see Paul W. Schroeder, "The 19th Century International System: Changes in the Structure," *World Politics* 39 (October 1986), pp. 1–26. Schroeder emphasizes the development of norms for the protection of small countries. What he calls "changes in structure" would not be considered structural changes by Waltz, and we would refer to them as changes in the process of the international system.

While these are not new issues, they have had an ambiguous theoretical status as notable exceptions to realist arguments. Adopting a richer conception of system, which involves both structure and process, brings perceptions and learning closer to the theoretical heart of the discipline and suggests the importance of sharpening our understanding of how political organizations “learn.”

4. Perceptions and learning⁴⁸

State choices reflect elites’ perceptions of interests, which may change in several ways. The most obvious is political change. An election, coup, or generational evolution can lead to the replacement of leaders with one set of beliefs by leaders with quite different perceptions of national interest. The change in “national interest” may not reflect new affective or cognitive views in the society at large. The leadership may change because of domestic issues or for other reasons unrelated to foreign policy. Interests may also be redefined through normative change. Practices or interests which are accepted in one period become downgraded or even illegitimate in a later period because of normative evolution. Changed views of slavery or colonialism are examples.

National interests may also change through learning. In its most basic sense, to learn is to alter one’s beliefs as a result of new information; to develop knowledge or skill by study or experience. This is a spare definition, which does not imply that the new beliefs lead to more effective policies, much less to morally superior ones. The advantage of this definition is that learning can be identified without having to analyze whether a given set of changes in beliefs led to “more effective” policies, whatever that would mean.

Yet this is not the only possible definition of “learning.” Indeed, learning is a slippery concept because it has many meanings. One source of confusion derives from the notion that “learning” implies improving the moral quality of one’s behavior. Yet in ordinary usage, people can “learn” to do evil as well as good: to devise blitzkrieg strategies, to build and deploy offensive nuclear weapons, to commit genocide. Social scientists who discuss learning need not identify it with morally improved action.

A more serious confusion arises because, in social science, a broad definition of learning coexists uneasily with the spare definition we have offered. In its broader usage, learning carries the connotation of an increased ability to cope effectively with one’s environment. It is marked by a shift from overly simple generalizations to “complex, integrated under-

48. We are indebted to William Jarosz and Lisa Martin for insightful comments that helped us to clarify the issues in this section.

standings grounded in realistic attention to detail.”⁴⁹ Ernst B. Haas, who has been the leader in advocating the importance of learning for theories of international relations, sees learning occurring internationally when states “become aware of their enmeshment in a situation of strategic interdependence.”⁵⁰ When learning occurs, “new knowledge is used to redefine the content of the national interest. Awareness of newly understood causes of unwanted effects usually results in the adoption of different, and more effective, means to attain one’s ends.”⁵¹

If we define learning to include more effective attainment of one’s ends, new difficulties for research arise. In a complex realm such as international politics, we may not be able to determine, even some time after the event, whether such learning took place. Misread “lessons of history” and inappropriate analogies have often caused leaders to fail to attain their goals.⁵² Did the lesson Harry S. Truman learned from the experience of Munich—that aggression had to be stopped regardless of where it took place—make him more or less able to make wise decisions when North Korea attacked the South in June 1950? Did the lessons American policymakers learned during the Korean War about the dangers of Chinese intervention make them more effective decision-makers when American military forces were sent to Vietnam in the mid-1960s? When critics of arms control in the 1970s learned that the Soviets would not simply imitate U.S. strategic force structures, did they become more or less able to protect American security and world peace during the Reagan administration? In each of these cases, beliefs were altered as a result of experience, and policymakers became increasingly aware of the networks of strategic interdependence in which they were enmeshed; but whether valuable knowledge or skill was acquired, enabling them to act more effectively, remains a matter of controversy.

In conducting research on learning in international relations, we must specify which definition of learning we are using. We believe that it clarifies thinking to begin with the spare definition—alteration of beliefs through new information—since learning, thus defined, can be identified relatively easily. As Haas suggests, one form of such learning is increasing awareness of strategic interdependence. Under what conditions such learning leads to more effective goal-attainment then becomes an empirical and theoretical question, as it should be, rather than a definitional one.

49. Lloyd Etheredge, *Can Governments Learn?* (New York: Pergamon Press), p. 143; also “Government Learning: An Overview,” in Samuel Long, ed., *Handbook of Political Behavior*, vol. 2 (New York: Plenum Press, 1981), pp. 73–161.

50. Ernst B. Haas, “Why We Still Need the United Nations: The Collective Management of International Conflict, 1945–1984,” Policy Paper in International Affairs No. 26 (Berkeley: Institute of International Studies, 1986), p. 68.

51. Ernst B. Haas, “Why Collaborate? Issue-Linkage and International Regimes,” *World Politics* 32 (April 1980), p. 390. See also John D. Steinbruner, *The Cybernetic Theory of Decision* (Princeton, N.J.: Princeton University Press, 1974), and Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton University Press, 1976).

52. Richard Neustadt and Ernest May, *Thinking in Time* (New York: Free Press, 1986).

When we analyze governmental learning, we have to consider complexities of organizational, political, and psychological processes. Policy-relevant learning is an organizational as well as a psychological phenomenon. Shifts in social structure and political power determine whose learning matters. Furthermore, organizations must have an institutional memory and socialization procedures if lessons learned by one cohort are to be assimilated by another. A critical question for research is how different sets of elites perceive and redefine the constraints and opportunities of the international system and the appropriate goals and means of states. Why did Otto von Bismarck, Kaiser Wilhelm, and Adolf Hitler define such different interests and opportunities for Germany? Why did Presidents Wilson and Coolidge define American interests in Europe so differently—and why was Franklin D. Roosevelt's view on this issue so different in 1940, or even 1936, than it was in 1933? To what extent are interests redefined because of systemic or domestic changes? How much are interests redefined because leaders and the coalitions supporting them change, or because the views of people who remain in power change? And if the latter, to what extent do the transnational contacts and coalitions stressed in liberal theories contribute to the learning that we observe?

A key question for future research concerns the impact of international political processes on learning. Some learning is incremental and continuous. Incremental learning occurs when bureaucracies or elites learn that certain approaches work better than others. International regimes probably play a significant role in incremental learning because in such settings they can: 1) change standard operating procedures for national bureaucracies; 2) present new coalition opportunities for subnational actors and improved access for third parties; 3) change the attitudes of participants through contacts within institutions; 4) provide information about compliance with rules, which facilitates learning about others' behavior; and 5) help to de-link one issue from others, thus facilitating learning with specialized groups of negotiators. Some learning, by contrast, results from large discontinuous events or crises such as Munich, the Great Depression, or the invasion of Afghanistan. Even crisis-induced learning may be facilitated by institutions; these institutions may include international regimes, domestic political parties, or bureaucracies. Contact facilitated by international regimes—among governments, and between governments and international secretariats—may help spread a common interpretation of large events. Whether learning is incremental or discontinuous, therefore, regimes may play a role by creating, altering, or reinforcing institutional memories. The principles and norms of regimes may be internalized by important groups and thus become part of the belief systems that filter information; and regimes themselves provide information that alters the way key participants in the state see cause and effect relationships.

Cooperation can occur without regimes or even overt negotiation. Axel-

rod has shown that it can evolve as actors define their self-interests (and choose new strategies) in response to others' strategies of reciprocity. Furthermore, there is no assurance that rules and institutions will promote learning, or that if they do promote learning in one part of a relationship, the learning will spill over beneficially into other areas. But looking at international politics in terms of regimes does suggest fruitful avenues for exploration and important questions that are not always captured by the usual approaches. Why has learning been faster in some areas and slower in others? When has learning led to the development of institutions, such as international regimes, and when has it not? What difference do such institutions make? To what extent are domestic factors facilitating or impeding learning affected by international regimes? Can societies take advantage of crises to create new regimes at crucial moments, thus institutionalizing learning?⁵³ We do not know the answers to these questions—but the answers matter.

Conclusion

The research program suggested by *Power and Interdependence* has been, in our view, a fruitful one. Although we, as well as others, have occasionally been guilty of exaggeration, stereotyping of opposing views, and vagueness about some of our own theories or evidence, the research program that we helped to develop has stimulated useful further research. It is now conventional to analyze interdependence as a political, as well as an economic, phenomenon, and to examine patterns of interdependence by issue-area. The conceptions of bargaining and linkage used by political scientists have become more sophisticated and more sensitive to contextual variations and the limited fungibility of power resources. The concept of international regimes has fostered research on the evolution of rules and institutions in world politics and, to some extent, on the impact of such rules and institutions on state behavior.

Yet there have been failures as well as successes in this research program. It seems difficult to understand changes in regimes, and in state policies, without having a theory of learning; yet the very concept of learning remains ambiguous, and no one has developed a coherent theory of learning in international politics. Furthermore, less has been done with the liberal than the realist half of our attempted synthesis. We have only partially incorporated the liberal emphasis on institutions, interdependence, and regularized transnational contacts into a sophisticated, systematic analysis of process and

53. For an argument that this should be a goal of farsighted policymakers, see Robert O. Keohane and Joseph S. Nye, Jr., "Two Cheers for Multilateralism," *Foreign Policy* 61 (Fall 1985).

structure in world politics. The concept of complex interdependence has been bypassed or misinterpreted; in particular, we have paid too little attention to how a combination of domestic and international processes shape preferences. The need for more attention to domestic politics, and its links to international politics, leads us to believe that research at the systemic level alone may have reached a point of diminishing returns.

We need to concentrate now on the interplay between the constraints and opportunities of the international system, including both its structure and its process, and the perceptions of interests held by influential actors within states. We need to examine how conceptions of self-interest change, as a result of evolving international institutions, individual or group learning, or domestic political change. This effort will require dynamic analysis, buttressed by detailed empirical research; and it will entail the further blurring of boundaries between the fields of international relations and comparative politics. For those willing to take up the challenge, the next decade could be an exciting time for scholarship.