

11. Analytical and Behavioral Perspectives

Causes of War and Strategies for Peace

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The behavioral approach to the study of international relations is an important method of contemporary analysis with a strong tradition that has influenced many contemporary modes of inquiry. At the time of its inception, in the 1950s, this approach was considered revolutionary in method and orientation. Indeed, the "behavioral revolution" became the label most frequently given to that approach.¹

This chapter summarizes some contributions of the behavioral approach to the study of war and peace, some drawbacks, and some more recent approaches that owe their origins to the behavioral perspectives. To a large extent, the term "behavioral" is largely passé. The dominant lines of inquiry have gone beyond the initial and, in retrospect, somewhat simplistic behavioral perspectives.

This chapter has four sections. The first focuses on the origins and characteristics of behavioral inquiry and summarizes important contrasts with other dominant perspectives. The second section presents an integrative theory of the major causes of war among nations, as a way of illustrating insights from behavioral analysis. The third section addresses the issue of peace and, on the basis of observations in the first and second sections, presents three alternative strategies or models of peacemaking. All three owe their origins to the behavioral revolution, and together they provide an outline of the contributions of behavioral inquiries to strategies for peace. The preferred strategy is highlighted accordingly, but in the interest of fairness, equal time and opportunity are given to the intellectual preferences of other scholars. The final section of this chapter places behavioral approaches in the context of contemporary modes of analytical inquiry.

The Origins and Characteristics of the Behavioral Revolution

The "behavioral revolution"—its origins and its consequences—has been widely studied.² To simplify what can appear to be an otherwise arcane debate, it is useful to contrast the behavioral approach with the other

important approaches to the study of international relations. Following a recent survey of international analysis,³ we attempt to place the behavioral views in perspective, beginning with a discussion of the context and then outlining the characteristics of the behavioral approach.

The Context

The conventional approach to the study of international relations in the United States is the "traditional" approach, which represents the evolution of the field in major universities during the period between the two world wars and its consolidation with the emergence of the Cold War, and the succeeding decades. The conventional approach appears in two guises—political realism and political idealism. The dominant one, political realism, represents a hard-nosed reaction to the idealism of Woodrow Wilson and the legal and institutional emphasis in world politics between the wars. The second perspective, political idealism, differs on assumptions, views of politics, and policy implications, but the Wilsonian ideals remain at the core of this traditional form of inquiry. The failure of the League of Nations and the outbreak of war in 1939 (for the United States, in 1941) were unmistakable signals of the failure of idealism. The scholarship of E. H. Carr and Hans Morgenthau represents the most distinctive of the traditional approaches.⁴

Another major form of inquiry—the Marxist approaches—was European in origin. The Marxist approaches were (and continue to be) profoundly antitraditional, debating not only the essence of political power but its sources and consequences for international relations.⁵ The logic of inquiry was dialectical. (In recent decades, a form of "non-Marxist" dialectics appeared in the United States, but this is getting ahead of our review.)

The behavioral sciences emerged as a challenge to both traditional and Marxist approaches. Some aspects of the behavioral sciences took root and developed as a corollary to research associated with the war effort. Within a clear appreciation for the limits of idealism, the behavioral revolution stemmed from a recognition that the tough-minded, power-emphasis realist approach rested on a soft intellectual foundation. The core concepts were poorly defined, scholarship was a form of storytelling, and elegant insights were obscured by ambiguous methodology.

The development of the behavioral sciences in the early 1950s, and the expansion of them in the 1960s, was an intellectual and scholarly innovation that was not aimed at, or driven by, an interest in international relations per se.⁶ The root of the behavioral sciences was far removed from the world of nations. It was through the interest of political scientists in world policies that the new tools, methods, and orientations of the behavioral sciences were brought to bear on international realities.⁷ With the benefit of hindsight and scholarly careers devoted to sustained methodological inquiries, the naïveté of earlier applications looks rather touching. But the

intellectual base was sound, by methodological criteria, and the war effort clearly paid off.

The Characteristics

Behavioral approaches to war and peace are grounded in the behavioral sciences: anthropology, psychology, behavioral aspects of biology, economics, geography, law, psychiatry, and political science.⁸ Without these sciences, which address the study of human behavior through the use of scientific methods of inquiry, there would have been no basis for behavioral approaches to world politics.

The development of behavioral approaches is due in part to Ford Foundation support in the late 1950s for research toward understanding peace and democratic institutions. The essence was, and continues to be, interdisciplinary orientation, irrespective of the particular subject matter. For analysis of international relations, this orientation meant bringing methods, theories, and insights from the social sciences to bear on aspects of relations among nations. For example, analysts used theories of psychology⁹ to develop and test hypotheses about perceptions and actions of leaders in international crises. The near-classic studies are those of the pattern of decision making leading to World War I,¹⁰ of Kennedy during the Cuban missile crisis,¹¹ and of the leaders' perceptions in the Arab-Israeli conflict.¹² Analysts who argued that leaders must be placed in the context of the entire system within which they operate used insights and methods from sociology and organization theory, differentiating between "role" and "personality" to determine how each leader's position shapes and constrains behavior and policy choices. The study of decision making during the Korean War illustrates this combined approach¹³ and the extensive explanations offered by various social sciences.

The behavioral perspective of the late 1950s and early 1960s based its orientation on several assumptions—even strong suppositions—including the regularities in human behavior, the linkages across levels of analysis, the possibilities of systematic analysis, and the possibility of significantly reducing the role of random factors in explaining relations among nations.¹⁴

Each of these assumptions has important implications for how world politics and international events are analyzed. The "regularities" assumption means that forms of interaction can be identified through systematic inquiry and that particular kinds of states are likely to "behave" in some ways and not in others. Implicit is the notion of prediction, based on patterns of activity of states.

The "levels of analysis" assumption¹⁵ placed heavy emphasis on differentiating among subnational, national, and international types of organizations and activities, identifying the characteristics of each and the connections among them. According to this assumption, countries were not

"black boxes," and domestic factors could systematically influence international activities.¹⁶

The "systematic analysis" assumption provided a broader framework for incorporating regularities of behavior and levels of analysis. The effects of behavior are systematic, not erratic, random, or chaotic. This is an especially strong assumption since it was applied to all factors of inquiry and all elements in analysis of international relations—leaders, states, and international organizations. As a corollary, the "reduced randomness" assumption meant that the role of the erratic could be constrained, reduced, and perhaps even explained.¹⁷

The overarching characteristics of the behavioral sciences applied to international relations were methodological. The guiding concepts included analytical rigor, quantification, metricization, and modeling (to gain "predictive" power).¹⁸ Theory binding and theory testing were the goals; the methods were to facilitate the goals.

Behavioral approaches sought to make order of seemingly chaotic factors; place "facts" in a broader context; build "models" of these contexts; and simulate, forecast, even "predict" outcomes. The vision was bold: it viewed politics as a form of social interaction; it treated perceptions and cognition as real and worthy of political analysis; and it argued that by understanding how the pieces fit together, one could identify the causes of war and delineate the conditions for peace.

Within the behavioral scientific tradition, the contention and differences appeared mainly methodological. The merits of different levels of analysis for inquiry were debated (state-centric, interstate, transnational, international, and so on). They involved different types of inferences (deduction, induction, and statistical analysis, among others), and they reflected different ways of defining the problem and proceeding with the analysis (whether causal modeling, world system modeling, gaming, decision-making analysis, or simulation). The debates were sharp¹⁹ and the passions strong.²⁰ But the underlying commitment to the basic assumptions noted earlier was unshakable. Traditionalists (mainly realists) mounted powerful campaigns of criticism and contention,²¹ and the battle lines eventually blurred as the antagonists on both sides of the divide adopted methods of analysis that were increasingly similar in style and substance.

In retrospect, it now seems clear that the behavioral perspective rejected the conventional distinction between "high politics" (referring to factors related to power, leaders, states, diplomacy, and war) and "low politics" (reflecting more aggregate of routine factors like economics, demography, and factors not conventionally thought of as political). By adopting a definition of "politics" as "who gets what, when, how,"²² the behavioral approach effectively broadened the discourse of what was considered earlier as being important and worthy of political inquiry; and, by extension, power meant the ability to influence and determine who gets what, when, and how.

In this context, one of the major insights of the behavioral approaches clarifies the essence of the concept of power, so central to the traditional approaches. Differentiating between power as an attribute versus power as a relationship²³ paved the way for developing measurements of each and resolving what had earlier been considered a hopelessly ambiguous concept.²⁴

This example points to the fact that the behavioral approaches to international relations, to questions of war and peace, focus on the same concerns of the traditionalists—the same issues, the same central themes, and the same worries. The methods were different; the way of defining the problem was different, as were the ways of marshaling evidence and mounting a persuasive case. Behavioral analysts viewed the tenets of scientific inquiry as most important. Traditional analysts viewed the modes of verbal, logical, or other forms of persuasion as most important. This difference accounts, in large part, for the near-polemical exchanges between behavioral and traditional scholars throughout the 1960s.²⁵

The emphasis on methodological competence and scientific inquiry contributed to the charge that behavioral approaches could not address “important” problems, but only those that were quantifiable. This unfortunate development obscured the fact that methodological rigor was not necessarily contingent on quantification; it was contingent on congruence or consistency among the basic question, the theoretical directive, the hypothesis to be explored, the evidence to be marshaled, and the conclusions to be drawn. All behavioral approaches required (and shared) this basic sequence of inquiry. Quantification was usually important, but not always necessary.²⁶

This critique of behavioral analysis was augmented by a “crisis of conscience” in the academic community with the worsening of the Vietnam War. Conscience dictated an appreciation for feelings, moral stances, and a concern for truth and justice in relations among nations. This reaction was, to a large extent, misplaced, for it implied that the tenets of scientific inquiry were somehow opposed to feelings, moral rectitude, or truth and justice. Behavioral scientists recognized that any methodological stance implied a value judgment and that “value-free” science was more a figment of misguided imagination than a reflection of reality. They agreed that the underlying guideline was to develop “value-explicit” inquiry.

A significant development toward the end of the 1970s in the study of international relations involved a convergence of realistic thought and behavioral orientations and led to a form of neorealism.²⁷ In this context, emphasis on “two-track” international relations led to the new focus of inquiry, labeled “transnationalism,” and to a view of the world as composed of intrinsically interdependent parts.²⁸ The concept of interdependence became central to the analysis of relations among nations and to the

“normal” view of world politics.²⁹ The oil crisis of 1973 had precipitated an appreciation of interdependence, and the scholarly community responded by developing the intellectual and analytical foundations of this very apparent international reality.³⁰

By the end of the 1970s, behavioral analysis had become mainstream; it no longer elicited passionate attacks or heated defense. Attacks on the neorealists, in various forms and guises, now reflected the earlier traditionalist responses to the behavioral revolution. These critics also included neoidealists emerging from their earlier antirealist positions.

Throughout these years, the behavioral approaches generated a variety of insights and “findings” about the causes of war and the conditions for peace. Several distinguished edited volumes reflect this intellectual growth.³¹ In addition, major research projects resulting from a decade of work provided evidence of the utility of many distinctive lines of research.³²

The behavioral revolution had become quite established, and interdisciplinary scientific inquiry was now regarded as normal scholarly practice for examining evidence about causes of war and conditions for peace. The essential legacy of an intellectual tradition born some thirty years ago remains in force today: a respect for systematic and analytical modes of inquiry. The increasing use of systematic, even quantitative, methodological techniques by scholars in the field reflects the debt to the behavioral sciences and, at the same time, the extent of influence. Quantitative methods became respectable, worthy of use by the most realistic or idealistic of the traditionalists.³³

The next section of this chapter identifies some specific contributions of behavioral analysis to international relations. These contributions are placed in the context of the theory of “lateral pressure,” a theory of international conflict that evolved as a systemic explanation of causes of war and owes its origins and development to behavioral and interdisciplinary inquiry. The distinctive features of this theory of conflict are its basic assumption, the way the pieces are put together, and the types of prediction possible about prospects for war.³⁴

Finally, the theory of lateral pressure provides the basis for differentiating among broad strategies for peace, the subject of the third section of this chapter. This theory reflects in part the intellectual history of the past decades by drawing upon the notion of regularities in behavior of states, combined with insights derived from systematic and quantitative inquiry. The theory identifies the two central obstacles to conflict resolution in international relations: the security dilemma and the obstacles to peace.³⁵ Resolving the dilemma and reducing the obstacles are essential conditions for a more “peaceful” international environment.

The Causes of Conflict Among Nations³⁶

That there is rarely a single "cause" of war is seldom disputed. Traditionalists as well as behavioralists argue that the causes, and the antecedent conditions, are complex. The difference between the two approaches, however, rests on the extent to which causes can be identified systematically and a logic of war rendered accordingly. The behavioral sciences have contributed to determining the ways in which specific factors interact to generate hostilities that eventually lead to war. And behavioral analysts have a wide range of views about salient factors and the sequence of causation.³⁷ There is general agreement, as noted earlier, that war is not a random process, and that chance does not play a large role, compared with underlying systematic conditions and precursors.

Profiles of National Capabilities

We begin here with elements of "high politics," characterizing states in the international system conventionally in terms of "power." But the three essential features of states are population, resource base, and technological capabilities. The population variable includes all demographic features; technology encompasses both mechanical and organizational knowledge and skills; and resources refer to arable land, water supplies, minerals, metals, fibers, fuels, and other raw materials. National capabilities are based on these factors; government policies and actions are responsive to, and influence, these three "master variables." All other characteristic features of states are derived from these core variables.³⁸

Although states are believed to "act" and "interact" in world politics, individuals in their local and institutional environments actually shape state priorities and influence state actions. These two conditions frame the behavioral orientation to international relations, linking individual factors to aggregate national attributes. Acknowledging the role of individuals stresses cognitive elements and their knowledge and the central role of their numbers. (By numbers we mean the size of the population along with various attributes, the level and characteristics of technology, and the types and volume of resources.) Clearly, national power³⁹ cannot be reduced entirely to these factors; however, population, resources, and technology shape the base of national power and define what a state can or cannot do at any point in time.⁴⁰

To illustrate the salience of the population-resource-technology relationships as the core of national capability, imagine

- A China with the technology of the United States,
- A United States with the resources of Saudi Arabia,
- A Saudi Arabia with the technology of Israel,
- An Israel with the technology of Chad, and

- A Chad with the resources of Saudi Arabia.

The contingencies are simplistic, to be sure. The point is that countries are able to act the way they do—perhaps are even driven—by the characteristics of their national profile and by the disposition of their core variables. And governments, through instruments of public policy and modes of political bargaining, can and do influence their population features, resources, and technological capabilities.⁴¹ The basic reality—an assumption as well as a fact—is that core elements of power are not static; they are always changing, contributing to the continual changes in relations among nations.⁴²

Comparing profiles of states is a useful way of assessing the relative size and capabilities of states at any point in time.⁴³ The profiles sketched here suggest that actions of states can be inferred from their basic national attributes. These profiles are presented here as "ideals" or archetypes; they should not be taken too literally. Profiles, moreover, are high-speed snapshots of relationships at one cross section of time, whereas each of the major dimensions—population, technology, territorial size—is subject to almost continual change (each at its own rate). Time-series analyses of the changing profiles and behaviors of states of different profiles provide a useful mapping of the global system and a basis for estimating future growth, development, and conflict trends.⁴⁴

Four profiles (or ideal types) are identifiable among the major powers, the large industrial states. Identifying a country as belonging in one or another of these profile categories will reveal some of the major constraints shaping its behavior.

First are the most powerful countries with high levels and commensurate rates of growth or development in population, technology, and resources. These "large" and advancing countries—in which technological advancement maintains a substantial lead over population growth—are typically expanding states, the most powerful and influential in the international system. Pursuing economic, political, and strategic hegemony, such countries extend their trade, diplomatic activities, and, increasingly, strategic actions beyond their national boundaries. During the colonial periods, the British, French, and other Western European empires expanded their activities and interests over much of the globe. Britain and France were increasingly challenged by a newly united Germany and, in terms of population growth, technological advancements, and demonstrated capacities for expansion, by the United States and Japan.⁴⁵ Historically powerful states have been challenged by new countries.⁴⁶

Among the challengers—the second profile—are states with growing populations, advancing technology, and inadequate resources. When population is large (relative to territory) and technology is advancing commensurately but access to resources is perceived as significantly impeded, the foreign policy priorities are often shaped by the desire to expand

resource access. Constraints exist because the domestic resource base appears to be limited or inadequately endowed, trade capacities seem inadequate to provide resources, and efforts to expand trade or the resource base (by exploration, conquest, purchase, or other means) remain inadequate. Such states feel economically insecure and under continuous pressure to expand their trade or, if that recourse is impeded or otherwise insufficient, to expand their territory by one means or another. Germany and Japan approximated this type of profile prior to and during early stages of their imperial expansion.

A third state profile is characterized by dense population, advancing technology, and constrained resources. Such states are distinctive in that, although their domestic resource base remains severely limited, their level of technology is developing rapidly. Since World War II, Japan has achieved such a profile by moderating its population growth, further developing its industrial technology, and expanding its imports, exports, and investments worldwide.

Finally, among the more "fortunate" states in the international system are those with low population density, advancing technology, and secure access to resources.⁴⁷ In such cases, populations remain low relative to advancing technology, and access to resources is consistent with the demand for resources. Such states may have developed these characteristics because of limited population growth combined with a resource-rich territorial base, an effective trade network, or a technology that has been used in considerable part for production and exports (as opposed to consumption and imports). Thus, new resources are generated. These countries rank at or near the top in quality-of-life indicators and tend to avoid war unless invaded. Modern Norway and Sweden approximate this profile, although historically both countries were major expanding powers.

On the other hand, the conventional "poor" profile of a newly developing state (such as Bangladesh, Honduras, and El Salvador) is one with dense and growing population, relatively poor technology, and limited access to resources either because the territorial base is limited or poorly endowed or because existing resources cannot be extracted (or even located, perhaps) with available knowledge and skills.

State profiles change dramatically when the population density is low. States with sparse population, primitive technology, and limited resources access have different development problems. In addition to the relative underdevelopment of knowledge and skills and their poor access to resources, sparsely populated societies of this sort—for example, Chad, Niger, and Gabon—possess an extremely limited labor pool and lack a critical mass of professional specialists to facilitate effective development. Possibilities for the expansion of activities and interests are severely constrained relative to other states, and starvation and disease are often endemic.

The modern international system has given rise to yet another distinctive type of state: the still developing and still industrializing one. This is the profile of states with sparse population, recently imported technology, and a rich resource base. Kuwait, Saudi Arabia, Libya, and the United Arab Emirates are examples. Such states differ from the Chads, Nigers, and Gabons in two critical respects: resources are abundant, and advanced technology and population have been imported from abroad. As a consequence, valuable and hitherto unavailable resources (such as oil), now accessible in large quantities, expand the gross national product to extremely high levels. These states are distinctive because resource abundance enabled large-scale importation of technology, therefore effectively changing their overall profile.⁴⁸

The point of these brief sketches is to depict the types of interactions among populations, technology, and resources, and to show that such profiles provide a systematic way of characterizing states. The next step is predictive: different states are likely to (and will) behave and act internationally in some ways and not in others.

The same pattern of state profiles can be formulated within the context of economic "growth models," predicated on land, labor, and capital.⁴⁹ The critical difference is that economic growth models specify technology as an exogenous factor and infer the rate of growth (rather than measuring it directly); resources are implicitly derived from "land" and "capital," and only "labor" as a population variable is explicitly incorporated. Thus, while it is possible to specify national profiles in the functional forms of growth models, explicit information concerning the basis for national power and profiled differences will be rendered implicit, or lost.

The national profiles shown here illustrate two important propositions in the analysis of international relations. First, the types and patterns of international activities are systematically related to profiles of states: different profiles result in, or lead to, different forms of international actions, with different propensities for conflict and violence. Second, national profiles are not fixed: winning or losing in an international exchange can result in changes in profiles, and, as indicated, governments can and generally do influence any of the three master variables. For example, population can change through immigration policy; technology can be augmented through imitation, education, and innovation; and resources can be expanded through access to imports or exports. Much of what is done in the domain of public policy almost routinely affects population, technology, or resources. It is the interactive effects among the three master variables that matter, not the idiosyncratic or singular changes.

This characterization of states in the international system is based on an interdisciplinary orientation toward power, behavior, and capability. Demographic, technological, and resource factors—central to this view of states—provide strong clues as to how states are likely to behave and to the

distribution of power in the international system. These clues are reflected (or presented) in the theory of lateral pressure.

The Theory of Lateral Pressure

Lateral pressure is defined as the extension of a country's behavior and interests outside its designated territorial boundaries. In some circumstances, lateral pressure results in the extension of the territorial boundaries themselves.⁵⁰ The theory of lateral pressure is an explanation of the determinants and consequences of external behavior and accounts for immediate as well as less proximate sources and outcomes. The theory relates the profile of states to types of external activities and the propensities that lead nations to war.⁵¹

The theory maintains that the behavior of nations is shaped by interactive effects of demand and capability, both of which are required for effective action. Demand and capability are conditioned, in turn, by population, technology, and access to resources—the master variables whose interactions define the essential characteristics, or basic profile, of each state in the international system. Within this framework, the only deciding and acting units are individual human beings.⁵² The state and the international systems consist of individuals acting within formalized relationships identified as coalitions, organizations, and institutions.

The basic premise of this theory is that states with superior capabilities and power tend to use more resources, have a wider range of interests, and expand their activities further (and with greater impact) than weaker actors. If resources in demand are not domestically available or can be acquired cheaper from abroad, states either develop new technologies to obtain old resources at lower costs (or to find new and cheaper substitutions for old resources) or reach out for (and, if feasible, protect their access to) resources from abroad, through trade, investments, acquisitions, territorial expansion, or other means.⁵³

The political assumptions embedded in the lateral pressure theory derive from bargaining and coalition formation: to strengthen the probability that their demands will be met, states increase their capabilities by using available capabilities or by persuading others, through bargaining, to assist or cooperate with them. This bargaining introduces volition and voluntarism and reduces an otherwise deterministic view of state action (that is, shaped uniquely by master variables).

Theories of bargaining and coalitions are among the most important contributions of behavioral analysis, and interaction—give and take—is formally specified: to enable deductive reasoning or inductive analysis. Within some fairly restrictive outcomes or assumptions, results of bargaining—and efforts to induce compliance—can be clarified (even predicted) systematically.

Lateral pressure refers to the expansion beyond national borders of both private and governmental activities and interests. Some are motivated by the search for resources. Other manifestations of external behavior are exploration; territorial acquisition; establishment of overseas colonies; search for markets, investment, and cheap labor; extension of religious, educational, and scientific activities; economic and military assistance to other countries; dispatch and maintenance of troops and bases overseas; exploitation of the continental shelf; and exploration of the ocean depths or space.⁵⁴

The large-scale movement of people across national borders is a particularly daunting case of lateral pressure. "Push" and "pull" explanations of international migrations exist.⁵⁵ Recent history has shown what happens when the process comes full circle: "push" out of the home community, to "pull" of the recipient region, to a subsequent "push back" from the recipient community to the home country, as in Western Europe or the Persian Gulf. In this process, profiles of states at both ends of the migration stream are affected by the movement of people.

For conceptual articulation, empirical analysis, and modeling, we have distinguished among *sources* of lateral pressure (demand and capabilities), *disposition* or tendency, *manifestation* of actual behavior, and *impacts* of activities on external actors or environments.⁵⁶

Intersections of Spheres of Influence

A significant factor leading to escalation of hostilities among nations lies in the reality that the expanding activities and interests of powerful states have generally intersected, or "collided," with the activities and interests of other states of different sizes, capabilities, and power. Intersections of spheres of influence per se seldom trigger a violent conflict. Sometimes they do no more than bring two or more countries into closer relations with each other.⁵⁷ But intersections turn violent when relations between the states involved are already hostile or at least one of them (rightly or wrongly) perceives the in situ bargaining and leveraging activities of the other as dangerously competitive or overtly violent.

Territorial conflicts are among the most obvious forms of intersections, even if they are couched in ideological terms. The Vietnam War can be regarded as a notable intersection among major powers, although the direct antagonists were "clients" of the great powers. The Cuban missile crisis was also an intersection. President Kennedy's diplomacy was designed to push Soviet influence out of the U.S. domain in Latin America.

A new mainline behavioral analysis has recently been developed to systematically examine types and forms of territorial conflicts.⁵⁸ These conflicts can be powerful antecedents to war if they are accompanied by, and give rise to (or exacerbate), prevailing patterns of competition among nations. But the more immediate, or proximate, stimuli for crisis and war

often emerge from subjectively generated perceptions, affects (fears, distrust, hostility, and so on), and human decisions (conditioned by and in response to situations shaped by processes of growth and competition).

The Conflict Spiral and the Paths to War

The "conflict spiral" refers to the processes that lead nations into warfare. It is labeled a "spiral" because levels of antagonizing increase and propensities of violence are enhanced accordingly; perceptions and cognitions become laden with hostility; and the actions of adversaries are interpreted in increasingly antagonistic terms.⁵⁹ The national profiles can be thought of as nations positioned at the "starting line," the initial stages of interactions, and the subsequent pattern of state interactions and activities as shaping the process that may lead to violence.⁶⁰

The behavioral tradition has generated important findings about the nature of the conflict spiral and the factors that increase, rather than decrease, prospects for violent confrontation.⁶¹ Some of these findings have become propositions, "near truths," about how and why nations go to war and what, if anything, can be done about it.

The arms race is a major feature of this process, although the evidence remains inconclusive as to whether an arms race is a precursor to war or a surrogate for it. Nonetheless, the fact remains that military competition is a near-universal prerequisite for violent conflict.

The evidence also points to two reinforcing factors that push arms races upward. One factor is a reaction process, whereby antagonists increase their own allocations in response to the arms investments of their adversaries.⁶² The other is an internal process, whereby bureaucratic and budgetary forces interact to push for greater investments in the military. Internal forces do not necessarily respond to external forces (actions of others): they are endogenous, reacting primarily and sometimes only to internal pressures, budgetary imperatives, and domestic politics. Either of these two sources of arms competition is dangerous in its own right; the interaction of both is particularly destabilizing.

Well-developed models of arms races constitute the most important legacy of the behavioral approach, as well as the subsequent revisions and the intellectual traditions these have created.⁶³ This work has helped clarify which factors are responsible for an increased level of arms, and in what proportions and contexts—be they perception of hostility, actual military allocation, internal forces, memories of past hostilities, or other factors.⁶⁴ Although the model of armament competition is generic in form, the parameters are idiosyncratic, derived from analysis of unique circumstances and particular simulations of how nations respond to the actions of their adversaries.

From Escalation to Crisis and War

Action-reaction phenomena, such as arms races, can be viewed as escalations of negative leverages that are designed to induce compliance and are applied by two or more adversaries, wherein each side's expectations change as interactions develop; each side's expectations and intents are not fully known to the other; and cognitive and psychological processes "filter" actions and intents.⁶⁵ The arms race is a special type of escalation process in which an increase in country A's military capabilities, whether undertaken as a form of deterrence or as a routine defense measure, is viewed by the leadership of rival country B as a threat to its security. The behavioral tradition has created a body of evidence on the nature of arms races and hypotheses about points of intervention—what can be done to produce "de-escalation" and under what conditions such interventions are likely to fail.⁶⁶

However the phenomenon of international crisis is defined, it almost always meets the criteria for an escalatory or action-reaction process.⁶⁷ Thus, in an international crisis, escalatory interactions come about in part because the leaders of one country, perceiving an action of another as aggressive or threatening, undertake counteraction in one form or other. This counteraction is then perceived as a threat by the other state, and it responds accordingly. If the response is perceived by the other as threatening, then each nation is likely to undertake further hostile action to deter the other and thus maintain security. Under the pressure of intense interchange, each response is likely to be automatic, legitimized by the view that "we have no alternative."

For every crisis that escalates into war, however, there are many others that cool down, or de-escalate.⁶⁸ Similarly, once initiated, a war will continue until at least one side decides that the risks and costs of further hostilities outweigh the gains. Except in the case of annihilation or surrender, war termination is, by definition, a function of this decision.

The following propositions emerge from this theoretical view of causes of war:

- There are several points in the process of lateral pressure at which effective policy interventions can influence outcomes, that is, when taking some action may produce the right result, one that could be more conducive to peace.
- Seldom are nations immune to the actions of others. The actions of one state, or the claims it makes on the international environment, affect others or the claims others make.
- States in the international system cannot fully accommodate all their objectives all the time without encountering resistance from other states. This condition necessitates institutional developments, regimes, and formalization of coordinated actions.⁶⁹

The Security Dilemma as an Obstacle to Peace

The idea of "security" is at the core of all approaches to the study of international relations and is central to the realities of the international environment.⁷⁰ In strategic terms, the security dilemma is defined as "activities undertaken by one state to enhance its security [that] may itself be perceived as a dangerous threat to the national security of some other state."⁷¹ The more general version of the security dilemma lies in the reality that normal behavior in the pursuit of legitimate ends can be viewed as hostile and lead to defensive, reactive actions by others.

The dynamics of interactions among nations lie at the core of the security dilemma. These interactions are obscured by any static view of the international system or relations among states. The national profiles sketched earlier in a comparative static framework represent a cross-sectional view at one point in time; however, interaction among nations—as nations grow and expand—influences the development of the security dilemma among nations. The dynamic perspective—the transformation of the comparative static over time—addresses the phenomena that are least well articulated in contending international relations theories: namely, change within a nation, change in relations among nations, change in the international system, and the effects of all three on national security (the fact itself and the security dilemma).

The dominant, or conventional, view of national security stresses the military threats to security and the military or defense elements in managing the threats.⁷² The revisionist view argues that security of nations can be eroded by factors not generally military and that the threats to security need not be exclusively military in nature.⁷³

The theory of lateral pressure highlights the essential commonality between the two views, arguing that security of states is, at a minimum, a triangular problem, or a three-dimensional concern: the military or strategic dimension, namely, the security of borders; the political dimension, namely, the security of the regime and mode of governance, including economic security; and the structural dimension, namely, the security of the society with respect to its population-resource balance, given its technological capabilities. Erosion or threats to security can come from outside or inside.⁷⁴ The theory of lateral pressure seeks to articulate the links among all three dimensions of national security and the implications for the specific security problems associated with different state profiles and modes of interaction.

Strategic security refers to the conventional and military view of security, the ability to defend and, if necessary, to assume an offensive posture. Regime security is the ability of government to govern and of regimes to elicit support, including meeting the imperatives of economics for the society. Structural security refers to the ability of society in a given environment to sustain viable population-resources-technology balances. In those

terms, a state like Bangladesh is very insecure; it threatens to "crumble" from within, and the pressures of population on a scarce resource base are extensive.

The contribution of lateral pressure theory lies in the recognition that the roots of the dilemma are fundamentally generic. They are embedded in the characteristic features of states, in the master variables. These variables define the parameters of permissible behavior—what a state can or cannot do at any point in time.

The security dilemma is an obstacle to peace because of the inadvertent consequences of behavior: a defensive action can look offensive, and an act designed to reduce tensions can be viewed as hostile by others. The important factors are cognitive and perceptual rather than factual or empirical. The intervening lenses of interpretation, assessment, and evaluation often change the entire calculus of security and the moves toward peace.

Thus, since national security means protection of borders (strategic), stability of governance and regime (political and economic), and integrity of society (structural), ultimate national security means that a state's claims are honored and recognized by others. Effective strategies for peace must therefore address how the security dilemma frames prospects for peace in conflict situations, which is discussed in the next section.

Strategies for Peace

Changing the course of interactions from a conflict path to a peace path requires two simultaneous interventions: not making the security of a state threatening to others and not letting peace moves become opportunities for exploiting seeming weakness. A conciliation posture, which involves stressing the negatives in these conditions, by itself is insufficient to ensure moving along a peace path; it is necessary, but not sufficient.

Three Models

Three broad "peace strategies" are based on the behavioral, postbehavioral, and contemporary perspectives on international relations.

Model 1, the pragmatic strategy for intervening at the margins, is a strategy of incremental action. The Model 1 strategy attempts to identify moves that de-escalate hostilities and reverse the course of the conflict spiral (akin to turning a tanker around in a narrow strait). Model 1 acts on attitudes, cognition, and perception in the effort to influence behavior once the adversaries have traveled up toward violence in the conflict spiral.⁷⁵ Peace strategies of the Model 1 type are designed to de-escalate hostilities by the sequence of moves loosely characterized as "tit-for-tat" and "flexible response."⁷⁶ The essence of this model is to influence attitudes, actions, and reactions.⁷⁷

Model 2, the rule-seeking and regime-making strategy, focuses on ways of reaching agreement for cooperation and institutional actions. Model 2 solutions are based on behaviorally induced rule-seeking arrangements.⁷⁸ This strategy involves the search for international regimes and institutions for rule-driven behavioral modification techniques; the strategy may address the conditions that lead states to avoid rules or to cheat. However, by focusing on rulemaking for cooperation, Model 2 solutions may obscure the very reality that engenders lack of cooperation, namely, perceived and actual inequalities in the positioning of states on the world scene.

Model 3, the strategy that addresses fundamentals, focuses on the core structural features that establish the positioning of states in antagonistic and hostile stances. Model 3 solutions recognize the inherently destabilizing elements generated by population-technology-resource balances (or imbalances). Model 3 solutions seek to address the structure of national profiles and the external behaviors engendered. This model directs peace-seeking efforts toward reducing problems, discomforts, and constraints created by the national characteristics of a state's profile and by attempts to change the profile.⁷⁹

Models 1 and 2 obscure the fact that the tanker-in-the-strait is a structural condition, born of structural necessity and the imperatives of international politics. An improved strategy would reduce the necessity for turning the tanker around. This metaphor, inelegant as it may be, stresses the importance of the structural factors leading to conflict, those born of the national profile of states.

Model 3 is more comprehensive. Based on the theory of lateral pressure, it seeks to reduce the conflict inherent or manifested at every stage or mode of extension of behavior outside national boundaries. This strategy calls for a battery of moves, actual interventions, at each stage of the process of lateral pressure. It is inclusive of Models 1 and 2 but does not rely solely on either type of intervention. This stance views diplomacy and politics as the arts of creating and shaping workable conceptions of realities, not limited to de-escalating moves or reducing hostile interactions or to specific rule-seeking balances. The aim is to intervene in the fundamental structural conditions that lead to conflict. The peace strategy strikes at the roots of interactions among nations.

All three models are based on the view that policies are generally made in response to signals, or moves, rather than by careful consideration of goals and action toward these goals. All recognize the interactive politics of international relations. All appreciate the problem of unintended consequences of moves and countermoves. And all converge on the uses of bargaining, application of leverages, inducements for compliance, and political pressure. Beyond this convergence, however, the strategies differ fundamentally. The differences lie in the focus of the action and the points of intervention.

Intervening at the Margins versus Addressing the Fundamentals

The international system, at any particular time, is defined by the distribution of power among states; by competition among them; and by differentials in rates of growth of their population, resources, and technological capability. It is essential to understand the critical structural underpinnings that define power relations. Critical imbalances in power can threaten peace, as "dissatisfied" states seek to redress imbalances. Because all states are changing—many growing—over time, the mere fact of growth becomes an important political and strategic factor. The management of growth is at the core of effective choices: actions leading toward conflict or actions contributing to conditions of peace.

The choice between conflict and peace is seldom made explicitly: it is a consequence of discrete actions and decisions. Making this choice explicit at specific points in interactions among nations will be a major component of any peace strategy.

This choice derives from a more fundamental fact: the essential aspects of statehood, the master variables, are seldom considered "high politics"; they are usually thought of as falling in the realm of "low politics." This view is simply wrong. Countries come into conflict *because* of their population characteristics or their population-related objectives.⁸⁰ Resources are not socially or politically neutral; they are always central to a state's power.⁸¹ Technology is the ultimate facilitator, making it possible for states to use their profile and to marshal resources in the pursuit of national objectives.⁸² An imbalance among master variables is a serious problem for the state in question and often defines the priorities for national policy.

The fact that one state's objectives are often in conflict with the objectives of another is a basic reality of political life. Working to ameliorate conflicts in goals may be a worthy, even important, enterprise, but it is more important to address the structural factors that first shaped the goals. If these factors are fundamentally problematic, the task of peacemaking is harder—perhaps impossible. Diplomacy becomes relegated to the art of intervening at the margins rather than addressing the fundamentals. A more effective intervention point is before the emergence of a security dilemma and the need to consider obstacles to peace.

This stage is one in which national profiles become of great strategic importance. Recall the theoretical example of a China with the resources of Saudi Arabia (or with the technology of Israel or the United States); it would be a very different China indeed. However threatening Chinese posture could be perceived today, it is considerably less threatening than if China were able, as Japan has been able, to industrialize and modernize technologically in fairly short order and attain a level of technical capability roughly commensurate with that of the United States.

Of the three basic modes of peace strategies, I believe Model 3 provides the necessary conditions of a strategy for peace. In the absence of a credible

Model 3 type of strategy, the alternative models will not generate sufficient conditions for attaining or maintaining peaceful international relations.

Conclusion: Future Analytical Directions

The "behavioral revolution" has come and, for all practical purposes, it is here to stay. The tenets of scientific inquiry are no longer as disputed in international relations analysis as they were in earlier decades. The revolution has been institutionalized.

At this point in the development of the study of international relations, the intellectual approaches that owe their origins to the behavioral legacy can be characterized in the following terms.

First are the mainstream quantitative modes of inquiry focusing on behavioral manifestations of national attributes and centering on the question of causes of war and conditions for collaboration. These include activities among all facets of the conflict spiral, from the causes of initial antagonizing all the way to decisions for war. Mainstream analysts have developed the contemporary lines of modern political economy and the connection between wealth and power⁸³ in an increasingly interdependent world.⁸⁴

Second are the mainstream contenders within the scholarly community, vying for intellectual recognition of their superiority. The contenders can be roughly characterized as the dominant "rational" approaches to international relations and institutions versus the "reflective" posture that questions the assumptions of rationalists, argues for context-specific cognition, and emphasizes perceptions and reflections.⁸⁵ Contemporary debate continues to center on basic assumptions about the nature of international relations. The behavioral legacy is well represented in the scholarship of these contending orientations. The rationalists owe to the behavioral revolution the interest in economic game theoretical precepts and epistemology and the eventual expansion of the rational choice model. The reflectivists owe their origins to the crisis of relevance; the postbehavioral (or antibehavioral) reaction, and the awareness of cultural, analytical, and cognitive diversity in shaping understanding of relations among nations. They share with the earlier behavioral tradition an emphasis on the psychological factors in the measurement and meaning of actions and the cognitive interpretation and determination of outcomes. The legacy pervades all these theoretical concerns. There are traditionalists in both camps: the realists and the neorealists are aligned on the rational side, the idealists and the neo-idealists along the reflective side. Both owe their intellectual origin to the behavioral sciences and the impact of those sciences on international relations.

Third are analytical developments based on the behavioral revolution's consistent emphasis on interdisciplinary approaches and integration of the

insights from all the behavioral—and, by extension, the social—sciences. This new thrust involves the adoption of a global perspective in international relations, one that places interactions among units within the framework of the broader biosphere. Problems of environmental degradation, politicization of pollution, and global threats of nuclear war all fall within a global concern, one that is broader and beyond consideration of conventional international relations.⁸⁶ The importance of a global perspective is reinforced by a new Committee on Population, Resources, and Environment in the American Association for the Advancement of Science and its subcommittee on attendant transnational and international consequences.⁸⁷ The behavioral legacy is reflected primarily in the relationship among demographic, ecological, technological, and resource factors in shaping interactions among states, and in helping to define the evolving agenda of international organizations.

Against the background of the evolution of behavioral analysis over time and its origins in the traditionalist debate of realists versus idealists, the intellectual contenders are still those who insist on the differentiation between "high" and "low" politics and on the separation of the political sphere from other spheres of social activity or of international relations. Politics, from a behavioral perspective, consists essentially of "who gets what, when, how," at both the national and the international levels. The new emphasis on global issues simply broadens this basic precept by encompassing the biosphere as the framework of debates, conflicts, and modes of persuasion over who gets what, when, and how. In this context, the theory of lateral pressure summarized in this chapter provides the basis for differentiating states according to profile (attributes and capabilities) and for deriving testable propositions (or loose predictions) about who will do what, when, and how.

Discussion

Commentator Herbert Kelman used Choucri's presentation as a way to highlight six key assumptions and emphases of the behavioral approach.

1. Behaviorism represents the convergence of empirical and normative perspectives. Central to the development of both peace research and the behavioral approach is their emphasis on the symbiotic relationship between the empirical and the normative. Kelman challenged Choucri's assertion that this convergence occurs only at the postbehavioral stage.

2. Issues of war and peace must be examined at all levels of analysis. Choucri's presentation is unusual in that it emphasizes the relationship between structural (master variables) and individual factors. Most scholars tend to emphasize one or the other, but not the relationship between the two. A number of other levels of analysis, such as the collective national

(cultural) level and the organizational level, also are important, Kelman noted.

3. Just as there are a number of different levels of analysis in the behavioral approach, there are also a number of actors. For certain purposes, Kelman said, the individual is the central actor, particularly when one is trying to determine how the core variables of power are perceived and translated into policy decisions and actions. The key point, however, is that the perceptual and cognitive processes of the kind that lead to the "security dilemma" or the "peace paradox" are the normal results of the way in which decision makers and populations process information about their adversaries.

4. The behavioral school recognizes international conflict as an interactive process, the dynamics of which often lead to the escalation or perpetuation of conflict. But this view of conflict as an interactive process also suggests possible ways of reversing the process once conflict has been initiated.

5. The behavioral approach is acutely aware of the relationship between domestic and international politics, as is evident in Choucri's emphasis on the three master variables, which are domestic factors. As governments attempt to rectify perceived imbalances in the master variable equation, they make policy choices that inevitably have international ramifications. Furthermore, from both the peace research and the behavioral perspectives, conflict is seen as an international societal phenomenon rather than a state phenomenon, hence the role of the individual is central.

6. The most distinguishing characteristic of the behavioral approach is that it is particularly sensitive to change in the international system. As a result, the behavioral approach lends itself to the development of effective intervention models.

In the general discussion, R. J. Rummel suggested that the behavioral approach has added to the field of international relations a means by which adherents of the traditional school can test their basic assumptions about the nature of reality. In other words, he asked, by expanding the methodology, incorporating different and more precise data techniques, and making conclusions testable and reproducible, has not behaviorism had a greater impact on the reliability of results than on their content?

Expressing general agreement, Kelman emphasized that behaviorists have also been able to incorporate the notion of change into the overall equation; traditionalists have often been unable to do so. Choucri agreed, but she added that to view behaviorism as simply a corrective for the traditional school of thought is to ignore the dramatic expansion of knowledge that behavioral analysis has added to the field. Whereas traditionalists limit their considerations to "high" politics— notions of power and national interests—behaviorists draw attention to the wide variety of important social and political phenomena that constitute "low"

politics and, hence, expand our understanding of the multiple factors inherent in every conflict.

David Hitchcock asked whether a country's size and geography might be considered another master variable, and whether all three models of peace strategies could be applied simultaneously to any given conflict. Choucri replied that although the size dimension is an important factor in any conflict analysis, location need not be considered another core variable because it is generally a fixed value, except in places such as the Middle East, where boundaries are not yet entirely agreed upon.

Choucri suggested that the three peace-strategy models are not mutually exclusive and, therefore, can be used individually or in combination with one another, but she questioned whether the diplomatic infrastructure would be able to operate under the strain of applying all three models simultaneously. She preferred Model 3 because she believed that the structural conditions in many conflict situations are so problematic that they are most readily approached through that model. She also pointed out that Model 3 is the one about which the least is known, and thus it merits increased attention. Kelman added that unless policymakers are aware of what constitutes a Model 3 situation, they will be hard-pressed to implement the model when the time is ripe to do so.

Ivan Kaufman noted that a common failure of academics is to assume the rationality of individuals in conflict situations; he suggested that emotional and nonrational factors most frequently drive individuals in conflict. Choucri responded that irrational decisions (or what seem in hindsight to be irrational decisions) are often the product of rational calculations. Therefore, determinations of rationality are too subjective a level of analysis and should be avoided. Ted Gurr suggested that all analysis of conflict behavior of individuals or groups—and, by extension of nations—should encompass nonrational factors, rational calculations, and cultural influences. Otherwise, the analyst risks attributing undue weight to one factor over the others.

Notes

1. See Heinz Eulau, *Behavioral Persuasion in Politics* (New York: Random House, 1963).

2. See, for example, Herbert C. Kelman, *International Behavior: A Social-Psychological Analysis* (New York: Holt, 1965) for a collection of relevant studies.

3. For example, Hayward R. Alker, Jr., and Thomas J. Biersteker, "The Dialectics of World Order: Notes for a Future Archeologist of International Savoire Faire," *International Studies* 28 (1984): pp. 121–42.

4. E.H. Carr, *The Twenty Years' Crisis* (London: St. Martin's Press, 1946); Hans J. Morgenthau, *Politics Among Nations*, 4th ed. (New York: Knopf, 1966).

5. V.I. Lenin, *Imperialism* (Moscow: Progress Publishers, 1916); Mao Tse-Tung, "On Contradiction," in *Four Errors on Philosophy* (Peking: Foreign Language Press, 1964).
6. See Herbert C. Kelman, "International Relations: Psychological Aspects," in David L. Sills, ed., *International Encyclopedia of the Social Sciences*, Vol. 8 (New York: Macmillan, 1968) for a brief survey.
7. For example, Kelman, *International Behavior*.
8. For a brief survey, see Bernard Berelson, "Behavioral Sciences," in David L. Sills, ed., *International Encyclopedia of the Social Sciences*, Vol. 2 (New York: Macmillan, 1968), pp. 41-5.
9. For a recent study of the kind, see Lucian W. Pye, *Asian Power and Politics: The Cultural Dimensions of Authority* (Cambridge: Belknap Press, 1985).
10. See Ole R. Holsti, "The 1914 Case," *American Political Science Review* 59 no. 2 (1965): pp. 365-78; and Ole R. Holsti, Richard A. Brody, and Robert C. North, "Perception and Action in the 1914 Crisis," in J. David Singer, ed., *Quantitative International Politics* (New York: Free Press, 1968), pp. 123-58.
11. For example, see Ole R. Holsti, Richard A. Brody, and Robert C. North, "Measuring Affect and Action in International Reaction Models: Empirical Materials from the 1962 Cuban Crisis," *Papers, Peace Research Society* 2 (1965): pp. 170-90; and Graham Allison, *Essence of Decision* (Boston: Little, Brown and Company, 1971).
12. See, for example, Randolph M. Siverson, "International Conflict and Perceptions of Injury: The Case of the Suez Crisis," *International Studies* 14, no. 2 (1970): pp. 157-65.
13. Richard Snyder and Glenn D. Paige, "The United States Decision to Resist Aggression in Korea," *Administrative Science Quarterly* 3 (1958): pp. 341-78; Glenn D. Paige, *The Korean Decision* (New York: Free Press, 1968).
14. Kelman, *International Behavior*.
15. J. David Singer, "International Conflict: Three Levels of Analysis," *World Politics* XII (1960): pp. 453-61.
16. James N. Rosenau, ed., *Linkage Politics* (New York: Free Press, 1969).
17. The use of statistical and economic analysis involved trying to isolate—and then even account for—the nature of the random factor, identified statistically as the "unexplained variance."
18. See, for example, Nazli Choucri, "From Correlation Analysis to Computer Forecasting: The Evolution of a Research Program in International Relations," in James N. Rosenau, ed., *In Search of Global Patterns* (New York: Free Press, 1976), pp. 81-90; and Nazli Choucri and Thomas Robinson, eds., *Forecasting in International Relations: Theory, Methods, Problems, Prospects* (San Francisco: W.H. Freeman, 1978).
19. A typical debate was between Morton A. Kaplan, "The New Great Debate: Traditionalism vs. Science in International Relations," *World Politics* (1966) and Hedley Bull, "International Theory: The Case for a Classical Approach," *World Politics*, 18 (1966): pp. 361-377.
20. See Hayward R. Alker, Jr., "The Presumption of Anarchy in World Politics" draft manuscript (Cambridge, Mass.: MIT, Department of Political Science, 1966).
21. Stanley Hoffman, "International Relations: The Long Road to Theory," *World Politics* (1959).
22. Harold Lasswell, *Politics: Who Gets What, When, How* (New York: Meridian Books, 1964).
23. For the definitions of power, see Karl W. Deutsch, *The Analysis of International Relations*, 2nd ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1978).
24. See James G. March, "The Power of Power," in David Easton, ed., *Varieties of Political Theory* (Englewood Cliffs, N.J.: Prentice-Hall, 1966), pp. 39-70.
25. The best collection of the contending articles was Klaus E. Knorr and James Rosenau, eds., *Contending Approaches to International Relations* (Princeton: Princeton University Press, 1969).
26. See, for example, J. David Singer, ed., *Human Behavior and International Politics* (Chicago: Rand McNally, 1965).
27. See, for example, Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press, 1981).
28. Richard Cooper, *The Economics of Interdependence* (New York: McGraw-Hill, 1968).
29. Robert O. Keohane and Joseph S. Nye, *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown and Company, 1977).
30. See, for example, Nazli Choucri, *International Politics of Energy Interdependence: The Case of Petroleum* (Lexington, Mass.: D.C. Heath, 1976).
31. For example, Bruce M. Russett, ed., *Peace, War, and Numbers* (Beverly Hills: Sage, 1972); James N. Rosenau, ed., *In Search of Global Patterns* (New York: Free Press, 1976); and Francis W. Hoole and Dina A. Zinnes, eds., *Quantitative International Politics: An Appraisal* (New York: Praeger, 1976).
32. Major examples are the Stanford Studies in International Conflict and Integration (Stanford University); the Correlates of War Project (University of Michigan); and the Dimensionality of Nations Project. See Hoole and Zinnes, *Quantitative International Politics* for the summaries of various projects.
33. The establishment of the *Journal of Peace Research* well represents the efforts shared by idealists and realists.
34. Nazli Choucri and Robert C. North, *Nations in Conflict: National Growth and International Violence* (San Francisco: W.H. Freeman & Co., 1975).
35. See, for example, Robert C. North, *War, Peace, Survival: Global Politics and Conceptual Synthesis* (Boulder, Colo.: Westview Press, 1990).
36. This section summarizes collaborative research with Robert C. North. The earlier statement is from Choucri and North, *Nations in Conflict*. For a more developed version, see Nazli Choucri and Robert C. North, "Lateral Pressure in International Relations: Concept and Theory," in Manus I. Midlarsky, ed., *Handbook of War Studies* (Winchester, Mass.: Hyman Unwin, Inc., 1989). The detailed theoretical and analytical underpinnings from an interdisciplinary perspective are in North, *War, Peace, Survival*.
37. See, for example, Nazli Choucri, *Population Dynamics and International Violence: Propositions, Insights, and Evidence* (Lexington, Mass.: D.C. Heath, 1974).
38. For a theoretical summary, see Choucri and North, "Lateral Pressure in International Relations."
39. See Klaus E. Knorr, *The Power of Nations: The Political Economy of International Relations* (New York: Basic Books, 1975).
40. Gabriel A. Almond and Bingham Powell, *Comparative Politics: A Developmental Approach* (Boston: Little, Brown and Company, 1966).
41. For an example of a changing profile—the case of Japan—see Nazli Choucri, Robert C. North, and Suzumu Yamakage, *Lateral Pressure and International Conflict: The Case of Japan* (forthcoming).

42. See North, *War, Peace, Survival*.
43. See Choucri and North, "Lateral Pressure in International Relations."
44. These observations are based on Choucri and North, "Lateral Pressure in International Relations." The theoretical behavioral underpinnings are in North, *War, Peace, Survival*.
45. Choucri and North, *Nations in Conflict*.
46. See, for example, A.F.K. Organski and J. Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980).
47. See Choucri and North, "Lateral Pressure in International Relations."
48. See, for example, U.S. Office of Technology Assessment, *Technology Transfer to the Middle East* (Washington, D.C., 1984).
49. See, for example Robert M. Solow, "Growth Theory and After," *American Economic Review* 78, no. 3 (1988): pp. 307-17.
50. See Choucri and North, *Nations in Conflict*.
51. North, *War, Peace, Survival*.
52. This proposition has been central to the Stanford Studies in International Conflict and Integration; it is also central to behavioral analysis.
53. The international oil and energy markets, and conflicts therein, are illustrative. For a simulation model of international exchanges in energy resources, see Nazli Choucri and David Scott Ross, *International Energy Futures: Petroleum Prices, Power, and Payments* (Cambridge, Mass.: MIT Press, 1981).
54. Choucri and North, *Nations in Conflict*, pp. 17-18.
55. These explanations have focused on domestic migration from the economic perspective and are largely based on wage differentials; therefore, treatment of international migration has been scanty. For a new interpretation of international migration from the vantage points of international relations and political economy, see Nazli Choucri, "International Relations and International Migrations: Theoretical Gaps and the Empirical Domain," unpublished monograph (Cambridge, Mass.: MIT, Department of Political Science, 1987).
56. See Choucri and North, *Nations in Conflict*; and Nazli Choucri and Marie Bousfield, "Alternative Futures: An Exercise in Forecasting," in Nazli Choucri, ed., *Forecasting in International Relations: Theory, Methods, Problems, Prospects* (San Francisco: W.H. Freeman, 1978).
57. Choucri and North, *Nations in Conflict*, pp. 18-20.
58. See K.A. Rasler and W.R. Thompson, "Global Wars, Public Debts, and the Long Cycle," *World Politics* 34 (1983): pp. 489-515.
59. See Ole R. Holsti, *Crisis, Escalation, War* (Montreal: McGill-Queens University Press, 1972).
60. Choucri and North, *Nations in Conflict*.
61. See, for example, Hoole and Zinnes, *Quantitative International Politics*; North, *War, Peace, Survival*.
62. See Choucri and North, *Nations in Conflict*.
63. See M.D. Intriligator and D.L. Brito, "Formal Models of Arms Races," *Journal of Peace Science* 2 (1976): pp. 77-96.
64. See Holsti, *Crisis, Escalation, War*; Robert Jervis, *Perception and Misperception in World Politics* (Princeton: Princeton University Press, 1976); and Choucri and North, *Nations in Conflict*.
65. See, for example, Jervis, *Perception and Misperception*.

66. See Lewis F. Richardson, *Arms and Insecurity* (Pittsburgh: Boxwood Press, 1960).
67. See Roberta Wohlstetter, *Pearl Harbor: Warning and Decision* (Stanford: Stanford University Press, 1962); and Holsti, *Crisis, Escalation, War*.
68. Choucri and North, *Nations in Conflict*.
69. See Stephen Krasner, ed., *International Regimes* (Ithaca: Cornell University Press, 1983); and Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press, 1984).
70. For a recent debate about the security dilemma in relation to the conceptual problem of anarchy, see Kenneth A. Oye, ed., *Cooperation Under Anarchy* (Princeton: Princeton University Press, 1986); and Hayward R. Alker, Jr., "Long Road to International Relations Theory: Problems of Statistical Nonadditivity," *World Politics* 18, no. 4 (1986): pp. 623-55.
71. Choucri, North, and Yamakage, *Lateral Pressure*, p. 2.
72. See, for example, Kenneth N. Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979).
73. See R. Ullman, "Redefining Security," *International Security* 8, no. 1 (1983): pp. 130-53; and Edward Azar and Chung-In Moon, "Third World National Security: Toward A New Conceptual Framework," *International Interaction* 11, no. 2 (1984): pp. 103-35.
74. See, for example, Nazli Choucri, *Structural Dimensions of National Security: The Case of Egypt* (prepared for the World Resources Institute, 1988); Nazli Choucri, Janet Welsh Brown, and Peter M. Haas, "Dimensions of National Security: The Case of Egypt," in Janet Welsh Brown, ed., *In the U.S. Interest: Resources, Growth and Security in the Developing World* (Boulder, Colo.: Westview Press, 1990), pp. 89-120; and North, *Peace, War, Survival*.
75. See, for example, Charles E. Osgood, *An Alternative to War or Surrender* (Urbana, Ill.: University of Illinois Press, 1962).
76. Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984).
77. For Charles Osgood's GRIT (Graduated Reduction in International Tension), see Osgood, *Alternative to War* and C.E. Mitchell, "GRIT and Gradualism—25 Years On," *International Interactions* 13, no. 1 (1966): pp. 73-86.
78. See, for example, Keohane, *After Hegemony*, and Krasner, *International Regimes*.
79. The Middle East provides a wide range of examples, however unfortunate these may be: declaration of intents for "peace" are seldom considered credible by the adversaries, as each party recognizes that its own national profile endangers its own national security. Peace-at-the-borders (and the Model I strategies) are singularly inappropriate to conditions where national identity and national security are threatened from "within." And because they do not embody the necessary conditions, they are too weak to produce altered situations and robust "peaceful" patterns of interstate behavior.
80. Witness the situation in the Middle East as an example.
81. The "oil crisis" of the 1970s amply illustrated this simple fact.
82. See, for example, Robert Gilpin, "Trade, Investment and Technology," in Herbert Giersch, ed., *Emerging Technologies: Consequences for Economic Growth, Structural Change and Employment*, Symposium 1981 (1982); and Raymond Vernon, *Two Hungry Giants: The United States and Japan in the Quest for Oil and Ores* (Cambridge, Mass.: Harvard University Press, 1983).

Introduction to Chapter 12

In this chapter, James Laue makes a convincing case for viewing conflict resolution as a separate and important field of intellectual inquiry. He also shows how continued progress in the field will add significantly to our ability to prevent future devastating conflicts.

According to Laue, conflict resolution is much more than conflict management, regulation, or even settlement. A conflict can be considered resolved only when the parties have reached a joint agreement that satisfies the interests and needs underlying the conflict, does not sacrifice any party's important values, meets standards of fairness and justice, is self-supporting and self-enforcing, and is an agreement that none of the parties will wish to repudiate in the future, even if they are in a position to do so.

Laue points out that a more complete understanding of the four main noncoercive and nonjudicial settlement techniques—conciliation, negotiation, mediation, and arbitration—is essential to the work of the United States Institute of Peace. Peace must be recognized as both a process and a goal; otherwise, it becomes impossible to uncover and address the core issues in conflicts.

Conflict resolution has a rich genealogy. Laue traces the development of the field from Aristotle and Plato through modern diplomatic institutions and techniques aimed at resolving conflict on a variety of levels: individual, community, national, and international. He also provides numerous bibliographies that illustrate the enormous amount of work that has already been done, and he suggests subjects for further research.

Approaches to Peace **An Intellectual Map**

Edited by W. Scott Thompson and Kenneth M. Jensen
with Richard N. Smith and Kimber M. Schraub



UNITED STATES INSTITUTE OF PEACE
Washington, D.C.

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