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The Causes of War: A Review of Theories and Evidence

JACK S. LEVY

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There can be little doubt regarding the importance of the question of the causes of war. War has been a frequent and persistent pattern of behavior among and within states for millennia and has been enormously destructive of human life and property.¹ In addition to its human and material costs, war has had a profound impact on the behavior of states in the world arena, on the internal development of states, and on the welfare and behavior of individuals and groups within societies. War has been one of the primary vehicles for change in the international system, and the outcomes of major wars have been a primary determinant of the structure of political influence in world politics and of the structure of economic relations among states (Gilpin, 1981). The development of nation-states and capitalist economic structures nearly five centuries ago cannot be understood apart from patterns of warfare among states (Tilly, 1975; Howard, 1976), and the development of new states in the contemporary era continues to be influenced by warfare and preparations for war.²

The question of the causes of war is particularly urgent in the nuclear age, for the destructiveness of nuclear weapons and the range of intercontinental delivery systems mean that a major war between the nuclear powers could very well bring an end to modern civilization as we know it. If we are to have any hope of reducing the occurrence of war in the international system, it is imperative that we gain a better understanding of its causes. Such knowledge is also necessary if we are to achieve a better understanding of the more general patterns of the relationships among states, how those patterns have evolved in the past, and how they are likely to change in the future.

In spite of the enormous intellectual energy that has been directed to the question of the causes of war—by philosophers, historians, political scientists, theologians, anthropologists, sociologists, psychologists, economists, mathematicians, biologists, and others—a clear answer to that question has yet to be found. There is little agreement among scholars regarding the identity of the causes of war, the methodology by which those causes might be discovered, or the conceptual framework by which multiple causes might be integrated into a coherent theoretical explanation. Instead, there is a plethora of theories identifying a wide range of causal variables and combining them in a variety of ways. The only consensus is that the question is complex and that there is no single cause of war, although even this view is sometimes challenged.

This is not to say that we have learned little from the enormous amount of research on the conditions, processes, and events leading to the outbreak and escalation of war. Within certain research communities considerable progress has been made in identifying patterns of behavior that repeatedly occur under

certain well-specified conditions and in providing plausible theoretical explanations for these observed patterns. Economists have taught us a great deal about what constitutes rational behavior under conditions of risk and uncertainty. Psychologists have demonstrated that individuals do not often behave as a rational economic model would predict and have taught us much about the behavior of individuals under stress, the dynamics of small group behavior, and the nature of heuristics and biases that affect the processes of judgment and decision making. We have also learned about mass psychology and the phenomenon of modern nationalism and about the internal dynamics of modern organizations. We have gained a good understanding of historical patterns of warfare in the modern world and of long cycles of war and peace. Certain empirical regularities have emerged, even if there are disagreements as to how to explain them.

Moreover, it is clear that some of this research has had considerable impact on policymakers. Theories of deterrence and crisis stability have had an important influence on the evolution of U.S. strategic doctrine and defense planning, and theories of coercion and limited war undoubtedly influenced U.S. policymakers during the 1960s (Kissinger, 1957; Brodie, 1959; Wohlstetter, 1959; Taylor, 1960; Schelling, 1960; Osgood, 1957). Recent research on the dangers of inadvertent war, the requirements of crisis management, and the performance of complex command and control systems (Roderick, 1983; Frei, 1983; George, 1983, 1984; Lebow, 1987; Bracken, 1983; Blair, 1985) has led to numerous proposals for organizational restructuring and behavioral changes to minimize the risks of nuclear war (Allison et al., 1985; Blechman, 1985). To take a more specific example, it has been argued that President Kennedy's skillful management of the Cuban missile crisis was influenced by his reading of Tuchman's (1962) account of the outbreak of World War I, which emphasized the dangers of miscalculation and policy rigidities in a crisis (Allison, 1971:218).³

Although it is true that within certain research communities there is consensus regarding the validity of certain hypotheses, it is also true that in other research communities sharing a different set of analytic assumptions these propositions might be rejected or considered to be theoretically inconsequential. Moreover, even when there is agreement on the validity of specific propositions, the point is that no one has been able to fit these different pieces together to complete the puzzle. No one has successfully integrated what we know into a single theoretical framework that provides a general explanation of the causes of war, at least in a way that has generated anything close to scholarly consensus on its validity. In particular, scholars have failed to integrate what we know about individual psychology with what we know

about organizational behavior, political economy, and state-society relationships into a theory of how *states* make foreign policies on issues of war and peace. They have also failed to integrate theories of individual state behavior into a more comprehensive theory of strategic interaction and bargaining in a constantly evolving international system. Nor is there any consensus on whether the best of our existing theories have any relevance for the nuclear age. Some social scientists even doubt that it is possible to construct such a general theory and have joined historians in insisting that wars, like other social phenomena, are historically unique.

Given the importance of the question of the causes of war and its implications for contemporary policy, one might expect find a number of attempts to survey the general state of the literature in order to summarize what we know, assess the limitations of our knowledge, and suggest the most urgent and promising avenues for future research. Surprisingly, there are remarkably few surveys of this kind and none which is really comprehensive.⁴ This chapter will fill this enormous gap in the literature by conducting a critical review of theories of the causes of war and, in the process, provide a general background for many of the essays in *Behavior, Society, and Nuclear War*.

The underlying theme of these volumes concerns the prevention of nuclear war, and that draws our attention to the likely causes of war between the superpowers. This leads to a primary focus on the causes of interstate war rather than on civil war, imperial or colonial war, or terrorism, although these other phenomenon will be considered to the extent that they are contributory causes of interstate war. My assumption is that the most appropriate historical referents for a superpower war in the future are interstate wars of the past, particularly great power wars. This interstate and great power orientation does not narrow our focus too much, of course, because this is the primary focus of the literature on the causes of war. The literature is still quite diverse, and this review will necessarily have to be selective. Some types of wars are more important than others and consequently deserve more attention. Some theories are more important than others, and these, too, require particular attention.

Before conducting a detailed examination of theories of the causes of war, therefore, it would be useful to step back and attempt to place this review within a larger historical and theoretical context. I will begin with a brief summary of historical patterns and trends in war in order to get a better sense of the phenomenon the literature is trying to explain and to assess the implications of historical trends for current theoretical and policy concerns, including the future evolution of war. I will then take a broad and somewhat reflective overview of the theoretical literature in order to help provide a broader context for our more detailed summaries of specific theories, justify the selective focus, and demonstrate the relevance of these theories for the nuclear age.

Historical and Theoretical Context

The Historical Record

One can find evidence of warfare as far back as prehistoric times (Ferrill, 1985), and written evidence is sufficient to trace a fairly comprehensive and continuous record of warfare since about 600 B.C. (Dupuy and Dupuy, 1977). It would be most useful, however, to restrict our attention to patterns of warfare in the modern state system, the origins of which most historians trace to about 1500 A.D.⁵ The trends in warfare are complex and vary for different types of war, but some general patterns do emerge. We have a fairly good picture of the patterns of war involving the great powers in the Europe-based system prior to this century and in the larger global system after that, but we have a less accurate picture of other types of war.⁶

There have been approximately 120 wars involving a great power against another state since 1500, or about one every four years.⁷ Of these, about half have been wars between great powers, or great power wars. Ten of these great power wars have been fairly long "general wars" involving all or nearly all of the great powers in the system, many smaller states as well, and enormous casualties; in fact, these 10 wars account for nearly 90 percent of the casualties from interstate wars involving the great powers over the last five centuries (Levy, 1983a:Chap. 4; 1985a).

There appear to be some very distinctive historical trends in war, trends that do not characterize the twentieth century alone but that apply to the entire five-century span of the modern Eurocentric state system. One is that great power wars have been declining in frequency but increasing in seriousness. Whereas a new great power war has occurred on average once every fifteen years in the twentieth century, they occurred once every four years in the sixteenth century. Those great power wars that have occurred, however, have become more serious in numerous respects: they have involved a larger number of great powers, more nation-months of war, and much higher casualties. They have not, on average, become longer in duration. The fact that the current "century of total war" (Aron, 1955) has witnessed enormously destructive wars but relatively few of them (by historical standards) is consistent with another pattern that has characterized the last five centuries of the modern great power system: there has been a slight tendency for wars in a given period to be either frequent but limited or infrequent but serious (Levy and Morgan, 1984; Morgan and Levy, 1989). One significant exception to these trends is the disproportionately low frequency and low seriousness of great power warfare in the nineteenth century (Levy, 1982).

The increasing destructiveness of warfare has been explained not only by

changes in military technology, but also by the increasing rationalization of force as an instrument of state policy and the centralization of military power in the hands of the state; the commercialization of war and the increasingly symbiotic relationship between war and commerce; the popularization of war in the form of the nation in arms and conscripted manpower; the professionalization of military power, as evidenced by the development of a peacetime military establishment under the direction of a professional military elite and general staff system; and the scientific revolution, in which the entire scientific, engineering, and technological capacities of the state are mobilized for the conduct of war (Millis, 1956; Osgood, 1967; Howard, 1976; Levy, 1982).

Other types of war have followed different patterns over time. Wars involving the great powers against nonpowers have become less frequent and shorter but only somewhat more severe in terms of casualties (the most severe wars have become more severe, but the severity of most wars is on average only slightly greater). The frequency of colonial or imperial wars increased gradually, exploded in the nineteenth century, and then declined with the liquidation of the European colonial empires in the twentieth century.⁸ Our picture of wars between smaller states is much less clear, particularly for the pre-nineteenth century period, but it is clear that the frequency of those wars has increased.⁹ These increases should be put in context, however. Whereas the number of great powers in the system has been roughly constant over time (five or six), the number of states as a whole in the system, and hence the total number of opportunities for war, has increased dramatically. Proportional to the size of the system, the number of small state wars has not increased. Similarly, the number of civil wars has increased over time, but not disproportionately to the increasing size of the system (Singer and Small, 1972; Small and Singer, 1982).¹⁰

These trends have several important implications for a general review of the literature on the causes of war, particularly if one concern is the relevance of these theories for the nuclear age. One is that the pattern of warfare in the nuclear age appears to be different from the patterns of earlier eras. There are fewer great power wars but an increased number of wars between medium and smaller states, some of which are essentially proxy wars between the superpowers. There are also more civil wars, which may be largely indigenous in their origins but which often involve the interests of the superpowers. Consequently, there is an increased risk that one of these small interstate or civil wars might escalate through expansion into a superpower war.

These considerations have led some observers to argue that the most likely route to a superpower confrontation is through the escalation of a local conflict, that consequently traditional theories of great power war have diminished relevance for the nuclear age, and that the primary task for contem-

porary scholarship on war is to focus on proxy wars, wars of intervention, and processes of escalation that might involve the great powers. These observers would argue that a review of the conflict literature should focus more heavily on smaller wars, intervention, and escalation processes and less on the "traditional" literature on great power conflict. This is an important argument, but I think that it is wrong. In order to explain why and to justify the approach taken in this chapter, it is first necessary to take a brief and somewhat reflective look at the theoretical literature on international conflict.

Theories of International Conflict: A Preliminary Overview

The literature on the causes of war demonstrates a clear bias toward great power behavior. The majority of diplomatic historians have followed Leopold von Ranke ([1833]1973) in conceiving European history as the history of great power relations. A.J.P. Taylor (1954:xix), for example, argues that "the relations of the great powers have determined the history of Europe." Waltz (1979:72-73) reflects the argument of many political scientists in arguing that any theory of international politics must necessarily be based on the great powers, for they define the context for others as well as for themselves. Nearly all versions of balance of power theory are (whether explicitly or implicitly) theories of great power behavior, and current theories of hegemonic decline, power transition, and hegemonic war clearly focus on the causes and consequences of the behavior of the leading powers in the system (Organski, 1968; Modelski, 1978; Gilpin, 1981; Kennedy, 1987).¹¹

The literature on the causes of war is biased toward the great powers in another sense: many of our theories of war and of international behavior in general are disproportionately influenced by a small handful of cases of great power war. The World War I case in particular has attracted an enormous amount of attention by historians and political scientists but also by military strategists, social psychologists, and others. Some theories of the balance of power, alliance behavior, economic imperialism, militarism, preventive war, misperceptions, organizational rigidity in the military, inadvertent war, and other behavior have been generated inductively from the 1914 case.¹² This raises the danger that some of our theoretical generalizations may be too closely tied to a single case and gives additional emphasis to the need for systematic empirical tests of theories of war across many cases.

It is important to note that the great power bias in the theoretical literature on war pertains primarily to systemic-level theories of war, those that trace war to the structure of the international system and the relationships among states. Much of the theoretical literature does indeed focus on systemic-level variables, and the impact of anarchic structures, power distributions, and

alliance configurations is different for small states acting in the shadows of the great powers than it is for the great powers themselves. There has recently been increased attention to domestic political and decision-making variables and processes contributing to the outbreak of war (Holsti, 1972; Brecher, 1980; Lebow, 1981; Jervis, 1988a; Levy, 1989a), and many theories based on these variables are as applicable to smaller states as they are to the great powers. Admittedly, historical changes in the nature of economic systems, political structures, and other domestic variables have been more profound than changes in the structure of the international system itself (and probably also more profound than changes in individual threat perception and decision-making processes). This means that hypotheses linking domestic structures and war may be more difficult to generalize from earlier eras to the present as compared to systemic-level hypotheses, for great powers as well as for smaller states.

It is also true that relatively little serious attention has been devoted to the general theoretical questions of escalation, intervention, and proxy wars. Much has been written on likely scenarios for escalation to nuclear war (Kahn, 1965), and there have also been a number of simulations and other studies of the dangers of escalation of local conflicts (in the Middle East and elsewhere) to a superpower confrontation. The literature on limited war (Osgood, 1957, 1979; Halperin, 1963; Kissinger, 1957) and war termination (Fox, 1970; Iklé, 1971; Mitchell and Nicholson, 1983; Beer and Mayer, 1986) also deals implicitly with the question of escalation. Although the theoretical literature on the causes of war includes a great deal on the vertical escalation of a dyadic conflict; there is little on the horizontal escalation of local conflicts (Smoke, 1977; Bloomfield and Leiss, 1969; Blainey, 1973:Chap. 13-15; Barringer, 1972). There is no distinct *theory* of escalation, one that specifies under what conditions and through what processes local conflicts or low-level superpower conflicts escalate to superpower crises and war.¹³ Similarly, there is no theory of intervention, which is one possible path to the escalation of war.¹⁴

What theoretical literature we do have on intervention and escalation processes essentially involves applications of more general hypotheses regarding the causes of war, including hypotheses linking war to balance of power considerations, alliances, domestic politics, bureaucratic processes, and misperceptions. Thus, a general grounding in theories of the causes of war is an essential point of departure for the development of a theory of intervention or escalation.

An understanding of escalation and intervention processes should be tied to the historical as well as traditional theoretical literature on war. The absence of any case of escalation to great power war in the nuclear age means that it is

not possible to have an empirical test of a theory of escalation that is confined to the post-1945 period.¹⁵ Our confidence in the validity of such a theory would be greatly enhanced if it were tested against the historical record of great power behavior while at the same time acknowledging the unique features of the nuclear era. The expansion of the data base to the prenuclear era would not only incorporate cases of escalation, it would also facilitate a more fully controlled empirical test by increasing the extent of variation in several important independent variables (for example, polarity, or the degree of diffusion of power in the system). In addition, in the absence of a comparative historical study there is little empirical basis for any argument that escalation processes in the nuclear age are distinct from those in the past, or that the processes of intervention in or escalation from a local war are important in the contemporary era but not in the past. In fact, there are a sufficient number of past great power wars growing out of smaller conflicts to suggest that their careful examination may help us understand escalation processes in the contemporary era.¹⁶

This discussion leads to a more general characteristic of the literature on the causes of war: the gap between (1) the theoretical and empirical literature on the causes of war, and (2) research by contemporary strategic analysts on deterrence, crisis stability, arms control, and superpower relations in general. Most of those who attempt to construct general theories of the causes of war focus on the pre-1945 period and make no explicit attempt to integrate the nuclear factor into their theories. Some go so far as to say that the causes of war are eternal, that nothing fundamental has changed in the nuclear age (particularly international anarchy and human nature), and that consequently their theories are as applicable today as in previous eras. Many quantitative empirical studies of international conflict, for example, include the nuclear era within the temporal domain of their analysis, but they rarely include a variable reflecting the presence or absence of nuclear weapons.¹⁷

Many of those who focus on strategic deterrence or on other contemporary strategic issues make the opposite argument, assert that the nuclear revolution has been so fundamental that everything has changed, that whatever happened before 1945 is no longer relevant, and that therefore they have little to learn from theorists or historians focusing on earlier eras. These theorists make little use of the theoretical or empirical literature on the causes of war in their work on contemporary policy. As a result, current strategic doctrines and the deterrence theories from which they are derived generally have little grounding in the theoretical literature on the causes of war or in the historical reality of great power behavior in the past.

While some insist that nothing has changed and others insist that everything has changed, others try to have it both ways. Many scholars demonstrate with

ample historical evidence that war has been an integral part of international relations for millennia; argue that this pattern is a necessary consequence of any anarchic international system; acknowledge that the system is still anarchic; but then make an inferential leap and conclude that the nuclear era is sufficiently different and that past historical tendencies will be mitigated in the nuclear age. This argument is usually made with little rigorous theoretical analysis or empirical justification and with little attempt to integrate these two divergent tendencies into a single coherent theoretical explanation or model. There is an inability to come to terms conceptually with an important systemic transformation in the international system, but one that leaves the most basic structural characteristic of that system intact.

Although the impact (or lack of such) of the nuclear revolution on the causes of war is asserted far more often than it is rigorously argued and systematically analyzed, there have been some attempts to deal more thoroughly with the question. There have been a number of essays on the general question of the impact of the nuclear revolution on international politics (Brodie, 1946; Schelling, 1966; Mandelbaum, 1981; Gaddis, 1987; Jervis, 1984, 1988b, 1989; Mueller, 1988). Much has also been written on the question of the "utility of force" in the nuclear age (Knorr, 1966, 1977; Waltz, 1967; Gompert, 1977; Organski, 1968; Organski and Kugler, 1980:Chap. 4). Another body of literature attempts to assess the impact of nuclear weapons in specific deterrence situations in the nuclear age, either through case studies (Betts, 1987), quantitative methods (Stoll, 1982; Weede, 1983; Kugler, 1984; Morgan and Ray, 1988), or both (Blechman and Kaplan, 1978; Organski and Kugler, 1980). Many of these studies fail, however, to include any explicit comparisons with the prenuclear period. A related body of literature focuses explicitly on the question of how to explain the "long peace," the four decades of peace among the leading states in the system that is so rare by historical standards (Gaddis, 1987; Kegley, 1989).

Most of this literature is certainly relevant to the question of the causes of war in the nuclear age but fails to provide a complete answer to it. It explains why the likelihood of a major war is much less in the nuclear era than in previous historical eras (and also deals with the question of the likelihood of lesser wars) without answering the question of the specific conditions, processes, and events that might lead to such an admittedly low probability event. There has recently emerged a body of literature that makes a more explicit attempt to identify some of the specific conditions contributing to war. It attempts to ground middle-range theories of deterrence or hypotheses on the causes of war in historical experience, test those theories using a methodology of controlled comparison, and analyze their implications for contemporary policy issues. Among the more specific issues discussed by

these scholars are the conditions under which deterrence is likely to succeed or fail (George and Smoke, 1974; Stern et al., 1989), the sources and consequences of offensive military doctrines (Posen, 1984; Van Evera, 1984a; Snyder, 1984b), the role of misperception in deterrence (Jervis, 1976, 1983, 1988a; Lebow, 1981), the ways in which domestic politics can undermine deterrence (Lebow, 1981; Stein, 1985a, 1985b), crisis management (Lebow, 1987; Levy, 1988d), and the sources of imperial overextension (Snyder, 1988).

These theoretical analyses and empirical studies are convincing enough to suggest that *some* of the causes of war are the same in the nuclear era as in previous eras. At this point there is insufficient empirical evidence to determine conclusively whether or not other factors that have been important in the past have ceased to be important in the nuclear age, or whether they carry much less (or much greater) weight now than in the past, or whether new causal variables have emerged in the nuclear era. The proposition that the causes of war have changed must be demonstrated and not just asserted, however, and this requires that we incorporate traditional theories of war into the analysis. In order to understand the extent to which the causes of war have changed over time we must first comprehend the nature of those causes in previous eras. From this foundation we will be better able to understand how the nuclear revolution has affected the impact of traditionally important causal variables and the relationships among them. Toward the end of this chapter we return briefly to the question of the impact of the nuclear revolution on the causes of war.

Organizing Framework

In reviewing the existing theoretical literature on the causes of war, we will be focusing primarily on interstate war, recognizing that is an important subset of a larger class of international violence that includes imperial war, civil war, terrorism, and the use of force short of war. These other phenomena will be examined to the extent that they contribute to the outbreak of interstate war under certain conditions. We will give somewhat greater emphasis to great power wars than to wars between secondary states, both because of the bias in the theoretical literature and because of our concern with the question of the prevention of nuclear war. The implications of particular theories for the nuclear age will be considered where relevant, although the relative silence of the literature on this question has already been noted.

I will focus on a relatively small number of major theories instead of presenting an extensive propositional inventory, since isolated hypotheses not integrated into a more general theoretical framework contribute little to the

cumulation of scientific knowledge about war. For similar reasons I will also focus more on theories and their analytical problems than on the extensive empirical research on war. Systematic empirical findings and other forms of historical evidence designed to test specific hypotheses will be included to the extent to which they bear directly on the major theories. Specific findings relating to a particular case or to limited spatial and temporal domains, or those more reflective of narrow operational indicators than of broader theoretical concepts, will not be included, because they rarely produce generalizable knowledge about international conflict. This is based on a rejection of neopositivist epistemology that asserts that the primary path to knowledge is the cumulation of discrete empirical findings, and the adoption of a perspective that conceives of the growth of knowledge in terms of the development of better theories. This is consistent with a Lakatosian conception of science in which the validity of a theory is measured not only by its correspondence with empirical reality but also by its explanatory power relative to that of alternative theories (Lakatos, 1970).

This epistemological orientation has implications for the way in which empirical evidence will be utilized here. We can attempt to evaluate the extent to which the empirical evidence supports a particular theory, but we must recognize that other theories may be equally consistent with the same evidence. Thus, consistency with the evidence is not sufficient for the acceptance of a theory. Theories must be evaluated with respect to each other as well as compared to the evidence. Moreover, we must recognize that each theory is based on certain analytic assumptions, and the empirical evidence appropriate for testing each of the theories cannot be specified independently of these analytical assumptions. Thus, it is no simple task to evaluate the weight of the evidence in support of a theory. The relevance of various empirical studies for a particular theory depends on numerous aspects of its research design, including the appropriateness of its empirical domain, the validity and reliability of the empirical indicators used, the quality of the data, and so on.

There is insufficient space in this chapter to assess the evidentiary basis of various theories in this way. It is more important to emphasize the conceptual limitations of each of the theories, focusing on the evidence only where it seems to be overwhelming in support or contradiction. At this time, the primary limitations on our understanding of the causes of war are theoretical, not empirical. The central problem is not the lack of information or lack of data to test our theories, but the absence of theories that are sufficiently well specified and logically complete to provide a compelling explanation and one that facilitates a meaningful empirical test.

This leads to the question of the policy relevance of theories of war. Conflicting theories give rise to conflicting implications for contemporary

policy debates. For most theories that posit that factor X causes war and that consequently statesmen should do Y, there is usually another theory positing that X contributes to peace and that consequently that statesmen should not do Y. In fact, many contemporary policy debates derive from these underlying theoretical debates regarding the causes of war. A careful examination of the theories will often make this clear, even if we do not have the time to trace explicitly all of the linkages between theory and policy. Another reason for giving greater emphasis to the theoretical dimensions of the literature is that many of the policy questions will be analyzed in much greater detail in other chapters in this series. Most of these chapters deal with more narrowly defined theoretical questions for which there is greater agreement as to the weight of the evidence and its implications for policy. This theoretical overview will serve as a useful reminder, however, that there is extensive debate regarding the validity of the broader theories within which each of these more specific hypotheses is embedded.

This chapter is concerned with the question of the conditions, events, and processes affecting the likelihood of the outbreak of war. It is less concerned with the more general philosophical question of why war occurs or with the questions of the "primary" or "permissive" causes that make it possible for war to occur but that are nearly always present. These are not very helpful with regard to the question of why war occurs at some times under certain conditions rather than at other times under other conditions, or between some states rather than other states. Consequently, they carry little explanatory or predictive power. Thus, this chapter will not examine the extensive literature on human nature and war (Waltz, 1954; Nelson, 1974). To the extent that human nature is a constant, it cannot account for the variation in war and peace. To the extent that human nature is conceived as variable, with aggressive drives varying in intensity and finding different types of outlets at different times and under different conditions, then the variation in war and peace is explained not by human nature itself but instead by these other conditions with which it interacts.¹⁸

The question remaining is exactly how our survey of the literature on the causes of war will be organized. One traditional mode of classification, which goes back to Thucydides, is based on the distinction between underlying (or remote or long-term) causes and immediate (or proximate or trigger or short-term) causes. This approach is common among historians and has the advantage of facilitating a dynamic analysis of the interaction of variables contributing to war.¹⁹ Long-term processes of growth, uneven development, and changing power distributions establish the contexts within which interests intersect and crises occur, and then proximate causes are important in determining which of these crises escalate to war. One significant limitation of this

classification scheme, however, is that some of the same variables can serve as both underlying and proximate causes of war. The prisoner's dilemma, for example, has been advanced as an explanation for the general tendencies of an anarchic environment to foster conflictual behavior, the long-term pressures for imperial expansion, the intermediate-term pressures for arms racing, and the immediate decisions to mobilize or initiate a preemptive strike in a crisis. Similarly, domestic political variables may be the primary determinants of long-term expansionist pressures within a state and also provide the political pressures that prevent statesmen from making necessary compromises with the adversary in a crisis. Each set of these sufficiently similar variables should be analyzed together rather than separated according to their temporal proximity to the outbreak of war.

For this reason I have adopted a *levels-of-analysis framework* to classify the independent explanatory variables and in this way to organize our examination of theories of war. I begin with *systemic-level* theories, in which the central causal variables are the structural characteristics of the international system that constitutes the external environment common to all states. These theories basically minimize the importance of the internal political and economic structure of states, domestic politics, the nature of the decision-making process, and the belief systems and psychological processes of individual political leaders in the processes leading to war. I then turn to theories that trace the roots of war to the *nature of state and society*. Here the focus is on the overall political structure of the state (for example, democratic or authoritarian), the structure of the economic system, political culture and ideology, nationalism and public opinion, and domestic politics more generally. Finally, I turn to theories that locate the sources of war in the nature of the political *decision-making process*, particularly during crises. These theories focus on bureaucratic politics and organizational processes, small group dynamics, psychological processes, individual beliefs and images, attitudes toward risk, misperception, and other factors. Because many of these factors are examined in other chapters in this series, I will focus here on theories of organizational politics and processes and on theories of misperception.

This framework constitutes a modification of other levels-of-analysis conceptions found in the literature of Waltz (1954), Singer (1961), and Rosenau (1966). One serious limitation of this organizing framework is that some important causal factors cut across levels of analysis (for example, trade patterns reflect both the structure of domestic economies and relationships among states in the international system). These variables affect the processes leading to war at different stages, and these dynamic processes involving multilevel variables are not easily accommodated into a basically static levels-

of-analysis framework. My aim here, however, is not to construct a theory of the causes of war, for which a levels-of-analysis framework might not be optimum, but to organize a critical review of existing theories, for which this framework is quite useful. A curious feature of much of the literature on the causes of war and, in fact, one of its serious limitations, is that most of these theories either consist of essentially a single factor or integrate a cluster of variables from the same level of analysis. Consequently, most of these theories are relatively easy to classify into a levels-of-analysis framework. Cases of multilevel theories will be classified according to their primary explanatory variables, with particular attention given to cross-level relationships. Remote or proximate considerations will not be ignored, for they are relevant in the evaluation of the various theories. What we expect from a theory is in part a function of what it is attempting to explain, so that the standards for evaluating crisis decision-making theories must be somewhat different than the standards for evaluating theories focusing on the underlying causes of war. Neither type of theory is really complete without the other.

Systemic-Level Theories

Many systemic-level theories of war fall within the "realist" paradigm of international politics, and it would be useful to lay out the assumptions of this paradigm before examining any of the more specific theories of war that share realist assumptions. We will then turn to balance of power theory and many of the bivariate hypotheses that are often subsumed under it, including those focusing on the distribution of military capabilities in the system, alliance patterns, opportunities for expansion on the periphery of the system, and the dyadic balance of power. Power models will be contrasted with Bueno de Mesquita's expected utility theory of war, and static models will be compared with power transition theory, related theories of hegemonic war and change, and lateral pressure theory. Liberal economic theories of war will be examined as an alternative to the realist theories noted here. Although these structural theories focus primarily on the underlying conditions contributing to war, there are other structural variables that generate immediate pressures for war. Prisoner's dilemma models analyze the structural incentives for conflictive behavior in certain situations and have recently been receiving considerable attention, as have formal models of sequential games based on incomplete information, but these are treated elsewhere in this series and therefore will not be examined here. Similarly, the literature on deterrence, coercive diplomacy, and bargaining will not be covered in this chapter.

The Realist Paradigm

Of all the theoretical frameworks for the study of international politics, including the causes of war, the most widely accepted, at least in the West, is the realist paradigm.²⁰ Realist ideas can be traced back to Thucydides' *Peloponnesian War*, several centuries of balance of power theories, Morgenthau's (1967) elucidation of classical realism, Waltz's systematization of structural realism or neorealism, recent quantitative empirical (Singer, 1979a, 1979b, 1980) and formal (Wagner, 1986; Niou and Ordeshook, 1986) models of balance of power systems, and other contemporary analyses employing a range of different methodologies. There have also been a number of attempts to reconstruct or formalize realist theory (Keohane and Nye, 1977; Keohane, 1983; Vasquez, 1983). Although realism is often referred to as a theory, it is better conceived as a conceptual framework or paradigm (Kuhn, 1962). Realism itself is too general and cannot generate many specific predictions until some of its key concepts are given more precise definitions and hence greater empirical content. Realism has in fact spawned a number of more specific theories that often give different predictions but that share a hard core of common assumptions. These assumptions concern the nature of the actors in world politics and of the international system within which they interact.

One central assumption of the realist paradigm is that world politics is statecentric, that territorial states are the key actors in the system.²¹ The key to understanding what occurs in world politics, and how the world system is likely to evolve in the future, is to understand the behavior of territorially defined states. A central determinant of state behavior, according to political realism, is the anarchic structure of the state system. Anarchy refers to the absence of any legitimate authority in the international system to make and enforce laws, adjudicate disputes, and regulate behavior among states. In the absence of an enforcement mechanism, sovereign states must provide for their own interests in a self-help system in which force is the ultimate arbiter of disputes. Thus, the system is often described as a Hobbesian state of nature, which is equivalent to a state of war because the absence of enforcement mechanism precludes effective cooperation among states to achieve their mutual interests (Hobbes, [1651] 1962).

Realist theories assume that states can be treated as if they are unitary actors with a single set of reasonably well-defined interests. Through this assumption realist theory minimizes the impact of any internal disagreements regarding the national interest or the optimum means of achieving those interests.²² Realist theory also assumes that states can be treated as if they are rational as well as unitary: their interests are transitive, and they calculate the consequences of each policy alternative in terms of its costs and benefits for those

interests (given uncertainty and informational constraints), and select the policy that maximizes their interests.²³ As we will see in our subsequent sections on societal-level and decision-making theories, serious objections have been raised against the unitary and rational actor assumptions.

Realist theory goes beyond the unitary and rational actor assumptions to assume that because of the potential for violence in an anarchic, high-threat system, the hierarchy of state interests is dominated by security. Although security interests and other interests reinforce each other over the long term, in the short term they occasionally come into conflict and, when that happens, security interests are given priority. The primary means to security is power. Realists have traditionally conceptualized power in terms of military power and the economic foundations of military power and potential, although some contemporary realists define power more broadly.²⁴ Regardless of how power is defined, it is assumed that power is fungible and applicable to a wide range of issue areas, that it is a universal currency that can be used to advance a wide variety of interests. It is also assumed that power (but not necessarily security) is relational and essentially zero sum in international politics: one's power is measured relative to the power of others. Because power is necessary to achieve other interests, and because power is relational, power becomes for all practical purposes an end in itself. As Morgenthau (1967) writes, international politics is a struggle for power, although one should add that since power is a means to security, the maximization of power is subject to the constraint that security not be impaired.

The rationality assumption is important because it provides a link among the structure of the system, the national interests of states, and their foreign policy behavior. It is assumed that a rational analyst can infer from a state's position in the system the security interests of the state, the systemic constraints and opportunities affecting those interests, the optimum policy alternatives for the achievement of those interests, and therefore a state's behavior. That is, realist theories generate a set of testable propositions linking the structure of the international system to the behavior of states. They assume that the identity of particular leaders, their individual belief systems and psychological processes, and the internal bureaucratic, domestic political and economic context within which they operate are of secondary importance in determining state behavior. These internal variables are important only insofar as they affect the economic and military power of the state. Because of the potential for violence in the international system, the imperatives of survival dominate other interests, and rational individuals respond to such danger in roughly similar ways.²⁵

The central proposition of realist theory is that the distribution of power in the system determines the behavior of individual states within the system.

This proposition is often qualified to give negative rather than positive predictions: the distribution of power imposes constraints within which all states must operate if they want to maintain their security and other interests, but it does not generate positive predictions about behavior within this broad range of constraints (Waltz, 1979). That is, the proposition suggests necessary rather than sufficient conditions for behavior. Even the qualified proposition is not particularly discriminating, however, for it lacks much empirical content unless both the nature of power and the nature of the system are defined. At this point various realist theories begin to diverge, and these divergent theories will be examined in the following sections of this chapter.

Another very general set of propositions advanced by realist theories is that cooperation is relatively rare in a system in which sovereign states must provide for their own security in an anarchic world. The argument goes something like this. Because states may resort to force to preserve their security or advance their other interests if disputes cannot be resolved by nonviolent means, and because there is nothing to prevent a state from utilizing force, all states must be prepared to use force to protect themselves. The primary means by which security is enhanced is the accumulation of military power and the economic strength that underlie it, although alliances may also be useful, particularly as short-term solutions to the security needs of states.²⁶ But power is relative, rather than absolute, and, thus, with respect to power-related issues international politics approaches a zero-sum game (Wolfers, 1962:Chap. 10; Gilpin, 1975:Chap. 1), and consequently states are engaged in a continuous pursuit of power and security. This process is exacerbated by the inability to distinguish between the offensive and defensive intentions of others and between offensive and defensive weapon systems. The intentions of other states are inherently ambiguous and can change from one political leader to the next, and most weapons can serve both offensive and defensive functions (Jervis, 1978; Levy, 1984a). Even though there are risks in overreacting as well as in underreacting, statesmen generally prefer to err on the side of safety and assume the worst regarding the intentions and actions of other states, and this tendency toward worst-case analysis fuels the action-reaction spiral in international politics.

Because actions a state takes to increase its security often decrease the security of other states, which then feel compelled to take countermeasures to increase their own security, which in turn are threatening to others, and so forth, actions taken to increase security often generate an action-reaction spiral. This spiral may not only be costly, but it often fails to increase the security of any state and may actually decrease the security of all by increasing tensions and hence the probability of war and also by increasing the destructiveness of any war that might occur. This is the classic "security dilemma" (Herz, 1957; Jervis, 1978). It is important because it explains how

states that prefer peace and that have no aggressive intentions can be induced by the structure of the system to take actions that none really wishes to take and that leave all states worse off than before. Under certain conditions, the security dilemma can lead to war in the absence of any "genuine" conflicts of strategic, economic, or ideological interests between states. Thus, states may prefer peace but rationally choose war.²⁷

This is not the only causal sequence through which war might occur, of course, and not all security dilemmas lead to war. There may be "real" conflicts over territory, resources, and other issues that lead two states to perceive that their interests can best be served through the use of force, leading to war as the preferred outcome by both states.²⁸ Whether most wars arise from such conflicts of concrete interests is an interesting theoretical question, although the problem of analytically distinguishing between these concrete interests and other interests relating to power and prestige raises some very difficult questions. An interesting feature of the theoretical literature on international conflict, however, is that relatively little attention has been given to the actual *issues* involved in the processes leading to war.²⁹ It is recognized that some interests and some issues are more vital than others and more likely to lead to war than are conflicts over other issues. Analysts have not been very successful, however, in identifying an objective hierarchy of interests applicable to all states or even to all great powers, other than very general concerns for territorial and constitutional integrity, the maintenance of a minimal level of economic subsistence, the exclusion of hostile regimes from adjacent areas, and perhaps the prevention of any one state from achieving a position of dominance in the system. Instead, it is generally assumed that in an anarchic system conflicts of interests will naturally arise and that regardless of the long-term interests of states their immediate interests are the maintenance and if possible the improvement in their power position. Thus, international politics becomes, at least for the leading states in the system, a struggle for power (Morgenthau, 1967).

It should be emphasized that not all realist theories give equal emphasis to the anarchic structure of the system.³⁰ Whereas balance of power theories stress the importance of anarchy and the absence of order in the international system, recent versions of "hegemonic" theory acknowledge the existence of anarchy but emphasize the hierarchies of power and informal "regimes" within a formal sovereign state system. They assert that the leading state in the system uses its power to create and maintain a set of political and economic structures and certain norms of behavior (Keohane, 1980, 1984; Gilpin, 1981; Krasner, 1983; Modelski, 1978, 1987b) that serve its own interests. This will become more clear in our subsequent discussion of theories of power transition and hegemonic war.

In a general sense anarchy may explain why international political systems

are more conflictual than domestic political systems that have centralized mechanisms of regulation and enforcement. Anarchy itself, defined as the absence of a higher formal authority, is a structural constant, however, and cannot really explain the enormous variations in war and peace in the modern Westphalian system or in any other sovereign state system. If at some times the system seems more anarchic than at others it is because of greater concentrations of power, a greater degree of cooperation among the great powers, greater compliance with informal rules and norms, and other factors. To the extent that state behavior is different in such a system, it is these other variables, not anarchy, that explains this variation in behavior. Anarchy itself says nothing about the conditions and processes under which the continuous struggle for power and security is likely to trigger a direct conflict of vital interests or an intense conflict spiral, and the conditions and processes under which these are likely to escalate to war. Within the general realist paradigm there are several distinct theories that advance more specific propositions regarding the conditions and processes contributing to war in an anarchic sovereign state system, and to these we now turn.

Balance of Power Theory

The balance of power is one of the oldest concepts in the literature on international relations, but also one of the most ambiguous and least tractable (Haas, 1953; Claude, 1962). The central concepts associated with the balance of power, including balance, power, equilibrium, and stability, are rarely defined in any rigorous manner. The balance of power concept itself has been used in a variety of different ways. It has been used descriptively to refer to the distribution of power in the international system; prescriptively to suggest how states should conduct their foreign policies; and analytically to refer to a universal law of history (Morgenthau, 1967), a particular kind of international system (Kaplan, 1957; Claude, 1962), or a theory of state behavior (Waltz, 1979; Wagner, 1986). Ambiguity is increased further by the tendency by some to equate balance of power theory with realist theory or with any theory utilizing power as a central organizing concept.

There is no single balance of power theory but, instead, a multiplicity of theories, each of which begins with the hard core assumptions of realism, adds more empirical content to the paradigm through more specific definitions of power and other key concepts, and introduces additional assumptions. As a result, various balance of power theories generate conflicting propositions about the actions and interactions of states. Each of these balance of power "theories" is not so much a theory as a loose collection of mainly bivariate hypotheses, which are based on a poorly defined set of assumptions and are

without any well-developed connections between them.³¹ Many of these propositions are inconsistent not only with propositions from other frameworks but also with each other.³²

The confusion is all the greater because balance of power theorists cannot even agree on what it is they are trying to explain or, stated differently, what it is that a balance of power system is supposed to accomplish. Some argue that the purpose or function of the system is to maintain the peace (Wolfers, 1962:Chap. 8; Claude, 1962:55; Organski, 1968:280) but a majority of scholars reject this view. They argue that war is a means of achieving more important objectives. These other objectives are said to be the avoidance of hegemony (Morgenthau, 1967; Blainey, 1973:112), the maintenance of the independence of states—or at least of the great powers (Gulick, 1955; Organski, 1968:280; Wagner, 1986; Waltz, 1979), or the general maintenance of the status quo. Needless to say, this disagreement as to the identity of the dependent variable, and the possibility that there may be two or more dependent variables that are not collinear, inhibits the rigorous specification of the theory.

In spite of the variations in balance of power theories, these theories do share certain common features. The most significant are the emphasis on the prevention of hegemony through blocking coalitions as the fundamental rule of behavior and on the absence of hegemony as the most common state of affairs in world politics. As we will see, these features distinguish balance of power theory from hegemonic transition theories of various forms and from other power-oriented theories. Thus, balance of power theory is not the same as realist theory but is one version of realist theory. It is not restricted to a particular historical era and can be applied to bipolar systems involving two leading states as well as to multipolar systems characterized by five or so great powers of roughly equal strength. Balance of power theory is applicable in principle to (that is, its assumptions are satisfied in) the nuclear age as well as to previous eras (which is not to say that the theory gives equally accurate predictions in the nuclear and pre-nuclear eras).

This formulation is consistent in most respects with that of Waltz's (1979:Chap. 6) conception of balance of power theory as *the* theory of state behavior in any anarchic system (including the present one) consisting of two or more sovereign states (see also Wolfers, 1962:127). It is also consistent with Claude's (1962:Chaps. 2–3) conception of the balance of power as the system that exists by default in any international system unless it is consciously replaced by a world government or by a centralized and authoritative collective security arrangement. My formulation differs from these other conceptions by more clearly distinguishing balance of power theories from hegemonic theories, which downplay the behavioral consequences of anarchy

and the importance of balancing mechanisms and emphasize the existence of hegemony as a common state of affairs within a formally anarchic system.

This formulation differs also from those that add a number of stronger assumptions to balance of power theory: the existence of four or five great powers, an equilibrium of military power in the system, a balancer, a colonial frontier, a consensus regarding the legitimacy of the system, and other considerations (Morgenthau, 1967:Chap. 14; Gulick, 1955:Chap. 1; Hoffmann, 1968; Wright, 1965:Chap. 20). These assumptions would deprive balance of power theories of much of their explanatory power by restricting their applicability to a very narrow set of theoretical conditions and, therefore, to a small number of specific historical eras. Within such systems several key propositions of the theory would become nearly tautological and validated by assumption (that is, when there is equilibrium in the system and a consensus regarding the legitimacy of the system, and when states have limited aims, there will be equilibrium and few major wars to overthrow the system and establish one's own hegemony). These "assumptions" are better conceptualized as variables that form the basis of testable hypotheses regarding the optimal conditions for the effective functioning of the system to avoid hegemony and the outbreak of major wars.

Balance of power theorists suggest a number of mechanisms by which states attempt to maintain an equilibrium and prevent any one state from achieving a position of dominance. One important distinction is between external balancing and internal balancing (Waltz, 1979:168). External balancing refers primarily to the formation of alliances as a blocking coalition against a prospective aggressor, but it also includes territorial compensations or partitions for the purposes of redistributing the sources of power and, if necessary, threats of force, intervention, and even war (Gulick, 1955:Chap. 3). Internal balancing refers to an internal buildup of military capabilities and the economic and industrial foundations of military strength. Although there have been few attempts to specify the precise conditions under which each of these means is used and in what combination, it is clear that alliances play a central role in most versions of balance of power theory.³³

The central proposition of balance of power theory is that if one state threatens to achieve a position from which it would be able to dominate over the rest, a military coalition of most of the other great powers will form against it and a general war will follow. Thus the general perception that one state threatens to achieve a position of hegemony or dominance over the system is a sufficient but not necessary cause of general war involving nearly all the great powers in the system.³⁴ A number of general wars over the past five centuries of the modern system appear to fit this central balance of power proposition, including the wars against Philip II of Spain in the late sixteenth

century, against Louis XIV in the late seventeenth century, against Revolutionary and Napoleonic France a century later, and against Germany twice in this century.³⁵ We will return to this proposition when we consider theories of hegemonic war.

It is important to recognize that the preceding proposition is concerned primarily with the war behavior of the great powers and that most versions of balance of power theory are essentially theories of great power behavior. When balance of power theorists refer to stability or to the avoidance of war in the system, they mean the avoidance of war among the great powers. They rarely make specific predictions about the outbreak of war between secondary states.³⁶ Smaller wars between great powers and secondary states or colonies are not considered as destabilizing, and many balance of power theorists view limited war as a particularly useful means of maintaining the stability of the system. To the extent that balance of power theory generates propositions about war, it is for the most part about fairly major wars between the great powers (Deutsch and Singer, 1964:315-316; Waltz, 1967:270; Levy, 1985b:44), which are assumed to have a different set of causes than wars in general. In addition, hypotheses regarding balancing behavior refer to the great powers more than to other states. Great powers balance against potential hegemonies, whereas weaker states in the proximity of stronger states do what is necessary to survive, which often involves bandwagoning with the strong instead of balancing against them.³⁷

There is less agreement among balance of power theorists regarding other conditions conducive to war, or at least great power war, although a number of discrete propositions are associated with the theory. These propositions, loosely connected at best, stress the impact of several independent variables on the frequency and seriousness of great power war. These include the distribution of power in the system, polarity, the number of great powers, the structure of the alliance system, and the opportunities for great power expansion in the peripheries of the system.

THE DISTRIBUTION OF POWER IN THE SYSTEM

The distribution of power in the international system, particularly among the leading actors in the system, is a central variable in realist theories of international politics, although there are conflicting views as to the consequences of a particular distribution of power. Most balance of power theorists argue that a relatively equal distribution of power among the great powers is conducive to peace as well as to the avoidance of hegemony and the preservation of the independence of the major units in the system. Approximate parity facilitates peace (defined as the avoidance of major wars) because it denies any single state the ability to enforce its will on others, provides several

possible blocking coalitions that might form against any aggressor, and thus reinforces deterrence. Concentrations of power in the hands of a very small number of states are conducive to war because they reduce the number of blocking coalitions and hence undermine deterrence (Claude, 1962; Morgenthau, 1967; Gulick, 1955; Wright, 1965). Balance of power theorists concede that a given state is more likely to be deterred by a preponderance of power, and that preponderance by a nonaggressive status quo state would not necessarily be dangerous and would enhance deterrence. But because of the distrust of power in the abstract, the belief that power corrupts and that states' expansionist ambitions may be an increasing function of their power, and the fact that preponderance could not be made available as a deterrent without also being available as an instrument of aggression, balance of power theorists prefer the safety of parity.

These arguments are rejected by the "power preponderance" school, which reminds us of the Pax Romana under the overwhelming preponderance of ancient Rome and of the Pax Britannica in the nineteenth century. These scholars emphasize the deterrent functions of preponderance and argue that an equality of power is conducive to war rather than peace. Organski (1968:292), for example, argues that "periods of balance, real or imagined, are periods of warfare, while the periods of known preponderance are periods of peace." Parity increases the danger of war by tempting both sides to believe that they have a good chance of winning, whereas under conditions of preponderance war is unnecessary for the stronger and too risky for the weaker. Parity is particularly dangerous, according to Organski, in a situation in which power differentials are changing, but that question is better saved for our discussion of power transition theory.³⁸

The theoretical debate over the relative war proneness of parity and preponderance is flawed in several respects. One problem is the confusion over the relevant level of analysis. Arguments relating to deterrence in a dyadic situation involving two states have been used to support hypotheses regarding the effects of the distribution of power in the international *system*, but there is no logical connection between the two. Preponderance and equality must be defined as systemic-level variables if they are to be meaningful in systemic-level balance of power hypotheses.³⁹ A related problem is that deterrence and the likelihood of war in an *n*-actor system is a function of the distribution of power among coalitions (and potential coalitions) of states as well as among individual states, but the effects of alliances are rarely considered in this debate.⁴⁰

Another theoretical problem that has not been adequately explored is the precise form of the relationship between the distribution of power and the stability or war proneness of the system. Both balance of power and power preponderance formulations assume a linear (or at least monotonic) relation-

ship between the two variables but, in the absence of a complete explanatory theory, this is not convincing. One could imagine a curvilinear relationship in which equality or approximate equality is destabilizing because it tempts aggression (particularly by risk-acceptant actors); a moderate level of power concentration is stabilizing because it deters aggression without threatening hegemony; and an extremely high level of power concentration is destabilizing because it generates fears of hegemony and a defensive military coalition of all other great powers.

The distribution of power in the system is also a central variable in the old debate over the relative stability or war proneness of bipolar and multipolar systems. Although there is little agreement on the precise meaning of polarity (Nogee, 1975) and there have been few successful attempts to operationalize it (Bueno de Mesquita, 1975; Rapkin et al., 1979), it is usually defined as some measure of the distribution of power among the major actors in the system.⁴¹ Most balance of power theorists argue that multipolarity is more stable (that is, less prone to major wars) than bipolarity.⁴² There is a larger number of possible coalitions that might form against a potential aggressor, and the greater uncertainty that this generates for the aggressor reinforces deterrence. Multipolar systems can incorporate the role of a "balancer," a normally unaligned state that helps to deter war by constantly threatening to shift its decisive political and military support to the weaker coalition (Morgenthau, 1967:332-338; Kaplan, 1957:34; Claude, 1962:48; Bueno de Mesquita, 1975:190). Deutsch and Singer (1964) argue that the increased number of interaction opportunities in multipolar systems generates pluralist crosscutting pressures that reduce the likelihood of mutually reinforcing antagonisms.

Waltz (1979:Chap. 8), on the other hand, argues that bipolar systems are more stable. They are characterized by fewer potential sources of conflict; the absence of peripheries that invite expansionist policies; the concentration of attention of the two leading states on each other; the insignificant impact of the behavior of third states; and the stabilizing effects of crises between the two leading states. In addition, in a system with two major poles there is a tendency for the behavior of other great powers to revolve around this bipolar axis, which increases the predictability of international behavior, reduces uncertainty, and hence reduces the likelihood of a war by miscalculation. Many of these arguments are disputed by Rosecrance (1966), who suggests that bipolar systems may increase the incentives for conflict because of the greater tendency to perceive international politics as a zero-sum game in which even minor shifts in influence in the periphery are important. Rosecrance (1966) concludes that wars in multipolar systems will be more frequent but less serious than those under bipolar systems, whereas Waltz (1979:172) suggests the opposite.

Note that both sides of the polarity/stability debate agree that bipolarity

reduces uncertainty and that multipolarity increases it, but they disagree on the consequences of uncertainty. Advocates of bipolarity argue that the reduction of uncertainty reduces the likelihood of a war by miscalculation, whereas advocates of multipolarity argue that the reduction of uncertainty increases the likelihood of war by simplifying the calculations of the aggressor. Thus, uncertainty and the responses of statesmen to risk and uncertainty are critical intervening variables between the distribution of power and the likelihood of war.

One of the few to recognize this is Bueno de Mesquita (1980a, 1981b, 1985), who argues that in the absence of a consideration of the risk propensities of decision makers there is no logical or general relationship between the systemic distribution of power and the likelihood of war. He argues that some states and some statesmen are more willing to take gambles than others, and that the likelihood of war is a function of both the distribution of power and the risk propensities of decision makers.⁴³ This is a powerful, logically derived argument, the effects of which are demonstrated through a computer simulation (Bueno de Mesquita, 1981b). The addition of the risk orientation variable introduces enormous complications into any analysis of international politics, however, because the measurement of risk technically requires the extraordinarily difficult task of specifying the utility functions of the actors; but an analysis of the relationships between capability distributions and war is logically incomplete without it.⁴⁴

Because of the absence of a coherent theory specifying the conditions under which parity is stabilizing and those under which preponderance is stabilizing, and because of the failure to incorporate the risk orientations of statesmen, it is not surprising that empirical research has not produced any consistent findings on this question. Singer, Bremer, and Stuckey (1972) find that concentrations of military capabilities among the great powers are associated with war in the nineteenth century and with peace in the twentieth century, while parity is associated with peace in the nineteenth century and war in the twentieth century. There are several possible explanations for this anomaly. One is that other variables, operating independently or through their interaction effects with the distribution of power variable, may be more important determinants of the likelihood of war, so that the failure to control for polarity, alliances, and other variables accounts for the instability of the hypothesized relationship over time. Bueno de Mesquita and Lalman (1988a) demonstrate, however, that the addition of these structural variables to the model is insufficient to account for variations in the outbreak of war, and that it is necessary to incorporate the risk propensities of decision makers and their evaluations of the utility of alternative outcomes (see also Bueno de Mesquita, 1981b). Alternatively, Vasquez (1986) suggests that the distribution of power

affects the type of war that occurs rather than the likelihood of war.⁴⁵ The observed intercentury differences might also be the artifact of the particular methodological procedures used.

Although there has been a modest amount of work on polarity and war, the results are inconclusive, in part because of the ambiguity of the central concept of polarity (Wayman, 1984; Sabrosky, 1985; Most and Starr, 1987). This question does have some important implications for the nuclear era, and it is often argued that the "long peace" since 1945 is due to bipolarity as well as to the existence of nuclear weapons (Waltz, 1979; Gaddis, 1987). Theory provides conflicting answers to this question, and the failure to consider other cases of bipolarity precludes a controlled comparison that might enable the disentangling of the confounding effects of bipolarity and nuclear weapons in the contemporary era. Although alternative instances of bipolarity are rare, they do exist. The Greece of Athens and Sparta was essentially a bipolar system (Fleiss, 1966), as was Europe in the early sixteenth century with the Hapsburg-Valois rivalry dominating European diplomacy. The first was characterized by a hegemonic war for control over Greece and the second by a series of moderately intense great power wars for control over Italy and then Europe.⁴⁶ In the absence of further research on the relative stability of bipolar and multipolar systems, scholars and policymakers should be very cautious in assuming that bipolarity itself is a stabilizing force in world politics.

ALLIANCES

The lack of consistency among and within balance of power theories is illustrated by the role of alliances in those theories: some balance of power theorists claim that alliances contribute to peace while others insist that they increase the likelihood of war. Those in the first camp argue that alliances deter war by increasing the credibility of threats of military intervention in support of victims of aggression, so that alliances are an indispensable means of maintaining equilibrium in the system (Gulick, 1955:61-61; Holsti et al., 1973:31-32).⁴⁷ Others argue that alliances tend to generate counteralliances, which increase tensions, fuel the conflict spiral, and increase the likelihood of war, as demonstrated so clearly by World War I. As that case demonstrates, alliances can contribute to the scope of a war as well as its outbreak by increasing the likelihood that additional states will intervene. As in the debate over polarity and stability, there is agreement that alliances reduce the level of uncertainty in the system but disagreement as to whether this reduces the likelihood of a war by misperception or increases the likelihood of war by simplifying the calculations of the aggressor. This reflects a more general failure to identify the conditions under which alliances are stabilizing and the specific conditions under which they are destabilizing.

Many balance of power theorists make a distinction between *ad hoc* alliances and permanent alliances. *Ad hoc* alliances are formed in response to a dangerous shift in the distribution of power in the system or to a specific threat of aggression and are generally considered to be stabilizing (Wright, 1965:773). Permanent alliances are said to be destabilizing because they limit the "flexibility" of the alliance system by reducing the number of potential coalitions that could form against an aggressor and the number of states that might play the stabilizing role of a balancer (Morgenthau, 1967; Claude, 1962:47-48; Gulick, 1955:65-67). A related argument is that alliance commitments contribute to war by reducing the pluralist crosscutting pressures that minimize the likelihood of mutually reinforcing antagonisms (Deutsch and Singer, 1964). Thus, it is often argued that polarized alliance systems (characterized by two mutually distinct sets of alliances without crosscutting ties, as existed immediately prior to World War I) are destabilizing whereas nonpolarized alliances systems (as existed in Bismarckian Europe) are stabilizing.

There have been some quantitative empirical studies of the relationship between alliances and war. At the national level of analysis, Singer and Small (1966*b*) find that states involved in more alliances tend to be involved in more wars, although part of this relationship can be explained by a state's general level of diplomatic activity. At the systemic level, Singer and Small (1968) find that the number of alliances in the system is associated with peace in the nineteenth century but with war in the twentieth century, a discrepancy that has yet to be explained.⁴⁸ Levy (1981) finds that the formation of alliances over the last five centuries (but not in the nineteenth century) has generally been soon followed by war, but that most wars have not been preceded by alliances. He suggests that the tendency for wars to follow alliances may be explained by the tendency of states to form alliances for protection whenever they perceive that the probability of war is high, so that the causal linkage is from the anticipation of war to alliance formation and not from alliance formation to war. He suggests also that the conventional conception of the relationship between alliances and war is excessively static and theoretically misspecified. Attention should shift toward "the conceptualization of alliances as an intervening variable in a dynamic model of conflict escalation incorporating the reciprocal interactions among antecedent conditions, political tensions, alliances, and war" (Levy, 1981:612).

OTHER BALANCE OF POWER HYPOTHESES

Military capabilities and alliances are the central components of balance of power theory, but other variables have also been mentioned. One is the "openness of the colonial frontier," which reflects the availability of outlets

for great power expansion on the periphery of the system. The hypothesis is that the larger the number of outlets for expansion, the lower the level of great power war, since imperial expansion provides a "safety valve" for the system. It diverts great power competition from the core to the periphery of the system, where their vital interests are not so directly involved and where concessions can more easily be made (Morgenthau, 1967:341-342; Hoffmann, 1968). As the availability of outlets for expansion on the periphery is reduced, the situation begins to approximate a zero-sum game, where further expansion of one great power can now come only at the expense of another (Chatterjee, 1975:150-151). The increased costs and risks of expansion reduces expansionist activity, but the activity that does occur is more likely to involve the great powers in direct conflict. Thus, the frequent but limited wars of an open colonial frontier give way to the less frequent but more serious great power wars of a system of closed peripheries.

Both arguments have been made with respect to the outbreak of World War I. Some historians argue that imperial expansion did indeed provide a safety valve and stabilized the system for several decades (Thompson, 1962:Chap. 20), whereas others, including Marxists, argue that the partitioning of the system closed off opportunities for low-risk expansion and contributed to great power conflict and war in 1914 (Lenin, [1917] 1939). If patterns of great power conflict and cooperation in the periphery are not congruent with those in the core, it is conceivable that the resulting crosscutting pressures might actually reduce the intensity of great power conflict and the probability of war, as Thompson (1962) argues with respect to the 1914 case. The availability of expansionist outlets may interact with the polarity of the system to generate more complex causal linkages leading to war (Morgan and Levy, 1986).

Balance of power theories also give some emphasis to the impact of the nature of military power on the stability of the system. Military power, it is argued, should be measurable, stable, and a viable instrument of policy. Military power must be measurable so that statesmen can calculate their relative strengths and behave accordingly to maintain an equilibrium (Gulick, 1955:24-29; Claude, 1962:91). One factor enhancing the stability of the balance of power systems of the eighteenth and nineteenth centuries, it is argued, was the ease of measuring power on the basis of territory, population, army size, and financial strength, whereas today the measurement of power is much more complex. However, the hypothesized causal impacts have yet to be demonstrated empirically.

Balance of power arguments regarding the importance of technological stability are more plausible (Kaplan, 1957:31-32; Burns, 1957; Wright, 1965:761; Claude, 1962:91; Hoffmann, 1968:507). The hypothesis is that

rapid innovation in military technology is destabilizing and increases the likelihood of war, for several reasons. It creates uncertainties regarding the actual balance of military capabilities, and these uncertainties themselves are destabilizing. This line of argument is rarely developed, however, and we have seen that the consequences of uncertainty depend on the risk orientations of decision makers. A more plausible argument, although one that is rarely made, is that innovation in weapons systems or in transportation or communication technologies generates a temporary increase in the military capabilities of one state, which creates a window of opportunity before technological diffusion brings those same innovations to others. This window of opportunity itself is destabilizing because it creates temporary disparities in strength and incentives for preventive action (Van Evera, 1984a; Levy, 1987). Finally, rapid technological change may contribute to war indirectly by intensifying the arms race. It may create a new generation of weapons systems that thrust the arms race onto a new level that is less amenable to arms control agreements, as Kissinger (1982) argues with respect to the development of multiple independently targetable re-entry vehicles (MIRVs). This literature generally assumes that arms races contribute to the increased likelihood of war, but the evidence on this question is mixed (Wallace, 1979, 1981; Smith, 1980; Altfeld, 1983; Houweling and Siccama, 1988:Chap. 8).

Of course, some kinds of technological change may be more destabilizing than others. Huntington (1958) argues that quantitative arms races are more likely than qualitative ones to end up in war; however, this intriguing hypothesis has yet to be systematically tested. Others argue that military innovation favoring the offense are particularly destabilizing (Wright, 1965:761), especially when they create incentives to strike first. There is now a lively literature on the offensive/defensive balance of military technology, but this debate, like the debate on the connection between arms races and war, is no longer associated with balance of power theory (Jervis, 1978; Levy, 1984a; Van Evera, 1984a; Snyder, 1984a, 1984b; Sagan, 1986).

Balance of power theorists also assert that military force should be a viable instrument of state policy, because if alliances and armaments fail intervention and war may be necessary means for maintaining an equilibrium in the system. Thus, Claude (1962:91) argues, "war should be imaginable, controllable, usable." This is a common but exceedingly vague argument, for no attempt is made to specify the conditions under which force is not controllable and usable. Presumably the argument is motivated by the sense that the nuclear revolution has reduced the utility of some types of military power in the contemporary system, but few attempts have been made to refine this general argument into a set of theoretically meaningful propositions. The theoretical literature on the utility of military power in the nuclear age (Knorr,

1966, 1977; Gompert, 1977; Art, 1980; Organski and Kugler, 1980; Jervis, 1984, 1988b) has not been incorporated into the balance of power literature.

Another assertion often made by balance of power theorists, but one that is rarely developed into meaningful and testable propositions, is that the stability of a balance of power system is enhanced if statesmen are free to pursue *realpolitik* in the absence of domestic constraints. The hypothesis is that any internal bureaucratic or domestic constraints on the freedom of statesmen to conduct policy on the basis of power calculations alone reduces the effectiveness of the balancing mechanism and decreases the stability of the system (Claude, 1962; Wright, 1965:Chap. 20; Morgenthau, 1967). These things are difficult to measure, however, and the empirical literature on the balance of power generally focuses on structural hypotheses dealing with distributions of military power and alliances. There is a lively debate on the relative war proneness of democratic and nondemocratic systems, and this debate will be examined later.

Balance of power theorists point to a number of developments in the contemporary system that, according to the theory, should reduce the effectiveness of balancing mechanisms in maintaining the stability of the system. These include the reduction of the number of major actors and the transition from multipolarity to bipolarity, the increasing concentration of power in the hands of the two superpowers, the decreasing flexibility of the alliance system due to the rise of rigid ideologies, the disappearance of the balancer, the decreasing opportunities for great power expansion on the periphery, increasing technological instability, and the declining utility of military force as an instrument of policy for the great powers (Claude, 1962:88-93; Morgenthau, 1967:Chap. 21; Hoffmann, 1968). Thus, Claude (1962:92-93) concludes that while a balance of power system still exists, "all the most fundamental tendencies affecting the political realm in recent generations run counter to the requirements of a workable system of balance of power." The implication of these balance of power hypotheses, taken as a whole, is that the contemporary system should be less stable than those of the past (that is, there should be a higher incidence of major wars).

Although the four decades since World War II do not provide conclusive evidence, it appears that this period has been, if anything, more stable than previous historical systems. This clearly raises some serious questions about the applicability of balance of power theory in the contemporary era. The failure of balance of power theory to deal with the increased importance of economic variables has been frequently emphasized, but its failure to come to terms with the changing nature of military power may be even more important for its failed predictions regarding behavior on war and peace issues. In particular, there is a failure to incorporate a variable reflecting the infeasibility

of population defense in the nuclear age (Schelling, 1966:Chap. 1; Art, 1980). The infeasibility of population defense has created a mutual system of hostages in which the very survival of states requires the cooperation of other states. This balance of terror has reinforced deterrence and reduced (but not eliminated) the likelihood of a major war between the leading great powers.

The question of the applicability of balance of power theories to the nuclear era is important, but perhaps the more basic question concerns the logical coherence of the theory and its validity in *any* historical era. The theory is in reality a collection of poorly integrated hypotheses with relatively weak links between them. Many of the hypotheses are mutually inconsistent. The empirical evidence suggests that some key conditions identified by the theory contribute to peace in one period and to war in another, and there has been little success in identifying the theoretical conditions under which each of these hypotheses might be true. The primary exception, and it is an important one, is that there appears to be rather strong evidence in support of the proposition that threats by any single state of achieving a position of hegemony in the system are a sufficient condition for a general war involving nearly all the great powers.

THE DYADIC BALANCE OF POWER

Although balance of power theories are basically systemic in orientation, in that they attempt to explain the interaction of great powers and other states in the system, there is one important dyadic-level hypotheses that is often associated with balance of power theories. It is argued that states will not initiate a war unless they expect to win, so that in a dyadic relationship a state's military superiority is a necessary (but not sufficient) condition for it to initiate a war. Stated differently, military superiority (perhaps modified by a loss-of-strength gradient) is sufficient for deterrence. This hypothesis forms the basis of many informal theories of deterrence and has generated some interesting empirical research.

This hypothesis is reflected in the old adage *si vis pacem para bellum* (if you want peace, prepare for war—presumably by building up one's military capabilities). The hypothesis states necessary but not sufficient conditions, so it does not imply that the strong will always attack the weak, but only that the weak will never attack the strong in a situation isolated from the possible intervention of allies. One can find, however, stronger versions of this hypothesis. Many realists distinguish between revisionist states and status quo states (how this distinction is operationalized is not always clear) and argue that for revisionist states the greater their military superiority over a particular rival the greater the likelihood that it will resort to military action to increase their power still further. This hypothesis is reflected in the Athenians' argu-

ment to the Melians in the Melian Dialogue that "the standard of justice depends on the equality of power to compel and that in fact the strong do what they have the power to do and the weak accept what they have to accept" (Thucydides, [431–411 B.C.]1954:V/89). It is also implicit in many theories of deterrence. These often assume that the adversary is inherently aggressive and that therefore military superiority (or at least parity) is not only a sufficient condition for deterrence (if A has superiority B will not attack) but also a necessary condition for deterrence (if A does not have superiority or at least parity, B probably will attack).

There are enough situations in which the strong fail to take advantage of opportunities to expand at the expense of the weak, as well as compelling theoretical arguments to disconfirm the second hypothesis. Even the weaker version of the hypothesis is open to question, however, because it is not clear that military superiority is sufficient for deterrence. The basis for the argument that militarily inferior states will not initiate wars is the assumption that military capabilities are a nearly perfect indicator of the probability of victory in war and that states will not go to war if they expect to lose. There are other factors affecting the probability of victory in war, of course (and military capabilities are not perfectly measurable in any case), but even if these are included there are still logical problems with the hypothesis.⁴⁹ It is more reasonable to hypothesize that states act more on the basis of expected utility than on the basis of probability alone. That is, actors consider the likely costs and benefits of war as well as the probability of victory. Actions, including the initiation of war, involving a low probability of success can be rationally undertaken if their outcomes, though unlikely, involve substantial benefits and if the costs of defeat are somehow limited. In addition, the costs and benefits of alternative actions must be compared to the costs and benefits of the status quo. Consequently, weaker states may initiate war if they have even a small chance of reaping substantial gains, or if the existing status quo is so unattractive that they feel that they have nothing to lose. These arguments are implicit in the concept of "asymmetry of motivation" emphasized by George, Hall, and Simmons (1971) and George and Smoke (1974), and in Jervis' (1979:314–317) emphasis on the importance of "intrinsic interests." The importance of both the expected probability of victory as reflected in military capabilities and the expected costs and benefits from war are integrated into a single integrated expected utility theory of war by Bueno de Mesquita (1981a, 1985).

Although these arguments would seem to be rather obvious, there are many proponents of a pure power model that posit that a state's military inferiority will preclude its initiation of war. In fact, the pervasiveness of the capability model has led to numerous empirical studies in an attempt to test several

variations of the basic hypothesis. Many of these are quantitative empirical studies covering fairly extensive temporal domains. I have reviewed many of these studies elsewhere (Levy, 1989b), and here I will simply summarize the results.

Although some studies do support the dyadic preponderance hypothesis (Weede, 1976; Garnham, 1976a, 1976b; Organski and Kugler, 1980), much of the evidence runs against it. This evidence suggests that the dyadic balance of power between two states is a poor predictor of the probability of war between them and that the balance of resolve may be more important than the balance of military capabilities (Zinnes et al., 1961; Maoz, 1983; Wayman et al., 1983; Ferris, 1973; Karsten et al., 1984). Siverson and Tennefoss (1984) find that an equality of national strength, supplemented by major power alliances for weaker states, tends to reduce the likelihood of conflict escalation. This leads the authors to a cautious rejection of the power preponderance hypothesis.⁵⁰

Analyses of the relative strength of war initiators and defenders generate similar conclusions. In an analysis of the nine wars between major powers since 1815, Singer and Small (1974:284-289) find that the initiator of the war was the weaker party in four of the nine cases. On the basis of this and other evidence they reject the "weakness leads to war" proposition. Bueno de Mesquita (1981a:Chap. 5) extends the analysis to all interstate wars. He finds that war initiators tend to be equal or stronger than their victims most of the time (in 59 of 76 cases). But this still leaves nearly a fourth of all initiators being the weaker party, which is more than sufficient to reject the hypothesis that military superiority is necessary for deterrence. Moreover, the relationship between expected utility and war initiation is even stronger and also more stable over time, reinforcing the argument that the dyadic balance of power is an insufficient predictor of the likelihood of war initiation in the absence of a consideration of the balance of interests or resolve.

There is also a body of literature on extended deterrence of aggression against an ally. The evidence suggests that although deterrence may be reinforced by the balance of military forces immediately available and proximate to the targeted ally, the overall balance of military power and potential between threatener and defender has no systematic impact on the likelihood of military action and the defender's possession of nuclear weapons has only a marginal impact (Huth and Russett, 1984; Russett, 1963, 1967; Huth, 1988). These quantitative empirical findings are reinforced by those from case studies by Lebow (1981, 1984) and Stein (1985a, 1985b), which emphasize the domestic incentives that often lead to the initiation of conflict in spite of the existence of a credible deterrent threat by the adversary. All of this adds support to the argument by George and Smoke (1974) that the emphasis of conventional deterrence theory on the defender's capabilities and on his or her

ability to signal a credible commitment is mistaken, and that more attention needs to be directed to the conditions affecting the initiator's decision to undertake military action. The conclusion of the majority of these studies that a state's military superiority is not a sufficient condition to deter aggression by the adversary is of major significance for contemporary policy, and there is little reason to believe that it has been significantly affected by the development of nuclear weapons and delivery systems.⁵¹

Another theory that traces the causes of war to the dyadic power relationship between two states, but one which emphasizes the perceptions of this relationship rather than the objective balance of power, is suggested by Blainey (1973). He argues that war is a dispute about the measurement of power between two states and that wars usually begin when two nations disagree on their relative strength, defined in terms of military power. If states could agree on the "objective" balance of power they could predict the outcome of the war, settle their differences on the basis of compromises proportional to their shared expectations regarding the outcome of war, and therefore avoid the costs of fighting.⁵²

Blainey's analysis is limited by a number of theoretical problems. One is his implicit assumption that military power is fungible across different issue areas (for example, that disputes over trade or ideology can be resolved by the threat or use of military power), and thus his failure to consider the potential use of other policy instruments as alternatives to war. This is a particularly serious limitation for the contemporary era, where the applicability of military power across issues has been severely restricted, especially for the advanced industrial states. Blainey also minimizes the importance of the issues at stake and implies that disagreements over the dyadic balance of power are equally serious for everything from minor cultural disputes to major territorial disputes. Another problem is the failure to include the expected costs of the war into decision makers' calculations. Although the difference in perceptions of relative power tap the relative costs that should be expected by each side, it fails to tap the absolute costs that are expected from a war. By failing to incorporate issues and costs, Blainey's theory fails to incorporate simple cost-benefit calculations regarding whether the expected gains from war outweigh its expected costs.

Bueno de Mesquita's Expected Utility Theory of War

Bueno de Mesquita's (1981a, 1985) expected utility theory of international conflict is an ambitious attempt to construct a parsimonious and formalized theory of decisions for war, to make operational the key theoretical concepts, and to use statistical techniques to test the theory against the historical evi-

dence.⁵³ The theory purports to explain the necessary conditions for the rational initiation of international war or other forms of serious international disputes, but makes no attempt to specify sufficient conditions. Unlike most realist theories of war, which give primary attention to the great powers, Bueno de Mesquita's theory applies to all state actors. Key propositions derived from the theory have been tested against the historical evidence for the period from 1816 to 1980, and these empirical tests of the theory appear to confirm most of the key hypotheses at relatively high levels of statistical significance. The theory is recognized by some scholars as one of the most important theories of the causes of war, whereas others criticize it for its methodological limitations or its lack of theoretical or empirical content. Some aspects of the theory are highly technical, and partly for that reason a thorough presentation and critique of the theory would not be appropriate here. A briefer summary of the theory's key assumptions and some of the more important propositions derived from these assumptions, along with some of its limitations, would be more useful. The initial version of the theory has undergone some important modifications, and these also will be mentioned.⁵⁴

Bueno de Mesquita (1981a, 1985) begins with a relatively small number of key assumptions: (1) decision making on issues of war and peace can be viewed as if there is a single dominant leader with the veto power to block decisions for war but not necessarily the power to impose war against the preferences of other internal actors⁵⁵; (2) decision makers can be treated as if they are rational, expected-utility maximizers⁵⁶; (3) differences in leaders' orientations toward risk taking influence their decisions; (4) uncertainty about the likely behavior of other states in the event of conflict influences decisions for war or peace; (5) the probability of success in a war or dispute is an increasing function of a state's (or coalition's) military capabilities relative to those of its adversary; (6) national power decays over distance; and (7) utilities are a function of the congruence of policy goals between states, as reflected by their formal military alliances. Note that the first five assumptions underlie the deductive theory itself, while the last two deal with its operationalization.

Rational, expected-utility maximizing with respect to war and peace decisions would involve the following calculations. Leaders calculate their expected utility from a bilateral war on the basis of an evaluation of the costs and benefits of victory and defeat, each weighted by its probability of occurrence.⁵⁷ They then calculate the additions or subtractions from their expected utility that would result from the intervention of third parties in support of their adversaries or themselves. The probabilities of victory and defeat are a linear function of the distribution of military capabilities, modified by a loss-

of-strength gradient over distance. The costs and benefits of alternative outcomes are more difficult to determine. It is assumed that the purpose of war is to change the foreign policies of other states in order to bring them more in line with one's own policies and presumably one's own interests, and that the extent of congruence of the foreign policies of two states is reflected in the similarities of the alliance patterns of the two states. The more states ally with the same states, the greater the congruence of their policies and their interests. Thus, alliance patterns are a surrogate measure of the similarities of interests of states. Expected-utility calculations are then made on the basis of these factors.

It is important to note that Bueno de Mesquita (1981a:29-32) does not assume that political leaders actually make all of these calculations. He focuses not on their actual decision-making processes but instead on their subsequent behavior. He argues that the validity of the theory is to be judged by the empirical validity of the behavioral predictions of the theory regarding foreign policy decisions rather than by the empirical accuracy of the assumptions of the theory. Thus, the rather controversial assumption that political leaders act *as if* they are rational expected-utility maximizers.⁵⁸

These assumptions generate numerous propositions about international conflict. The central proposition is that positive expected utility is a necessary condition for the initiation of war: states will not go to war if they have negative expected utility. Positive expected utility is not a sufficient condition for war, however, so that states may decide not to go to war even if they expect positive utility from doing so. There may be other policy options, for example, that are expected to bring even greater utility (although these are not formally incorporated into the theory). As we have seen, this expected-utility hypothesis is more theoretically plausible than the dyadic power preponderance hypothesis and, in fact, empirical tests show that it is more consistent with the historical record (Bueno de Mesquita, 1981a).

Because utility functions are invariant under a linear transformation (one can multiply all utilities by a constant value or add a constant), Bueno de Mesquita (1981a) is free to set the utility of the status quo at zero, which he does.⁵⁹ The necessary condition for war is thus that the expected outcome of the war is preferred to the status quo. This condition would seem to be reasonable, for states that expect that war will leave them worse off than the status quo should be disinclined to initiate war. The problem, however, is that this formulation assumes that doing nothing leaves one at the status quo. If one expected that the consequences of doing nothing would not be the absence of war but instead an attack by the adversary, and that the expected utility of an adversary's initiation of war would be worse than the expected utility of one's own preemption, it might very well be rational to initiate war

in spite of war's negative utility. This aspect of strategic interaction cannot easily be captured in a decision-theoretic model such as expected utility theory. It should also be added that the utilities in Bueno de Mesquita's model capture only *state* interests. It is possible for a political leader to have bureaucratic, domestic political, or personal interests that generate a net positive expected utility for war, which would allow for the rational initiation of war in spite of the negative utility in terms of state interests.

The basic positive expected-utility hypothesis and other hypotheses deriving from the theory are tested empirically using the war, capability, and militarized interstate dispute data for 1816 to 1980 from the Correlates of War project. Empirical support for the basic proposition is extraordinarily high by normal social science standards. Of the 76 wars initiated since 1815, 65 (86 percent) had positive or zero expected utility as defined by Bueno de Mesquita (1981a:129-131), and only 11 (15 percent) had negative expected utility, a statistically significant ($p < .001$) difference. The fact that some cases of war initiation with negative expected utility have occurred suggests that positive expected utility is not technically a necessary condition for war initiation but, instead, that the likelihood of war initiation is a strongly increasing function of expected utility (Bueno de Mesquita [1981a:126-127] explains the anomalous cases in terms of measurement error.) Moreover, the fact that the probability of war initiation for states with positive expected utility is still very low (83 war initiations per 100,000 opportunities, if opportunity is defined on an annual basis in terms of the number of dyads in the international system) reinforces the notion that the theory does not specify sufficient conditions for conflict. These and comparable findings for related empirical tests seem to be robust and are valid for several different regions of the world and for both the nineteenth and twentieth centuries.⁶⁰ Comparisons with pure power models of war initiation (military superiority is a necessary condition for war initiation) demonstrates that the expected utility model is more consistent with the historical record (Bueno de Mesquita, 1981a:140-145). The statistical associations involved are considerably stronger and of a higher degree of significance than is normally found in quantitative empirical studies of international conflict.⁶¹

The initial version of the theory included numerous other propositions. (1) Nonaligned states cannot rationally attack more powerful nonaligned states.⁶² (2) Great powers are more likely than lesser powers to fight in wars that are not of great significance for them. (3) Expectations of third state behavior may have a critical impact on decisions for war. (4) If i 's positive expected utility from a war with j is less than j 's expected loss from a war with i , both i and j prefer to negotiate rather than fight and war should not occur.⁶³ Although the preceding propositions are not particularly novel (but their axioma-

tic foundation is), the theory does generate some counterintuitive propositions. (5) Under some circumstances a nonaligned state can rationally attack a more powerful adversary even if the adversary is expected to attract allies, and it may also be rational for a state to attack the stronger of two aligned states. (6) Moreover, not only is it sometimes rational for allies to fight each other, but conflict should be more common between allies than between enemies.⁶⁴

These other propositions also receive fairly strong empirical support for the period from 1816 to 1980. Regarding the counterintuitive proposition regarding wars between allies, for example, it is found that allies fight each other three times more frequently (five times in the European region) than would be expected by chance on the basis of the number of allied states in the system. The fact that these propositions are all derived from the same set of assumptions and integrated into a single framework makes the empirical results and their theoretical interpretation all the more powerful. The power of the theory is demonstrated further by its ability to resolve some contradictions between balance of power theory and power preponderance theory regarding the consequences of certain distributions of power and the role of alliances. It subsumes contradictory propositions from these other theories into a single framework that specifies the conditions under which the predictions of each are true (Bueno de Mesquita, 1988).

In spite of its theoretical elegance and strong predictive power Bueno de Mesquita's (1981a) expected utility model has some serious theoretical problems, and many of these have been pointed out by the critics (Zagare, 1982; Wagner, 1984; Majeski and Sylvan, 1984; Maoz, 1982a; Khong, 1984). These problems include the assumption that there are only two possible outcomes, war and peace; the failure to incorporate elements of strategic interaction and possible incentives for preemption; the failure to incorporate the costs of war into the model⁶⁵; the interpersonal comparisons of utility; the strong tendency to treat conflict as a zero-sum game; the ad hoc treatment of risk orientation and the assumption that all major powers are risk neutral; the application of risk and uncertainty to third-party intervention but not to bilateral conflicts; the ambiguity of the identity of the initiator of a conflict, which is a central component of the theory; the tendency for a disproportionately large number of the expected utilities for war to cluster around zero and the resulting sensitivity of the results to small errors in the measurement of utilities; the use of formal alliance commitments as a measure of utilities; and some rather puzzling utility values in certain cases, which raise questions about the conceptualization and measurement of utility.⁶⁶

Several of these problems are rectified, new theoretical questions are explored, and new propositions derived in later modifications of the theory by

Bueno de Mesquita and his students (Bueno de Mesquita, 1985; Morrow, 1985, 1987; Bueno de Mesquita and Lalman, 1986). Risk orientations have been endogenously derived and fully integrated into the theory. The tendencies toward interpersonal comparisons of utility have been eliminated and the tendency to treat conflict as zero sum has been greatly reduced. The initiation and escalation of conflict under conditions of differing perceptions as well as shared perceptions is analyzed, and the theory provides a potentially useful framework for the analysis of the consequences of misperception. The expected utility of the status quo has been made endogenous, and the expected costs of conflict have been integrated into the theory. The dichotomous treatment of outcomes has been expanded, providing a useful framework for differentiating among war, intervention, and peace (Bueno de Mesquita and Lalman, 1986), and a more generalized continuous-outcome expected-utility model has been proposed (Morrow, 1985). The transformation into polar coordinates (Bueno de Mesquita and Lalman, 1986) has facilitated the fuller incorporation of the costs of conflict into the model and the analysis of the dynamics of arms races. The most recent development is the application of a model of sequential games and incomplete information to the analysis of arms races (Bueno de Mesquita and Lalman, 1988b).

Thus modifications of Bueno de Mesquita's expected-utility theory of war have resolved some of the earlier inconsistencies and anomalies in the theory and have generated new propositions explaining a wider range of empirical phenomena. This is not to say, however, that all of the major problems have been resolved. The assumptions that there exist a single dominant decision maker who maximizes his or her expected utility, and that domestic and bureaucratic political considerations as well as individual belief systems and psychological processes have no impact on decisions for war, is open to question. There is substantial evidence from the case study literature and from some quantitative empirical studies, some of which we will cover later in this chapter, that individual, societal, and governmental variables have played critical roles in the processes leading to many wars.⁶⁷ There is also substantial evidence in social psychology that individual decision-making processes deviate significantly from the rational models postulated by microeconomic theory. These bodies of evidence raise important questions regarding the descriptive accuracy of the rational state-actor assumption and therefore of Bueno de Mesquita's expected-utility theory of war.

In the *as if* assumption, however, Bueno de Mesquita explicitly rejects the relevance of the descriptive accuracy criterion. He emphasizes instead the explanatory and predictive power of the theory, as reflected by the theory's logically deductive structure and by the empirical accuracy of its key propositions. If we accept this for the moment (and we are by no means obligated to

do so), we are led back to the question of the theoretical content of these propositions and the strength of their empirical support.⁶⁸

The fundamental conceptual problem lies in the measurement of utilities. The assumptions that one state's utility for war against another is a function of the similarity of their formal military alliances and that risk orientation can be derived from a state's best and worst possible alliance portfolios provide an ingenious way of measuring utilities with observable systemic-level indicators and have therefore been useful in permitting an empirical test of the theory. Conceptually, however, formal military alliances are an unsatisfactory measure of utilities or of risk orientation, and alternative measures need to be constructed in the future. Alliances are formed in response to threats to one's military security interests and do not necessarily reflect the congruence of two states' overall foreign policies and the similarity of their interests.⁶⁹ A formal military alliance is one component of a state's interests, but only one, and is neither a necessary or sufficient indicator of the congruence of interests and policies between states.⁷⁰

I suspect that Bueno de Mesquita would respond that the validity of alliances as a measure of utilities is an important question, but one that has little relevance for the truth or falseness of his theory. He insists that "the truthfulness of a deduced relationship among variables in a world that complies with the theory's assumptions is a logical, and not an empirical question." Empirical analysis is relevant for the "usefulness" of a theory rather than its truth (Bueno de Mesquita, 1981a:9-10).

I have some difficulty with the epistemology underlying this argument. A theory is defined not only by its logical structure but also by its empirical content. It includes not only "internal principles" but also "bridge principles" linking the internal logical structure to the empirical world that it purports to explain (Hempel, 1966:Chap. 6; Nagel, 1961). Expected-utility theory itself is not a theory of war but a mathematical model with a logical structure but no empirical content. Bueno de Mesquita has constructed a theory of war by linking the abstract mathematical symbols of the expected-utility model with empirical phenomenon such as states and their dominant decision makers, military capabilities, military alliances, and so forth. In the absence of these linkages the model has no theoretical content and provides no explanatory power. Thus, the conceptualization of utilities in terms of alliance patterns is an essential element of the theory, and the validity of the theory should be judged in part by the validity of alliance patterns as indicators of utility.

This raises another point. Alliances are important not only in themselves but because they are manifestations of deeper communalities of interests between states and serve as surrogate measures of those interests. An important part of understanding the causes of war is to understand the nature of

those deeper interests, and the specification of those interests would add greater empirical content to the theory. More generally, the concept of utility cannot be considered by itself to be a substantively meaningful independent causal variable, and the usefulness of that concept is ultimately dependent on the specification of the systemic, societal, economic, governmental, and individual variables that influence the utility calculations of decision makers.

Because the measurement of utilities is central to Bueno de Mesquita's expected utility theory, it would be useful to confirm the validity of the alliance indicator by demonstrating that it is consistent with other indicators of the congruence of the policies and interests of states. Otherwise, there is a danger that the operational hypotheses actually being tested may not be the same as the hypotheses formally derived from the theory, and that the empirical findings may say something about the connection between alliances and war but not necessarily about utilities. The possible use of a case study methodology to confirm decision makers' evaluations of the utility of war in a number of well-selected and critical cases should not be overlooked. Case studies cannot substitute for large-N correlational methodologies for testing most hypotheses because of their restricted ability to generalize over many cases, but their higher level of construct validity (congruence between theoretical concept and empirical indicator) suggests their potential use in confirming the validity of aggregate indicators.

The empirical findings in *The War Trap* are also affected in important ways by the classification of initiators and victims and of winners and losers. Bueno de Mesquita (1981a:99) conceives of the initiator as the state that had "the last reasonable chance to avert" the military conflict, that is operationalized in terms of the first state to engage in sustained combat on the opponent's territory. Although this appears to be a reasonable approach, the concept of a initiator is extremely complex, and so many of the statistical tests hinge on the proper identification of the initiator that further confirmation of the validity of this indicator is necessary. The classification of victory or defeat for members of coalitions is also difficult, as indicated by the classification of Poland as a victor in World War II and Serbia as a victor in World War I. Confidence in the strength of the empirical results would be greatly enhanced by a review of the data and refinement of classification and coding procedures.

These limitations only partly detract from the overall contribution of Bueno de Mesquita's expected utility theory to the study of international conflict. The core of the theory reflects the conventional idea that state behavior with respect to issues of war and peace are based on careful calculations of the costs and benefits of various policy options, which is a central assumption in realist international theory. The idea that statesmen think in terms of expected utility is not necessarily new, but it manages to integrate power-based notions that imply that statesmen think only in terms of probabilities with other

concepts that give primary (but not exclusive) emphasis to value considerations (asymmetry of motivation, balance of interests). The contribution of the theory is its formalization of these simple notion into a parsimonious, logically integrated, and empirically testable theory of international behavior. Other theories may provide a richer explanation of the conditions and processes leading to war, but none combines as strong a combination of rigorous theorizing with rigorous and systematic empirical research. The further development of this expected utility theory—including its integration into a game theoretic framework to incorporate the strategic interaction between states (Morrow, 1986), the use of a sequential model to capture the dynamic processes involving both reputational effects and exogenous changes in relative power capabilities, the construction of alternative measures of utilities that incorporate both economic ties between states and the domestic political interests of political elites, the refinement of other operational indicators, and the incorporation of sufficient as well as necessary conditions for war—is one of the most important paths for future research on international conflict.

Theories of Power Transition and Hegemonic War

ORGANSKI'S POWER TRANSITION THEORY

One of Organski's (1968) criticisms of balance of power theory nearly three decades ago was that its conception of military power in terms of territory, population, armaments, and allies was basically static and ignored the role of internal economic development as a source of the changing military power of states. Organski argues that this conception may have been valid prior to the mid-eighteenth century, but for the last two centuries the primary source of national power has been industrialization, which leads to differential rates of economic growth between states and therefore to changing distributions of power in the international system. These changing power differentials are the primary source of war, or at least of major war, in international politics. They arise primarily from uneven rates of economic development and secondarily from institutional arrangements and social processes that affect the efficiency with which the state can extract human and material resources from society and aggregate it for use in serving state interests (Organski and Kugler, 1980:Chap. 1-2). This forms the basis of Organski's (1968) power transition theory, which has been further refined and tested by Organski and Kugler (1980).

Organski (1968:vii) summarizes the theory as follows

The overall patterns of world politics in the modern era are caused by sharp differences in social, economic, and political modernization among and within nations. Differential modernization in turn causes shifts in the distribution of

world power among states. It is these changes that underlie the wars and other conflicts of our era. The immensely complex patterns that create these shifts in power, the shifts themselves, and their consequences are not easily deflected by diplomacy or military power.

Organski's basic argument is that the likelihood of a major war is greatest when the military power of a dissatisfied challenger begins to approach those of the leading state in the system, for the challenger will usually initiate a war to gain benefits, privileges, and influence commensurate with its newly acquired military power.⁷¹ Thus the key condition for war is not the equality of capabilities per se nor the changes in those capabilities but, instead, the interaction effect between these two variables.⁷² Organski also concedes that it is possible for world leadership to be transferred peacefully without violent conflict, but argues that this rarely happens: "the major wars of recent history have all been wars involving the dominant nation and its allies against a challenger who has recently risen in power thanks to industrialization" (Organski, 1968:376). Organski and Kugler (1980:Chap. 1) claim that their theory is confirmed by an empirical test based on the Franco-Prussian War, Russo-Japanese War, and two world wars.

The idea that changing power differentials are a primary cause of international war, particularly major wars involving the leading states in the system, is not really new. It can be traced to Thucydides' ([431–411 B.C.] 1954:1/23) argument that "what made the Peloponnesian War inevitable was the growth of Athenian power and the fear which this caused in Sparta," and scattered references to the importance of uneven rates of growth can be found in a long history of realist thinking on international politics. The dominant orientation within the realist tradition, however, is balance of power theory, which focuses on the existing structure of the international system as the primary independent variable. Moreover, the condition of near equality is stabilizing in balance of power theory but destabilizing in power transition theory. To the extent that changing power differentials are explicitly recognized in balance of power theory, it is the increasing power of the already dominant state, leading to an opposing military coalition to block it from achieving a position of hegemony. In addition, the argument that alliances generally play a minimal role in the outbreak of major power war is also a distinct change in emphasis from balance of power theory (Organski and Kugler, 1980:24–28; Bueno de Mesquita, 1980a:377–380). Organski's systematic attempt to construct a theory of major war around the concept of power transitions driven by uneven rates of industrialization has led to a renewed emphasis on and systemization of this old idea.

Organski's (1968) focus on industrialization as the primary source of changing military capabilities and power transitions is somewhat limiting.

because there were significant power transitions prior to the industrial era; several of these have been analyzed by Gilpin (1981) and others. The Organski and Kugler (1980) test of power transition theory, including the relevance of the Franco-Prussian and Russo-Japanese cases, has also been criticized (Bueno de Mesquita, 1980a:376–380; Thompson, 1983b; Levy, 1985a:353–354). One aspect of the Organski and Kugler formulation that is particularly open to question is their argument that the weaker but rising challenger initiates the war against the dominant power. It is not clear why the challenger should fight rather than wait until the trends in underlying economic and military power—which Organski and Kugler (1980:Chap. 4) claim are irreversible—propel it into the stronger position. An alternative hypothesis suggests a more plausible mechanism by which an impending power transition may lead to war: the leading state may launch a "preventive war" in an attempt to block or retard the rise of the challenger while that opportunity is still available.

The theoretical importance of preventive war has been widely recognized by political scientists (Vagts, 1956; Lebow, 1981; Gilpin, 1981:Chap. 5; Van Evera, 1984b:Chap. 2; Levy, 1987). Its historical importance has also been recognized. For Thucydides ([431–411 B.C.] 1954:1/69), Sparta's primary motivation was reflected in the Corinthians' argument for war against Athens: "instead of going out to meet them, you prefer to stand still and wait till you are attacked, thus hazarding everything by fighting with opponents who have grown far stronger than they were originally." Howard (1983:Chap. 1) suggests that Thucydides' explanation for the origins of the Peloponnesian War is true for most wars: "The causes of war remain rooted, as much as they were in the pre-industrial age, in perceptions by statesmen of the growth of hostile power and the fears for the restriction, if not the extinction, of their own." Taylor (1954:166) suggests that "every war between Great Powers [in the 1848–1918 period] . . . started out as a preventive war." The importance of the preventive motivation in the 1914 case in particular has attracted a great deal of attention from historians (Fay, [1928] 1966; Albertini, 1957; Fischer, 1961, 1975; Ritter, 1970).

One can find numerous instances, however, in which declining power has not led to preventive war, including Britain's decline relative to the United States in the late nineteenth century, Germany's decline relative to Russia for a decade before 1914, and the United States' decline relative to the Soviet Union after World War II (Lebow, 1984). This raises the obvious question of the conditions under which power shifts lead to war and the conditions under which they do not. Organski (1968:376) suggests (without elaboration) that:

War is most apt to occur: if the challenger is of such a size that at its peak it will roughly equal the dominant nation in power; if the rise of the challenger is rapid;

if the dominant nation is inflexible in its policies; if there is no tradition of friendship between the dominant nation and the challenger; and if the challenger sets out to replace the existing international order with a competitive order of its own.

Van Evera (1984a:72–76) and Snyder (1985:160–61) argue that the likelihood of war under conditions of declining power is a function of the magnitude of the power shift, the offensive/defensive balance, and the expected probability the adversary will initiate a war in the future. Levy (1987) expands on this model and suggests that the probability of war is also affected by the preventer's expected probability of victory with tolerable costs in a preventive war now, decision makers' risk-taking propensities, the influence of the military in the political process, and domestic political factors undermining both the military potential of the state and the political position of decision makers. He notes that there are in principle other policy options available to a leading state in decline, including alliances against or negotiation with the rising challenger as well as industrial revitalization as a means of reversing the underlying sources of decline, and asserts that these considerations would have to be incorporated into any comprehensive theory of preventive war.

The implications of Levy's (1987) hypotheses are that the nuclear superpowers are less likely than great powers of the past to succumb to the temptations for preventive war. First, although power differentials continue to change, military superiority is more difficult to translate into political influence than in the past (at least for the leading states in the system), and therefore the political consequences of military decline, while not negligible, will be less than in the past. Second, pressures for preventive war in the past have been influenced by perceptions that a future war with the rising challenger was very likely if not inevitable, but perceptions of inevitability are much less likely in the nuclear age. Another important factor in the past was the perception by the declining leader that it had the ability to fight and win a preventive war now with acceptable costs, but such expectations should be far less likely in the nuclear age. Although all of these factors reduce the pressures for preventive war, the magnitude of their impact is more difficult to determine.

LONG-CYCLE THEORY

The power transition hypothesis has been incorporated into several recent theories of systemic change and hegemonic war in world politics.⁷³ One is "long-cycle theory," which has been developed by Modelski (1978, 1987a,b) and Thompson (1983c, 1988). They identify a global political system originating in 1494 and characterized by regular cycles of world leadership, system management, and global war over the last five centuries. Leadership in the

system is based on control over military capabilities of global reach (sea power prior to the mid-twentieth century and air power since then). A world power emerges from a global war with monopoly control over sea power and world trade, which allows it to structure the global political and economic systems in its own interests and to maintain order in the system. The costs of world leadership and the emergence of new rivals invariably leads to a deconcentration of power and a decline in the leader's dominant position, and ultimately to a new struggle for world leadership and a renewed period of global war, a cycle that has repeated itself once every 100 hundred years.⁷⁴

Long-cycle theory does not attempt to explain all wars in the system, but only a restricted class of global wars, defined as those wars that determine the constitution or authority arrangement of the global political system (Modelski, 1978; Thompson, 1983c).⁷⁵ They are the result of a structural crisis in the system and are basically succession struggles for leadership in the system. Thus, their fundamental cause is changing distributions of power arising out of states' uneven rates of economic development.⁷⁶ More specifically, they result from the rise of challengers who threaten to gain a dominant position on the European continent, which could provide the basis for a challenge to the global position of the world power. These wars do not begin as direct contests between the leader and challenger but instead as localized conflicts that escalate (Thompson, 1983c:349), although the conditions under which localized conflicts escalate into global wars have not yet been determined. The implication is that changing power concentrations in the global system arising out of some form of uneven economic development is a necessary but not a sufficient condition for global war. Note that the primary antagonism in the war is not between the declining leader and the global power that replaces it, but between the declining leader and the territorially based regional challenger.

Whatever the triggers leading from localized conflicts to global wars, the regional challenger always fails, for several reasons.⁷⁷ They do not augment their land-based military power with military power of global reach. They fail (at least before this century) to match the successful maritime powers in obtaining inexpensive credit to meet their enormous military expenses (Rasler and Thompson, 1983). Finally, they embark on expansion prematurely, before the power transition has been completed, and underestimate the seriousness of their threat to the global position of the world power and, hence, fail to anticipate the expansion of the war (Thompson, 1983b).⁷⁸

Recent empirical research has provided some evidence in support of long-cycle theory. Thompson has generated data on the naval capabilities of the global powers over the last five centuries (Modelski and Thompson, 1988) and has used these data to test some key long-cycle propositions. Thompson (1983a, 1986b) examines the relationship from the perspective of the global system, in which power is defined in terms of naval capabilities, and finds

that concentrations of power are consistently associated with periods of peace, as long-cycle theory would predict.⁷⁹ He also demonstrates that the consequences of global wars are significantly different than those of other interstate wars. In a study of the net impact of warfare on the economic growth of five leading states since 1500, Rasler and Thompson (1985b) show that global wars are more likely than other interstate wars to have a significant impact on the economic growth patterns of participating states, winners as well as losers. These wars increase state spending, state taxes, and state debts and contribute to the organizational expansion of the state without significantly expanding the material base for meeting the escalating overhead costs (Rasler and Thompson, 1985a), although the net economic costs even of global wars tend to be temporary. Thompson and Rasler (1988) also demonstrate that only global wars, and not other major interstate wars, result in a significant reconcentration of naval capabilities that provide a necessary foundation for systemic leadership in the world system.⁸⁰

GILPIN'S THEORY OF HEGEMONIC TRANSITIONS

Gilpin's (1981) theory of hegemonic war and change is similar in many respects to long-cycle theory. The theory is based on an extension of hegemonic stability theory, which must be briefly examined. Hegemonic stability theory argues that stability in an international political economy requires the existence of a single dominant state, or "hegemon." The hegemon plays the leadership or system management role on the basis of its power and its will to bear the costs of maintaining order in the system in accordance with an informal system of norms and rules. In the absence of a leader to manage the system, the extent of economic conflict in the system will decrease. Similarly, the decline of a hegemon should lead to decreasing stability in the system (Kindleberger, 1973; Gilpin, 1975; Krasner, 1976; Keohane and Nye, 1977; Keohane, 1980, 1984).

A stable liberal, international political economy requires that the hegemon be both the most powerful state politically and the most efficient economically (Gilpin, 1981:129-131). Its comparative advantage leads it to prefer a liberal system, and its political strength facilitates the structuring of the international economic system along liberal lines to serve its own interests. On the other hand, political hegemony without economic efficiency tends to result in an imperial international system. It is precisely because of the historical rarity of the conjunction of political hegemony with economic efficiency that there have been so few liberal international systems. Thus, hegemonic stability theorists limit themselves primarily to two historical cases, the periods of Pax Britannica and Pax American in the last two centuries, and have not been concerned with behavior in nonliberal hegemonic systems or nonhegemonic systems.

Most versions of hegemonic stability theory attempt to explain the degree of stability in the world political economy rather than the frequency and seriousness of war in the system; for this reason hegemonic stability theory is not a theory of war and peace. This conclusion is reinforced by the fact that most hegemonic stability theorists are quite explicit in defining hegemony in terms of economic dominance and basically ignore the role of military power or the distribution of military power in the system.⁸¹ There may be an implicit assumption that a stable liberal economy contributes to international peace and, in some cases, this argument is more explicit, as in Kindleberger's (1973) discussion of the role of the world depression of 1929-1939 in the processes leading to World War II and in other works as well. The theoretical linkages are rarely developed, however, and the hypothesized linkages between economic liberalism and peace are left to classical liberal theorists, who will be discussed later. Gilpin (1981) is one, however, who attempts to integrate aspects of hegemonic stability theory into a broader theory of hegemonic transitions and to extend the domain of the theory to previous historical eras and to cases of dominant but nonliberal states.

Gilpin recognizes that power consists of both military and economic dimensions and that these are not necessarily congruent, and gives greater emphasis to land-based power than do Modelski and Thompson.⁸² National power is a function not only of economic development but also of structures of political and social organization and governance and of technological innovation in the military, transportation, and communication sectors. Gilpin suggests that historically one state has often (but not always) been dominant. The hegemonic state, such as Great Britain in the nineteenth century or the United States in the twentieth century, has the strength and motivation to structure the international political, economic, and cultural systems to serve its own interests. The resulting system provides a secure environment for trade and investment for all states, from which they can benefit without paying the costs.

Ultimately, however, the hegemonic power enters a period of decline while rivals catch up. The maintenance of a position of dominance brings increasing military and administrative overhead costs without a proportional increase in its resource base. In addition, resources tend to be diverted away from productive investment to the military sector for the purposes of protection, and the maintenance of a lead in military technology becomes increasingly expensive as that technology diffuses to other states in the system that do not have to pay the full costs of development or overhead. Wealth also diffuses, in part because the same economic processes that initially favor the hegemon ultimately work to the benefit of others (for example, the multinational corporation). Productivity declines further as prosperity creates both conspicuous consumption and domestic cartels with an interest in the maintenance of the status quo (Olson, 1982; Rogowski, 1983). Gilpin argues that attempts by the

hegemonic power to reduce their commitments or expand their resource base usually fail, and that a preventive war against the rising challenger may be one of its most attractive policy options. More generally, the underlying cause of hegemonic wars is the increasing disequilibrium between the existing system of governance in an international system and the distribution of political, economic, and cultural benefits that follow from it, on the one hand, and the actual distribution of power in the system on the other.

These and other theories of hegemonic war (Wallerstein, 1984; Vayrynen, 1983; see also Toynbee, 1954) generally share the view that the underlying cause of major war is a power transition driven by some form of uneven economic development and perhaps other internal variables. There has yet to be a conclusive test of power transition theory or any of these hypotheses relating to the conditions under which power shifts lead to war.⁸³ This is a major gap in the literature because these hypotheses are important for contemporary policy as well as for theory. Uneven economic growth, changing power differentials, and the rise and fall of major actors have been persistent features of the international system throughout history. There is no reason to believe those processes have ceased to exist in the nuclear age. Because the consequences of systemic war would undoubtedly be far greater than ever before, the question of the conditions under which power transitions can be accomplished peacefully rather than through war, and what the rising state and others can do to reduce the pressures on the declining leader for preventive military action, are absolutely critical. Stated differently, a key question is whether there exists an alternative to hegemonic war as a mechanism for restoring an equilibrium between the existing patterns of governance and influence in the system and the changing distribution of power.

Lateral Pressure Theory

Another theory in which national growth is an important variable, but that does not necessarily involve power transitions and does not formally restrict itself to the class of hegemonic wars, is Choucri and North's (1975) lateral pressure theory of international conflict. Whereas much of the earlier work on North's 1914 project focused on misperceptions and other dimensions of the dynamics of crisis behavior (North, Holsti, and Choucri, 1976), the Choucri and North study examines the dynamics of national growth and the competitive processes of interstate interaction that result. The basic argument is that increasing population and advancing technology generate increasing domestic demands for resources, demands that cannot generally be satisfied by a state's domestic resource endowments or by existing levels of foreign trade. Resource demands generate "lateral pressure" for access to raw materials and

markets and often for political control over external populations and areas. This lateral pressure often takes the form of colonial expansion, and when several states adopt expansionist policies their interests are increasingly likely to come into conflict. This generates an "intensity of intersections," which leads to internal pressures to defend one's expanding interests, which in turn leads to alliance formation and increased military expenditures. Alliances and military expenditures lead to reciprocal actions by adversaries, and the resulting action-reaction process often escalates to violent behavior and possibly full-scale war.

Choucri and North (1975) construct a simultaneous equation model to test the theory and apply it to the period from 1870 to 1914. They measure changing technology by a surrogate indicator, national income per capita; lateral pressure by colonial area under a state's control; and violence on a 30-point scale using events data. They conclude that national growth is indeed a primary determinant of the processes of national expansion, conflicts of interests, arms races, alliances, and violent conflicts, although there is some variation in the importance of specific linkages for the six great powers prior to World War I. In order to compare the dynamics of "war-prone systems" with those of "peace systems," Choucri and North (1972) apply their model to Scandinavia and the Netherlands over the last century. They find that none of the linkages from the pre-World War I great power model are strong in the Scandinavian cases and, in particular, that overseas commercial activities have not contributed to the growth of military establishments or led to war. The absence of a link between economic expansion and the growth of military establishments is found also in the case of Japan after World War II, although such links did exist for Japan in the previous seven decades (Choucri and North, 1986). The existence of hypothesized linkages in war systems and their absence in peace systems provide additional support for the theory. There is also evidence, however, that key linkages in the model also apply to the Sino-Soviet-U.S. triangle in the post-World War II period, which has been peaceful so far (Ashley, 1980).

The significance of the theory derives from its recognition of the importance of the processes of national growth, the specification of the ways in which it interacts with other variables, the integration of all of these variables into a dynamic model, the construction of operational indicators for the key theoretical concepts, and the testing of the model against the historical data. In this sense lateral pressure theory is an important advance over more static theories of international conflict, and the simultaneous equations used to model the theory constitute an improvement over the correlational methods commonly used to test systemic-level hypotheses. There are, however, a number of theoretical and methodological problems with the model. The

validity of several of the operational indicators is open to question. National income per capita is a very weak indicator of technological development, particularly given the availability of the Correlates of War capability data on energy consumption and iron and steel production. Colonial area is a rather limited measure of lateral expansion and misses some other important forms of territorial expansion and intersections of interests (for example, the Austro-Russian conflict in the Balkans prior to 1914).

This raises a more general issue. The assumptions that resource demands are satisfied primarily through external sources and that these necessarily involve colonial expansion require more justification. There is a failure to consider the conditions under which free trade might be a viable alternative to colonization as a means of economic growth. The phenomenon of the "imperialism of free trade" (Gallagher and Robinson, 1953) is not captured in the model, and the relevance of the model to Japan and others after World War II and to the "trading state" (Rosecrance, 1986) in general is open to question. In addition, no attention is given to the overall structure of power in the international system and its effects on the feasibility of free trade. It may be that the absence of a linkage between economic expansion and the growth of military establishments can be explained in most cases by the existence of a leading state that provides for defense costs and enables others to concentrate on economic growth (for example, the U.S. nuclear umbrella facilitating Japanese economic expansion).

The link between colonial expansion and war needs to be further developed, especially in light of the safety valve hypothesis that suggests that colonial expansion may reduce the likelihood of major war by diverting great power competition away from the core of the system to the periphery of the system. The theory also fails to specify the direction of the colonial expansion and the identity of the adversary in military conflict. Some very serious colonial rivals prior to 1914 (Great Britain and France in Africa, Great Britain and Russia in Asia) became wartime allies rather than adversaries, contrary to the model (although the Franco-German rivalry in Northern Africa was also intense).

Liberal Economic Theories of War

Liberal economic theorists going back to Smith and Ricardo have argued that capitalist economies and an international market economy characterized by free trade are the best guarantors of peace.⁸⁴ As Montesquieu ([1750] 1949:1, Bk.20, Chap. 1) argued, "peace is the natural effect of trade." Manchester liberals believed that there exists a natural harmony of interests both between and within states and that free trade and other liberal reforms would

facilitate this natural harmony of interests and the maintenance of peace (Silberner, 1946; Blainey, 1973:Chap. 2). Tariffs, quotas, and any other restrictions on the natural operation of the market mechanism reduces economic prosperity and increases the likelihood of war. In addition, an international market economy separates the pursuit of wealth from the pursuit of territory (Buzan, 1984). The traditional utility of force for the acquisition of territory is diminished if wealth is no longer based on territorial control. In relationships between liberal states difficult questions of production, distribution, price, and other dimensions of trade and finance can be resolved through impersonal market forces rather than through intergovernmental bargaining. Thus, international economic disputes are less likely to become politicized under liberal international economies. Because economic interests are more easily quantified than political interests and conflicts of economic interests are more conducive to negotiated solutions, the likelihood that conflicts of economic interests will increase the level of political tensions between states, and perhaps even lead to a violent resolution, is said to be lower in relationships among liberal capitalist states (Aron, 1968; Cohen, 1973). In addition, the interdependence generated by free trade increases the vulnerability of all states, the costs of any disruption, and hence the disincentives to use force.

The argument that liberal economies are more stable is made at the national as well as systemic level of analysis. Liberals endorse the argument of Comte, Spencer, and others that the underlying spirit of industrial societies runs counter to the spirit of military societies (Veblen, 1915; Schumpeter, [1919] 1951) because industrialism brings prosperity to the masses as well as to the business classes and diverts their interests from external expansion and conquest to making profits. People are "too busy growing rich to have time for war" (Blainey, 1973:10), and the demands of industrial capitalism require the diversion of resources from the military sector to the economic sectors. War is uneconomical because it results in depopulation, the destruction of industry, increased taxes and debt, the loss of profits, the reduction of international trade, and the general disruption of economic equilibrium, and generates a broad coalition of interests opposed to warlike policies.

There has been no convincing empirical test of these liberal hypotheses regarding the causes of war. The common references to the nineteenth century and post-1945 period (along with the interwar period as a case for comparison) to support the liberal case fail to come to terms with more compelling alternative explanations for the level of warfare in the system. It is true that the emergence of capitalist economic systems and an open international economy in the nineteenth century coincided with the most peaceful century in modern history, but it is not clear that the rise of an open international economic system was the cause and not the consequence of a stable security system

(Blainey, 1973:Chap. 2).⁸⁵ It has yet to be convincingly demonstrated that these economic considerations had a larger impact than the political and military structure of the international system created after the Napoleonic Wars. Both liberal and nonliberal economic systems have historically been too confounded with complex contextual factors to permit any simple inference that one is necessarily less war prone than the other.

This conclusion is reinforced by Buzan's (1984) theoretical arguments that although some features of liberal economic structures tend to reduce the level of international conflict, other features are destabilizing, just as mercantilist economic systems have some tendencies that reduce the tendency for states to resort to force as well as other characteristics that are more stabilizing. Thus, Buzan (1984:623) concludes that "liberal economic structure has neither a strong nor an unconditional constraining effect on the use of force," and that the impact of economic structure on international security is subordinate to military and political factors.

The systemic-level theories first surveyed locate the sources of war in the structure of the international system within which all states exist. It is assumed that the internal characteristics of states have only a marginal impact on their foreign policies, especially with respect to issues of war and peace. As we have seen, there has been some recent interest in the internal economic sources of national growth, but these affect war through their impact on the international distribution of military power. It does not require a detailed knowledge of international history to recognize, however, that different states in similar international situations, or even the same state in similar situations, do not always behave in similar ways and that factors internal to states often have a significant impact on their behavior with respect to issues of war and peace. Let us now turn to several societal-level theories of war focusing on the political and economic structure of states, political culture and ideology, and the impact of public opinion and nationalism. In the following sections we will turn to an examination of governmental-level decision-making theories relating to the issue of war and peace.

Societal-Level Theories

Attempts to trace war to conditions internal to states is an old tradition in the study of international relations. Plato argued that the likelihood of war is minimized if the population is relatively cohesive and if their economic system provides a moderate level of consumption: a loyal citizenry is necessary to deter external attacks, and a moderate level of prosperity both reduces one's own marginal economic benefits to be gained from war and at the same

time reduces the potential economic gains to an adversary contemplating an attack (Haas, 1974:163). Shakespeare ([1598] 1845), in suggesting to leaders that they "busy giddy minds with foreign quarrels," recognized that internal discontent can motivate political elites to initiate external wars in order to promote internal unity and to consolidate their own internal political positions. Kant, Bentham, and other Enlightenment philosophers believed that the warfare that had plagued Europe for centuries could be traced to the imperatives of aristocratic societies and argued that representative governments are more peaceful because they invest ultimate political authority in the hands of those who must suffer the hardships of war (Kant, [1795] 1949; Waltz, 1954:Chap. 4). Marx and his followers have argued that modern war arises from the economic imperatives of capitalist societies and the inequitable distribution of wealth within them (Lenin, [1917] 1939). The importance of religious and ideological differences between states has long been recognized, and in the last century the destabilizing consequences of nationalism for the international system have been emphasized (Wright, 1965).

Yet, of all the factors involved in the processes leading to war, these societal-level variables have been given the least attention by modern political scientists. Their importance is minimized not only in realist theories emphasizing systemic constraints on states, but also in decision-making theories emphasizing the perceptions of leading decision makers and the interests and bureaucratic processes of governmental organizations. Although individual hypotheses linking war to societal-level variables have been tested, these tend to be analytically isolated propositions that have not been integrated into any general theoretical structure.⁸⁶ In addition, while earlier social theorists were quite interested in the question of war, that has not been true of post-1945 sociologists, although the threat of nuclear annihilation has aroused some recent interest (Bramson and Goethals, 1968:202). This relative lack of interest in societal causes of war by political scientists stands in marked contrast with recent trends among historians, whose work over the last couple decades has emphasized social and economic variables as among the most important causes of war (Levy, 1988a; Iggers, 1984).

This survey of societal-level hypotheses begins with Marxist-Leninist theories of war. It then turns to recent research on the question of the relative war proneness of democratic and nondemocratic regimes and, finally, to the role of domestic politics and the scapegoat hypothesis.

Marxist-Leninist Theories of War

The most comprehensive of all societal-level approaches to international conflict can be found in Marxist-Leninist theory. Our focus here is on those

aspects of the theory relevant to the question of the causes of international war. In the Marxist-Leninist theory of imperialism, all international conflict can be traced to the internal dynamics of capitalist economic systems.⁸⁷ These systems are not self-sufficient and have an inherent tendency toward stagnation and collapse in the absence of an external stimulus. One problem is the disequilibrium between production and consumption resulting from the inadequate purchasing power of the proletariat and ultimately from the inequitable distribution of wealth in society. The surplus products resulting from this lack of demand in the economy generates pressures for imperialist expansion to secure external markets to absorb the surplus. This is the "underconsumptionist" theory of imperialism often associated with Hobson ([1902] 1954). A related problem, one given greater emphasis by Hilferding ([1910] 1981) and Lenin ([1917] 1939), is the existence of surplus capital resulting from the declining rate of return on capital. This also generates pressures for external expansion to secure better investment opportunities and higher rates of return on capital. Lenin ([1919] 1939) and others (Magdoff, 1969) have also emphasized the need for raw materials as another source of external expansion is the need for raw materials. The imperialist expansion of capitalist states for markets, investment opportunities, and raw materials leads to imperial and colonial wars to achieve those objectives.⁸⁸

It is often assumed that imperial expansion and wars lead ultimately to interstate wars and great power wars.⁸⁹ One serious limitation of Marxist-Leninist theory from the perspective of the causes of war is that the theoretical linkages between imperialism and war have never been clearly specified or empirically confirmed. The *safety-valve* hypothesis, noted earlier, predicts precisely the opposite. There is little systematic empirical research on this question,⁹⁰ although there has been much debate about the World War I case. Marxists argue that World War I is a classic case of a war resulting from imperialist rivalries (Lenin, [1917] 1939). Others argue that imperial expansion served as a safety valve and that the crosscutting nature of the imperial and European interests of the great powers dampened the pressures for war.⁹¹

There may be a more direct path from capitalism to great power war in Marxist-Leninist theory. Capitalist economic systems tend not only to imperial expansion externally but also to generate high levels of military spending internally to serve as replacement markets to absorb excess capital and to reduce the level of unemployment. This argument was initially made by Luxemburg ([1913] 1951), who argued that the production of armaments was the only means by which surplus capital could be recirculated into the economy. The resulting "war economy" contributes to interstate war by triggering arms races and generally increasing levels of international tensions. This argument is not restricted to Marxist-Leninist theorists, of course. The inter-

nal dynamics driving lateral pressure theory (Choucri and North, 1975) are similar, although Choucri and North hypothesize that these linkages exist in any economic system and not only in capitalist states. The essential role of military spending and "militarism" in general in capitalist economies has been emphasized in recent theories of the "military-industrial complex" (Mills, 1956; Melman, 1970; Lens, 1970; Yarmolinsky, 1971; Sarkesian, 1972; Rosen, 1973). The primary difference concerns the extent to which the hypothesized behavior of capitalist states is believed to be inevitable; socialist and liberal theorists of economic imperialism recognize the feasibility of reform within capitalist states.

There are numerous critiques of the Marxist-Leninist theory of imperialism (Schumpeter, [1919] 1951; Robbins, 1939; Aron, 1968; Cohen, 1973; Waltz, 1979), and only a few brief comments are possible here. Although Marxist-Leninist theory appears to provide an elegant and powerful explanation of imperialism, it does raise some empirical questions that have not been rigorously and systematically investigated. If capitalist states by their very nature generate surpluses, and if these surpluses lead to external expansion to secure markets and investment opportunities, then we should expect a high correlation between capitalism and imperialist expansion.⁹² Consider the period since 1870 or so, to which the theory should be most applicable. Noncapitalist as well as capitalist states have been imperialist, capitalist imperialism has not coincided with the monopoly stage of capitalism as predicted by Lenin, and a significant proportion of capitalist exports has been directed to other capitalist states.⁹³

These theoretical and empirical problems in Marxist-Leninist theory raise some doubts regarding the validity of the theory. These doubts are compounded by the existence of alternative theories of imperialism that provide competing explanations for the phenomenon in question. Perhaps the leading alternative theory of imperialism is some version of structural realist theory emphasizing the anarchic structure of the international system and the absence of any mechanism to prevent the strong from dominating the weak. From this perspective imperialism is driven by the quest for power in the international system rather than the internal economic needs of the capitalist class. As the Athenians reminded the Melians, "the strong do what they have the power to do and the weak accept what they have to accept" (Thucydides, [431-411 B.C.] 1954:V/89).

A good example of such a theory is Waltz's (1979:Chap. 2) discussion of the imperialism of great power. He argues that the observed correlation between capitalism and imperialism in the last century does not reflect a direct causal connection between the two. According to Waltz, the leading capitalist states were imperialist not because they were capitalist but because they were

the most powerful states in the system. In any historical era it is the great powers that build the large imperial empires, and the great powers are those states that have most efficiently exploited their available resources and have organized themselves most effectively for that purpose. In the modern era, Waltz argues, capitalism has been the most efficient form of economic organization. Imperialism results from the quest for power and security by the great powers. Capitalism is neither a necessary nor a sufficient condition for imperialism, although it can play a contributory role along with other variables on a causal chain leading to war.

The theory of great power imperialism provides a more general explanation for the historical tendency for the strong to expand at the expense of the weak and, for this reason, is more powerful than Marxist-Leninist theories of imperialism. It is a general theory applicable to any historical era and can explain the imperialism of the ancient Roman and Persian empires as well as the imperialism of the nineteenth century great powers, whereas Marxist-Leninist theory of monopoly capitalism is not applicable to the phenomenon of pre-capitalist imperialism or noncapitalist imperialism.⁹⁴

One interesting variant of the theory of great power imperialism is Robbins' (1939) theory of "defensive economic imperialism." Robbins was typical of liberal economists who believed that states and individuals benefit most under a system of free trade and the uninhibited operations of an international market economy according to the law of comparative advantage. A few states—and, more particularly, a small number of groups within those states—perceive that they can make short-term gains by erecting trade barriers to lock out competition and by securing colonies for protected markets abroad. Once the process is initiated it becomes difficult to stop, as other states act to prevent their rivals from gaining control of key markets. Their motive in joining the scramble for colonies is not to reap gains from protected markets guaranteed by their own political control of colonies abroad, but to minimize their losses from being deprived of markets by rival states.⁹⁵

Like Robbins, Schumpeter ([1919] 1951) argues that imperialism is contrary to the interests of capitalist states or to capitalist classes within those states. Whereas Robbins focuses on the systemic forces that lead states to adopt the imperialist policies they would prefer to avoid, Schumpeter focuses on the domestic incentives leading certain subnational groups to prefer imperialist and policies. Because capitalist societies are more concerned with profits and economic prosperity than with imperial expansion and war, and because both imperialism and war are bad for business, industrial workers as well as the capitalist class are generally opposed to imperialist policies. Nevertheless, capitalist states pursue imperialist policies because those policies serve the interests of a military elite. This "atavistic" warrior class first came to power

in earlier feudal and aristocratic eras when war served as a useful instrument for the development and maintenance of the state. This elite has continued to maintain its power in part by using war and the threat of war to justify their policies and maintain their positions. Although one can question many of the details of Schumpeter's argument, it is important because it was one of the first to emphasize that under certain conditions the domestic political interests of the individuals or regime in power may be as important as the national interests of the state) in providing incentives for imperial expansion and war.

An alternative domestic political explanation for imperialism is Snyder's (1988) theory of imperial overextension driven by coalitional politics and strategic ideology. Snyder observes that states often expand beyond the point at which their imperial interests can be supported by available resources. He rejects both the Marxist-Leninist and Schumpeterian arguments that imperial overextension can be explained in terms of the interests of any single domestic elite, and he argues instead that each elite prefers some form of limited imperial expansion but recognizes the costs of too extensive expansion. The domestic coalition-building process among these different groups, especially when interest-based arguments are reinforced and exaggerated by strategic ideology, often generates a logrolled outcome leading to both external expansion and internal harmony. The consequences, however, are often a more aggressive and expansionist policy than is desired by any single domestic group, and the creation of more external enemies than can be managed by existing national resources and diplomatic arrangements. Historical examples supporting Snyder's theory would include the coalition of iron and rye in Germany before World War I and the phenomenon of social imperialism in Great Britain prior to the war (Kehr, 1970; Fischer, 1975). Snyder's (1988) theory provides a very plausible explanation for imperial overextension and perhaps imperial wars. Whether it provides an equally compelling explanation for great power war is a different question requiring further investigation.

The analytically distinct sources of imperialism represented in the theories just surveyed are not necessarily incompatible, however, and one cost of the effort to assert the superiority of one paradigm over the other is the failure to incorporate variables from different theories into a single integrated theory of imperialism and war. The theoretical task of constructing an integrated theory and the empirical task of testing these various theories against the historical record are important ones for future research.⁹⁶

Democracy and War

Whereas the liberal theorists discussed earlier argue that both the system of free trade in an international market economy and the domestic characteristics

of capitalist economic systems reduce the likelihood of war, another important body of liberal theory emphasizes the pacifying effects of democratic political institutions. Although many theorists make both sets of arguments, and although democratic political institutions often coexist with liberal capitalist economic institutions, the arguments are analytically distinct and will be treated separately here. The Kantian argument regarding the pacifying effects of republican political institutions is particularly interesting because it has generated considerable empirical research in recent years, and these theoretical and empirical debates continue to be relevant to the question of war in the nuclear age.

Kant's ([1795] 1954) argument is that republican regimes (characterized by a constitutional and representative government and a separation of powers) are more peaceful than nonrepublican regimes. People oppose war because they recognize that they would suffer from it, and if they are in a position of political power they can prevent war from occurring. Political leaders in democratic states are accountable to the electorate and incur domestic political costs for warlike policies. Those in authoritarian states, however, are immune from both the personal and the domestic political costs of war and therefore have less incentives to avoid warlike policies. In Kant's words (cited in Doyle, 1983a:229),

If the consent of the citizens is required in order to decide that war should be declared (and in this constitution it cannot but be the case), nothing is more natural than that they would be very cautious in commencing such a poor game, decreeing for themselves all the calamities of war . . . having to fight, having to pay the costs of war from their own resources, having painfully to repair the devastation war leaves behind, and, to . . . load themselves with a heavy national debt that would embitter peace itself and that can never be liquidated on account of constant wars in the future. But, on the other hand, in a constitution which is not republican, and under which the subjects are not citizens, a declaration of war is the easiest thing in the world to decide upon, because war does not require of the ruler . . . the least sacrifice of the pleasure of his table, the chase, his country houses, his court functions, and the like. He may, therefore, resolve on war as on a pleasure party for the most trivial reasons, and with perfect indifference leave the justification which decency requires to the diplomatic corps who are ever ready to provide it.

Bentham makes a slightly different argument, relying on the pacifying effects not of domestic public opinion but, instead, of world public opinion (Waltz, 1954:Chap. 4). These arguments have been accepted by Thomas Paine, Woodrow Wilson, and countless other liberal theorists.

One serious logical problem with this argument and, in fact, with any national-level theory of foreign policy behavior, is that a reduced probability

of a particular state initiating a war does not necessarily imply a reduced probability of that state being involved in a war. Under some conditions the unwillingness to prepare for war or to resort to threats of force to deter war will make war more likely by undermining deterrence and encouraging the adversary. At the systemic level, it has been argued that the institutional constraints against the effective use of threats of force, and even force itself, by democratic regimes may contribute to war by preventing those states from playing a stabilizing role in a balance of power system (Wright, 1965:842-848).

The question of the likelihood of war is analytically distinct from that of its seriousness, and many liberal theorists acknowledge that the low frequency of war involvement that they assume to be characteristic of democratic states is not matched by a comparable moderation in the seriousness of those wars that do occur. To the contrary, once begun, wars of liberal democratic states tend to be driven by ideological objectives, become transformed into crusades calling for total victory and the unconditional surrender of the adversary, and fought with unlimited means to achieve these unlimited ends. Thus, Churchill (speech in the House of Commons, May 13, 1901, cited in Gilbert, 1967:21-22) argued prior to World War I that "democracy is more vindictive than Cabinets. The wars of peoples will be more terrible than those of kings." Therefore, it is commonly argued that because of its national "style" growing out of its liberal democratic institutions and political culture, the United States is very reluctant to become involved in wars but, once forced into war, she treats it as a moral crusade to "make the world safe for democracy" and utterly destroy the evil enemy who alone had caused the war to occur (Spanier, 1985).

The question of the historical validity of these hypotheses has attracted considerable attention from researchers, many of whom have conducted some fairly rigorous quantitative empirical studies of the relative war proneness of democratic and nondemocratic regimes. Several of the early studies were cross sectional and focused on the characteristics and behavior of all states during certain periods since World War II.⁹⁷ Although the consistent conclusion was that democratic states are no more war prone than nondemocratic states (Rummel, 1968; Wilkenfeld, 1975; Russett and Monsen, 1975), the temporal domain is far too narrow to allow for generalizations about international behavior.⁹⁸ In addition, most of these early studies failed to distinguish between war involvement and war initiation.

Some of these problems have been corrected in recent studies, which have generally been based on more sophisticated research designs. Small and Singer (1976), Rummel (1983), and Chan (1984) each cover the entire period since the Congress of Vienna, and Babst (1972) and Doyle (1983a, 1983b) go back

to the late eighteenth century. Even though these scholars use slightly different definitions of democracy, each is fairly rigorous within his own framework and the results are fairly consistent. The evidence shows that the proportional frequency of war involvement of democratic states has not been greater than that for nondemocratic states. Moreover, the severity of wars (generally measured by fatalities) involving democratic states has been no higher than the severity of wars in which democratic states are not involved. Democracies may be slightly less likely than nondemocratic states to initiate wars, but the evidence is not yet conclusive on this question (Small and Singer, 1976:64-66; Chan, 1984:638-639).

Although democracies have fought in wars as frequently as have non-democratic states, they almost never fight each other. Moreover, in the world wars involving many states, democratic states always fight on the same side. Depending on precisely how one defines democracy, it is possible to find one or two exceptions,⁹⁹ but these would be marginal deviations from a robust conclusion demonstrated by rigorous and systematic empirical analyses. The consistency of results for different operational definitions of democracy only increases our confidence in the validity of the findings. This absence of war between democratic states comes as close as anything we have to an empirical law in international relations (Levy, 1988a:662).

This finding is particularly interesting because it runs counter to many of the leading theories of international conflict and war. Structural systemic theories, which claim that internal political structures and processes of states have far less impact on their behavior than the distribution of power (or changes in such) and the structure of alliances in the international system, clearly cannot account for the absence of war between democratic states. Because many states with democratic political structures also have capitalist economic structures, Marxist-Leninist theories would predict a higher than average incidence of war between democratic states. Although the correlation between democracy and capitalism is not perfect, the strength of the observed empirical findings is clearly contrary to the thrust of Marxist-Leninist theory. Following similar logic, we can conclude that liberal economic theories are consistent with the absence of wars between democracies but would incorrectly predict a lower overall war involvement for democratic as opposed to nondemocratic states. These considerations suggest that ideology, public opinion, and policy legitimacy have much greater impact on foreign policy behavior in general and decisions for war or peace in particular than is normally acknowledged. From several different theoretical perspectives, therefore, the absence of war between democracies constitutes an empirical anomaly that calls for further research.¹⁰⁰

Domestic Politics and the Scapegoat Hypothesis

It is an article of faith of most liberal theorists that public opinion is inherently peaceful and that if a state initiates a war it is usually because political leaders choose war against the desires and interests of the public. Marxist-Leninist theorists agree that war does not serve the public's interest but argue that it is used by the capitalist class to serve its own economic interests. One can find, however, numerous historical examples of cases in which the public appears all too eager for war. One example would be the enthusiasm of people throughout Europe on the eve of World War I, which has been called "perhaps the most popular war in history" (Farrar, 1983). In some cases this popular enthusiasm for war may push political leaders into adopting more aggressive and risky policies than they would have preferred and thus be an important cause of the war. The pressure for war from public opinion and the press in 1898 has often been viewed as a primary cause of the Spanish-American War. Thus, May (1973:159) writes that because of domestic politics President McKinley "led his country unwillingly toward a war that he did not want for a cause in which he did not believe."

The immediate increase in public support for the president of the United States after the use of military force abroad, regardless of the wisdom or success of that action, is well known and is often explained by the tendencies of the public to rally around the flag, the president, and the party (Mueller, 1973; Brody, 1984). Presidents engaging in more conflictual behavior toward the Soviet Union, for example, usually find their popularity ratings in public opinion surveys to increase by 4 or 5 percent (Ostrom and Simon, 1985), although these effects may be temporary.¹⁰¹

The ultimate source of these rally-round-the-flag effects is the rise of modern nationalism and the tendency of the vast majority of people to center their supreme loyalties on the nation-state. They tend to conceive of the national interest as the highest interest and to acquire an intense commitment to the power and prosperity of the state. This commitment is strengthened by national myths emphasizing the moral, physical, and political strength of the state and by individuals' feelings of powerlessness and their consequent tendency to seek their identity and fulfillment through the state. Assertive and nationalist policies are perceived as increasing state power and are at the same time psychologically satisfying for the individual and, in this way, nationalism contributes to war (Fromm, 1941; Breuilly, 1985).

There are other more specific theoretical paths leading from nationalism to war. If the identity of the nation as a people sharing common ethnic and linguistic ties and common cultural and historical origins does not correspond

perfectly with the territorial boundaries of the state as a political organization, nationalism may contribute to war by creating shared incentives for national unification, national independence, the integration into the state of national minorities living beyond state borders, the favorable resolution of territorial disputes and other historical antagonisms, and often the adoption of violent policies as a means to achieve those ends (Wright, 1965:Chap. 27). Nationalism can also contribute to war by creating or reinforcing militarism, either in the form of the increased influence of the military in the political process or the acceptance of military values as the dominant values in society (Berghahn, 1969; Vagts, 1959; Van Evera, 1984b). Germany before World War I would be a case in point.

Nationalism sometimes generates public sentiment that prefers more hawkish policies than those preferred by political authorities. Mass publics tend to be less sensitive than elites to the security dilemma and the possibility that attempts to increase one's security and power may actually result in a decrease in security and power. Under certain conditions this can impose serious constraints on decision makers who prefer more limited foreign policy objectives or the pursuit of those objectives through more limited means. Domestic political constraints of this kind may preclude significant compromises as viable policy options. For example, the possibility of a British leader compromising with Spain to prevent their commercial and naval rivalry of the early eighteenth century from escalating to war was basically precluded by the public's response after the Spaniards cut off the ear of a British seaman, leading to the War of Jenkins' Ear (1739-1748).

In spite of the widespread recognition of the importance of nationalism and jingoism, this phenomenon receives very little attention in the leading theoretical literature on international conflict and foreign policy decision making. There has been very little research on the conditions under which public opinion contributes to war or to peace or on the processes through which this occurs.¹⁰² Nor is there much work on the reciprocal relationship between political elites and mass publics on foreign policy issues, on the conditions under which political authorities are pushed or constrained by the public, and on the conditions under which they are able to manipulate public attitudes and preferences to serve their own conception of the national interest or even their own personal interests.

The idea that political leaders may embark on risky foreign ventures in an attempt to achieve diplomatic or military gains that will help solve their domestic political problems is hardly a new idea. Four centuries ago Bodin ([1593] 1955:168-169) wrote that "the best way of preserving a state, and guaranteeing it against sedition, rebellion, and civil war is . . . to find an enemy against whom they can make common cause," and Sumner wrote that

"the exigencies of war with outsiders are what make the peace inside" (Stein, 1976:143). This general proposition, often referred to as the scapegoat hypothesis or the diversionary theory of war, has also been endorsed by numerous modern international theorists. Wright (1965:727), for example, suggests that one of the more important causes of war is the perception that war is a "necessary or convenient means . . . to establish, maintain, or expand the power of a government, party, or class within a state," and Haas and Whiting (1956:62) argue that elites embark on foreign wars to create an outside target to divert the attention of the people from the inequities generated by rapid industrialization and social change.

The scapegoat hypothesis is theoretically grounded in the in-group/out-group hypothesis in sociology. As formulated by Simmel (1956), the hypothesis states that conflict with the out-group increases the cohesion and political centralization of the in-group. Coser (1956) modifies the basis hypothesis and argues that internal cohesion will be increased if and only if the external conflict is related to a threat that is perceived to menace the group as a whole (and not just part of it) and if and only if there exists some prior level of internal cohesion. Group leaders are aware of the cohesive effects of external conflict (but not always of the qualifying conditions), and sometimes act deliberately to create or maintain external conflict to serve their internal purposes.

The in-group/out-group hypothesis has also been subjected to systematic empirical research by international relations scholars. Most quantitative studies, utilizing research designs that correlate various indicators of the levels of internal and external conflict, have found that there exists no relationship between the two (Rummel, 1963; Tanter, 1966). More sophisticated studies, which attempt to control for other variables such as the type of regime, have found some positive but relatively weak relationships between internal and external conflict (Wilkenfeld, 1973). More thorough reviews of this quantitative literature can be found in Stohl (1980), Zinnes (1980), and Levy (1989a). One serious limitation of this body of research is that most of these studies are based on the period from 1955 to 1960, which is not only brief but also happens to coincide with an extraordinarily peaceful period of international politics, limiting the generalizability of the findings.¹⁰³

The findings of these large-*N* correlational studies are not fully consistent with those of comparative historical studies or case studies of individual wars. In his comparative study of the European state system from 1740 to 1960, Rosecrance (1963) concludes that domestic instability and the domestic insecurity of elites was the primary determinant of international war and that this was true independently of the political structure or ideology of the regime. There have also been numerous studies of individual wars that have concluded

that a primary cause of the war was the attempt by political leaders to solve their internal political problems through risky foreign policies in the hope of securing a diplomatic or military victory.¹⁰⁴

This discussion calls attention to several significant puzzles in the literature on societal-level sources of international conflict. One is the gap between the general conclusion of large-*N* correlational studies that there seems to be little connection between domestic and foreign conflict and the findings of many individual case studies that the scapegoat motivation has an important impact in the processes leading up to many wars. Although the generalizability of the quantitative studies can be questioned because of their narrow temporal domain, and although there are alternative historical interpretations in each of the relevant historical cases, the discrepancy is still puzzling. On a more general level, there is a striking gap between the emphasis historians place on societal-level sources of the foreign policy and war behavior of states and the tendency of political scientists to minimize the importance of these variables. Both of these gaps raise serious conceptual and methodological issues regarding the linkages between theory, research design, and empirical findings, and point to an important agenda for further exploration.¹⁰⁵

Decision-Making Theories

Decision-making theories focus on the individuals and governmental organizations that are empowered to make and implement policies on behalf of the state. Although historians have long talked about the beliefs, preferences, perceptions, and actions of heads of state and of their key advisors, as well as the "cabinet politics" in which decision makers engage, it is only in the last three decades that political scientists have begun to utilize systematic decision-making frameworks as a theoretical guide to the analysis of foreign policy behavior (Snyder, et al., 1954; Allison, 1971; Holsti, 1972; Janis, 1972; Steinbrunner, 1974; Halperin, 1974; Jervis, 1976; Snyder and Diesing, 1977; George, 1980; Brecher, 1980; Rosenau, 1966). Allison's *Essence of Decision* (1971) was particularly important because it was the first systematic application of theories of organizational behavior (March and Simon, 1958; Cyert and March, 1963) to the issue area of foreign policymaking.

Most of the applications of bureaucratic and organizational models have focused on defense spending, military procurement, or factors affecting the conduct of war, rather than on crisis decision making relating to the causes of war, although Allison's (1971) study of the Cuban missile crisis is an exception. There is a related body of literature on the "military-industrial complex" and on the ways in which the institutional interests of the military affect the

processes of weapons development and military spending (Mills, 1956; Melman, 1970; Yarmolinsky, 1971; Sarkesian, 1972). There have also been case studies and quantitative work relating to the question of the relative impact of internal organizational variables on arms races (Allison, 1977; Ostrom, 1977).

Much of this literature on decision making and war is covered in Holsti's chapter in this volume and in subsequent volumes in this series. In this section we will examine some recent literature that focuses on more direct and immediate linkages between the organizational structure and processes of the military and the outbreak of war. In the following section we will examine the impact of misperceptions on the processes leading to war. Because the more general literature on crisis decision making is covered in Holsti's chapter in this volume, it will not be covered here. Other psychological and organizational models based on the operational codes of elites (George, 1969; Rogers, 1986), learning models (Etheridge, 1985; Leng, 1983), cognitive maps (Axelrod, 1976), artificial intelligence (Mefford, 1987), and other models (East et al., 1978; Falkowski, 1979; Tetlock and McGuire, 1985; Hermann et al., 1987) will not be examined because they do not focus primarily on issues of war and peace and because of space constraints. This survey of decision-making theories relating to war and peace is, therefore, deliberately selective and incomplete.

It should also be noted that in this section we are not dealing with complete theories of the causes of war but, instead, with more restricted hypotheses that may very well be important components of a more inclusive theory. Psychological theories of individual behavior are incomplete as theories of war in the absence of a political theory that explains how individual goals and preferences are aggregated into the goals and preferences of the collective body, which makes and implements decisions for the state, and how the government interacts with the society within which it is embedded. A theory of foreign-policy decision making on issues of war and peace in turn must be subsumed within a larger theory of international politics and strategic interaction in order to explain how actions of one state result in the phenomenon of war involving two or more states.

Organizational Politics and Processes

Two related bodies of literature will be examined in this section. One concerns the hypothesized linkage among military organizations, offensive doctrines, and war. The other concerns the potential impact of rigid military mobilization and war plans on the processes leading to war. Both utilize certain concepts from organizational theory, and both incorporate some systemic-level variables.¹⁰⁶

ORGANIZATIONAL INTERESTS, OFFENSIVE DOCTRINES, AND WAR

Just in the last several years there have been a number of theoretical and empirical studies linking the nature of military organizations, military doctrine, and war. The general argument is that military organizations prefer offensive doctrines and that offensive doctrines increase the likelihood of war. Several arguments have been advanced as to why military organizations should prefer offensive doctrines (Posen, 1984:47-51; Van Evera, 1984*b*; Snyder, 1984*b*:Chap. 1; Levy, 1986:215-218). First, the implementation of offensive doctrines and war plans requires larger numbers of troops and weapons systems, greater logistical support, and often more sophisticated military technology than do more static defensive strategies. For this reason offensive doctrines tend to require larger organizational budgets and manpower, which are high-priority goals in nearly all organizations and generally increase the influence of the organization. Second, offensive doctrines and plans also contribute to one's ability to seize the initiative, structure the battle, and thus fight the war on one's own terms, which serves a key organizational goal of uncertainty avoidance. It is also argued that the organizational autonomy of the military is greatest when its operational goal is the rapid and decisive disarming of the adversary by offensive means. Finally, the prospect of decisive victory through aggressive action tends to enhance military morale and prestige.¹⁰⁷ Once in place, and whether driven by the internal interests of organizations or external national security needs, offensive doctrines and war plans contribute to war by increasing the incentives to strike first; fueling arms races, tensions, and conflict spirals; encouraging aggressive policies; and increasing the destructiveness of war (Van Evera, 1984*a*:63-79; Posen, 1984:18-24).

These arguments have been applied to the 1914 case. Snyder (1984*a*:108) argues that the offensive doctrines and war plans of 1914 "were in themselves an important and perhaps decisive cause of the war," and Van Evera (1984*a*:58) argues that "the cult of the offensive was a principal cause of the First World War." In World War II, by contrast, the defensive character of the British and French doctrines contributed a great deal to the *sitzkrieg* or "phony war" after Hitler's attack on Poland (Posen, 1984). Each of these authors applies the theoretical generalizations and historical analogies to contemporary debates over offensive, defensive, and deterrent doctrines at the conventional as well as strategic levels.

The application of these theoretical generalizations and historical analogies is not without its problems. The distinctions among offensive, defensive, and deterrent doctrines is not always clear, and strategic nuclear deterrence confounds the traditional distinction between offense and defense. The important distinction between an incentive or policy of striking first and a strategy of

deep penetration (Levy, 1984*a*) is rarely recognized.¹⁰⁸ The distinction is important because the former increases the probability of war but the latter does not. Deep territorial penetration was associated with the offense in 1914 but would be associated with deterrence today, so that some hypotheses about the consequences of offensive doctrines that are reasonable for the 1914 case may not be applicable for the superpowers in the nuclear age. It is not clear, for example, that the military prefers offensive doctrines and war plans in the contemporary era.¹⁰⁹

RIGIDITY OF MILITARY DOCTRINES AND WAR PLANS

A related and overlapping literature traces crisis instability to the rigidity of military routines and war plans rather than their offensive character. This literature is not so much a well-developed body of theory as it is an application of certain concepts from organizational theory to the 1914 case and to command and control problems in the nuclear age. Although it is not clear that these processes are important in other cases,¹¹⁰ the historical importance of the 1914 case and its relevance for the present makes this an important body of literature, and a brief survey would be useful.

Rigid military mobilization and war plans may be the product of technical military and logistical constraints, systemic imperatives and alliance politics, the vested interests of organizations, administrative arrangements, cognitive rigidity, and other factors (Snyder, 1984*b*; Levy, 1986). One important consequence is that once initiated, the process becomes difficult or impossible to delay, slow, or modify, and it may be impossible to switch from one mobilization plan to another. This means that once begun, the mobilization process acquires a momentum of its own, precludes the intervention of political leaders, and generates an inevitable slide toward war. There may be little opportunity for statesmen to interrupt the process and pursue diplomatic alternatives that might preserve the peace. Many historians and political scientists argue that the rigid military mobilization plans and railroad timetables of 1914 were an important cause of World War I because they created a situation in which "mobilization means war" and in which it was very difficult to slow or reverse the process (Taylor, 1969; Albertini, 1957; Fay, [1928] 1966; Van Evera, 1984*a*; Snyder, 1984*b*; Levy, 1986). Recent work suggests that certain organizational constraints and rigidities in U.S. command and control procedures may generate dynamics similar to those of 1914 (Bracken, 1983; Blair, 1985).

In addition, the inability to modify a plan or switch from one mobilization plan to another may seriously limit the feasibility of partial mobilization as a substitute plan, because once implemented it could not easily be replaced by full mobilization if circumstances warranted it. This leaves statesmen with no

intermediate military option that would allow them to demonstrate their resolve without at the same time provoking a dangerous escalation by the adversary. Statesmen are deprived of the ability to fine tune their threats in a way that achieves an optimum balance between the twin objectives of coercive diplomacy and crisis management. This is an essential requirement for crisis management (George, 1984), and its absence in the Russian and German cases in 1914 was an important factor in the escalation of the conflict (Levy, 1986, 1988*d*). There are similar concerns that organizational rigidities may preclude U.S. and Soviet leaders from using military alert levels as a fine-tuned and easily manipulable instrument of signaling and influence in the nuclear age (George, 1984; Sagan, 1985; Allison et al., 1985).

There is a related set of hypotheses regarding the consequences of low levels of political-military integration (Posen, 1984), which refers to the congruence between the foreign policy goals of the state and the military means available to achieve those ends. Because of organizations' interests in autonomy and the tendency toward "factored problems" (Cyert and March, 1963), the technical specialization of the military and the general lack of civilian expertise, and the military's use of its control over information to enhance its autonomy, military organizations tend to focus on the military aspects of policy and to minimize its political component. There is a resulting danger that military doctrine will follow a "strictly instrumental military logic" and ignore important political considerations, particularly in the absence of strong civilian intervention (Posen, 1984:58). Many argue that in Germany in 1914, for example, the military plans were constructed without consultation with political decision makers and with total disregard for political considerations (Ritter, 1958; Taylor, 1969; Turner, 1979; Snyder, 1984*b*). The German Schlieffen Plan required movement through Belgium because it facilitated the invasion of France, which made British intervention, and thus a world war, inevitable.

The problem of low political-military integration is compounded if political leaders are ignorant of the details of military plans, because they may not realize the extent to which they lack the military options to support their foreign policy objectives. This ignorance was an important source of escalation in 1914. Whereas the military perceived mobilization as a means of preparing for a war that they perceived to be inevitable, political decision makers generally saw it as an instrument of deterrence or coercive diplomacy. They had little conception, until it was too late, that they lacked the means to support a coercive or deterrent strategy based on a fine tuning of military threats, or that their room to maneuver had been severely restricted. As a result, they did not realize that actions taken in all sincerity to avoid war while preserving vital interests only made war more likely (Levy, 1986:209-210).

Thus, Ritter (1958:90) concludes that "the outbreak of war in 1914 is the most tragic example of a government's helpless dependence on the planning of strategists that history has ever seen." Similarly, there are concerns that U.S. and perhaps Soviet political leaders may not be fully aware of the extent to which existing rules of engagement leaves some authority in the hands of military leaders, restricting the politicians' ability to fine tune their threats in a nuclear crisis (George, 1984:227-228; Sagan, 1985:132-135).

George (1984) suggests several conditions conducive to effective crisis management. In addition to the limitations of one's political objectives, these include presidential control of military options, pauses in military operations, availability of discriminating military options, and coordination of military movements with political-diplomatic actions and with limited political objectives. The discussion of the World War I case demonstrates that rigid military mobilization plans contributed to the violation of every one of these requirements and suggests that this had profound consequences for the escalation of the July crisis to war. Although it is uncertain how frequently this particular causal path to war occurs in international politics, the severity of its consequences when it does occur and the potential resemblance of its antecedent conditions to certain conditions in the contemporary world makes it worth examining in more detail.

Misperception and War

The idea that wars are caused by misperceptions is very attractive in many ways.¹¹¹ For those who believe that the human and economic costs of war frequently far outweigh any benefits that it might bring to the states that initiate them, a theory based on misperception provides a satisfying explanation of how wars might occur in spite of their asserted irrationality. Misperception-based theories are also appealing to those who are frustrated by theories that trace war to inexorable systemic and societal forces that are for the most part beyond the ability of policymakers or citizens to control or influence. Perceptions and misperceptions are often viewed as variables that are more manipulable by policymakers and therefore more useful for a policy-relevant theory. In addition, scholars have been influenced by numerous historical cases in which misperceptions are so blatant and so consequential that many have concluded that the war would not have occurred in their absence. One can argue, for example, that Argentina would not have attempted to seize the Falklands/Malvinas from Great Britain had she anticipated that Great Britain would respond with military force (Hastings and Jenkins, 1983), or that the United States would have crossed the 38th parallel in Korea had she anticipated Chinese military intervention (George and

Smoke, 1974:Chap. 7). The "traditional" interpretation of World War I is that it was an "inadvertent" war driven by misperceptions, rigid railway timetables, and blunders as well as by underlying strategic necessities (Fay, [1928] 1966; Tuchman, 1962). Although this interpretation of World War I is no longer the dominant one, it has sensitized generations of historians and political scientists to the potential importance of misperceptions in the outbreak of war.

The role of misperceptions has probably been given greater emphasis by historians than by political scientists, in part because of the latter's concern for parsimonious theories and because of the enormous complexity added by the introduction of misperceptions to a theory of international politics. In addition, the analytical problems associated with the concept of misperception are extraordinarily difficult. Recently, however, political scientists have given much more attention to the question of misperception in foreign policy decision making, especially with respect to issues of war and peace (Jervis, 1976, 1983, 1988*a*; Lebow, 1981; Stein, 1982; Levy, 1983*b*; Snyder, 1984*b*; Van Evera, 1984*b*). Much of this literature has focused on the psychological processes generating misperceptions and has built on work in social psychology (Nisbett and Ross, 1980; Janis and Mann, 1977; Kahneman et al., 1982).¹¹² Less attention has been given to the linkages leading from misperception to war or to the difficult analytical problems involved in defining misperception. Since Holsti's chapter on crisis decision making in this volume and other chapters in this series on judgment and choice processes deal at length with the sources of misperception, the stress here will be on the linkages from misperception to war and on the meaning of the concept.

There are many different forms of misperception, and these contribute to war in different ways and under different conditions. In fact, under some conditions many of these misperceptions contribute to the maintenance of peace rather than the outbreak of war. Instead of examining all possible kinds of misperceptions, we will focus primarily on those that have the greatest and most direct impact on decisions for war. These include misperceptions of the intentions and capabilities of both adversaries and third states, as well as other forms of misperception that affect decisions for war or peace through their impact on these variables.¹¹³

The exaggeration of the hostility of the adversary's intentions is one of the most common and most important forms of misperception. Here it is useful to distinguish between short-term and long-term misperceptions. Each can affect the outbreak of war, but through different causal mechanisms. In short-term crisis situations, the exaggeration of adversary hostility can lead to the expectation of an adversary attack and a decision to act preemptively to gain the advantages of striking first and to minimize the costs of a war which is

perceived to be inevitable. If in such a situation each adversary actually prefers other options to war, these misperceptions of adversary intentions would be a primary cause of the war. There is substantial evidence that most of the great powers exaggerated the hostility of their adversaries' intentions in the 1914 crisis, leading many scholars to conclude that these misperceptions were a leading cause of the war (North, 1967; Fay, 1928; Snyder, 1985; Van Evera, 1985).¹¹⁴

The overestimation of the hostility of adversary intentions can also be important over the long term. They lead to a greater effort than necessary to increase one's own military capabilities in order to deter aggression or to prepare for war in the event deterrence fails. This generally induces the adversary to respond in a similar manner, generating increased tensions and an increased likelihood of a conflict spiral, arms race, and perhaps even war. The diplomacy in the decade leading up to World War I is often characterized in terms of such an action-reaction cycle, as is the diplomacy leading up to the Seven Years' War in North America (1756-1763), which Smoke (1977:Chap. 8) describes as involving "no offensive steps by any player at any time."¹¹⁵ In addition, a declining state's exaggeration of the permanent hostility of a rising challenger may erroneously convince the declining power that a future war is inevitable and thus increase its temptation for a preventive war under more favorable circumstances now (Levy, 1987).

It is also possible, although perhaps less common, for states to underestimate the hostility of the adversary. This can increase the likelihood of war, but through different causal paths. Underestimation of the adversary's resolve in a crisis often leads to the erroneous expectation that the adversary will back down, which may reduce one's own incentives to compromise or even lead one to undertake additional coercive measures. The result is often the hardening of the adversary's resolve and the generation of a conflict spiral and increased likelihood of war, as demonstrated by Lebow's (1981:Chap. 4) case studies of 13 brinkmanship crises. Over the long term, the underestimation of the hostility of the adversary leads to complacency and lack of preparedness, which against certain adversaries can increase the likelihood of war by undermining deterrence (Levy, 1983*b*:89-90). The assumption, of course, is that actions and policies undertaken to reinforce deterrence would have been successful. This is probably not the case with respect to the appeasement of Hitler prior to World War II. It is much more plausible that deterrent threats would have been successful in the cases of the U.S. underestimation of the hostility of North Korean intentions toward the South in 1950, Israeli complacency in 1973 (Stein, 1985*b*), and British underestimation of the hostility of Argentine intentions in 1982 (Hastings and Jenkins, 1983).

Other forms of misperceptions are important because of their effect on the

misperception of adversary intentions. One is the misperception of the adversary's value structure and how she defines her vital interests (Jervis, 1983:5-6; Levy, 1983b:90). This is related to the misperception of the adversary's definition of the situation and the nature of the threats that situation poses to her values, which in turn is related to the adversary's perceptions of one's own intentions and capabilities and the threats that they pose. Such misperceptions bias one's expectations regarding the adversary's likely intentions, her response to one's own actions, and hence the consequences of one's own actions. The U.S. misperception of Chinese resolve during the 1950 Korean crisis, and hence of the intensity of the likely Chinese response to the U.S. expansion of the war, derived largely from the U.S. failure to understand the importance to China of preventing the establishment on its borders of a unified Korean regime under U.S. influence (George and Smoke, 1974:Chap. 7). Similarly, the United States exaggerated the effectiveness of a coercive bombing strategy against North Vietnam by underestimating the value that country placed on unifying the Vietnamese nation under its own control.

An important dimension of the adversary's definition of the situation, but one given insufficient attention in the literature, is its view of the future. Decision makers' "field of expectations" about future reality (Smoke 1977:270) may be as important as perceptions of present reality. Misperceptions of the adversary's future expectations can lead to serious misperceptions of her current intentions. The failure to recognize that the adversary perceives that the future is bleak, and hence that the present status quo is unsatisfactory, can result in the failure to appreciate her incentives to undertake what would otherwise seem to be unlikely actions now, including war. One reason for U.S. misperceptions of Japanese intentions in 1941 was the failure to understand how bleak the continuation of the status quo looked to the Japanese (Russett, 1967). A related point is that the failure to recognize that the adversary sees itself as a declining power results in an underestimation of the likelihood that it will initiate a preventive war (Levy, 1987).

The adversary's value structure and definition of the situation may also include an important domestic component, and a failure to recognize the importance of domestic considerations can lead to serious misperceptions of adversary intentions. The failure to recognize the seriousness of the current and future domestic threats to the political security of the adversary's regime may be particularly important in this regard and may lead to an underestimation of the likelihood of external military action that would not be expected on the basis of national security interests alone. The failure to recognize that domestic pressures can lead to the use of force in spite of the existence of an otherwise credible deterrent threat is emphasized by Lebow (1981) and others (Stein, 1985a, 1985b).¹¹⁶ A related point concerns the nature of the adver-

sary's decision-making process. There is a tendency to perceive that the adversary's political processes are more centralized than they actually are and to impute excessive intentionality to the actions of the adversary (Jervis, 1976). The failure to recognize that certain hostile actions may be the product of bureaucratic infighting or domestic politics and do not necessarily indicate a sustained policy of aggression may lead to overreaction and a conflict spiral.¹¹⁷

Another secondary category of misperception, which can affect one's expectations of the likely outcome of war and in this way expectations regarding adversary intentions, is misperception of the kind of war the adversary intends on fighting (Jervis, 1983:7-8). The adversary may recognize that it would almost certainly lose an all-out war but nevertheless perceive that it could secure its objectives through more limited forms of military action. Japan, for example, believed that the United States would fight in response to Pearl Harbor but that it would not fight an all-out war, preferring to negotiate and agree to Japanese hegemony in East Asia. Similarly, Hitler believed that Britain and France would fight over Poland but terminate the war after an initial German victory. Although it is difficult to argue that correct perceptions, particularly in the second case, would have made a difference, there are other situations in which these misperceptions can contribute causally to the outbreak of war. They can induce complacency and a failure to reinforce deterrence and readiness against a fait accompli or limited military action. Israel, for example, probably could have deterred an Egyptian attack in 1973 had it recognized that a limited move across the Suez Canal into the Sinai was perceived as a viable option by the Egyptians, whereas an all-out war against the Israelis was not (Stein, 1985a, 1985b). Erroneous perceptions of this kind can also lead states to undertake coercive measures under the false assumption that the adversary has no military options at its disposal, and those coercive measures may provoke the adversary into an attack. Some interpret U.S. economic sanctions against Japan in 1941 in this way. This point is consistent with the more general argument of George and Smoke (1974) that deterrence can fail in a variety of ways, that the adversary can often "design around" a deterrent threat, and that strategies of coercive diplomacy and crisis management require a range of usable military options (as well as diplomatic incentives).¹¹⁸

Misperceptions of adversary capabilities may be as important as misperceptions of intentions. The underestimation of the adversary's capabilities relative to one's own is critical and historically common, as Blainey (1973), Lebow (1981), and others have demonstrated. Statesmen tend not only to exaggerate the likelihood of victory, but also to underestimate the duration and the costs of the war. In August 1914 Kaiser Wilhelm stated that the war

would be over "before the leaves have fallen from the trees," a belief that was shared in each of the major European capitals (Tuchman, 1962:142; Farrar, 1973:3-7); after his victory over Poland, Hitler told his generals that "a campaign against Russia would be like a child's game in a sandbox by comparison" (Speer, 1970:238); and numerous other cases of comparably extreme misperceptions have been identified. The existence of such misperceptions does not necessarily mean that they had a causal impact, of course, and the problems involved in inferring causality are admittedly difficult (Levy, 1983*b*; Stein, 1982). There are numerous cases, however, in which historians have concluded (although not without controversy) that misperceptions of relative capabilities did have an important impact on the processes leading to war. With respect to the Peloponnesian War, for example, Kagan (1969:355) argues that "all of the leading statesman expected a short war. . . . They all failed to foresee the evil consequences that such a war would have. . . . Had they done so they would scarcely have risked a war for the relatively minor disputes that brought it on." In spite of similar conclusions by historians in other cases (Farrar, 1973), the conceptual and methodological problems involved in reaching such conclusions have yet to be resolved.

The overestimation of one's relative strength includes misperceptions of military potential in a protracted war as well as immediately available military capabilities. The adversary's military potential might also be underestimated through the misperception of the impact of the war on the cohesiveness of the adversary's population and on the adversary's morale, and hence on the ability of the adversary's leadership to mobilize additional resources for the war effort (Levy, 1983*b*:83). It is particularly common for statesmen to assume erroneously that certain disenchanted ethnic minorities within the adversary state will rise up against the regime in power or even join the invading army in the event of war, leading to an excessively optimistic evaluation of the military balance. This is illustrated in the case of Iraq in her war against Iran, Hitler in his invasion of the Soviet Union, and numerous other cases.

It is also possible for decision makers to overestimate the adversary's capabilities relative to one's own. Although such misperceptions often lead to a more conciliatory policy and peace (unless this passivity is mistaken for weakness and encourages aggression by the adversary), they can also lead to war, but through different causal paths. Because adversary capabilities are often used (consciously or otherwise) by statesman as an indicator of adversary intentions, overestimation of adversary capabilities may lead to an exaggeration of the hostility of his intentions, which can trigger defensive measures, arms races, conflict spirals, and perhaps war.

Decision makers' expectations of the likely outcome of war and, hence,

their decisions regarding the initiation of war, are affected not only by their perceptions of the dyadic balance of military power between themselves and their adversary, but also by their expectations regarding the likelihood of third state intervention and the impact of that intervention on the outcome of the war. Thus, misperception of the intentions and relative capabilities of third states constitute important forms of misperception. There is a common tendency to exaggerate the likelihood that the adversary's friends will stay neutral while one's own friends will come to one's aid (Blainey, 1973; Levy, 1983*b*:91-93). This helps generate the false expectation that a contemplated war can be "localized" and won with minimum costs, and this military overconfidence can be an important cause of the war. There is also a tendency to underestimate the relative military capabilities of potential enemies and consequently to minimize their impact on the outcome of the war should they intervene. Hitler's belief that the United States would probably not intervene and that if it did it would have only marginal impact is one example (Shirer, 1959:1170). Thus, an erroneous sense of military overconfidence generated by misperceptions of the intentions and capabilities of third states can under certain conditions, contribute to decisions for war.¹⁹ As in the case of adversaries, misperceptions of the value structures of third states, their definition of the situation, and how they perceive threats contributes to misperception of their intentions.

Although numerous scholars have concluded that misperceptions have had an important role in the processes leading to numerous wars, it is not an easy task to define exactly what a misperception is, determine what historical phenomena should or should not be classified as misperceptions, or to evaluate the causal impact of misperceptions relative to that of other variables. Although considerable progress has been made since some of the earlier work on misperception and war (White, 1968; Stoessinger, 1978), some central analytical problems have yet to be solved. Lebow's (1981:90) statement still holds: "Nobody has been able to provide a clear, empirically useful and generally accepted definition of the concept."

One problem is whether misperception is best conceptualized as an outcome or as a process (Jervis, 1976, 1988*a*). Is a misperception simply a perception that is inconsistent with "objective" reality, or is misperception best conceptualized as reflecting a decision-making process that deviates from a standard rational model of information processing? It would make sense to focus on the accuracy of perceptions and define misperception as a discrepancy between the psychological environment of decision makers and the operational environment of the real world (Levy, 1983*b*; Sprout and Sprout, 1965). It is not easy, however, to determine an actor's perceptions with any degree of precision, much less the accuracy of those perceptions, given rather serious

methodological problems involving data availability and access. Even if we have complete access to all the documents, however, the question of intentions may still be unresolved. The release of nearly all of the official documents of most of the great powers in the 1914 case, for example, has not precluded a continuing debate about German intentions in 1914 (Fischer, 1961, 1975; Koch, 1972; Moses, 1975). Decision makers' diplomatic, bureaucratic, and domestic political incentives to misrepresent their true perceptions in order to influence others' perceptions and behavior must be considered in evaluating the validity of the evidence, and their concern for their image in history must be considered in using later autobiographies as evidence. Problems of interpretation are compounded further by the fact that perceptions may vary for different actors and may change over time.

The identification of an actor's perceptions of another actor's intentions, as well as the actual intentions of the second actor, is particularly difficult and raises conceptual as well as methodological problems. The very concept of intentions implies that action is purposive and that the actor plans to act in definite ways under certain future contingencies. But individuals do not always have transitive preference orderings that facilitate predictable, rational, value-maximizing behavior, so that individuals are not always certain of their own intentions (Kahneman et al., 1982; Nisbett and Ross, 1980). Moreover, their intentions may change over time. The problem of purposive behavior is compounded for collective decision-making bodies, where different actors have different preferences, where there is often no transitive preference ordering for the collective decision-making body as a whole, and where resulting decisions are often determined by unpredictable political trade-offs and by the social-psychological dynamics of small-group behavior (Allison, 1971; Janis, 1982).

The determination of the accuracy of perceptions of relative capabilities is also difficult. Indicators of strength include not only relative objective indicators of numbers of troops, weapons systems, and the like, but also estimates of the impact of leadership, training, and morale and other more subjective factors. The ultimate measure of the accuracy of perceptions of relative military capabilities is the test of an actual war, which reflects the impact of both objective and subjective elements of military strength and also the uncertainties or "fog of war" (von Clausewitz, [1832] 1968).

The uncertainties inherent in any war raises an important conceptual problem relevant to the determination of the accuracy of perceptions of capabilities. Because of uncertainty, perceptions of relative capabilities are best conceptualized as subjective probability judgments involving some expected probability distribution of the expected outcomes of war. Perceptions of adversary intentions should be conceptualized in a similar way, as a proba-

bility distribution of expected behaviors of the adversary. Low probability outcomes (regarding adversary behavior and the outcome of the war) will occasionally happen, and when they do it should not necessarily be inferred that a misperception occurred. Thus, Levy (1983b:95) asks how we can distinguish between misperception and bad luck. Is it meaningful to say that the Spanish misperceived the military balance in launching the Spanish Armada in 1588 when, in fact, unfavorable winds had much to do with their defeat? Because issues of war and peace involve perceptions and situations that are, for all practical purposes, unique events, it is not really possible to compare the accuracy of some expected distribution of outcomes with the distribution of actual outcomes in a way that is comparable to the accuracy of economic forecasts. Thus, if we treat perceptions of adversary capabilities and intentions as subjective probability judgments, the concept of misperception becomes very problematic.¹²⁰

One possible way around this dilemma is the use of a "third-party" criterion as a substitute for a truly objective measure of the accuracy of perceptions. In assessing the accuracy of X's perception of the intentions and relative capabilities of Y, it is useful to examine how other states (or other actors in different roles within the same state) perceive Y. If most other actors share X's perceptions of the intentions and capabilities of Y, then one probably could conclude that those perceptions are "correct"; if not, one could conclude that misperceptions were involved. The careful use of the third party criterion is a way of controlling for motivated biases and inferring whether perceptions (whether "correct" or "incorrect") are a rational judgment under conditions of uncertainty or whether they reflect motivated biases resulting from historical antagonisms, ideological differences, wishful thinking, or other factors.¹²¹ The fact that few other observers in 1982 shared Argentina's belief that Great Britain would not respond with military force to an Argentine seizure of the Falklands/Malvinas suggests that the Argentine view was a misperception driven by motivated biases based on the strategic or domestic political needs of the Argentine military elite.

There is no guarantee, of course, that the third party criteria can fully control for all motivated biases. The perceptions of various actors could be disproportionately influenced by the views of one "leader" rather than emerging from a number of independent assessments of the evidence, in which case the congruence of perceptions must be discounted as an indicator of their accuracy. There was a transnational "cult of the offensive" prior to World War I that led nearly all military and civilian elites to perceive (incorrectly) that military technology favored the offense (Van Evera, 1984a). It is possible that the lone view is the correct one, as illustrated by Churchill's pessimistic minority view of Hitler's intentions in the late 1930's. Finally, the state in

question may base its beliefs on different information than do third parties (if a state is more directly engaged in an issue it presumably would have an incentive to devote more resources to the collection of intelligence), and it is not clear whether the variation in beliefs is due to motivated biases or asymmetrical information.¹²²

Intractable problems such as these lead Jervis (1976:7; 1986) to suggest that the analyst focus not on the accuracy of perceptions but instead on the question of "How was it derived from the information available?" The implication is that decisions based on a sensitivity to risks and uncertainties and a reasonable use of information available or potentially available given resource and time constraints should not be judged to involve misperception, even if such decisions lead to an undesired outcome. The criterion for evaluation is how closely the actual decision-making process conforms to a "rational model" of judgment and decision under conditions of risk and uncertainty. The precise operational criteria by which deviations from a rational model would have to be specified, since the rational model is an ideal type that is never perfectly satisfied in practice and because there are several models of "bounded rationality" representing different degrees of departure from the ideal type (Simon, 1955; March, 1978). Note that in this approach the explanation of decisions and behavior is shifted from misperceptions, which can no longer be identified because there is no standard against which they can be measured (Levy, 1983b:78-80), to psychological, organizational, political, and systemic variables that explain departures from a rational decision-making calculus. In this formulation (although Jervis does not phrase it this way) misperceptions are an intervening variable between these prior conditions and processes and certain policy outcomes. Misperception itself is an unobservable hypothetical construct, but one that has observable behavioral antecedents and consequences.

The question of how to define and identify misperceptions is just one of several conceptual and methodological problems involved in the analysis of misperception and war. Another is that the existence of misperception does not necessarily affect an actor's decision, so that the causal impact as well as the existence of misperception must be established (Stein, 1982; Levy, 1983b).¹²³ Hitler clearly misperceived the intentions of Britain and France when he invaded Poland in 1939 (Taylor, 1961), but it is more questionable whether those misperceptions had any impact on his decision.

An analysis of the causal impact of misperception on the outbreak of war is complicated by the problem of finding adequate comparison groups for the purposes of a controlled scientific analysis. The ideal research design would require not just cases of misperceptions accompanied by war, but also cases of wars that occur in spite of the presence of relatively accurate perceptions.

cases of misperceptions that fail to result in war, and cases of accurate perceptions associated with nonwar. As Jervis (1988a) notes, there has been less research on cases of nonwar than on cases of war,¹²⁴ and cases of mutually accurate perceptions are relatively rare. In the absence of these comparison groups it is difficult to show either that the presence of misperception contributed to war or that war would not have occurred in the absence of misperception. Even with such comparison groups the problem of dealing with the confounding effects of systemic, institutional, and societal variables and of determining the relative weight of misperceptions in the processes leading to war would remain.

Still another problem is that misperception can contribute to peace as well as to war. A state that erroneously perceives that the dyadic balance of military power favors the adversary may, for that reason, refrain from initiating a war that it otherwise might have desired. A declining state that erroneously perceives that its rising adversary will be conciliatory once it achieves superiority may refrain from initiating a preventive war that it might otherwise find desirable. This makes it all the more necessary to differentiate among different kinds of misperceptions and the distinct causal paths through which they affect decisions for war or peace, which I have tried to do here.

In part because of the severity of these conceptual and methodological problems, there has been relatively little systematic empirical research on the more general theoretical question of the causal impact of misperceptions and their importance relative to that of other variables. This is true in spite of the historical evidence suggesting that misperceptions of the intentions and capabilities of adversaries and third states frequently occur and that they may be important in a number of individual historical cases.

Implications for the Nuclear Era

As noted earlier, there is a significant gap between the theoretical literature on the causes of war and the writings of contemporary strategists. Those who theorize about the causes of war have made little attempt to adapt their theories of war to the nuclear age, and contemporary strategists have made little effort to base their strategic theories and policy prescriptions on traditional theory and historically confirmed propositions. Many of the first group engage in what Morgenthau (1967) and Jervis (1984) call the "conventionalization" of nuclear weapons. This refers generally to the attempt to understand the contemporary world through the intellectual tools of the pre-nuclear era, and more specifically to the assumption that nuclear weapons represent a quantitative but not qualitative change in the nature of military technology. If

this were true, the only change in a theory of the causes of war would be a change in the parameters for military technology variables and for the interaction effects involving military technology.

It is not possible in our limited space to provide a complete and systematic analysis of the extent to which the nuclear revolution has affected the causes of interstate war. This is an extraordinarily difficult question for which there is unfortunately no definitive empirical evidence by which theoretical propositions can be tested. The literature provides little guidance here. Much of this literature focuses on the question of the general effects of the nuclear revolution on world politics rather than on the more specific question of how it has affected the causes of war. With regard to the second question, scholars are strongly divided. As noted earlier, some insist that nuclear weapons and associated long-range delivery vehicles have had a significant causal impact in reducing the likelihood of a war between the superpowers, while others insist that the effects have been minimal. Here I will develop an argument based on the current state of my own thinking on the question, as influenced by Schelling (1966), Jervis (1984, 1988*b*), and others. These views should be regarded as tentative until a more comprehensive and systematic study can be undertaken and until a rapidly growing literature can be assimilated.¹²⁵

Although there can be little doubt about the increased destructiveness of nuclear weapons or the scale or speed of that destruction, at a slightly higher level of abstraction the most important change in military technology concerns the capacities of the states to defend their populations from external attack, as emphasized by Brodie (1946), Schelling (1966), Art (1982), Jervis (1984, 1989), and others. To put it simply, population defense was possible in the prenuclear era but not in the nuclear era. That is, throughout most of world history it has been technologically feasible and financially practical for the strongest states in the system to defend their populations from external military attack. The capacity to defend was a function of the dyadic balance of military capabilities between two adversaries, as modified by the offensive/defensive balance of military technology, loss of strength gradients, geographical considerations, and other variables. People were only vulnerable if their military forces were defeated on the battlefield, allowing their territorial frontiers to be penetrated by enemy forces. A sufficiently decisive military victory was necessary to inflict pain on the adversary population (Schelling, 1966:Chap. 1).

This is no longer true. As a consequence of the development of nuclear weapons and long-range delivery systems, population defense is no longer feasible even for the superpowers, at least for the present and for the near future.¹²⁶ Because it is now possible for strategic forces to strike directly at enemy populations without first defeating their military forces, military vic-

tory is no longer necessary to inflict pain on enemy populations and to protect one's own population from the miseries of war (Schelling, 1966). As a result, the direct link between disparities of strength and capacity for defense has been weakened (Art, 1982). Even the strongest states in the system can be utterly devastated by war.

The consequences of this change are enormous. Historically, the capacity for population defense meant that it was possible for a state, if it were sufficiently strong, to defeat its adversary's military forces, take what it wanted, and use threats of further force to compel the adversary to relinquish other assets and to change its behavior in desired ways. At the same time, one's own costs could be limited to the military costs of prosecuting the war and tolerable level of economic and social disruption at home. Thus, war *could* be rational, in that a state could be better off fighting than not fighting.¹²⁷ It could achieve a military outcome that could be translated into political gains.

Although such a positive expected outcome (relative to the status quo) is not totally inconceivable today, it is far less likely than in the past, at least with regard to an all-out nuclear war. It is hard to imagine a situation in which a superpower could emerge from such a war in a better overall position than it would if it had avoided fighting, even at the cost of making significant political concessions.¹²⁸ It would be little consolation if its adversary had suffered even greater damage. Even if one's power position relative to the adversary were to improve, it is hard to believe that the benefits of that would be sufficient to justify the death of tens or even hundreds of millions of its citizens, the destruction of most of its economic infrastructure, the long-term ecological as well as medical effects of the war (Chivian et al., 1982; Peterson, 1983), the wrenching disruption of its social structure, the destruction of its culture and heritage, and other effects.¹²⁹ As Charles de Gaulle noted, after a nuclear war the "two sides would have neither powers, nor laws, nor cities, nor cultures, nor cradles, nor tombs" (in Jervis, 1989). For these reasons, the concepts of victory and defeat become problematic for an all-out nuclear war. All major participants would almost certainly be losers. As Ronald Reagan and Mikhail Gorbachev have affirmed: "A nuclear war cannot be won and must never be fought" (*New York Times*, 22 November 1985).

By eliminating the capacity for population defense in the nuclear age and almost certainly making victory in war impossible, the nuclear revolution has had enormous consequences for the nature of the political interactions between states in the international system. On the most general level, the imperative of avoiding nuclear war and the significant risks of escalation to nuclear war have created historically unprecedented incentives for cooperation between the superpowers (George, 1988), at least at the strategic level, and have

significantly reduced the likelihood of a major war between them. Situations that would have led to a major war in previous historical eras have had a peaceful outcome in the nuclear age.¹³⁰ But it has also created a number of paradoxes.

One paradox is that while mutual vulnerability has created incentives to avoid conflictual outcomes, at the same time it has created incentives to attempt to exploit an adversary's fear of mutual conflict to extract political concessions. The basic purposes of strategic doctrine have changed in fundamental ways. The traditional concern to maintain some reasonable balance between maintaining a capacity to fight a war and an ability to deter it has shifted significantly in the direction of the latter. In Schelling's (1966:35) words, "Military strategy can no longer be thought of . . . as the science of military victory. It is now . . . the art of coercion, of intimidation and deterrence."¹³¹

Another paradox created by the nuclear revolution is what Snyder (1965) and Jervis (1984:31) call the "stability-instability" paradox, which concerns the consequences of stability at the strategic level for stability at other levels of violence. If stability at the strategic level is ensured because of the balance of terror, threats of escalation to the nuclear level are too costly to implement. Consequently, they are not credible and therefore not useful for deterrence at the conventional level, undermining stability at the conventional level. On the other hand, there is a small chance that any conventional conflict might escalate, whether through the conscious strategy of using a "threat that leaves something to chance" (Schelling, 1960:Chap. 8) or the risk of loss of control or inadvertent escalation. This risk, in conjunction with the enormous costs involved, might be sufficient to reinforce deterrence and stability at lower levels. It is not inherently obvious which of these propositions is correct, and behavior under such conditions of uncertainty is not easily predictable. It depends in part on how the superpowers calculate both the magnitude of the risks involved and also the extent to which they can be controlled over the course of the crisis (George and Smoke, 1974). Past U.S.-Soviet behavior in issues directly affecting each other's interests has been sufficiently cautious, however, as to support the hypothesized deterrent effects of strategic stability at lower levels.

It is not possible here to explore these paradoxes in greater detail or to provide fuller justification for my arguments concerning the consequences of nuclear weapons. Nor is it possible to examine the questions of the possibility of a "limited" nuclear war, the proclivities of superpowers to intervene with military force in smaller wars, or the likelihood that such conflicts might escalate to a major superpower conflict. These were not the primary tasks of this chapter, and other papers in this series give greater attention to these questions.

There is one question, however, that requires some additional comment. In spite of recent efforts to think rigorously and systematically about the impact of the nuclear revolution, and in spite of the general belief that the probability of a war between the superpowers is very small, much less attention has been devoted to the question of the conditions or processes under which such an admittedly low probability event might still occur.¹³²

I argued that a situation of mutual overkill means that it is almost certain that the costs of an all-out nuclear war will exceed any possible benefits from that war, that political leaders recognize this, and that consequently they would prefer peace, even peace with significant political concessions if they were ever faced with such a stark choice. This does not mean, however, that they would never rationally initiate a nuclear war. A preference for peace does not necessarily entail a preference for a strategy of noninitiation, however, for such a strategy could result not in peace but instead in a war initiated by the adversary rather than by oneself. If one superpower were nearly certain that such an attack would occur regardless of one's own actions, it might choose to preempt and initiate a nuclear war. Of all the causal sequences that might lead to an all-out nuclear war, the one involving preemption is the most likely. This directs our attention to the conditions under which preemption might be perceived as a viable option.¹³³

The basic condition for preemption is a prisoner's dilemma situation in which each side has an incentive to strike first. The prevailing characteristics of military technology—the potential for enormous destruction, the invulnerability of a significant proportion of retaliatory forces, and the incapacity for population defense—guarantee a viable second strike capability,¹³⁴ which in turn eliminates any incentive to strike first. Such a condition could obtain in a crisis situation only if military technology were to change in such a way as to undermine the invulnerability of retaliatory forces or to create a population defense that is viable against a limited retaliatory strike. Such a scenario is unlikely in the foreseeable future, but it is not impossible.

Even in the absence of an objective incentive to strike first, it is conceivable that political leaders could come to the erroneous conclusion that war is inevitable, and that while the consequences would be devastating, war would be less devastating if the initial blow were struck by oneself rather than by the adversary. The specification of precisely how these beliefs could arise is an essential component of any theory of nuclear war. Two variables seem to be particularly important: perceptions of the inevitability of war (which would involve misperceptions of adversary intentions), and misperceptions of one's own military capabilities relative to those of the adversary. I have argued earlier that both of these processes are theoretically important and that they have occurred in numerous historical cases. Many of the sources of such beliefs and misperceptions continue to operate, including the anarchic struc-

ture of the international system, the ideological and cultural differences that distort states' perceptions of each other, and many of the psychological processes—especially under conditions of stress—that lead to distorted information processing. These factors are inherent in the structure of the international system and in the human mind, and there is little reason to believe that they will cease to operate in the nuclear age.

Although these factors are unlikely to disappear, new developments may be altering their likely impact. One is the widespread belief among political elites that the objective probability of an all-out war between the superpowers is much lower than in previous historical eras. For this reason, it is far more difficult for the self-fulfilling prophecies discussed above to get started. This effect is reinforced by the psychological tendency for political and military leaders to reduce their expected probability of an all-out war because the cost of that event would be so great. Psychological research has shown that estimates of the likelihood of events are not made independently of the value of those outcomes, so that statesmen have numerous mechanisms of wishful thinking, avoidance, and denial to lead them to lower the expected likelihood of an outcome with very negative consequences (Nisbett and Ross, 1980). The result is to reduce the likelihood of self-fulfilling prophecies regarding the inevitability of war. That likelihood is not zero, however, and one of the most urgent tasks for future research is the identification of the conditions and processes under which war comes to be perceived as inevitable.

Misperceptions of the relative military balance will undoubtedly continue to occur, as they have throughout history, but the consequences of those misperceptions are more difficult to predict. As emphasized earlier, misperception can occur without having a causal impact on decisions. It is probable that decision makers today as compared to those in the past will have much less confidence that a certain degree of military superiority can be translated into military victory with acceptable costs. The potential costs of a miscalculation are so great that even a relatively small risk of error almost certainly will be sufficient to induce caution. Admittedly, however, this again raises the question of the risk orientations of decision makers, for highly risk-acceptant actors might behave differently. The situational and dispositional factors contributing to extreme risk acceptance, particularly in the domain of extremely low probability events involving extraordinarily high costs, is another urgent area for further research.¹³⁵

For these reasons it is reasonable to conclude that the likelihood that statesmen in a crisis situation will come to believe that war is inevitable, that they have military superiority that assures victory with acceptable costs, or that their second-strike capability is no longer viable, and that therefore they have an incentive to strike first, is considerably lower in the nuclear era than in previous historical periods.

There are, of course, other conceivable paths to nuclear war. One would be a model of crisis-induced stress, flawed decision making, loss of control, and inadvertent war (Lebow, 1987), based on the literature on the psychological and organizational determinants of crisis decision making. Space constraints have precluded a detailed discussion of that literature (see Holsti's chapter in this volume) and, therefore, of the loss of control/inadvertent war sequence, but the question of nonrational escalation to nuclear war is an important area of ongoing research. There have also been recent efforts to construct models of crisis escalation based on assumptions of rationality (O'Neill, 1986; Maoz, 1989:Chap. 4; Brams and Kilgour, 1989; Powell, 1987). Some of these models are particularly interesting because they show how rational behavior at each step of an escalating sequence can lead to outcomes that are highly undesirable for all parties involved.

The analysis of the impact of the nuclear revolution on other causal sequences leading to a major war between the superpowers is more difficult. It is probably true that the likelihood that other causal sequences will lead *directly* to decisions for war has been significantly reduced because of the irrationality of initiating a war for any purposes other than preemption. There is little reason to believe, however, that these traditional causes no longer operate in such a way as to create tensions and even crises between states and occasionally to bring them to the brink of war (Jervis, 1989:Chap. 1). Consequently, the importance of the causes of war surveyed here may now lie primarily in the way that they generate crisis situations in which preemption can be perceived as one possible policy option.

Conclusions

We have examined structural systemic theories, societal-level theories, and decision-making theories; general theories, middle-range theories, and bivariate hypotheses; and formal axiomatic theories and more traditional conceptualizations. We have also examined some of the evidence relevant to the validity of these theories, ranging from large-*N* correlational analyses to controlled comparative studies and individual case studies. It is hard to avoid the conclusion that there is little agreement on the identity of the most important causes of war, the methodology through which these causes might be discovered, the conceptual framework that might permit the integration of these factors into a general and logically consistent theory of war, or even the criteria by which one theory might be said to be better than another.

Instead, we find a number of dilemmas. Many of the hypotheses linking a certain variable to war can be paired with equally plausible hypotheses linking that same variable to peace. This is true not only for hypotheses deriving from

fundamentally different research paradigms, such as liberal and Marxist-Leninist theories regarding the impact of capitalist economic systems on peace and war, but also for those generally associated with the same paradigm. The realist paradigm, for example, includes both the parity hypothesis and the preponderance hypothesis, and some balance of power theorists contend that multipolarity is stabilizing while other balance of power theorists argue that it is destabilizing. Because of these theoretical ambiguities it is perhaps not surprising that empirical research has demonstrated that in some historical periods certain variables are associated with peace but in other historical periods it is associated with war. It is obvious that under some theoretical conditions a particular factor has stabilizing effects while under other conditions it has destabilizing effects, but there has been too little theoretical and empirical research directed toward the specification of these conditions.¹³⁶

This failure to specify the conditions under which many important relationships hold is compounded by the problem of equifinality—the fact that there are several distinct sets of conditions and causal sequences leading to the same outcome: war. Whereas some wars appear to result from the deliberate and careful calculation that the use of military force will bring strategic and economic gains with minimal costs, other wars appear to be the product of an inadvertent process of escalation involving the loss of control by political leaders and the absence of anything resembling a rational decision-making process. In the attempt to devise a general theory of war applicable in all cases, there has been too little work attempting to identify these distinct causal sequences or the conditions under which each is most likely to arise. The fact that many variables occur in more than one of these causal sequences makes it all the more difficult to test hypotheses regarding the causes of war, for simple correlational analyses that fail to incorporate interaction effects with key variables or capture the dynamic sequences leading to war are doomed from the start.

There is also the opposite problem, multifinality, in which a single set of conditions or a single causal sequence can have more than one possible outcome. Given a set of preferences or national interests and a set of international and domestic constraints, war may be but one of several possible means or strategies selected to optimize those preferences. Whether war or some other policy is selected is determined by a number of specific contextual and perhaps psychological variables. Such variables have not been incorporated into most of our theories of the causes of war, however, and these theories consequently are unable to specify with much precision when war as opposed to other policy options will be selected (Most and Starr, 1984). Recall that the theory that claims to have the highest degree of empirical confirmation,

Bueno de Mesquita's (1981a, 1985) expected utility theory of war, attempts to specify necessary rather than sufficient conditions. It attempts to predict only when war will *not* occur, not when it will occur. More general structural realist theories, such as Waltz's (1979) version of balance of power theory, specify even broader limits within which behavior is likely to fall, and consequently have less precise predictive power.

One reason for the absence of serious efforts to increase the level of precision of explanation is the concern by many political scientists for general, elegant, and parsimonious theories of behavior. There is a trade-off between explanatory completeness and parsimony, with the inclusion of additional variables increasing explanatory power but, in the process, also increasing the complexity of the theory and making it far more difficult to apply in a wide variety of historical circumstances. To the extent that factors idiosyncratic to a particular case need to be included, the possibility for a general theory of the causes of war is greatly restricted. There is no single answer as to how this trade-off between explanatory completeness and parsimony should be made, in part because of the different purposes for which theory can be used.

From the perspective of the policymaker, however, elegant and parsimonious theories lacking in more specific diagnostic power are of much less value than contingent generalizations that attempt to specify the likely outcomes of particular classes of situations, even if the emergence of those situations is not explained and even though these generalizations are not universally applicable (George and Smoke, 1974; George, 1976). The emphasis on general theory has distracted attention from the kinds of middle-range theories that might generate such conditional generalizations. This concern for general theory affects the policy relevance of the international conflict literature in another way, by contributing to the bias toward structural systemic theories that may be parsimonious but that tend to be based on variables that are not easily manipulable by policymakers.

We have seen that the utility of the traditional theoretical and empirical literature on the causes of war for policymakers is also diminished by the general failure of scholars to adapt traditional theories of war to the nuclear age and by the failure of contemporary strategists to ground their strategic theories and policy prescriptions more solidly on empirically confirmed knowledge about the behavior of states in previous eras. Both the propositions—that little has changed in the nuclear era or that everything has changed in the nuclear era—are undoubtedly incorrect. The truth, presumably, is somewhere in between. We still live in a decentralized, anarchic state system in which there are certain propensities toward war deriving from systemic, societal, institutional, and psychological pressures. At the same time, the development of nuclear weapons has profoundly altered the cost-

benefit calculations of political leaders. This dilemma is captured by Howard (1983:21). He states that "the causes which have produced war in the past are operating in our own day as powerfully as at any time in history," yet on the following page insists that decisions for war are based on rational calculations and that "the odds against such a course [of going to war] benefiting their state or themselves or their cause will be greater, and more *evidently* greater, than in any situation that history has ever had to record." The task for theorists is to incorporate both sets of considerations into an integrated and comprehensive theory of war in the nuclear age.

Notes

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1. One analyst estimates that there were approximately 860 wars between 1100 A.D. and 1925, involving about 35 million deaths (Sorokin, 1937). That does not even include World War II, which resulted in roughly 50 million military and civilian deaths (Beer, 1981:38), or the large number of international and civil wars over the last half century.

2. It is estimated that global military spending reached \$900 billion in 1987 (Sivard, 1987).

3. This discussion is not meant to suggest that the social scientific research that influences policy necessarily represents the dominant view of the academic community or that it utilizes this research in the appropriate way.

4. The better of these reviews include Waltz (1954), Brodie (1973:Chap. 7), Blainey (1973), Gallie (1978), Nelson and Olin (1979), Bueno de Mesquita (1980a), Zinnes (1980), Brown (1987), and Vasquez (1987).

5. It has been increasingly common over the last decade for theoretical and empirical studies of war to begin at this point in history (Wright, 1965; Modelski, 1978; Levy, 1983a; Modelski and Thompson, 1988; Kennedy, 1987). Most wars in previous eras have far less relevance for contemporary theory or policy, the most notable exception being the Peloponnesian War.

6. Great powers are differentiated from other states on the basis of their military power and potential and their ability to project that military power for use in offensive as well as defensive operations; their more extensive interests, including their interests

in the structure and stability of the international system itself; their perceived status; and their regularized patterns of interaction with other great powers. Although there is some agreement regarding the identity of the great powers in the past, the concept and therefore the identity of the great powers has become somewhat more ambiguous in the nuclear age (Levy, 1983a:Chap. 2).

7. Here war is defined as substantial armed and violent conflict between the organized military forces of independent political entities (Levy, 1983a:Chap. 3), with "substantial" being defined to include a minimum of 1,000 battle casualties (Singer and Small, 1972) among the great powers.

8. The number of colonial or imperial wars is difficult to count precisely because their small size blurs the distinction between wars and lesser forms of violent conflict and because their protracted nature often makes it difficult to define when one war stops and another starts. One estimate is that there have been about 90 imperial or colonial wars since 1500 (Levy and Morgan, 1984).

9. For compilations of small wars from the 1815 to the present, see Small and Singer (1982). Other compilations for the post-1945 period include Butterworth (1976) and Kende (1971).

10. There do not appear to be any significant cyclical trends in the frequency of war of various types (Sorokin, 1937:352-360; Singer and Small, 1972:205-207; Singer and Cusack, 1981), but there is evidence that the magnitude or severity of war has been somewhat cyclical over the last five centuries (Singer and Small, 1972; Modelski, 1978; Thompson and Zuk, 1982). Goldstein (1985, 1988:Chap. 11) in particular emphasizes the cyclical nature of major warfare. Because of the historical, theoretical, and policy relevance of general wars (also referred to as hegemonic, global, or systemic war), the question of whether they have followed a cyclical pattern has attracted particular attention. Modelski (1978, 1987b) and Thompson (1983a) insist that there are 100-year cycles of global wars over the last five centuries, and the latter has presented some fairly strong supporting evidence (Thompson and Rasler, 1988; Thompson, 1988). However, their data base excludes some important major land-based wars that involved nearly all the European great powers and had enormous consequences for the structure of the system (for example, the Thirty Years' War), and the inclusion of these would undercut the notion of regular cycles (Levy, 1985a).

11. There are sociological as well as intellectual reasons for the great power bias among scholars. A disproportionate amount of scholarship on war and international relations is done by scholars in states that are currently or were historically great powers. These scholars compound the bias by failing to acknowledge some significant scholarship in smaller and non-Western states (Holsti, 1985).

12. The World War I analogy may be particularly misleading because the prevailing views of historians (but not political scientists) regarding the causes of the war have shifted in the last two decades. Whereas a significant number of political scientists still regard World War I as the classic case of an inadvertent war that was sought by none of the leading great powers (Holsti, 1972), many historians now accept some version of the Fischer (1961, 1975) thesis that Germany deliberately aimed for war in order to become a world power and to solve her domestic socioeconomic crisis (Kaiser, 1983; Berghahn, 1973).

13. One of the better efforts here is Smoke's (1977) historical study of hypotheses on escalation.

14. Although most studies of intervention have been focused on specific historical cases, there has been a growing body of literature that aims at more general hypotheses. Some of these have been limited to particular states (Tillema, 1973; Duner, 1985; Schmid, 1985) and some constitute one part of larger studies of the coercive use of force short of war (Blechman and Kaplan, 1978; Kaplan, 1981). There are a number of data bases for the study of intervention (Eckhardt and Azar, 1978; Pearson, 1988).

15. Depending on the classification of China in 1950, the Korean War might be one such case.

16. Of the 10 general wars of the last five centuries, the following clearly involved escalation from local conflicts or civil wars: War of Dutch Independence, Thirty Years' War, Seven Years' War in North America, the French Revolutionary wars, and World War I. In an earlier era, the Peloponnesian War also arose from the escalation of several local conflicts.

17. Some exceptions include Stoll (1982), Huth and Russett (1984, 1988), Huth (1988), and Morgan and Ray (1988).

18. This is not to say that individual belief systems, personalities, cognitive processes, and the like are not important causes of war. Their importance can be determined, however, only if they are considered separately rather than being aggregated into an all-inclusive and residual concept of human nature.

19. Fay's (1928) two-volume study of *The Origins of the World War* includes one volume on underlying causes going back to 1871 and one volume on immediate causes beginning with the assassination of the archduke.

20. The leading alternative paradigms include liberalism and Marxism-Leninism (Gilpin, 1975; Holsti, 1985).

21. The actors need not necessarily be nation-states but, instead, can be the dynastic states of sixteenth or seventeenth century Europe, the city-states of ancient Greece or the Italian Renaissance, or any territorially based political entities.

22. Few realists deal directly with the problems created by the assumption that states have well-defined interests that can be expressed as a transitive preference order (if A is preferred to B and B is preferred to C, then A is preferred to C), particularly the logical problems involved in establishing a social preference order for any collectivity (Arrow, 1951; Ordeshook, 1986:Chap. 2). Exceptions include Bueno de Mesquita (1981a) and Morrow (1988).

23. The *as if* assumption is an important one and I will return to it later.

24. Realists who focus on the international political economy rather than the international security system give far more emphasis to economic dimensions of power (Gilpin, 1975; Krasner, 1976; Keohane, 1984).

25. Wolfers (1962:Chap. 1) is most explicit about this and compares states in the international system to individuals in a house on fire; one does not need elaborate psychological theories to predict their behavior.

26. Most states that have the means to do so prefer to provide for their own security rather than rely on allies, because allies naturally give priority to their own interests, which are rarely fully congruent with one's own. Most alliances have historically been short-term solutions to immediate security threats rather than long-term solutions to

one's security needs (Liska, 1962). The nature of the trade-offs between the accumulation of military capabilities and the formation of alliances for the purposes of enhancing one's security is an important research question that only recently has begun to receive serious attention (Wagner, 1986). The trade-off between increased security and the loss of autonomy resulting from alliances is analyzed by Morrow (1987).

27. This reflects the more general problem that what is rational for the individual may not be rational for society (Barry and Hardin, 1982; Schelling, 1978), which gives rise to the problem of collective action (Olson, 1965; Hardin, 1982). There have been numerous attempts to describe these types of situations with prisoners' dilemma models (Rapoport and Chammah, 1965; Schelling, 1960; Snyder and Diesing, 1977; Axelrod, 1984; Brams and Kilgour, 1988), but these are discussed elsewhere in this series and will not be treated here.

28. Alternatively, if one state is much more committed to peace than another—and particularly if the former is more sensitive to the dangers inherent in the security dilemma than its rival, leading it to fear the consequences of firmness more than those of conciliation—anarchy and the security dilemma may facilitate the exploitation of "peace-loving" states by rival aggressors.

29. Thus, Mansbach and Vasquez (1981) suggest that attention be shifted "from the issue of power to the power of issues." For the importance of issues, see Keohane and Nye (1977), Zimmerman (1973), and Vasquez and Mansbach (1984). The importance of linkages between issues in strategic interaction has also been neglected (Morrow, 1986; Morgan, 1988).

30. It should also be emphasized that not all who recognize the importance of international anarchy are realists as defined here. The "idealist" tradition, often associated with classical liberalism, acknowledges that the anarchic structure of the system exacerbates the misunderstandings that frequently arise between states and suggests that the ultimate solution to the problem of conflict in the world is to replace the anarchic system with world government. A central issue that separates realists from idealists, however, is that the former see the world in zero-sum terms and recognize that genuine conflicts of interests do exist, whereas idealists assume an underlying harmony of interests in a nonzero-sum world (Gilpin, 1975:Chap. 1). For more on the realist-idealist debate see Jacobson (1960:Chap. 4) and Wolfers (1962:Chap. 6).

31. There are some recent exceptions that attempt to derive logically consistent balance of power models from a small set of axioms, but these assumptions are quite restrictive, and these models have not been tested against empirical reality (Zinnes, 1967; Wagner, 1986; Niou and Ordeshook, 1986, 1987).

32. Kaplan's (1957) essential rules of a balance of power system, for example, have been widely criticized for their inconsistency (Riker, 1962:159-187).

33. Although a major difference between balance of power theory and power transition theory is the latter's emphasis on the internal sources of military power and deemphasis on the importance of alliances, there is a general recognition by balance of power theorists that internal balancing may be important, particularly in bipolar systems (Waltz, 1979:Chap. 8). Bueno de Mesquita (1980a:370) is wrong to suggest that balance of power theory excludes internal increases in military power as a balancing mechanism or as a means by which the international distribution of power is altered.

34. Any discussion of threats of hegemony or dominance must specify the geo-

graphic scope of the system under consideration and the basis of power in the system (Levy, 1985a), but this is not always made explicit. Balance of power theories conceive of power primarily in terms of land-based military power and of hegemonic threats in terms of dominance over the European continent. The great powers have historically perceived the most serious threats to their security as emanating from land-based continental powers rather than sea powers, regardless of the global strength of the latter. Thus, it was the rising power of Germany in 1914, and not that of the United States, that was perceived by the other great powers as the primary threat to their interests and, consequently, it was against Germany rather than the United States that great power blocking coalitions were formed.

35. Other general wars involving nearly all the great powers may have occurred in spite of the absence of any clear threat of hegemony, including the War of Jenkins' Ear/Austrian Succession (1739-1748) and the Seven Years' War (1755-1763). See Levy (1985a).

36. Relatively isolated regional subsystems may share some of the characteristics of great power systems, and many balance of power propositions may be applicable to such systems.

37. Similarly, theories that specify the maintenance of the independence of states as the goal of balance of power systems do not see the partitioning or elimination of small or even medium states as undermining the stability of the system (Gulick, 1955; Kaplan, 1957:23-24). Propositions about the relationship between the dyadic balance of power and the outbreak of war between pairs of states, however, may be as applicable to secondary states as to great powers. On balancing and bandwagoning, see Walt (1987).

38. Hegemonic stability theory (Kindleberger, 1973; Gilpin, 1975; Krasner, 1976; Keohane, 1980, 1984) also deals with the relationship between power distributions and international stability. In contrast to scholars involved in the parity/preponderance debate, however, it defines the independent variable in terms of the distribution of economic power in the international system and the dependent variable in terms of the stability of the international political economy. Thus, it deals with a different set of theoretical questions and will not be discussed here. Only Gilpin (1981) attempts to extend hegemonic stability theory to the international security system, and his work will be discussed in the section on theories of hegemonic war.

39. This has been done in some of the quantitative empirical literature (Singer et al., 1972).

40. One exception is Bueno de Mesquita and Lalman (1988a).

41. Many of the hypotheses as to the systemic effects of polarity are similar to those of the effects of the size of the system. If size is defined as the number of great powers in the system, the size of the system is analytically distinct from the distribution of power. It appears, however, that regardless of precisely how the size of the system is defined, there is no evidence of a relationship between the size of the system and the frequency or seriousness of war in the system, either for the post-1815 period (Ostrom and Aldrich, 1978) or for the last five centuries (Levy, 1984b).

42. The debate over bipolarity and multipolarity generally ignores the phenomenon of unipolarity, probably because balance of power theorists assume that balancing

mechanisms work effectively to prevent any single state from achieving a position of dominance.

43. Note that the concept of risk orientation has a specific technical meaning: it is a measure of the shape of an actor's utility function. Utility functions are linear for risk-neutral actors, concave (downward) for risk-averse actors, and convex for risk-acceptant actors (Ordeshook, 1986:46). Faced with the choice of (1) a gamble involving two possible outcomes with an expected value of x (for example, a 50-50 chance of nothing or \$100, with an expected value of \$50), and (2) a certain return of \$50, risk-neutral actors are indifferent, risk-averse actors prefer the certainty equivalent (x) of \$50, and risk-acceptant actors prefer the gamble. For a good application to international relations, see Morrow (1987).

44. Contrary to Bueno de Mesquita (1981b), at extremely high levels of power concentration, where the threat of hegemony is for all practical purposes a sufficient condition for the emergence of a blocking military coalition to oppose the threatening state, it is unlikely that risk propensities have more than a marginal impact.

45. A word is in order regarding the data bases utilized in these studies. All quantitative empirical studies of the systemic distribution of power and war, and in fact nearly all studies of war over the past century and a half using aggregate data, are based on the Correlates of War data generated by Singer and Small. See Singer (1972) for a summary of the Correlates of War project, Singer and Small (1972) for the war data and a discussion of the procedures by which they were generated, and Levy (1983a, 1988b) for an extension of the war data back to the end of the fifteenth century. See Singer and Small (1966a) for the alliance data and Levy (1981) for an extension of the alliance data back three centuries. An overview of the capability data can be found in Stuckey and Singer (1973) or Singer (1988). The six Correlates of War capability indicators include two demographic measures (total population and urban population), two industrial indicators (energy consumption and iron or steel production), and two military measures (active armed forces personal and military expenditures), all equally weighted (Singer, 1988).

For good critiques of the project see articles by Job and Ostrom, Duvall, and Starr in Hoole and Zinnes (1976), and for a recent summary of the project's findings see Vasquez (1987). Note that the most recent stages of the Correlates of War project are the Militarized Interstate Dispute (MID) project and the Behavioral Correlates of War (BCOW) project. For summaries of the projects and of their data, see Maoz (1982a), Gochman and Maoz (1984), Gochman and Leng (1988), and Leng and Singer (1988). One important macrohistorical research program in international relations that uses aggregate data methods but not the COW data is long cycle theory, which relies on the sea power data of Modelski and Thompson (1988).

46. Levy's (1985b) quantitative study of the relationship between polarity and war over five centuries incorporates the bipolar period of the early sixteenth century. He finds that unipolar systems have historically been the least stable, bipolar systems have been the most stable, and multipolar systems have been of intermediate stability, suggesting a curvilinear relationship between the distribution of power in the system and the outbreak of major war. The value of the historical scope of the study is diminished, however, by the failure to use operational indicators in the measurement of polarity.

47. This argument requires the assumption that likely victims of aggression are more likely to have allies than likely aggressors, or that the allies of victims are more likely to intervene militarily than are allies of aggressors. Otherwise, an alliance that helps deter an attack by A against B could undermine the deterrence of B's attack against A. Most balance of power theorists argue that defensive alliances are more common than offensive alliances, that offensive alliances tend to be fragile and unstable, and generally that alliances are more easily formed against a common threat than to achieve positive gains (Liska, 1968). Note that many alliance treaties stipulate that the obligation to come to the aid of one's ally is dependent on the initiation of the war by an outside state. This formal obligation is reinforced by (and, in fact, is often made in anticipation of) domestic political considerations.

48. Note Sabrosky's (1980) finding that states tend to honor their alliance commitments more in the twentieth century than in the nineteenth century.

49. Other factors affecting the probability of victory include geographical advantages, the degradation of military strength over distance (Boulding, 1962; Bueno de Mesquita, 1981a), the offensive/defensive balance of military technology (Quester, 1977; Levy, 1984a), and political and administrative factors (Knorr, 1970; Organski and Kugler, 1980:Chap. 2).

50. For one attempt to resolve these conflicting findings, see Morgan (1989).

51. There is some danger, however, that these studies have inadvertently underestimated the importance of the balance of military power and potential through selection biases in their research designs (Levy, 1988c, 1989b). The estimation of the magnitude of these biases is an enormously difficult task, but an important one for future research.

52. Blainey (1973) recognizes that other variables may have a secondary influence on the outbreak of war. The most important of these are expectations of the behavior of outside states, perceptions of unity or discord within the adversaries, the social and psychological impact of one's recent wars, nationalism and ideology, the ability of the economy to sustain the envisioned war effort, and the personality and experiences of key decision makers.

53. Some discussion is necessary regarding my classification of this as a systemic-level theory. Bueno de Mesquita has constructed a theory of the foreign policy behavior of a single state, not of the strategic interaction of two or more states, so it does not really generate propositions about systemic outcomes and processes. As I noted earlier, however, I am using the levels of analysis as a framework for the classification of the independent variable. Because a theory is defined not only by its logical structure but also by its empirical content (Hempel, 1966:Chap. 6; Nagel, 1961), because all of the variables in Bueno de Mesquita's theory are operationalized and measured with reference to systemic-level indicators and data, and because the theory basically black-boxes all decision-making processes, I have classified the theory along with other systemic-level theories. Bueno de Mesquita explicitly compares his expected utility theory with balance of power theory, and others regard his expected utility as a formalized and operational version of a realist theory of international politics.

54. I have benefited from Jim Morrow's comments on this section of the paper.

55. The assumption of the existence of a dominant decision maker is a way to make the simplifying assumption that states behave as if they were unitary actors. The unitary actor assumption is common to all structural theories of international politics. It is explicitly motivated here by the need to avoid the logical problems involved in establishing a single preference ordering for a collective decision-making body (Arrow, 1951). Whether bureaucratic and domestic politics and different belief systems and world views of decision makers invalidate the assumption of a dominant decision maker with respect to war and peace issues is an important theoretical and empirical question.

56. The rationality assumption postulates that individuals have a consistent set of preferences, that they know the intensity (utility) of those preferences, and that they always choose the strategy that maximizes their expected utility (the sum of utilities of each possible outcome, each weighted by its probability of occurrence).

57. Recent modifications in the theory allow for intermediate outcomes between victory and defeat (Morrow, 1985).

58. There is an important debate regarding both the empirical accuracy of the rationality assumption (Kahneman et al., 1972; Nisbett and Ross, 1980; Tversky and Kahneman, 1981; Hogarth and Reder, 1987) and the question of whether rational choice theories should be evaluated by the accuracy of their assumptions or the accuracy of their predictions (Friedman, 1953; Hogarth and Reder, 1987). This debate is primarily among economists and social psychologists, but it is beginning to attract more attention in the political science literature (Moe, 1979).

59. One technical flaw in *The War Trap* is that Bueno de Mesquita not only sets the utility of the status quo at zero, but also sets the utility of winning at +1 and the utility of losing at -1. This is mathematically incorrect, for utility theory provides only two degrees of freedom here (Wagner, 1984). The substantive implication is that the status quo is always midway between winning and losing, which may not be true. This problem is corrected in Bueno de Mesquita (1985), where a value for the status quo for each state is calculated from its risk orientation.

60. As we have seen, many of the Correlates of War studies of the relationship among the outbreak of war and power concentrations, alliances, and related balance of power variables find that many of these relationships reverse direction in the nineteenth and twentieth centuries (Singer et al., 1972; Singer and Small, 1974).

61. Note one consideration precluding a direct comparison of the empirical fit of these different studies: whereas many other empirical studies examine the ordinal or product-moment correlations between indicators of the key theoretical concepts, which reflect two-way associations, Bueno de Mesquita's empirical tests are based on one-way measures of association (appropriate for the analysis of necessary conditions), which is much less demanding.

62. This is not technically correct, for it does not capture the utility of various outcomes to the weaker state. If the utility of victory is sufficiently great, and if the costs of defeat are not too great, the expected utility of war can be positive even if the most likely outcome is defeat. Bueno de Mesquita's proposition is consistent with the historical evidence only because of the tendency for utilities to be defined in zero-sum terms in his theory (about 70 percent of the conflicts included in *The War Trap* are

zero sum). This limitation in the theory has subsequently been corrected (Bueno de Mesquita, 1985).

63. This proposition is based on the troublesome assumption of the possibility of interpersonal comparison of utilities. This assumption is eliminated from later versions of the theory and appropriate modifications in the theory are made (Bueno de Mesquita, 1985).

64. There are two reasons why a war between allies should be common, according to Bueno de Mesquita (1981a:73-83). One is that intervention by third parties on the side of the victim is reduced considerably if the attacker and victim are "allies," reducing the risks for the attacker (consider U.S. inaction during the Soviet invasion of Hungary in 1956). Another argument, which I find much less compelling, is that any future changes in the relationship between the two parties is more likely to be negative rather than positive (since the congruence of interests reflected by the alliance is more likely to decline rather than improve), providing the stronger ally with an incentive to act preventively.

65. Bueno de Mesquita (1983) has constructed a separate model of the costs of war. Although these costs have not been fully integrated into the theory, Bueno de Mesquita and Lalman (1986) have made some progress here.

66. A more serious charge in a very good review by Wagner (1984) that the theory itself is ad hoc and cannot be formally derived from its assumptions.

67. The unitary actor assumption may be more accurate for decisions undertaken once war is underway, given the unifying effect of war itself, but even that may be doubtful (Iklé, 1971; Mayer, 1959).

68. My view of the reasonableness of the *as if* assumption is based on a Lakatosian view of scientific progress (Lakatos, 1970). The *as if* assumption is not too damaging to a theory if and only if there does not exist an alternative theory that provides equally accurate empirical predictions and that is also based on assumptions that are more congruent with empirical reality. If such a theory exists, it constitutes a theoretically and empirically progressive problem shift with respect to the theory based on *as if* assumptions. It is not easy, of course, to compare the accuracy of predictions of different theories trying to explain slightly different phenomena, as Kuhn (1962) recognizes in his concept of the incommensurability of paradigms. With respect to Bueno de Mesquita, my view is that the nature of the political decision-making process is an important component of a theory of the causes of war and that his refusal to deal with that question can be justified only by the absence of alternative theories that give reasonable precise and accurate predictions. I would expect, however, that new theories providing comparable predictions but based on more reasonable assumptions will emerge in the future, so that Bueno de Mesquita's *as if* assumption will become increasingly more difficult to justify.

69. One problem concerns the assumptions that the Singer and Small (1966a) categories of defense pacts, nonaggression and neutrality pacts, and entente pacts constitute an ordinal scale reflecting a decreasing order of commitment and therefore of similarity of interests, and that consequently ordinal statistical methods are appropriate. There are some reasons to doubt the validity of the ordinality assumption.

although the extent of the deviations from a strict ordinal scale, and the sensitivity of Bueno de Mesquita's analysis to these considerations, is an empirical question. The nonaggression pacts are particularly suspect, for such formal assurances that two states will not use force against each other are often made under conditions of considerable mistrust and suspicion and where some symbolic form of reassurance is desirable. Entente pacts, which involve "consultation" and "cooperation" in the event of a crisis, do not formally specify the conditions under which military force will or will not be used, and sometimes may not reflect any commitment or similarity of interests between states. The Franco-German entente pact of 1938 is an obvious case in point. Moreover, the congruence of interests and similarities of policies between states is not always reflected in formal military alliances. Important economic bonds between states, as well as some ideological ties (for example, the U.S.-Israeli relationship), are not reflected by Bueno de Mesquita's alliance indicator and may actually involve higher degrees of congruence of interests than many formal military alliances (Levy, 1981:587-588).

70. Although Bueno de Mesquita argues that the congruence of states' alliance patterns reflects the similarities of their policy goals and therefore one state's utility for another's policy, it might also be possible to conceive of alliances as revealed preferences regarding whom one is willing to fight for. These two conceptions are not necessarily consistent, however.

Another operational problem concerns the assumption that alliances with all states are equally important for the purposes of calculating the congruence of alignment patterns between states, regardless of the military strength or strategic location of the states involved. Finally, the measurement of utilities in terms of alliances creates a problem if alliances are also used as independent variables in the theory.

71. This argument is similar in many respects to Galtung's (1964) rank-disequilibrium theory, which is a general structural theory designed to explain aggression in any social system. Galtung views the international system as a multidimensional system of stratification and argues that aggression is most likely when an actor's rankings on different dimensions of status in the system are nonconsistent. Rank disequilibrium gives rise to a sense of self-righteousness and the motivation toward equilibration and also provides the resources necessary for the struggle. He concedes, however, that rank disequilibrium is not a sufficient condition for aggression, for the existence of alternative means of equilibration and the absence of a cultural experience with violent aggression may be inhibiting factors. For an attempt to apply a status inconsistency model to the specific problem of international war, see Wallace (1973).

72. Note the contrast with balance of power theory, which suggests that major war is least likely under conditions of rough parity.

73. The most useful definition of hegemonic war (also referred to as global, general, or systemic war) is provided by Gilpin (1981:199-200): it is a direct contest between the leading power or powers and a rising challenger over the nature and governance of the system, global in geographical scope and fought with unlimited means, and involves all of the major states and most of the minor states in the system. See also Levy (1985a).

74. Modelski and Thompson identify Portugal as the world power in the sixteenth century, the Dutch in the seventeenth century, the British in the eighteenth and nineteenth centuries, and the United States in the twentieth century.

75. Long cycle theory identifies the following periods of global warfare: the Italian Wars (1494-1517), the War of Dutch Independence (1585-1609), the Wars of Louis XIV (1689-1715), the French Revolutionary and Napoleonic wars (1792-1815), and the two World Wars of this century (1914-1939).

76. Thompson (1983a:143) concedes that the dynamics of power concentration and deconcentration may be affected by factors other than uneven development, but in a recent paper (1986a) emphasizes the importance of the emergence and decline of leading economic sectors.

77. The one exception, although one from an earlier international system, is the victory of the land-based military power Sparta over Athenian sea power in the Peloponnesian War.

78. Because the rising regional challengers in the long cycle paradigm are identical to the declining leaders from a Eurocentric perspective emphasizing land-based military power, Kennedy's (1987) argument regarding the behavior of declining states is also relevant. States in decline tend to divert excessive resources from the economic sector to the military one, which only hastens their decline. All the major wars have been won by the state able to marshal the greatest economic resources. (Again, the Peloponnesian War from an earlier era is an exception.)

79. Recall the Singer, Bremer, and Stuckey (1972) finding that parity is associated with peace in the nineteenth century and with war in the twentieth century.

80. These findings are particularly significant in light of the concern that the Modelski and Thompson definition of global war in terms of its systemic consequences may introduce an element of circularity into the definition of global war, result in the exclusion of some enormously destructive and theoretically important wars from the class of global war (for example, the Thirty Years' War, War of the Austrian Succession, and Seven Years' War), and thus inadvertently bias the analysis in favor of the hypothesized 100-year cycles (Levy, 1985a).

81. Keohane (1984:39-41), for example, states explicitly that "the hegemonic power need not be militarily dominant worldwide," but need only possess enough military power to prevent the incursions by others into its economic sphere.

82. For example, Gilpin includes the primarily land-based Thirty Years' War as a hegemonic war and France as the leading power in the eighteenth century. Gilpin's (1981:200) list of hegemonic wars is similar to but not perfectly congruent with that of Modelski and Thompson.

83. One difficulty in testing power transition theories is the absence of good data on power capabilities over the last five centuries other than the Modelski and Thompson (1988) sea power data. A more serious problem concerns the partial incommensurability of the theories themselves (Kuhn, 1962). This incommensurability is a product of differences among the theories with respect to assumptions about the geographical scope of the system and the basis of power in the system, the definition of hegemony and the identification of the leading state and the challenger, the definition and identification of hegemonic wars, and the specific conditions that trigger the war.

Another complicating factor is the tendency to define hegemonic wars in terms of their systemic consequences. This confounds cause and effect, results in lists of hegemonic wars that are tied to theories in nearly tautological ways, and greatly complicates an independent empirical test of hypotheses on hegemonic war (Levy, 1985a).

84. This represented a significant departure from mercantilist theory, which argued that war and commerce were mutually reinforcing during the sixteenth through eighteenth centuries (Howard, 1976:Chap. 3).

85. Similarly, the inference that the military conflict in the 1930s and 1940s was the consequence of the decline of free trade and the rise of economic nationalism seriously underestimates the importance of the role of Hitler, Nazi ideology, the German determination to overturn the harsh Versailles peace settlement, and other political factors. The attribution of "long peace" between the great powers after World War II to the system of free trade under U.S. leadership underestimates the deterrent effect of nuclear weapons and the importance of the absence of territorial conflicts or other conflicts of intrinsic interests between the superpowers (as opposed to conflicts over power and other general interests).

86. One example of this is the quantitative literature that examines the relationship between national attributes and the war behavior of states (Rummel, 1968).

87. Marxist-Leninist international theory was developed primarily by Lenin ([1917] 1939), who borrowed from Hobson ([1902] 1954), Hilferding ([1910] 1981), and Luxemburg ([1913] 1951). Lenin links imperialism not with capitalism in general but with a particular stage of capitalist development: "imperialism is the monopoly stage of capitalism" (as opposed to capitalist free competition) and is defined by five basic features. These include the concentration of production and capital into monopolies; the merging of bank capital with industrial capital, leading to the dominance of "finance capital" under a financial oligarchy; the distinctive importance of the export of capital as opposed to the export of commodities; the formation of international capitalist monopolies that share the world among themselves; and the territorial division of the world among the biggest capitalist powers (Lenin, [1917] 1939:88-89). Imperialism has also been defined more loosely to include more general forms of economic, political, and even cultural penetration across state boundaries; military conquest and occupation; and more general relationships of dominance and dependence (Cohen, 1973). Many theories of imperialism are weakened by the ambiguity of this central concept. My use of the concept here refers to the broader definition of imperialism.

For some good treatments of Marxist-Leninist theories of war, see Luder (1977, 1979) and Semmel (1981).

88. One analytical problem here is that it has never been demonstrated that formal political control is necessary for international trade. The greater economic efficiency of free trade may outweigh whatever other advantages are offered by political control. Whether states attempt to increase their wealth through commerce or conquest (Rosecrance, 1986) cannot be determined by strictly economic considerations but also involves questions of the structure of the international political and economic systems and political factors internal to the state.

89. Lenin ([1917] 1939:Chap. 6) is more careful and emphasizes that the great

power dimension of the conflict does not arise until the world has been territorially divided among the major capitalist states (or monopolies), at which point further expansion becomes zero sum.

90. Although there have been few systematic studies of the relative likelihood of capitalist and noncapitalist states initiating or otherwise becoming involved in war, we will see in the next section that recent research has demonstrated that liberal democratic states rarely fight each other and are no more likely to initiate war or otherwise be involved in war than are nondemocratic states (Rummel, 1983; Chan, 1984). To the extent that liberal democracy coincides with capitalist economic structures, this empirical generalization runs contrary to Marxist-Leninist theory.

91. The lack of congruence between the primary colonial rivalries before the war and the military alignments of the war is inconsistent with the Marxist-Leninist interpretation of World War I. (The rivalries between Great Britain and France in Africa and Great Britain and Russia in Asia were as serious as those between Germany and both Great Britain and France in Africa.) Further doubts are raised by the overwhelming importance of military and strategic considerations confronting the great powers in 1914, particularly the growth of German power and the inability of the state system to accommodate it, the imperatives of the alliance system, the instability created by the ideology of the offensive and perceived incentives of the advantages of striking first, and the hostile images and serious misperceptions held by many European statesmen (Fay, 1928; Albertini, 1957). For an emphasis on the economic causes of the war, see Zilliacus (1946) and Hardach (1977).

92. Another relevant point is whether capitalist states always generate surpluses that cannot be absorbed domestically. Regardless of the correctness of its economic assumptions, Marxist-Leninist theory underestimates the political tendency of capitalist states to undertake the reforms necessary to maintain an adequate and stable level of internal consumption.

93. It is true that most of the major capitalist states during this period did engage in imperialist activity to one extent or another, although Switzerland and the Scandinavian countries provide notable exceptions. Many of the leading imperialist states of this period, including Russia, Italy, Japan, and Portugal, exported very little capital to their colonies and in other respects as well could hardly be described as capitalist. Most of the capitalist states pursuing imperialist policies did not reach the monopoly stage until after the peak of their imperialist expansion, and late nineteenth century imperialism was not dominated by monopolies (Aron, 1968). Industrial production and financial capital were more concentrated in Germany than in Great Britain and France (Cohen, 1973:66), but Germany was the last major European state to join the scramble for colonies. Regarding the destination of capital exports, less than a quarter of British exports and less than 10 percent of French and German exports went to their colonies (Cohen, 1973:63), just as today the vast majority of capitalist exports of commerce and capital goes to other capitalist states. The single major outlet for British exports was the United States, and most French and German exports went to Russia, Austria-Hungary, and Turkey.

94. There are variations of Marxist-Leninist theory that do attempt to explain the phenomenon of imperialism in the era prior to modern industrial capitalism. These focus more generally on the dynamics of class conflict and explain imperialist expansion

in terms of the efforts of the ruling class to advance their own economic interests at the expense of the weak both at home and beyond their borders. Some scholars, for example, trace the origins of the Peloponnesian War to Athenian economic imperialism (Cornford, 1907; Green, 1970). Wallerstein (1974) adopts a more systemic perspective, identifying a capitalist world system dating from the sixteenth century and tracing imperialism to the core-periphery division of labor and the struggle to monopolize world trade.

95. Although some have likened Robbin's argument to an economic security dilemma created by the anarchic structure of states, the model does not fit perfectly. Because one can relatively quickly respond to a rival's efforts to set up protected colonial trade zones with one's own, the advantage of being the first to defect from cooperative free trade arrangements are marginal. This would be an iterated prisoner's dilemma game, which under certain conditions generates cooperative behavior (Axelrod, 1984). A more plausible explanation is that the preference structures of all states do not fit the prisoner's dilemma model. Economically less efficient states cannot compete with more efficient states and those with greater resources, cannot rely on the law of comparative advantage and their trading partners' good will in bad diplomatic times as well as good, and prefer politically more secure markets, investment opportunities, and sources of raw materials to a cooperative free trade outcome. Only wealthy and efficient insular states (for example, Great Britain and then the United States) or those with security guarantees from such states are militarily secure enough to reap the economic benefits of free trade.

96. Snyder (1988) is one who attempts to integrate strategic, economic, and domestic political variables into a theory of imperialism, and Doyle (1986) is another.

97. Many of these studies were part of a larger research program on the relationship between national attributes in general and foreign conflict behavior. Hypotheses that certain political cultures, ideologies, or religions are more warlike than others have found little support in the quantitative empirical literature (Richardson, 1960:Chaps. 7-9; Haas, 1965; Rummel, 1968; Tanter, 1966). Attempts to trace war to differences between societies in their religions, languages, ideologies, and other characteristics have been slightly more successful, generally finding positive but weak relationships between societal differences and war. Most of the hypotheses under consideration, however, are basically ad hoc in nature and have not been integrated into a more comprehensive theoretical framework and, as a result, it is not clear how the findings should be interpreted. One problem is the lack of much attention to the causal mechanisms involved in the processes leading to war. Do societal differences contribute to war by generating conflicts of interests, or by creating misleading images of the adversary that lead to misperceptions of adversary intentions and a conflict spiral?

98. Rummel's (1983) research suggests that democratic states have been less war prone than nondemocratic states, but this finding is biased by his exclusion of extra-systemic (imperial) wars, his tendency to focus primarily on democratic pairs or nondemocratic pairs rather than mixed pairs of states, and the restriction of most of his analyses to the 1976-1980 period (Chan, 1984).

99. The War of 1812 might be one, had Great Britain been classified as democratic at that time.

100. One question is whether the nonoccurrence of war between democracies can

be "explained" statistically, given the relatively small number of democracies in the system, particularly for the first 100 years of the post-Vienna period. In addition, with a fairly large percentage of all democracies over the past 170 years existing in the post-World War II period and being associated with the United States, could the democracy-peace inference be spurious and derive from the stabilizing effects of bipolarity and American dominance within the free world?

101. There is some evidence that rally-round-the-flag effects for U.S. political leaders have half-lives of perhaps less than 2 months (Russett, this volume). If the war drags on, if it has a significant impact on society, if important national interests are not perceived to be at stake, and if the war effort is not perceived to be unambiguously effective, the war will have detrimental effects on the political leaders involved in initiating the war. This is demonstrated by Cotton's (1986) quantitative empirical study of five U.S. wars since 1898. It is not clear, however, whether these patterns apply to other states. The beneficial effects of war for the regime in power may be more extended, as illustrated by Khomeini's Iran in its war against Iraq, although the fact that Iran did not initiate the war may limit the relevance of this case. Note that the important consideration for our purposes is not the reaction of the public, but political leaders' expectation of that reaction in the period prior to the war. The tendency of political leaders to minimize the likelihood that forceful external actions short of war will actually escalate to war and their tendency to exaggerate the probability of a short, victorious, and relatively costless war (Blainey, 1973:Chap. 3; Levy, 1983a) would help explain the tendency toward scapegoating in spite of detrimental effects over time.

102. Exceptions to this general neglect can be found in the recent work by Lebow (1981, 1985b), Stein (1985a, 1985b), and Lebow and Stein (1987) on the impact of domestic politics on deterrence.

103. The similarity in these studies is because they were all highly influenced by Rummel's (1963) research design and specific indicators, and many use his data. For more detailed critiques of these studies, see Scolnick (1974), Mack (1975), and Levy (1989a).

104. These include the Falklands/Malvinas War (Hastings and Jenkins, 1983), World War I (Kehr, 1970; Fischer, 1975; Mommsen, 1973; Kaiser, 1983), the Crimean War (Anderson, 1967), and the French Revolutionary wars (Blanning, 1986:Chap. 5). See Levy (1988a) for a brief summary of some of the arguments.

105. For a more thorough critique of the diversionary theory of war and an attempt to specify some of the conditions under which scapegoating is most likely, see Levy (1989a).

106. These bodies of literature generally build on the work of March and Simon (1958), Cyert and March (1963), Allison (1971), and other early organizational theorists. They give little or no attention to recent developments in organizational theory. For surveys of recent developments see Pfeffer (1982), Perrow (1986), and Harmon and Mayer (1986).

107. My own view is that only the first of these arguments is plausible, and that apart from budgetary considerations equally plausible arguments can be made regarding the advantages of defensive doctrines for advancing organizational goals of uncertainty avoidance, autonomy, and morale.

108. A doctrine may call for no first strike but a strategy of deep territorial penetration if one is attacked, as in Israeli doctrine in 1973 and German military doctrine in the 1870s and 1880s (Langer, 1964).

109. Note that instead of offensive doctrines increasing the likelihood of war, the relationship may be reversed. The anticipation of war may lead to the formation of alliances for protection, which may lead states to adopt offensive military doctrines: the defense of one's allies often requires a doctrine calling for deep territorial penetration (France and Russia in 1914), and a state facing a two-front war may adopt a doctrine calling for the preemptive move against and quick defeat of one enemy before the other can enter the war in full force (Germany's Schlieffen Plan in 1914) (Levy, 1986:203-207, 1988d; Sagan, 1986).

110. Some of these hypotheses and analogies are probably also applicable to cases of Israeli mobilization, although the rigidity of Israeli mobilization plans derives from societal and economic constraints as much as strictly military considerations. There has been little systematic work on this question by political scientists (Horowitz, 1987).

111. This section is based in part on two of my earlier articles on misperception and war (Levy, 1983b, 1989c).

112. Among the factors emphasized by political scientists are tendencies to exhibit overconfidence, to ignore value trade-offs, to assimilate new information into preexisting belief systems, to overrely on historical analogies in general and past successes in particular, and to engage in wishful thinking, bolstering, cognitive dissonance, and similar patterns of behavior.

113. This framework is based on the conceptualizations in Levy (1983b, 1989c) and Jervis (1983, 1988a). For a discussion of types of phenomena that should *not* be classified as misperception, including beliefs and images, see Levy (1983b).

114. See Note 12.

115. For an alternative interpretation see Higonnet (1968).

116. It is more difficult in these situations for the analyst to make a causal link between misperception and war, for it is not clear that correct perceptions would lead to actions that would avoid war.

117. These misperceptions can cut both ways. Izar Nicholas correctly perceived that Prime Minister Aberdeen had peaceful intentions on the eve of the Crimean War but erroneously perceived that he would be able to impose his views on a more hawkish cabinet (and stay in power).

118. The research of Huth and Russett (1984) and Huth (1988) on extended deterrence is relevant here. They find that the likelihood of attack is more affected by the local and immediate balance of military forces (proximate to the target) between the potential aggressor and the defender than by the overall balance of military forces or the ultimate military potential of the two adversaries.

119. It is often argued that Germany's perception that an Austro-Serbian war could be localized in the Balkans without Russian intervention and that Britain would not intervene in a continental war were important factors leading Germany to encourage the Austrian actions that precipitated the war (Lebow, 1981; Levy, 1988d). Similarly, Corinth's war against Corcyra, which led to the Peloponnesian War, was predicated on the erroneous assumption that Athens would not intervene (Kagan, 1969:351).

120. Whether political decision makers do in fact treat their perceptions of adversary capabilities and intentions as subjective probability estimates is an interesting research question. There may be a tendency, perhaps deriving from the avoidance of value trade-offs, overconfidence, bolstering, and generally from the use of a limited number of heuristics, for actors to deny the probabilistic nature of their estimates of adversary intentions and capabilities (Kahneman et al., 1982; Nisbett and Ross, 1980).

121. In this sense the third party criteria involves both accuracy and process criteria.

122. Jervis (1976:7) favors the careful use of the third-party criterion whereas Lebow (1981:91) is more skeptical of its utility. For an application of this method to the important question of German perceptions of British intentions in 1914, see Sagan (1986).

123. Stein (1982) uses a game-theoretic framework to analyze the conditions under which misperception affects behavior and concludes that "misperception creates conflict only in a narrowly circumscribed range of situations." It is possible, however, that this narrow range of theoretical conditions actually occurs quite frequently in international politics, but this is an empirical question requiring further research (Levy, 1983b:99fn).

124. This is changing, as more scholars within both the quantitative and qualitative traditions are dealing with the question of the conditions under which crises do and do not escalate to war and include cases of nonwar as well as war.

125. The following discussion is concerned with the nature of a major war between nuclear states. The nuclear revolution has had far less impact on the nature of warfare and the causes of war among other states, but space constraints preclude a more thorough examination of that question here.

126. The decline of population defense in fact has not been quite so sudden. Militarily powerful states have never been able to provide absolute protection for their citizens, and terrorist attacks across state territorial borders have occurred for millennia (Bell, 1975; Laqueur, 1978). The feasibility of population defense began to erode much more rapidly in this century, even before the development of nuclear weapons, with the emergence of technology and doctrine of strategic bombing in the 1920s and 1930s. This was recognized by Douhet ([1921] 1942) and other "air power" theorists at the time and emphasized by numerous theorists early in the nuclear age (Herz, 1957; Brodie, 1959; Quester, 1966). German "buzz bombs" and U.S. fire bombing were intended more to intimidate the enemy population and destroy their morale than to weaken their military forces, and these actions were possible prior to military victory. With only conventional explosives, however, such weapons were not decisive, and the outcome of the European war was decided in the old-fashioned way, by military forces on the battlefield, not by political bargaining based on coercive threats. It was not until the lessons of Hiroshima and Nagasaki began to sink in that it became clear that something new had occurred and that the erosion of population defense would have profound political implications.

127. This is different from the assertion that war has always been rational for at least one belligerent.

128. If political decision makers ever perceived their alternatives as being (1) all-out nuclear war or (2) political concessions so extensive as to negate the state's very

existence as a sovereign territorial entity, their choice might be less predictable. The behavior of the superpowers over the last four decades gives every reason to believe, however, that they would do everything possible to avoid confronting their adversary with such a stark choice.

129. Moreover, it is quite possible that one's overall position in the international hierarchy would actually decline relative to that of nonsuperpowers who were less directly impacted by the war.

130. Examples might include the Berlin crises of 1958 and 1961 and the Cuban missile crisis of 1962.

131. The function of military force in international politics has been transformed in other ways as well. As Art (1980:15) argues, for nuclear states "nuclear weapons have downgraded the function of defense, ruled out physical nuclear compellence, enhanced deterrence and nuclear swaggering, and left unclear the utility of peaceful nuclear compellence." Here "defense" refers to the deployment and use of military force to block an enemy attack, minimize the damage to oneself, and fight the war to a successful conclusion. Compellence refers to the use of force or the threat of force to persuade an adversary to change his behavior. Art thus argues that the use of force by nuclear states for compellent purposes is no longer viable, but that the utility of *threats* of force for compellent purposes (which Art misleadingly calls "peaceful" compellence) is not yet clear. Swaggering refers to the possession or demonstration of military force for the purposes of enhancing prestige.

132. One such effort to go beyond the question of the likelihood of a major war to that of its more specific causes is Jervis (1988b).

133. For studies of the incentives for preemption see Schelling (1960), Jervis (1978), Wagner (1983), Snyder (1985), and Betts (1985).

134. A second-strike capability involves the high likelihood that one has the capacity to absorb an initial first strike by the adversary, retaliate, and inflict unacceptable damage.

135. Research in social psychology suggests that risk orientations are highly unpredictable with regard to events with probabilities approaching zero or one. Kahneman and Tversky (1979), who present considerable evidence that individuals tend to be risk averse with respect to gains and risk acceptant with respect to losses, concede that these tendencies may reverse at very low probabilities, as the example of insurance suggests.

136. Two exceptions, from rather different methodological perspectives, come immediately to mind. One is George's emphasis on the development of conditional generalizations (George and Smoke, 1974). The other is Bueno de Mesquita's (1981a, 1988) attempt to resolve many of these inconsistencies by subsuming apparently contradictory hypotheses under a single expected utility framework

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