Chapter Seven

Long Cycles, Hegemonic Transitions, and the Long Peace

Jack S. Levy

The half-century period since World War II has been violent in many respects. It has witnessed numerous military conflicts involving small and medium-size states, including interstate wars, wars of national liberation, civil wars and revolutions, other forms of internal violence, and transnational terrorism. It has also witnessed several superpower military interventions in weaker states and a few rather serious international crises between the superpowers (see Singer, and Brecher and Wilkenfeld in this book). But this period has not witnessed a major war between the superpowers. It is the longest period of relative peace among the great powers in the last five centuries of the modern system, and is now often referred to as "the long peace" (Gaddis, 1987). If the record of the past is projected into the present period, we certainly would have expected a war between the leading states in the system by now. One calculation suggests that the probability of no war occurring between the handful of leading states in the system (the great powers) during a forty-four-year period (e.g., 1945-1989), given the experience of the past five centuries, is about 0.05 (Levy, 1994). Thus the long peace is truly an historical aberration, and this has led to a lively scholarly debate on how we might explain it.

The most common explanations for the long postwar peace refer to the role of nuclear weapons (Mandelbaum, 1981; Waltz, 1981; Gaddis, 1987b and in this book; Nye, 1987; Jervis, 1989); the bipolar structure of the postwar world (Waltz, 1979; Gaddis, 1987b and in this book); the increasing economic interdependence among the advanced industrial states (Keohane and Nye, 1989; Rosecrance, 1986; Rosenthau, in this book); the emergence of a U.S.-Soviet security regime, norms of cooperation, and crisis management procedures (George, et al., 1988; George, 1984; Johnsen, in this book); changing attitudes toward war and the declining legitimacy of war in the Western world (Korn, 1966; Mueller, 1989; Ray, 1986; Weart, 1988); and long cycles of hegemonic stability and decline (Keohane, 1989; Gilpin, 1981; Modelski and Morgan, 1985; Thompson, 1988; Goldstein, 1988).
It is this first set of theories that is of interest here. My task is to analyze the extent to which theories of long cycles and of hegemonic stability and decline can explain the long peace between the superpowers, and provide plausible forecasts of the likelihood of a major war in the future. I will not assess the role of other causal factors, for those are analyzed elsewhere in this volume, and for this reason I will not attempt to offer a comprehensive explanation for the long postwar peace. A full explanation requires a more complex analysis involving numerous variables and constraints within a larger theory of the causes of peace and war, which goes far beyond the purpose of this study. My aim is to isolate one hypothesized explanation for the long peace and to assess its plausibility.

Explanations of the long peace from a long cycle/hegemonic stability perspective are based on extrapolations from earlier eras for which the theory is presumed to be true, and for this reason part of this study will necessarily involve an analysis of the historical validity of hegemonic and cyclical theories. Because these theories are concerned with the presence or absence of a great-power or hegemonic war involving the leading states in the system, I use the term "long peace" in this sense, while acknowledging that in other respects the postwar era has been far from peaceful.

Before we begin, it is useful to note that there are two particularly important versions of the realist theory of international politics. One is balance-of-power theory, which emphasizes the importance of the anarchic structure of the international system, the security dilemma, the destabilizing effects of dangerous concentrations of military power, and the effectiveness of balancing behavior in preserving hegemony. The central proposition of balance-of-power theory is that if one state grows so strong that it threatens to gain a position of dominance over the international system, other great powers will form a blocking coalition to prevent the expansion of the threatening state, and a hegemonic war will follow. "Hegemonic theories," on the other hand, emphasize hierarchies of power and informal systems of norms and order in a non-anarchical system. The concentration of power in the hands of a single hegemonic power is stabilizing for the system because the leading state uses its power to manage the system to maintain order. Whereas balance-of-power theory hypothesizes that hegemony is a sufficient condition for a counter-coalition of other great powers and therefore for a general war, hegemonic theory hypothesizes that hegemony is a sufficient and perhaps necessary condition for the absence of major war (Levy, 1989a). We will examine several versions of hegemonic theory in this paper.

Hegemonic Stability Theory

There are several forms of hegemonic theory, but the one receiving the most attention in the international relations literature as a whole is hegemonic stability theory. The theory, often associated with Gilpin (1975), Krassner (1976), Keohane and Nye (1989), and Keohane (1980, 1984), attempts to explain stability in one particular kind of international political economy—a liberal one characterized by the free play of international market forces in trade, investment, and finance. A necessary condition for stability is the existence of a single dominant state which is both willing and able to use its power to create and maintain a set of political and economic structures and informal "regimes" that maintain order in the system. This requires that the "hegemon" be the most powerful state politically and the most efficient state economically, that it be committed to a liberal order and have a domestic structure conducive to it, and that other leading economic states share similar interests in a liberal order (Ruggie, 1982:382-84; Gilpin 1981:129-31, 1987:72-73). In the absence of a hegemon to help provide collective goods and manage the system, the system will be conflictual and unstable. Hegemonic stability theorists view the United States as a declining hegemon and fear that with declining American leadership the international political economy will become increasingly unstable. Much of the literature on international regimes is concerned with the question of how to create international institutions and norms which facilitate stability and peaceful change in an era of declining hegemony (Keohane, 1984).

Although it might appear that hegemonic stability theory provides a straightforward explanation for the long peace, that conclusion is misleading. Most versions of hegemonic stability theory define hegemony in terms of dominance in economic production, finance, and trade, while the role of military power is generally ignored or deemphasized (Krasner, 1976; Keohane, 1980, 1984). The theory attempts to explain the degree of stability in a liberal political economy rather than the incidence or seriousness of military conflict and war, and for this reason hegemonic stability theory is not a theory of peace and war and cannot explain the long peace.

Hegemonic stability theory implicitly assumes that a stable liberal economy contributes to international peace and that its absence makes war more likely. This was originally proposed by Manchester liberals (Silberman, 1946) and is illustrated by the argument that the decline of economic liberalism resulting from the great depression of 1929-1939 contributed to the origins of World War II (Kindleberger, 1973). But the precise causal linkages between economic stability and international war have not been theoretically specified or historically confirmed. Liberal economic systems have some destabilizing as well as stabilizing features with respect to international security issues (Buzan, 1984), and there has been little empirical work to demonstrate which of these features dominates and under what conditions. Most analysts have concluded that economic structure is less important than military and political factors for decisions regarding war and peace between the great powers (Buzan, 1984; Levy, 1989b), though admittedly much more work needs to be done on both the theoretical and empirical levels.
presumably would have predicted that conditions have been ripe for a hegemonic war during the last two decades. 6 Although some of the concepts and hypotheses in Organski’s power transition theory have been very influential, and although his contribution should be more widely acknowledged, subsequent theories of hegemonic transitions and war are more fully developed and give more attention to the implications for the contemporary era and for the future. 7 Let us turn now to some of these more recent theories of hegemonic change and war.

GILPIN’S THEORY OF HEGEMONIC TRANSITION AND WAR

Robert Gilpin (1981) attempts to integrate some notions of hegemonic stability theory into a broader theory of hegemonic expansion, decline, transition, and war. Like Organski, Gilpin incorporates military, political, and economic dimensions into his conception of power. He also recognizes that the hegemonic state is not necessarily liberal in character, and extends his analysis to sovereign state systems in general. He argues that the hegemonic state has the capability and motivation to structure the international political, economic, and cultural systems in a way that serves its own interests by providing a secure environment for trade and investment, by constructing a stable system of international security which helps avoid destructive wars, and generally by maintaining the status quo and its own position of dominance.

The hegemonic state cannot maintain its dominant position indefinitely; however. Although control over an international system provides an expanded resource base to the dominant power, it is also costly to maintain. These protection costs include expenditures on military forces, the financial support of allies, and the provision of collective goods necessary to maintain an international economy. The maintenance of a lead in military technology becomes increasingly expensive as technology diffuses to potential challengers who do not have to pay the full costs of research and development. Economic wealth also diffuses, in part because the same economic processes that initially favor the hegemon ultimately work to the benefit of others. In addition, prosperity and affluence invariably generate both greater demand for consumer goods and services and the emergence of domestic interests with a stake in the status quo (Olsen, 1982), which work to inhibit innovation, reduce productivities, and ultimately to undermine the economic foundations of military power. Gilpin argues that the resources devoted to protection and consumption tend to rise at the expense of productive investment and long-term economic growth. Moreover, the perception of military decline invariably leads to even further diversion of resources from productive investment into the military sector for the purposes of protection, which only accelerates the
decline in productivity and long-term military potential (Gilpin, 1981; Chapter 4; Kennedy, 1987).

As a result of the decline of the hegemonic power and the ascension of other great powers, a disequilibrium arises between the actual distribution of power in the system and the existing distribution of political, economic, and cultural benefits of an international system that the hegemon helped to create while at the peak of its power. Historically, the primary means of resolving this disequilibrium in a hegemonic war brings the distribution of benefits in the system into line with the new distribution of power. The hegemonic war generally results in the defeat of the declining hegemon and the rise of a new hegemonic power, which then uses its power and influence to restructure the system to serve its own interests. This ushers in a new cycle of growth, expansion, decline, hegemonic war, and system change (Gilpin, 1981, Chapter 6).

It is conceivable that such a disequilibrium in the international system could be resolved through peaceful change, and Gilpin makes it clear that the future of mankind depends on finding a substitute for hegemonic war as a mechanism for systemic change in world politics. He argues, however, that historically there are no examples of declining hegemons who willingly conceded their dominant position to a rising challenger to avoid war, and no examples of rising challengers who refrained from insisting on a restructuring of the system in order to accommodate their changing economic and security interests (Gilpin, 1981:206-9; Kennedy, 1987).

Thus, Gilpin's theory of hegemonic war and change in world politics provides an alternative explanation for the long peace. World War II resulted in the defeat of Germany (the rising challenger) and the imposition of the role of leadership from Britain to the United States. It restored equilibrium to the system and enabled the United States as the new hegemonic power to use its power and influence to restructure the new system in a way that maintained order and served its own economic and security interests (through the creation of a liberal international economy based on the Bretton Woods system and a security system based on NATO and a worldwide network of alliances). The absence of a major war is explained by the persistence of American dominance and the basic equilibrium between the distribution of power in the system and the distribution of political, economic, and cultural benefits in the system. Though American economic and military dominance began to erode by the early 1970s (Kohane and Nye, 1977), that decline has not been so rapid as to create conditions conducive to a new hegemonic war.

In terms of Gilpin's theory, however, the contemporary system is moving in a dangerous direction. The decline of the relative economic and military superiority of the United States continues, and Japan, China, the Federal Republic of Germany, and — at least until recently — the Soviet Union, have continued to gain in strength. This has created an increasing disequilibrium between the emerging system of deconcentrated power and the system of benefits established at the peak of American hegemony after World War II. The danger is that one or more of the potential challengers will become so dissatisfied with the status quo that it will insist on a share of the benefits of the system congruent with its newly acquired power, and he willing to resort to violence if its objectives cannot be satisfied by peaceful means.

Although the implications of Gilpin's theory for the future are rather pessimistic, he concludes with a more positive assessment of certain developments that might make it possible to resolve the current disequilibrium in the system without resort to hegemonic war. These developments include: the restraint induced by the existence of nuclear weapons; the pluralistic nature of the political, economic, and ideological cleavages in the system (so that they are not mutually reinforcing); and the mutual benefits of economic cooperation (Gilpin, 1981:213-30).

Gilpin's introduction of these qualifications raises some difficulties. First, his optimistic conclusion would be more convincing if he had identified the alternative mechanism that might replace hegemonic war as the vehicle for systemic change. More important, pluralistic cleavages and beneficial economic cooperation are not unique to the contemporary system. To the extent that they have a pacifying effect it is possible that these variables, and not hegemonic order, might explain peaceful periods of the past. It is incumbent upon Gilpin to incorporate these factors into the theory and explain why they should have a greater pacifying effect in the future than in the past.

The introduction of the deterrent effects of nuclear weapons, while certainly plausible, also raises a problem. If mutual deterrence might be sufficient to avoid a hegemonic war in the future, then perhaps it has also had a stabilizing effect during the past four decades. That is, the explanation for the long peace may have less to do with a particular stage of the hegemonic cycle than with the balance of terror. Thus, to a certain degree, Gilpin undercuts the explanatory power of the theory by adding some ad hoc hypotheses in the last chapter.

The implications of Gilpin's theory for explaining the long peace and particularly for projecting the future is open to question for another reason. One problem is that Gilpin provides no separate indicator of when the disequilibrium in the system reaches such a point that the conjunction of the demands of a rising challenger and the concessions offered by the declining hegemon will lead to a military conflict which expands into a hegemonic war. It is unclear, for example, whether American decline relative to its leading adversaries has proceeded so far that the theory would predict conditions conducive to a hegemonic war. In the absence of a well-defined operational indicator of disequilibrium the theory cannot be convincingly tested against historical experience and cannot be used for predictive purposes.

Although Gilpin illustrates his theory of war and change with a variety of examples from different historical eras, he fails to demonstrate
that all hegemonic wars result from systemic disequilibrium or that such disequilibrium always leads to systemic wars. Dis-equilibrium creates conditions conducive to a hegemonic war but requires an additional trigger before a hegemonic war actually occurs. In this sense Gilpin is positing a necessary but not sufficient condition for hegemonic war. The problem of an operational indicator of the necessary condition still exists, however, and in the absence of such an indicator it is not possible to conduct an empirical test of the theory or to make any predictions as to the point at which conditions are ripe for a hegemonic war. This question cannot be answered by a cyclical theory unless it includes a fairly precise specification of where the system is on the cycle. This is provided by two versions of long-cycle theory, to which we now turn.

MODELS OF LONG CYCLES OF WORLD LEADERSHIP

George Modelski (1978, 1987a) and W. R. Thompson (1988) have constructed a theory of long cycles which posits regular cycles of system management and global war in the modern global system since its origins in 1494, and emphasizes the importance of seapower (airpower after 1945) as the basis of power in the system. There are four successive stages of the long cycle: global war, world power, delegitimation, and deconcentration. A global war arises in a period characterized by extreme disorder in the global system and the absence of sufficient political resources to restore and maintain order. The long and intense global war results in the emergence of a “world power” with monopoly control over seapower. The reconcentration of power and the legitimacy of the new global order are confirmed at a comprehensive peace settlement after the global war, which ushered in the world-power phase of the long cycle. The world power uses its monopoly control over seapower and world trade to set up a structure of property rights, provide for peace and security, and regulate the global economy. The costs of the world leadership role and the rise of new rivals lead gradually to a relative decline in the dominant power position of the world power, and to the emergence of nationalistic challenges to the existing global order. This leads to a questioning of the legitimacy of that order in the third or delegitimation phase of the cycle. The decline of the world power and the legitimacy of the existing order continue in the fourth or deconcentration phase of the long cycle. This further reduces the political resources needed for the management of an increasingly disordered system, generates a new struggle for global leadership, and gradually leads to a renewed period of global war (Thompson, 1988:51-52).

Modelski and Thompson argue that this cycle has repeated itself once every hundred years. The periods of global war include (1) the Italian Wars (1494-1557); (2) the War of the Dutch Independence (1565-1669), leading to the rise of the Netherlands as world power; (3) the Wars of Louis XIV (1689-1715), which gave way to British leadership; (4) the French Revolutionary and Napoleonic Wars (1792-1815), which renewed the world-power role of Britain; and (5) the two World Wars of this century (1914-1939), which marked the transition of the United States to world power.

The fundamental cause of global wars is changing distributions of power/seapower, which result primarily from uneven rates of economic development among states. Global wars are the consequence of the rise of challengers who threaten to gain a dominant position on the European continent and thereby gain the resources that might allow them to challenge the naval dominance of the world power in the global system, and in this sense are essentially succession struggles for leadership in the system. Global wars do not begin as direct contests between leader and challenger, however, but rather as localized conflicts which escalate into global wars (Thompson, 1983:349). The primary context is not between the declining world power and the state which succeeds it, but instead between the declining leader and the territorially based regional challenger. The causes of both the localized war and of the escalation to global war have yet to be specified by long-cycle theorists, but the consequences are clear: the defeat of the regional challenger and the transition of leadership to a new world power, usually an ally of the declining world power.15

Several key aspects of long-cycle theory have received support in recent empirical research. Using the Modelski and Thompson (1988) data on the naval capabilities of the global powers over the last five centuries, Thompson (1988: Chapter 9) empirically confirms the long-cycle hypothesis that concentrations of seapower capabilities are consistently associated with periods of peace. Thompson and Rasler (1988) demonstrate that global wars are much more likely than other wars to result in a significant reconcentration of capabilities, which serves as the basis of systemic leadership for the new world power. Thompson (1988: Chapters 6-7) has also developed a measure of the concentration of leading economic sector technology in the hands of the systemic leader. This measure is highly correlated with the naval concentration indicator and further validates the measurement of the dominance of the world power. The use of the naval concentration and leading sector indicators provides independent measures of the position of the system along the four phases of the long cycle, and facilitates a more precise specification of the conditions conducive to global war than does Gilpin's model. This allows for a more definitive explanation for the long peace as well as more precise projections into the future.

The theory suggests that a global war has not occurred in the last four decades because the system has been in the world-power phase and recently the delegitimation phase of the long cycle — where structural conditions in the system are not conducive to a global war and where the world power is still able to provide order in the international political
economic, and secure systems. Forty years into the long cycle, the position of the United States in the system is stronger than that of any previous world power at a comparable point in system time, both along naval concentration and leading sector indicators, and that position is eroding only slowly (Thompson, 1989:277-80).

As the United States' position continues to erode, however, and as the system-management function fails to be satisfactorily fulfilled, the risks of a global conflict increase. The fact that the leading political-military challenger, the Soviet Union, and the leading economic challenger, Japan, are not the same may extend the duration of the current phase of the cycle, but not forever. Thompson (1989:278) notes that the average interval between global wars has been eighty years, and on this basis projects the year 2025 as the first approximation of the point at which structural conditions would be most conducive for the next global war. Modestki (1987b) makes a similar calculation and argues that a global war is a real threat by the year 2040.

From a long-cycle perspective, nuclear deterrence has contributed little to the long peace, and in the future will not be an adequate substitute for global war in providing for the system-management function. Deterrence theory is flawed because it does not relate the necessity for or effectiveness of deterrence to the nature of the political-military relations in different phases of the long cycle. Deterrence has "worked" in the world-power phase of the current long cycle primarily because this is the most propitious phase of the cycle, but deterrence has had little causal impact because it has been necessary, given an ample supply of order. Deterrence is necessary during the deconcentration phase of the cycle when the system's management capabilities deteriorate, but deterrence is unlikely in the long term to overcome the strong structural tendencies toward global war in that period. It has failed to do so in the past, and it is unlikely to do so in the future (Modestki and Morgan, 1985).

In Modestki's (1987a) explicitly functionalist perspective, past global wars have served the essential function of providing a selection mechanism for the next world power and therefore the basis for leadership, management, and order in the system. Modestki and Thompson (1988:48-50) both concede, however, that there might be alternative mechanisms or institutions that could perform the selections for the system. Modestki (1987a) argues that the evolution of the global system through the phases of several long cycles is characterized by innovation and learning, and that this provides some encouragement that a substitute mechanism for global war might be discovered for the future. He and Thompson warn, however, that in the absence of the discovery and implementation of such an alternative mechanism for leadership selection and system restructuring, there is little reason to believe that civilization can escape from the regular cycles of global war that have plagued the last five centuries of the modern world.
questions about its ability to explain the long peace or to provide forecasts about the future. Had anything on the scale of the mid-eighteenth-century wars and particularly the Thirty Years' War occurred in the last four decades, it is unlikely that we would continue to refer to this period as the long peace. It would be little consolation in the future if we were able to avoid a "global war" only to suffer through something comparable to the Thirty Years' War.

The explanatory power of long-cycle theory, with its conception of power primarily in terms of naval power in the global system, can even be questioned in the case of global wars. The theory delineates the decline of systemic leadership based on a monopoly of naval power as a necessary condition for global war. This gives far too much emphasis to the importance of naval power relative to land-based military power and to the global system relative to the European system. The causes of World War I, for example, had less to do with the global system than with the fate of Austria-Hungary as an independent great power (and Germany's only major ally) in the face of internal decay, with Germany's fear of the rising power of Russia and her doubts regarding the ability of the German army to hold its own in a European war by 1917, with systems of rigid alliances and mobilization plans which created incentives for precaution in any crisis, and with the domestic crisis within the German Empire (Albertini, 1980; Ritter, 1970; Fischer, 1961, 1974; Fay, 1928; Joll, 1965; Levy, 1991). If the breakdown of leadership and system management were relevant in the origins of World War I, it had far more to do with the collapse of the Bismarckian system than the decline of Britain's naval power and share of world trade.

This argument can be generalized. The primary cause of the great wars of the past, whether they be general wars or the more restricted class of global wars, has been the perception by most of the great powers that one state was threatening to gain a dominant position in Europe. The great powers have always perceived the most serious threats to their interests as coming from the great land powers of Europe—which could threaten their territorial integrity—rather than from the more wealthy naval and commercial powers. This is why the great European military coalitions have always formed against the most threatening continental power rather than against the leading naval power.31 Thus a traditional balance-of-power perspective may offer a more convincing explanation than long-cycle theory of the most significant wars of the past, whether they be general wars or the more restricted class of global wars.32 This is not to say that with the expansion of the Eurocentric systems into a truly global system in the twentieth century's balance-of-power perspective provides an equally compelling explanation for the long peace or projections for the future.33 But it does suggest that the validity of long-cycle theory's explanation of the long peace or the accuracy of its projections into the future cannot be based on the presumed validity of its explanation of the great wars of the past.34
Even if long-cycle theory provided a satisfactory explanation of the major wars of the past, it is not clear that one could extrapolate directly into the future. The development of nuclear weapons and long-range delivery vehicles has produced a quantum jump in the costs of all-out war, which makes a major effort unlikely in an existing international order through the use of military force far less likely than in the past. The declining utility (that is, obsolescence) of military force for the great powers, particularly against Japan and Germany, and particularly against Japan since 1945 (Revereance, 1986), has been paralleled by the increasing viability of a "trading strategy" as a means of influence in the international system, as evidenced by the growing influence of Western Europe and particularly Japan since 1945 (Rosecrance, 1986). Faced with a new cost-benefit calculus, involving both the enormous costs of nuclear war and the opportunity for increased influence through the expansion of their international trade and finance, states intent on reasserting the global political and economic systems will be less likely to adopt the military expansion route than in the past.

The failure of long-cycle theory to recognize the restraining effects of the balance of power on the behavior of the superpowers (with respect to each other) reflects a more general problem with most cyclical theories of peace and war: they overemphasize the importance of cyclical trends and minimize the importance of longer-term secular trends in warfare. The development of nuclear weapons systems and long-range delivery systems is only the most recent manifestation of a secular decline in the frequency of great-power war over several centuries (Ley, 1982; Mueller, 1989), and it is important that this tendency (or at least the underlying conditions which produce it) be incorporated into any explanation of the long peace.25

**Goldstein's Theory of Long Cycles**

Joshua Goldstein's (1988) theory of long cycles incorporates long waves of economic stagnation and expansion in the world economy, the rise and fall of hegemonic states, and the occurrence of major wars. His method is inductive. He first establishes the existence of long economic waves of fifty-year duration and of comparable cycles of war over the last 500 years, establishes the empirical associations between them, and then constructs a theory to explain these observed empirical patterns. Goldstein's concern is with the broader phenomena of great-power war rather than with individual global or general wars.

Building upon the work of others, Goldstein compiles an excellent set of data on a variety of economic indicators over the five-century period since 1450. Contrary to the conventional wisdom of most economists that long waves do not exist, Goldstein finds that long economic waves appear to exist in prices, production, investment (though data are scarce), innovation, and wages, but not in trade. These variables are related sequen-
Goldstein (1988:357-641) illustrates the dynamics of the system with the concept of a two-dimensional "cycle space." The system follows a path determined by the conjunction of the economic cycle and the hegemonic cycle, which are not of phase. An analysis of this cycle space suggests that the closest historical precedent to the contemporary period is 1872-1893. Both were long-wave downturns and periods of gradual hegemonic decline, and both were phases of low-great-power war activity following costly wars of containment by hegemonic power in the previous upswing phase period. The earlier period was followed in two decades by World War I, so that the 1914 case and the military buildups leading up to it become an important historical precedent for Goldstein's theory of long cycles.

Goldstein does not suggest, however, that a repetition of the 1914 pattern is inevitable. Although the events of World War II may be interpreted as being the precipitant of the process, it is possible that the system may again be diverted to war, and changes in relative national power will continue to bring about the eventual occurrence of hegemonic war. Goldstein notes the contradictory tendency toward the "ever-greater destructiveness of war. He concludes that "great-power war cannot continue to recur indefinitely while wars become exponentially more destructive. Thus power politics has brought about its own obsolescence." (Goldstein, 1988:360-68)

There are several ways to look at long cycles that limit us utility for explaining the past and therefore for projecting into the future. One concerns the precise temporal relationship between phases of long economic cycles and the outbreak of major wars. The theory specifies that major wars should occur toward the end of a long-wave upswing, when states have acquired the military capabilities to fight a major war and when they need war to secure additional resources necessary to sustain productivity. One immediate counterexample is that of World War I, which began in the last year of an economic downturn (1919).

Goldstein (1988:242-43) acknowledges that World War II is an anomaly, the date it in 1940, the first year of the new upswing, but asserts that this is the only major war of the "post-war". But World War II is not so anomalous. This is evident from an examination of the initiation dates of the ten great or hegemonic wars (Levy, 1985) of the last five centuries with respect to Goldstein's basic phase dating scheme (1988:246-47:17). The War of Dutch Independence/Spanish Armas began midway through an economic upswing. The Thirty Years War began two years before the end of an economic downturn in 1620. Two of the three great wars involving Louis XIV began in the downswing phase (one in the last year). The War of Jenkins' Ear/Austrian Succession began one year into an upswing, and the subsequent Seven Years' War occurred later in that upswing. The French Revolutionary Wars began only two years into the economic upswing. World War I began two years before the end of an upswing, and World War II at the very end of a downswing.

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Thus, contrary to Goldstein's hypothesis, four of the ten general wars broke out during the middle or end of an economic downturn, and two more-occurred within two years of the beginning of an upswing. Because six of ten general wars began within two years of the transition from the downswing to upswing phase of the economic cycle, however, the vast majority of the fatalities from these wars got lumped into the upswing phase. These patterns help to explain Goldstein's conclusion that the phases of the long economic wave are correlated with the severity of great-power war but not with the outbreak of great-power war.

These observations raise important theoretical questions relating to the causes of war. Although the severity of war might very well be explained in terms of some factors existing after the outbreak of the war, the causes of war must logically be explained by factors existing temporally prior to the outbreak of war. In fact, there may be a considerable lag between these causal variables and the actual outbreak of war. Decisions for war are often the culmination of a series of decisions regarding military buildups, alliance formation, and imperial expansion that span several years and in some cases even decades; they are also influenced by internal socioeconomic conditions that develop over many years.

The causes of World War II, for example, had deep roots in social, economic, and political developments during the depression of the 1930s, and the fact that five of ten general wars occurred in the middle or end of a downswing suggest that the causes of these wars can also be traced to developments in economic downturns. Thus, the observed temporal relations between the economic cycle and the outbreak of general wars (and great-power wars as well) are inconsistent with Goldstein's causal theory linking the outbreaking phase of the economic cycle with periods of severe warfare.

These empirical anomalies are perhaps not that surprising if we consider some conceptual problems in Goldstein's theory. The central relationship in the theory is between production and war, but the causal linkages between these key variables are not very well developed. One of Goldstein's (1988:362-63) explanations for the linkage between production and war is the "interlateral pressure" argument: production upswings lead to growth, competition for resources, and the proximity toward major conflicts and wars among core countries (Choucri and North, 1975). This raises a number of questions. Does the increase in production always lead to competition for external resources, or can these resources be generated internally? Even if it becomes necessary to secure external resources, under what conditions can this be accomplished through trade (Rosecrance, 1981) or (though less likely) through the mutual exploitation of the periphery by the great powers (Rautsky, 1970), rather than through war? Moreover, what is the linkage between imperial wars to secure resources and severe great-power wars in the system's core? Under what conditions do resource wars or other forms of imperial expansion create...
cross-cutting cleavages and actually reduce the likelihood of a great-power war, as some balance-of-power theorists argue (Morgenthau, 1967:341-42; Levy and Morgan, 1986) and as some diplomatic historians claim was the case for at least two decades prior to World War I (Thompson, 1987:20-21).

Goldstein (1988:261-62) gives greater emphasis to a "cost of wars" argument in support of his production-war hypothesis. The biggest wars occur only after a prolonged period of increased productivity, for states to have the capability to fight such wars when and only when "treasuries are full." Although this argument may be true for preindustrial times, particularly when the economic ability to hire mercenaries was a critical factor in decisions for war (Howard, 1976; Chapter 2; Kennedy, 1987; Chapter 2), it is not clear whether this argument is valid for the last three or even four centuries. The key question is whether or not the capacity for great wars increases during an economic expansion, but whether the magnitude of the increase is large enough to make a significant difference relative to preexisting war-fighting capacity. This is particularly problematic after the industrial revolution and the emergence of permanent military establishments in peace-time by the end of the nineteenth century, which provided the great powers with a fairly substantial and continuous capacity for fighting major wars.

In addition, there are other factors that might also generate enormous increases in the capacity to fight large wars. Innovations in military technology are critical, but do not necessarily coincide with the upswing phase of the economic cycle, as illustrated by the development of airpower and of the tank as an offensive weapon prior to World War II. Access to inexpensive credit on international markets is particularly important, as Radner and Thompson (1983) and Kennedy (1987) have shown, and it is not clear that this is highly correlated with economic upswings. Political and organizational factors are important in the development of an administrative and financial system and in the rationalization of military organizations, as illustrated by Gustavus Adolphus in Sweden, the Great Elector in Prussia, and by Schleswig and Cobert in France in the seventeenth century, and by the permanent General Staff later in the nineteenth century (Osgood, 1967:48-56; Organski and Kugler, 1984: Chapters 1-2). Sociopolitical factors can also contribute to a significant expansion in the capacity for wars, as is evident in the case of the later seven and the "democratization of war" beginning in Napolonic times (Osgood, 1967:51-3; Mills, 1956). Goldstein's argument would be more convincing if he could demonstrate that increases in productivity associated with changes in the economic cycle have been translated into significant increases in the size of military establishments and the destructive power of their weapons systems. The very fact that so many great-power wars have occurred during upswing or downturns or within two years after the beginning of an upswing casts serious doubt on Goldstein's argument.

The lateral pressure and cost-of-war arguments provide particularly weak theoretical foundations for explaining the long postwar peace and projecting into the future. The increasing importance of the technological component of national military strength in the nuclear age seriously undercuts the lateral pressure argument regarding the link between increases in production and competition between great powers over external resources. In addition, because of the enormous destructive power of the nuclear and conventional weapons systems of the great powers, increases in productivity generated by economic upswings have a negligible impact on the preexisting capacity of the superpowers to fight a major war. There are also some troubling levels-of-analysis problems in Goldstein's (1988:264) theory. Goldstein's lateral pressure argument is a theory of the motivations for war, and represents a national-level focus relevant to the question of the outbreak of major war. But the empirical analysis focuses on systemic-level patterns in the severity of war, since he finds that there is no relation between economic cycles and the outbreak of major war. Thus, there is a mismatch between Goldstein's lateral pressure theory of motivations for war and his empirical analysis of the severity of major war.

Goldstein's cost-of-war argument refers to the ability to sustain a major war, so that the empirical focus on the severity of war is fully appropriate. But the cost-of-war argument also has important implications for the outbreak of war. The economic prosperity that creates the economic surplus that can support a military buildup and therefore a major war is defined by Goldstein as a systemic-level phenomenon—economic cycles refer not to individual states, but to the international system as a whole. The implication is that prosperity benefits all states equally and gives all great powers an increased capacity to fight a major war. If that were the case, the opportunity for war would be defined loosely as the probability of a victorious war, and would not change for any state as the system moves through phases of the economic cycle. The probability of a major war would be constant over time, and the severity of the war that does occur would be a function of the phase of the cycle.

This is surely an unsatisfactory model of the outbreak of war, and it is inconsistent with empirical reality. Historically, the probability of major war has not been constant over time, but instead has been declining rather rapidly over the last five centuries, and much of this decline can be traced to the increasing costs of war (Levy, 1982). In addition, the incidence of major war is not the same for each of the great powers, and if we look at years or decades rather than centuries we find that within a pattern of long-term decline the incidence of involvement in major wars for each of the great powers is anything but constant. These patterns cannot be explained by a systemic-level theory, and this leads us to a levels-of-analysis problem in Goldstein's cost-of-war argument.
Theoretically (from a rational choice perspective), the expected outcome of war is determined primarily by the dyadic balance of power between two states in conjunction with expectations regarding the likelihood and impact of the intervention of third states. If we have learned anything from the process of power transitions and long cycles, it is that dyadic power balances change as a result of differential rates of growth among states, and that these are important variables in the processes leading to major wars. Goldstein's theory does not incorporate differential rates of growth of states and their impact on both the distribution of power in the international system and on dyadic power relationships among individual states, and for this reason it cannot explain the cost-benefit calculations leading states to war.

These variables do get some attention in Goldstein's (1988: Chapters 13-15) discussion of hegemonic leadership and transition in the two historical chapters and in the analysis of the contemporary system and the likely future evolution. There is no connection, however, between this historical analysis and the theory linking long waves to war (Chapter 12). Goldstein does not incorporate cycles of hegemony of the more general distribution of power in the system into his causal theory of long economic cycles and war, and this helps to explain the absence of a pattern linking economic cycles and the outbreak of major wars.

Admittedly, Goldstein is more interested in broad systemic-level patterns than in national-level behavior. But his theoretical cost-of-war argument has direct implications for rational decisions regarding war and peace, so that the examination of the theoretical plausibility and empirical validity of those consequences is relevant for an evaluation of the theory. In addition, a severe war presupposes the initiation of war; so that any explanation of the severe war must include an explanation of the outbreak of war, along with an explanation of its escalation or expansion (Levy, 1996). The level and rate of change of the distribution of power in the international system as a whole and between individual dyads are important variables in both the outbreak and the expansion of war, and must be included in the analysis.

Although the other theories examined above give more attention to the role of the changing distribution of power in the international system, none really develops the precise causal mechanism leading to the outbreak of a major war. In long-cycle theory global war satisfies an important functional need of the system, and occurs after the ability of the world power to provide leadership and manage the system has deteriorated, but the causes of the local war and how it escalates are not specified. Organski (1968) argues that the rising challenger usually initiates a war while it is still the weaker party in order to accelerate the power transition, but this hypothesis is problematic from the perspective of a cost-benefit framework (Levy, 1985; Thompson, 1988: Chapter 10).

Gilpin's (1981) argument that a rising challenger will attempt to change the international status quo as the expected benefits of changing the system begin to exceed the expected costs of change provides a more useful way to conceptualize the problem, even if Gilpin fails to specify the conditions under which this is likely to occur. But the outbreak of major war is not determined by the actions of the challenger alone, and Gilpin (1981:191) notes but does not analyze the possibility of a "preventive war" by the declining power to destroy or weaken the rising challenger while the opportunity is still available and before the power transition is complete. Organski (1968) mentions this possibility but asserts that it is rare. Let us now examine this idea.

**HYPOTHESES ON PREVENTIVE WAR**

The theoretical importance of preventive war derives from the central role of changing power differentials between states arising from uneven rates of growth. This is the core of Organski's (1968) power transition theory, theories of hegemonic war and change, and of other realist theories of international relations. The historical importance of preventive war has also been widely recognized. This was the basis of Thucydides' (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." Howard (1983: Chapter 1) argues that this 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." A. P. Taylor (1972) suggests that "every war between the Great Powers in the 1848-1914 period (1859, 1866, 1870, 1871, 1884, 1898) started out as a preventive war . . . ," and the importance of the preventive motivation arises repeatedly in studies of World War I.

Declining power does not always lead to preventive war, however, as evidenced by the current decline of the United States, the decline of Britain a century ago, and by other historical cases. This raises the question of the conditions under which changing power differentials lead to war (in general or by the initiation of the declining state in particular) and the conditions under which they do not. Organski asserts 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 indefinite 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. (Organski, 1968:376)
Others have also attempted to specify the conditions affecting the probability of a major war during periods of changing power differentials. Thompson (1988:224-30) accepts Organski's hypotheses but emphasizes in addition the potential power of the challenger and (secondarily) the nature of the developmental sequence involving economic productivity and political effectiveness. Van Evera (1984:72-76) and Snyder (1984:150-61) both note the importance of the magnitude of the shift in power, the relative advantage of the offense compared to the defense, and the expected probability the adversary will initiate a war in the future. Levy (1987) emphasizes the declining state's expectations regarding the magnitude of the power shift, the probability that the declining challenger will initiate a war in the future, and the probability of victory with tolerable costs in a preventive war fought now, and (secondarily) the risk-taking propensities of the policy makers, the influence of the military in the decision-making process, and the existence of internal political incentives for elites to engage in external sequestration to bolster their internal political support in a period of decline (Levy, 1988a).  

There are other policy options available to a dominant power in decline besides preventive military action. These include economic and technological innovation or industrial revitalization to reverse the underlying sources of decline; the formation of an alliance against the rising challenger; concessions to the rising challenger in order to ensure that a power transition which is perceived to be inevitable is also peaceful; and the reduction of the costs of system leadership through military retraining or the reduction of political commitments (Gilpin, 1981:188-94; Levy, 1987). The question of the conditions under which declining power leads to the adoption of one or more of these options rather than preventive military action is an important one and essential for a complete theory of preventive war.  

Although there are numerous historical cases which have been labeled as "preventive wars," the causal importance of the preventive motivation relative to other variables in these and other cases has yet to be established through rigorous and systematic empirical research. Moreover, there have been no serious efforts to test any of the above hypotheses regarding the conditions under which a declining state (or even the rising challenger) will initiate a war, as that there is little empirical evidence to validate preventive war hypotheses.  

The absence of empirical validation of preventive war hypotheses is compounded by their theoretical limitations. Hypotheses on the preventive motivation for war have not been grounded in any more general theory of international politics, conflict, and change. Changing power is not treated endogenously, so that we cannot explain or predict when changes in power differentials will arise. These hypotheses have also failed to incorporate a theory of the strategic interaction or bargaining between the declining state and its rising challenger. This precludes a comprehensive analysis of when power shifts lead to war, to the formation of new alliances to compensate for declinists, or to a negotiated settlement to facilitate a peaceful power transition. Thus, a theory of preventive war does not really exist.  

Although we have no fully developed theory of preventive war to explain the long peace or to make projections into the future (or to discriminate analytically between the last forty years and the next forty years), and although power differentials between states will undoubtedly continue to change, the preventive motivation for war is much less likely to have a significant influence on the superpowers in the nuclear age than it had on great powers in previous historical eras. This conclusion follows directly from the hypotheses suggested herein.  

Although the expected magnitude of the power shift has been historically important, its effects should be attenuated somewhat in the nuclear age. Military superiority is more difficult to translate directly into political influence than in the past (at least for the leading states in the system), so that the political consequences of military decline, while not negligible, will be less than in the past (Dervis, 1989). Another important change concerns perceptions of the inevitability of war. Although the preventive motivation for war has been encouraged in the past by the expectation that a future war with the rising challenger was very likely if not inevitable (Lebow, 1981:234-63), such expectations are much less likely to occur in the nuclear age (Dervis, 1989:153-64). The attitudes of political decision makers regarding war have been changing (Bundy, 1988; Nye, 1987), and perceptions of the consequences of an all-out war and confidence in the stability of mutual deterrence make it much more difficult for self-fulfilling prophecies regarding the inevitability of war between the superpowers to arise. This was one of several important factors, for example, that differentiated the Cuban Missile Crisis from World War I and other international crises. Still another key factor in the past was the perception by the declining leader that it had the ability to fight and win a preventive war with acceptable costs, but the destructiveness of nuclear weapons makes this much less likely in the contemporary period.  

Another important factor in the past was the offensive/defensive balance of military technology, and in particular the extent to which it created an incentive for a first strike in any crisis (Dervis, 1970). This would compound the preventive motivation with the preemptive motivation for war (Levy, 1987:90-93). The current strategic balance is quite stable, however, given the sheer numbers of strategic forces, the invulnerability of retaliatory forces under existing technology, and the mutual hostage relationship between the superpowers. It is unlikely that new technological innovations will undermine the invulnerability of retaliatory forces to the point of creating politically significant incentives to strike first, at least for the foreseeable future.  

Thus, although we may not understand all of the conditions that contributed to the use of force for preventive reasons in previous historical
erans, hypotheses on preventive war themselves suggest that the preventive motivation for war will be far weaker for the nuclear powers of the present and future than for the great powers of the past.

**CONCLUSION**

We have examined several theories of hegemonic transitions, cycles, and war, including hegemon's stability theory, Organski's power transition theory, Gilpin's theory of hegemonic war and change, Modelski's and Thompson's theory of long cycles of world leadership, and Goldstein's theory of long cycles in the structure of major powers on the basis of hegemonic ascent and decline over which statesmen have little immediate control. They posit that cycles are an inherent feature of the international system, that they continue to operate in the nuclear era, and that they provide an explanation for the long peace and a basis for projecting into the future. Hegemonic and cyclical explanations of the long peace are troublesome because the theories of war upon which they are based have not yielded enhanced understanding with respect to major wars of the past. These theories are either insufficiently operational to provide testable predictions (Gilpin); too narrowly focused on war to explain either major land-based wars or global wars (Modelski and Thompson); or characterized by too large a gap between the observed empirical patterns and the theoretical linkages that are hypothesized in order to account for them (Goldstein). Moreover, none of the theories provides a convincing explanation of the causal mechanisms through which a major war might occur or escalate from a local war. Each posits what are essentially necessary conditions for the outbreak of major war, but none pays much attention to the conditions and processes that might trigger a major war in an era of declining war power. They emphasize the underlying causes of war but downplay the importance of immediate causes. Stated differently, they focus on conditions of general stability but ignore the sources of crisis instability.

The lack of attention to the most immediate causal mechanisms leading to war becomes particularly problematic in the nuclear era. The destructiveness of nuclear weapons in conjunction with long-range delivery vehicles undermines the capacity of even the strongest states to defend their populations (Schelling, 1966), and the resulting balance of terror makes it more and more difficult to conceive of situations in which the expected benefits of an all-out war exceed its expected costs. This does not mean that nuclear war is impossible, but it forces us to give greater attention to the question of why decision makers might make choices that could lead to massive and unprecedented levels of destruction for their own societies as well as those of their adversaries. Most contemporary analysts believe that such choices, though unlikely, are most likely to be made in situations of crisis; they reject the plausibility of a...
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other participants at the conference on 'The Long Postwar Peace' at Rutgers University, April 26-29, 1988.

1. This calculation is based on the application of a Poisson probability model to Levy's (1986) war-years sensitive to certain annual
assumptions and the question of precisely what is that is defined to not have occurred since 1945. If the missing event is a general or hegemonic war involving all the leading powers in the system, of which there have been ten during the past five centuries (Levy, 1985), the probability changes to 41 (though the
blurring of the distinction between great-power war and hegemonic war in the nuclear
age complicates this analysis). Thus, while the absence of a general-power war involving any two great powers since 1945 is exceedingly rare by historical
standards, the absence of a hegemonic war is not particularly surprising.

2. Other explanations for the long peace include long-term historical trends in warfare predating the nuclear age (Mueller, 1989; Levy, 1982); the stabilizing effect of alliances (Hegre, 1986); and the role of arms control (Keegan, 1990). For a good analysis of many of the leading theories see Gaddis (in this book); for analyses which minimize the role of nuclear warfare see Mueller (1989a), Vasquez (in this book), Kugler (1986), and Ray (1989).

There are two other factors which have been tremendously important for the long peace but which have not been given adequate attention in the literature. One is the weakening of the traditional linkage between economic and military
power and the fact that the leading military rivalry and the leading economic rivalries are not congruent at least for the last two decades. The dynamics of the Cold War would have been considerably different had the Soviet Union been the major economic competitor of the United States as well as its leading military challenge. A second factor is the historically unprecedented role of the United States in reconstructing the domestic political and economic structures of Japan and the Federal Republic of Germany in a way that created a set of shared incentives within the Western alliance regarding economic and military issues (Katzman, 1979). Theories of interdependence, regimes, and alliances incor-
porating these shared incentives are unnecessary, and fail to explain the role of the United States as hegemonic power in facilitating their emergence. My thanks to Peter Katzman for bringing this point to my attention.

3. Because balanced-power theory and hegemonic theories are based on different analytical assumptions regarding the basis of power, the geographical scope of the system, and the nature of hegemony (Levy, 1985), it does not neces-

sarily follow from the above discussion that these theories are mutually incom-
patible. They may simply provide different answers to different questions and
therefore constitute 'noncomparable paradigms' (Kuhn, 1962), but this is a question requiring further research.

4. Because the domain of hegemonic stability theory is limited to those relatively rare instances where political dominance, economic efficiency, and liberal ideology coincide, it is not a general theory of international political

economy. It has been applied only to the two periods of British and American
leadership in the last two centuries, the latest critical question of the theory.

For a more general critique of the theory see Keohane (1984; Chapter 3). One study of the last five centuries disputes the hypothesis that free trade is associated
with hegemony, and finds instead that it is likely to occur in periods of

economic decline (Fredrickson, 1987).

5. Keohane (1984:39-41), for example, argues that the 'hegemonic power need not be militarily dominant world-wide.'

6. In his chapter in this book, Gaddis also recognizes that hegemonic stability theory has limited relevance for the Cold War or the long peace, though in the

assumptions and the question of precisely what is that is defined to not have occurred since 1945. If the missing event is a general or hegemonic war involving all the leading powers in the system, of which there have been ten during the past five centuries (Levy, 1985), the probability changes to 41 (though the blurring of the distinction between great-power war and hegemonic war in the nuclear age complicates this analysis). Thus, while the absence of a general-power war involving any two great powers since 1945 is exceedingly rare by historical standards, the absence of a hegemonic war is not particularly surprising.

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6. In his chapter in this book, Gaddis also recognizes that hegemonic stability theory has limited relevance for the Cold War or the long peace, though in the analysis of the 20th century end he is more willing than I am to consider some of the theory's geopolitical implications.

7. We will return to this point in a subsequent section on preventive war.

8. This question is addressed in a recent piece by Kugler and Organski (1989:182-88) on powers and hegemony in the nuclear age: 'less is more' is still secure.

9. Organski and Kugler (1980) use the somewhat questionable gross national product indicator of national power in their empirical test of the theory, and by this measure American dominance, and hence international stability, is still secure.

10. Organski (1980) does not give adequate attention, for example, to the meaning of power, the relationship between politics and economics, the nature of hegemony and how it is maintained, or to the concept of hegemonic war. In addition, the Organski and Kugler (1980) Chapter 1 test of power transition theory is seriously flawed. Two of the four cases upon which it is based is the Franco-Prussian War and the Russo-Japanese War (the others being the two World Wars) are not of sufficient importance to be classified as hegemonic wars and probably do not even satisfy the Organski-Kugler definition of a "major war." For more thorough critiques of power transition theory, see Bueno de Mesquita (1980:375-80): Thompson (1990): Chapter 6: and Levy (1985:353-64).

11. One limitation of this and other theories of hegemonic transition is that they fail to specify under which potential challenges to the dominant position of the hegemon will resort to force to achieve its objectives.

12. The purifying effect of nuclear weapons probably has more to do with the mutual fear of the consequences of nuclear war induced in both adversaries than is the direct effect of strategic superiority in specific situations (Jervis, 1969; Bundy, 1988; Organski and Kugler, 1980: Chapter 4; Bette, 1987).

13. Another problem with regard to testing the theory concerns the definition and identification of hegemonic wars (Levy, 1985). We will return to this point in our discussion of long-cycle theory.

14. For a brief discussion of the related question of whether hegemonic war is a necessary or sufficient condition for systemic transformation, see Levy (1990).

15. The continental challenger loses because it fails to augment its land-

based military power with the naval strength necessary to defeat the world

power's coalition; because it mounts its challenge prematurely, while the world

power is still too strong, and because it underestimates the seriousness of its

threat to the global position of the world power and thus fails to anticipate

the expansion of the war (Thompson, 1980).

16. The exclusion of these cases also suggests that an element of circularity has been introduced into the definition and analysis of global war. If global war is defined in terms of its systemic consequences, then the critical question of the consequences of global war is defined away and cannot be investigated empirically. This raises the question of whether the excluded wars do not fit the long cycle because they are not global wars, whether they are not included as global wars because they do not fit the cycle, or whether they are empirical anomalies
26. Goldstein is ambiguous as to whether the obsolescence of power politics has already occurred, or whether it will take another hegemonic war to bring that about.

27. General war constitutes a reasonable basis for analysis because they are undoubtedly the most serious wars of the modern system, and include over 85 percent of the battle fatalities of all interstate wars involving the great powers over that period (Levy, 1983:88-91).

28. The fact that six of the ten general wars occur within three years of a phase change suggests the potential sensitivities of Goldstein's analysis to his phase datings, for small errors in measurement could result in a significant change in his findings. Goldstein conducts his analyses in several different ways to minimize this problem, though some questions remain (Thompson, 1988:188-90).

29. Because of Goldstein's (1988:246) datings of the beginnings of the Thirty Years' War, War of the League of Augsburg, and World War II, all of the fatalities from these wars are put into the upsizing phase of the cycle. In addition, for some reason very few of the World War I casualties are put into the downsizing period beginning in 1917.

30. I am following Goldstein (1988:247) here and using the standard economic phase periods, listed in his book. These phase periods are the basis for Goldstein's findings of a strong tendency for the severity of war to peak at the end of the upsizing phase of the economic cycle, and for his acknowledgment of World War II as an "anomaly" (Goldstein, 1988:242-43, 1989). But things in fact cannot at this time be fully tested. One important task for future research is the construction of a theory of hegemonic hegemony based on balance-of-power assumptions, and the testing of the theory against the historical evidence. A traditional balance-of-power exploration of the long peace would focus on the role of strategic deterrence, the stability of the postwar alliance system, the effectiveness of U.S. containment of the Soviet Union (the primary threat to the continental balance of power), and the absence of direct and tangible conflicts of interest between the two superpowers.

24. That is, the argument that a Eurocentric balance-of-power perspective is inferior to a globalist perspective for understanding the contemporary world does not lead logically to the conclusion that a hegemonic perspective is superior for the purposes of understanding the major wars of previous centuries.

25. Although the importance of trade relative to military strategy as an instrument of influence has undoubtedly increased in the postwar period, Rosecrance (1986) underestimates the importance of "trading strategies" in earlier centuries.

22. The current Soviet efforts to reconstruct its internal economic and political system in an attempt to enhance its competitiveness, and its willingness to accept a significant reduction of direct political and military influence over its East European allies, is significant in this regard.

23. Modelski and Thompson would probably attribute the defining frequency of great-power war to some form of historical learning curve.
32. Goldstein (1988:261-262) concludes that "the cost-of-war argument is
especially applicable to preindustrial times."
33. Technological innovations which affect the offensive/defensive balance of
military technology, and particularly the vulnerability of strategic retaliatory
forces and hence incentives to strike first, affect crisis stability and may be
important, but there is no reason to expect that these are correlated with the
proliferation cycle.
34. These implications cannot be ignored, for the empirical validity of the
legal implications of a treaty are an important measure of the validity of the
treaty itself.
35. At the same time, the revolutions in industrial, nuclear, and communi-
cation technologies have diminished the relative importance of territory as an
element of national power, at least for the great powers, so that the diminishing
value of territorial compulsion has contributed further to the declining frequency
of war (Kuen, 1996).
36. This hypothesis has been refuted by subsequent empirical analysis
(Osgood and Rags, 1989).
37. This section builds on a discussion in Levy (1987).
38. Whereas Organski (1980) frames the question in terms of the conditions
under which power transitions are most likely to lead to war, it is important to
recognize that rapidly narrowing power differentials may be destabilizing even
if they do not lead to a power transition (Ley, 1987; Wayman, 1990).
39. Hypotheses on preventive war are not restricted to the leading states in the
system, but may also apply to other states in decline relative to particular
adversaries.
40. For recent quantitative empirical tests of the relationship between power
shifts and war, see Houweling and Sicana (1988), Wayman (1989), and Kim
41. The effects of regional power shifts on the likelihood of secondary states
initiating war for preventive reasons should not be significantly different in the
nuclear age than in the past, for none of the conditions for preventive war against
an adversary is greatly affected by the possession of nuclear weapons by third
states.
42. The costs of preventive war are further increased, at least for the
advanced industrial democracies, by the diplomatic and domestic political conse-
quences of the growing popular belief that war is an illegitimate instrument of
policy except for the defense of interests that are most directly and immediately
43. Gilpin provides a framework for analysis, but does not go on to test it
against the historical evidence. Hypotheses regarding the preventive motivation
for war posit a more specific causal mechanism.
44. Rational escalation toward a mutually undesirable outcome has been
modeled by the "dollar saturation" (O'Neil, 1990).
References (combined for volume)


