

Testing empirical propositions about shatterbelts, 1945-1976

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ABSTRACT. The idea that some geographic regions, known as shatterbelts, are more conflict-prone than others has appeared and resurfaced in geopolitical writings throughout the twentieth century. Yet much of that work has been tautological or impressionistic. We attempt to sort out the conceptual components of shatterbelts from their hypothesized consequences, and to test propositions about the effects of shatterbelts. The results indicate that shatterbelts are more likely than other regions to be the setting for interstate wars, but this is largely because they also generate more militarized disputes that can go to war, rather than because of any greater likelihood that those lesser conflicts will escalate. Internal conflicts were also more common in shatterbelts, although the effect was more modest than with interstate conflict. The portion of conflicts, especially interstate wars, that involve outside intervention is greater in shatterbelts. Yet, given that intervention occurs, conflicts in shatterbelts (with the exception of interstate wars) are not more likely to expand further or to include major powers as the intervening parties. Shatterbelt conflicts, both internal and external, were also generally considerably longer and bloodier than conflicts in other regions. Possible theoretical explanations and implications for future research are discussed.

Many studies have postulated that conflict events are related over time (e.g., Stoll, 1984; Goertz and Diehl, 1993). Several studies (e.g., Kirby and Ward, 1987; O'Loughlin and Anselin, 1991) have also detected a spatial component to conflict. Among the most prominent notions in spatial analyses of conflict is that certain geographic regions are inherently more prone to conflict than other areas; such regions are often referred to as "shatterbelts." In this paper, we explore the conceptual and empirical bases of shatterbelts and assess their theoretical utility.

The concept of shatterbelts originated in geopolitical writings in the early 20th century. The term "shatterbelt" generally refers to a geographic region that is plagued both by local conflicts within or between states in the region, and by the involvement of competing major powers from outside the region. Shatterbelt regions are often blamed for a large proportion of interstate conflict, particularly with respect to major power conflict. World Wars I and II, the Korean War, and the Vietnam War--as well as many less prominent conflicts--are said to have begun in regions that are termed shatterbelts.

Shatterbelts represent more than just a way to categorize the spatial distribution of interstate conflict. They also could be a catalyst that drives conflicts up the escalatory ladder, making disputes more dangerous and broadening their scope. Traditional analyses of geopolitics and international conflict have treated geography as either a "facilitating condition" (e.g., geographic proximity) or a source of conflict itself (e.g., territorial disputes) (Diehl, 1991). Shatterbelts may represent a combination of those two effects, and may offer a way of understanding how geography can provide the bases for conflict as well as condition state behavior in that conflict.

Shatterbelts might also represent an appropriate domain for studying such conflict processes as contagion, diffusion, and foreign intervention, considering the alleged propensity of shatterbelts to widen local conflicts into regional or extra-regional affairs. Previous analyses of the spread of international conflict have considered only geographic proximity as relevant to these processes, and have ignored many of the characteristics of

shatterbelts. Finally, a better understanding of the effects of shatterbelts might be able to help future policy-makers avoid the mistakes that have so often plunged states into costly conflict. For example, the quagmire in which the United States found itself in Vietnam is often cited by shatterbelt proponents as evidence of the risks associated with these dangerous regions.

Despite the apparent importance of shatterbelt regions, the shatterbelt literature has suffered from a lack of conceptual precision and rigorous empirical testing, and has generated a debate over the meaning and implications of shatterbelts (Kelly, 1986; van der Wusten and Nierop, 1990; Cohen, 1991b). In this paper we attempt to sort out the conceptual muddle surrounding shatterbelts, extract testable propositions from the literature, and compare these propositions against the empirical record of the interstate system from 1945-1976.

The shatterbelt concept

Although the term "shatterbelt" did not appear until World War II, the concept has its roots in early twentieth century geopolitical thought. The earliest research related to shatterbelts focused on rivalries between major powers, studying areas where the push for expansion brought these powers into competition. Mahan (1900), for example, studied a belt of Middle Eastern and Asian states lying between the 30° and 40° parallels. The weakness of these states, along with the vast resources thought to exist in the belt, attracted the competition of extra-regional powers (most notably Russia and Britain) for territorial and economic expansion in this area. Similarly, Fairgrieve (1924) described a "crush zone" of weak European, Middle Eastern, and Asian states that had emerged as a buffer zone between the "central Eurasian heartland" (Russia) and the world's major sea powers.

World War I directed the attention of many geographers to the zone of instability in East-Central Europe that had precipitated the war. Mackinder (1919) described the need to build a post-war "Middle Tier" of strong, independent states between Germany and Russia.

The states that he foresaw composing this tier were very diverse ethnically and politically, underdeveloped economically, and trapped in the middle of the fundamental rivalry between Germany and Russia for control of East Europe. Similarly, Unstead (1923) called East-Central Europe the "belt of political change in Europe," because of the great instability that had plagued the area. He noted that the states in this area were characterized by greater diversity in race, language, religion, and nationality than their neighbors to the west or the east. Geographical barriers, repeated intrusions by neighboring major powers, and mutual fears and jealousies between the states of the belt had created great economic and political difficulties. The existence of valuable mineral deposits compounded these problems by attracting the attention of (and economic and political penetration by) foreign states.

The chronic instability in interwar East-Central Europe and the outbreak of World War II renewed geographers' interest in the characteristics that made that particular region so volatile. It was during this time that the terms "shatter zone" and "shatterbelt" came to be adopted. Hartshorne (1941: 52) wrote that the states in the "shatter zone" were characterized by marked political immaturity and instability. Whittlesey (1942: 171-172) noted that Middle Europe was important because of (1) its use as a buffer against invasion from the east, (2) its status as a crossroads for trade between Western and Eastern Europe, the Near East, the Baltic, and the Eastern Mediterranean, and (3) its economic value as an agricultural producer and a market for manufactured goods. Furthermore, Whittlesey (1942: 172) observed, the First World War had "left Middle Europe subdivided into states with small populations--a shatter belt of mutually antagonistic units, unable to organize for commercial union or for political solidarity. This weakness left it ripe for the plucking."

Hartshorne (1944) observed that the states composing the European "shatter zone" had never known any length of political stability, had never developed into established states loyally accepted by their peoples, and were plagued by ethnic, linguistic, religious, and social fragmentation and late economic development. This region had also endured a long history of foreign interference, economic penetration, and military conquest. In

short, he wrote (Hartshorne, 1944: 204, 207), "all these new states were cursed with the ills of youth, as well as handicapped by lack of strength," and the political instability that is characteristic of the zone "offers a tempting opportunity to any large state in the neighborhood to expand its territory and thereby augment its military power."

Hoffman (1952) described the East European "Shatter-Belt" in the context of the Cold War. He characterized the region by great transition and diversity in physiography, nationalities, languages, religions, population densities, agricultural standards, and industrial accomplishments. Also, the region was said to have "assumed great importance in the power political structure of the world" because of its location between two powerful states--Germany and Russia--that had tried throughout history to dominate the area. According to East (1961: 22), however, Soviet domination of East-Central Europe after World War II finally produced relative stability and a degree of uniformity in the region, leaving the area "no longer fittingly described as 'a political shatter belt.'"

Early writings tended to describe a single region or belt of states, most often East-Central Europe, and did not attempt to draw any cross-regional comparisons or generalize beyond this one area. Contemporary scholars, beginning with Cohen (1957; 1973), have developed these ideas and adopted a more global perspective on shatterbelts. Cohen incorporated the shatterbelt into his regional model of the world. He classified three regions (the Middle East, Sub-Saharan Africa, and Southeast Asia) as shatterbelts, which he defined (1973: 85) as "a large, strategically located region that is occupied by a number of conflicting states and is caught between the conflicting interests of the Great Powers."

The physical, environmental, historical, cultural, and political differences between states and uneven population distribution in shatterbelt regions are said to produce fragmentation among these states, leaving them unable to coordinate their political or economic actions; Cohen (1973: 86-87, 252) called this fragmentation "unique" and "peculiar to the Shatterbelt." Shatterbelts possess some strategic importance, such as significant mineral wealth or control over shipping lanes, which leads the world's great

powers to compete to establish or retain influence within these regions. Finally, the location of shatterbelts is such that they are zones of contact between the two superpowers' "geostrategic realms" (Cohen, 1973: 85-87, 251). In short, a shatterbelt is a region "whose internal, geographical, cultural, religious, and political fragmentation is compounded by pressures from external major powers attracted by the region's strategic location and economic resources" (Cohen, 1982: 226).

Kelly (1986) argued that, although shatterbelt states tended to exhibit notable fragmentation in many respects as the earlier authors had claimed, a number of non-shatterbelt states also showed similar fragmentation. He also contended that geographic contiguity between competing major powers or their empires is not necessary. Instead, he suggested, rival major power policy positions should be used to identify shatterbelts; it should not matter where the region is located, as long as it is the scene of competition between major powers. Kelly's preliminary analyses of fragmentation and regional location led him to propose a new definition of shatterbelts:

A shatterbelt is a geographic region over whose control Great Powers seriously compete. Great Powers compete because they perceive strong interests for doing so and because opportunities are present for establishing alliance footholds with states of the region. (...) A shatterbelt originates when rival Great Power footholds are present in an area. (Kelly, 1986: 176)

This definition led Kelly to identify six regions as shatterbelts: the three identified by Cohen, as well as East Asia, South Asia, and Central (Middle) America.

Kelly's new definition drew criticism from several sources. Cohen (1991b: 567) argued that "[t]he distinguishing feature of the Shatterbelt, however, is that it presents an equal playing field to two or more competing powers operating from different geostrategic realms." This new criterion would exclude several of Kelly's shatterbelt regions, because

the control of the predominant powers in those regions (e.g., the United States in Central America) is not seriously threatened.

Another recent article (van der Wusten and Nierop, 1990) argued that Kelly's list was too broad, and included most of the Third World. Kelly himself (1986: 174) had pointed out that his definition encompassed "literally all contested regions where escalation to global conflict could transpire." The authors (van der Wusten and Nierop, 1990: 224) thus criticized Kelly's finding that most major power wars are fought in shatterbelts, saying that this "should surprise nobody as he has practically defined them as such."

Shatterbelt analyses have tended to reflect the prevailing political divisions of the world at the time they were written; thus, a European focus prior to World War II has given way to a concern with the Third World after 1945. Nevertheless, three main themes run throughout the existing literature on shatterbelts. First, shatterbelt regions are composed of "weak" states. States in shatterbelt regions are typically described as fragmented in terms of race, language, religion, and nationality, and as relatively underdeveloped economically. Second, shatterbelt regions themselves are also seen as fragmented. States in these regions are often mutually antagonistic, leaving them unable or unwilling to cooperate economically, politically, and militarily. Shatterbelts, then, are said to exhibit substantial conflict both within and between states in the region. Finally, shatterbelts are the site of substantial foreign military and economic involvement, typically attracting the presence of at least two competing major powers.

Shatterbelts and conflict

Despite the variety of research related to shatterbelts, there have been few explicit propositions about the effects of shatterbelt regions, and even fewer rigorous tests of such propositions. Previous studies of shatterbelts have largely relied on impressionistic accounts of their effects. In this respect, it is often difficult to differentiate between definitional statements about shatterbelts, descriptions of regions that have been identified

as shatterbelts, and propositions about their effects. For example, many of the authors mentioned that states in shatterbelt regions are fragmented internally, and that there is substantial conflict both within and between these states. This was treated as a descriptive attribute by authors such as Mackinder (1919) and Unstead (1923), as a definition by Cohen (1973, 1982), and as a testable proposition by Kelly (1986). Nevertheless, we are able to identify some expectations about shatterbelts and their relative propensity for various forms of conflict.

Interstate conflict

Perhaps the most visible hypothesis about shatterbelt regions is that they are more conflict-prone than other regions. Early scholars who emphasized the location of shatterbelts between two expanding great powers, such as Mahan (1900), Mackinder (1904), and Fairgrieve (1924), typically suggested that the great powers would tend to confront each other forcibly in such regions. Geographers drawn to the region of East-Central Europe by World Wars I and II explained the outbreak of those wars in terms of the region's shatterbelt status, as when Hartshorne (1941) and Whittlesey (1942) blamed the relative weakness of the East-Central European states for Germany's expansion in World War II. Similarly, Unstead (1923: 192) hypothesized that the shatterbelt characteristics of the region would produce a long period of instability and conflict, with very dangerous consequences for the entire continent.

Empirically, Kelly (1986) found that an unusually large proportion of major power interstate conflict occurs in shatterbelt regions. Nearly all of the twentieth-century major power wars that he identified began in one of his six shatterbelt regions, including all five of the wars that involved at least one major power on each side. These results were supported by van der Wusten and Nierop (1990), who found that states in Cohen's (1982) three shatterbelt regions were much more likely than other states to be involved in several

different types of conflict, including interstate wars, militarized interstate disputes, and armed interventions.

Based on the existing shatterbelt literature, we first expect that low-level militarized conflict (or militarized disputes) will be more frequent in shatterbelt regions than in other areas. Furthermore, we hypothesize that the most serious conflicts--interstate wars--will also tend to be centered in shatterbelt areas. We expect that the high frequency of interstate war in shatterbelts will result from a higher likelihood of dispute escalation (that is, the chance that a militarized dispute will escalate to full-scale war) in shatterbelts than in other regions. We recognize, however, that the greater number of wars may instead be a function of the number of opportunities for war occasioned by the increased number of disputes. Finally, we postulate that interstate wars occurring in shatterbelts will be more severe than those that take place elsewhere. Thus, with respect to interstate conflict, we expect that shatterbelts will be more prone to low-intensity conflicts, be more likely to prompt escalation of those conflicts, and be the context for a large number of wars. In addition, we anticipate that shatterbelt wars will be more severe than those occurring in other regions.

Internal conflict

A second, less prominent proposition about shatterbelts is that they are the site of significant internal conflict, as well as interstate conflict. Cohen (1991a: 25), for example, suggested that shatterbelt states are more likely than states in other regions to become involved in internal rebellion, as well as in local and regional wars. This proposition typically derives from the description of shatterbelts as internally fragmented, with shatterbelt states facing grave ethnic, religious, or linguistic cleavages. Such internal cleavages were important in Unstead's (1923) discussion of the "belt of political change" and instability in Europe, as well as in Hartshorne's (1941, 1944) characterization of the political immaturity and instability in interwar East-Central Europe. The Middle East and

Asia were found to lead the world in frequency of "state-makers' wars" since World War II, even when controlling for the number of states in each region (van der Wusten, 1985). States in Cohen's (1982) three shatterbelt regions were also found to be more likely than other states to become involved in civil wars (van der Wusten and Nierop, 1990).

With respect to internal conflict, we thus expect that civil wars will be more common in shatterbelts, because of the fragmentation and political immaturity of states in the region. As with interstate conflict, we also hypothesize that such internal conflict will be more severe in shatterbelts than outside. A related expectation is the greater frequency of "extra-systemic" wars (Small and Singer, 1982) in shatterbelts. Extra-systemic wars are wars conducted outside the realm of state-to-state interactions, but are not purely civil conflicts; these are imperial and colonial wars, such as France's war in Algeria from 1954-1962. Major powers would seem to be reluctant to abandon their existing colonial relationships in shatterbelts, because of both the economic and resource value of the colonies and the desire to maintain footholds in the region to counter those of their adversaries. These reasons lead us to expect that a major power is likely to fight an extra-systemic war against a secessionist or independence movement occurring in one of its shatterbelt footholds; if such a movement were to occur in a more peripheral region, the major power might be less likely to expend the resources and assume the risks needed to maintain its position forcibly in a full-scale war. Additionally, the competition between major powers is likely to be manifested in the form of extra-systemic conflict within shatterbelts, as one major power supports secessionist or independence movements in footholds of an adversary, and its rival supports the colonial governments that are threatened by these movements. Such conflict seems less likely to occur in more peripheral regions than in shatterbelts, because there are fewer competitive pressures in regions that are firmly within one side's sphere of influence or in those that lie outside of most major powers' active interest at a given point in time.

Intervention and the spread of conflict

A third general expectation about shatterbelt regions involves external intervention into ongoing conflicts. Regional fragmentation or the presence of competing major powers in shatterbelt regions might be expected to produce wider conflicts than is the norm in other regions, as either the major powers or other local states intervene. Kelly (1986: 161) has suggested one such hypothesis, which is that localized turmoil within a shatterbelt tends to escalate by drawing in major powers that have military footholds and strategic interests in the area. Others (van der Wusten and Nierop, 1990) found that states in Cohen's (1982) three shatterbelt regions were much more likely than other states to be involved in armed interventions. In contrast to Kelly's emphasis on major power activities as the main source of conflict in shatterbelts, though, van der Wusten and Nierop found that minor powers have conducted most of the interventions occurring in shatterbelts.

With respect to the expansion of conflict, we specifically expect that disputes and wars will involve a greater number of participants in shatterbelts than in other areas. Whether the spread of conflict occurs by contagion or through some other process, local or dyadic conflict is hypothesized to expand to include other states, and in the extreme, precipitate conflict in the entire region. Furthermore, the expansion of that conflict is expected to include a prominent role for major powers, because of their political and strategic interests in the area and their military footholds in the region. Thus, we also expect major powers to intervene more frequently in conflicts taking place in shatterbelts than in conflicts occurring in other regions.

Defining shatterbelts

Previous studies of shatterbelts have identified a number of characteristics of shatterbelts. Upon closer examination, though, many of these characteristics seem more like consequences of shatterbelt regions (a *post hoc* definition) than characteristics that can be used to help identify these regions (an *a priori* definition). Some studies (e.g., Hartshorne,

1944; Cohen, 1973) have been tautological, using the occurrence of conflict to define shatterbelt regions and then "demonstrating" that shatterbelts are disproportionately involved in conflict. Others (e.g., Kelly, 1986) have defined almost all regions as shatterbelts, making the conclusion that most conflict occurs in shatterbelts self-fulfilling. In this paper, we attempt to avoid tautology, treating definitional and propositional statements separately.

In order to develop an *a priori* conceptual definition, we begin with commonly cited shatterbelt characteristics from the existing literature, excluding those that involve conflict propensity. Four components appear to be common to most of the literature and form the basis for our definition. First, shatterbelt regions lie outside of major powers' spheres of influence, but they are accessible to those states, in effect creating overlapping spheres. Shatterbelts are supposed to be arenas for competition, not areas that are dominated by a single major power. A second, related point is that shatterbelts are those regions in which there is approximately "equal footing" for the major powers (which means that major powers' spheres of influence would not qualify, but this does not preclude overlapping spheres). Thus, more than one major power must have an ally, military presence, or strong patron-client relationship in the area. The presence of multiple major powers suggests a competitive aspect to the region.

Third, shatterbelt areas are made up of states that are politically immature. Immature states are those that may have recently gained their independence or have not yet established strong governmental structures or penetration. Finally, shatterbelts consist of states that are fragmented--both internally and between one another--in terms of political ideology, ethnic makeup, or religion.¹

Each of these conceptual components deals with elements that are thought to be linked *theoretically* with increased conflict within the shatterbelt. Thus they can be used to identify shatterbelt regions and to test the proposition that shatterbelts are more conflict-

prone. These characteristics do not include a region's conflict propensity, because that would render any empirical tests invalid, as tautological propositions would be confirmed.

Regions having the characteristics noted above are expected to experience the conflict patterns hypothesized in the previous section. In seeking to test those propositions, we will focus on the entire global system in the period 1945-1976. Beyond data limitations, we chose this domain because prior time periods often lacked the basis for meaningful comparison. In the nineteenth century, most of the states in the interstate system--particularly the major powers--were located on the European continent; at this time, states had only a limited ability to project power outside of that region. Not surprisingly, early shatterbelt writings typically identified parts of Europe as the world's most dangerous areas. Yet to say that most interstate conflict took place in Europe may be more attributable to simple opportunity than to any shatterbelt characteristic. The post-1945 period allows us to compare numerous regions (some shatterbelts and some not), as well as to ascertain the effects of a region switching its status to a shatterbelt (or losing its shatterbelt status).

Operationally defining shatterbelts involves several stages. First, we must construct a list of regions of the world. With that list, we must decide which states belong in which regions. Finally, we must determine which regions qualify as shatterbelts, and in what time period each qualifies.

Hartshorne (1939: 285; cited in Cohen, 1973: 63) suggested that "[a]ny regional division is not a true picture of reality, but it is an arbitrary device of the student... depending on what elements appear to him as most significant." There has been little cumulation in the sense of different studies using the same regional lists. As van der Wusten and Nierop (1990) noted, the territorial form and composition of regions used in any particular study largely determines which regions qualify as shatterbelts, and thereby exercises a strong influence on that study's results.

In order to provide a systematic definition of what constitutes a shatterbelt, we begin with the notion that a region is "a set of actors grouped by spatial proximity" (van der Wusten and Nierop, 1990: 214), "expressing association of various elements" (Cohen, 1973: 63). In operationalizing that concept, we considered several factors. First, and most obviously, we looked at groups of states that share the same continent or roughly the same geographic space on that continent. Thus, it may be appropriate to group African and Asian states together in a study of Third World influence in the United Nations, but those states cannot be classified as part of the same geographic region here. Second, we considered the configuration of regional international organizations, seeking to determine how the states divide themselves according to spatial patterns. Third, we explored other characteristics of the possible regions, seeking to group together geographically proximate areas that shared common historical or colonial backgrounds and levels of economic development. Finally, we compared our list with those of geographers, both those who study shatterbelts and those whose focus is different. The list of regions presented below is consistent with these criteria.

- North America
- Central America / Caribbean
- South America
- Western Europe
- Eastern Europe
- Sub-Saharan Africa
- Middle East / Maghreb
- South Asia
- East Asia
- Southeast Asia
- Oceania

Having identified geographic regions, we must now place states in each region. Again, we rely primarily on geography to place states in appropriate regions, and most choices are obvious. Thus, we are interested in which region accounts for more of a given state's borders, or which region is closest to the state. When this simple rule proved to be inadequate, we examined the state's political ties or its membership in regional international organizations. *Table 1* presents the resulting list of states in each region.² It is worth noting that we have only generated one list of states and regions for the entire period to be covered by this study, which leaves us open to the criticism that regional orientations change over time (witness Cohen's research; he added or modified several regions between his 1973, 1982, and 1991 studies). By focusing our study on the relatively short time frame of 1945-1976, we feel that we have largely avoided the possibility of significant changes over time in regional composition, although a study that encompasses a broader temporal domain may need to reflect changes in regional membership over time.³

[Table 1 about here]

We are now ready to determine which regions qualify as shatterbelts, and for which time periods. Using our earlier definition of shatterbelts, we are looking for regions that do not qualify as major power spheres of influence. For example, most of the Western Hemisphere qualifies as being under the United States' sphere of influence. Similarly, Eastern Europe was squarely in the Soviet sphere of influence after the establishment of the Warsaw Pact.

We determined each major power's footholds and spheres of influence by reference to the presence of alliances, colonies and protectorates, the British and French Commonwealths, stationing of troops, and important patron-client relationships. Operationally, approximately equal footing was considered to be two or more footholds each for two or more competing major powers. We use the list of major powers presented in Small and Singer (1982), which includes the United States, United Kingdom, France,

and the Soviet Union for the whole period of this study (1945-1976), and China from 1949-1976. For the purposes of identifying "competing" major power footholds, we do not consider the United States, Great Britain, and France to be competing against one another. Furthermore, we only regard Chinese and Soviet footholds to be competing after 1960. Thus, Central America would not qualify as a shatterbelt until 1979 (beyond the time frame of this study), when Nicaragua joined Cuba as a Soviet client state. Establishing a threshold of only one foothold would lead to the classification of virtually all regions as shatterbelts, a criticism that has been made of Kelly's (1986) and other work. We also considered the timing of independence for states in each region in order to assess political maturity (for example, most states in Africa gained their independence after 1960) and their ethnic, religious, and political makeup, looking for significant fragmentation. The following list gives all of the regions that qualify as shatterbelts under our definition, along with the appropriate time periods:

- Eastern Europe: 1945-1955
- East Asia: 1945-1976
- Middle East: 1955-1976
- Southeast Asia: 1960-1976
- Sub-Saharan Africa: 1961-1976

Eastern Europe qualifies for the immediate post-World War II decade because of the U.S., British, and French military contingents in West Berlin and Austria, as well as the Soviet forces occupying much of the region. East Asia qualifies as a shatterbelt from 1945-1976 because of U.S. occupation in the area after World War II and subsequent alliances with South Korea, Taiwan, and Japan, China's presence in the region, and Soviet ties with Mongolia and North Korea. The Middle East qualifies from 1955-1976 because of British and French colonial ties, the Baghdad Pact, U.S. ties with Israel, Saudi Arabia, and

Lebanon, and Soviet ties with Egypt, Syria, Iraq, and Yemen. Because the United States, France, and Britain are not considered to be competing powers in the region, the date of 1955 derives from the onset of Soviet alignment with Egypt, Syria, and Yemen. Southeast Asia qualifies from 1960-1976 because of British and French colonies, the Western powers' alliances with Thailand, the Philippines, and Malaysia, Chinese alliances with Burma and Cambodia, and Soviet interests in the area. The start date of 1960 is taken from the onset of the two Chinese alliances, because that is the first time that the region could be considered to have included multiple footholds of a major power in competition with the three Western powers. Finally, Sub-Saharan Africa's shatterbelt status dates from 1961-1976 because of British and French colonial ties, China's alliances with Guinea and Ghana, and US and Soviet patron-client relationships with such countries as Ethiopia and Somalia.

Some may be surprised that South Asia, the site of frequent clashes between India and Pakistan, did not qualify as a shatterbelt; it does in other formulations (e.g., Kelly, 1986). This expectation may be a function of making post hoc determinations of what should be a shatterbelt. Yet South Asia does not, at least in the time period studied here, have two or more footholds for at least two major powers. The patron-client relationships are largely confined to India and Pakistan, and even then the relationships are not as strong as other major power ties in different regions. Even including South Asia as a shatterbelt for the full time period, however, does not dramatically alter the findings discussed below.

Research design

Having defined and identified shatterbelts for the period of our study, we now prepare to test our hypotheses about conflict in shatterbelts. Our analyses control for several potentially confounding factors that might mask or exaggerate the effects of shatterbelts. First, the number of states in a region might confound analyses of regional conflict propensity. *Ceteris paribus*, a region with more states would be expected to exhibit more

conflict, simply because it has more states that could potentially become involved in conflict. Similarly, the number of shared borders between states in a region may confound analyses. Shared borders offer the opportunity for conflict to occur, and may serve as agents in the spread of conflict (Most, Starr, and Siverson, 1989). Our analyses thus control for both region size (the number of states in the region) and the number of contiguous land borders in each region, in order to ascertain whether the findings might be attributable to these potentially confounding factors instead of shatterbelt characteristics. Each of these control variables is weighted for each state in our analyses by the number of years in which that state is a member of the interstate system (Small and Singer, 1982) and the number of years in which each region is or is not a shatterbelt. Thus, Egypt contributes 10 state-years to the non-shatterbelt control value because it was a system member in the Middle East from 1945-54, and 22 state-years to the shatterbelt control value for 1955-76.

We test our hypotheses about regional propensities for conflict by comparing the frequency of conflict in shatterbelts with that occurring in other regions, both with and without the controls mentioned above. To represent conflict short of war, we used the Correlates of War Project's latest publicly available list of "militarized interstate disputes," which are "a set of interactions between or among states involving threats to use military force, displays of military force, or actual uses of military force... these acts must be explicit, overt, nonaccidental, and government sanctioned" (Gochman and Maoz, 1984: 587). Wars are defined as sustained military engagements that result in 1,000 or more battle deaths; we used the Correlates of War project's latest updated list of interstate, civil, and extra-systemic wars.⁴ War magnitude and severity are measured by the number of battle deaths and nation-months of war, as described by Small and Singer (1982). The likelihood of dispute escalation and war in a region is determined simply by dividing the number of interstate wars in the region by the number of disputes.

In studying the expansion of conflict, we first consider the percentage of conflicts attracting foreign intervention, defined as the percentage of conflicts in which additional

states beyond the two initial ("primary") actors take militarized action. For those cases in which other states intervene in a conflict, we then compare the average number of intervenors. We also examine major power intervention along the same lines, with reference both to the percentage of conflicts attracting major power intervention, and the average number of major power intervenors in cases where there is intervention. Finally, we examine the percentage of conflicts involving at least one major power as a primary actor, in the event that major powers are more likely to be involved in conflict from the outset, rather than being more likely to intervene in conflict between other states.

Empirical Results

Interstate conflict

We turn first to the propensity of shatterbelts for interstate conflict. *Table 2* provides data on the frequency and severity of disputes and wars inside and outside of shatterbelts.⁵ Over sixty percent of militarized disputes take place in the context of shatterbelts. When we add the controls for region size and number of borders, the numbers are even more striking. Shatterbelts are almost twice as likely to experience militarized conflict as are non-shatterbelt regions when controlling for borders, and nearly two and a half times as likely when controlling for region size.⁶ Similarly, shatterbelts are more prone to full-scale wars than other regions. Eight of the fourteen interstate wars occurred in shatterbelts, such as four of the Arab-Israeli Wars (the 1956, 1967, and 1973 wars, as well as the Egyptian-Israeli War of Attrition). After controlling for the size of regions and the limited time periods for shatterbelts, the frequency of war is nearly twice as great for shatterbelts as for other regions. These results confirm our expectation that shatterbelts are a prominent arena for interstate conflict.

[Table 2 about here]

Further analysis indicated that similar results held for regions that shifted from shatterbelts to non-shatterbelts (or vice-versa) during the period of our study. These

regions experienced more wars (seven versus two) and more disputes (211 versus 47) when they were shatterbelts. Regions that shifted status during our study--Eastern Europe, the Middle East, Southeast Asia, and Sub-Saharan Africa--together became involved in twice as many disputes and two and a half times as many wars while classified as shatterbelts when controlling for region size, and twice as many disputes and one and a half times as many wars when controlling for the number of borders. Because these regions are so much more conflict-prone when classified as shatterbelts than when not, even when adding these controls, it seems that some characteristic(s) of shatterbelts is (are) largely responsible for the results, rather than enduring characteristics of individual regions.

Despite the greater frequency of disputes and wars, the prospects of conflict escalation appear no greater within shatterbelts than without. Disputes occurring within shatterbelts proved to be somewhat less likely than disputes in other regions to escalate to war; nevertheless, only three to four percent of disputes escalated to war in any context during the period of our study. This combination of conflict frequencies and escalation likelihood suggests that shatterbelts experience more war not because they somehow increase the likelihood of escalation to war, but simply because they are the setting for more conflicts that have the potential to escalate to war.

Beyond the higher frequency of conflict occurring in shatterbelts, interstate wars in shatterbelt regions tend to last longer and be bloodier than those occurring in non-shatterbelt areas. The average magnitude and severity of shatterbelt wars are approximately fifty times greater than in other areas. This might be attributable to the greater number of participants in shatterbelt conflict (see below in our discussion of war expansion); in particular, the intervention of major powers may lengthen a war, and their vast military capabilities may make conflict more destructive. Shatterbelts may also produce conflicts that are over intractable issues for which the participants are unwilling to compromise; states may be willing to fight harder, suffer greater casualties, and fight longer in such cases than in other conflicts.

Internal conflict

In internal conflicts, *Table 3* shows that shatterbelts proved to be somewhat more likely to experience extra-systemic wars and civil wars, once the appropriate controls are instituted. Given the fragmentation and political immaturity of shatterbelt states, we expected that shatterbelt regions would be more prone to involvement in internal conflict; this expectation was confirmed, although the difference in frequencies is not as striking as it was for interstate conflict. Consistent with our findings on interstate conflict, the magnitude of internal conflict is greater within shatterbelts than outside; internal conflict within shatterbelts tends to last two to four times longer than in other regions. Civil wars tend to be three times as severe in shatterbelts, including such bloody shatterbelt conflicts as the Cambodian, Lebanese, and Angolan civil wars. Unexpectedly, extra-systemic wars appear to be nearly four times as severe *outside* of shatterbelt regions, with a large portion of this non-shatterbelt severity accounted for by the French war in Indochina.⁷

[Table 3 about here]

Intervention and the spread of conflict

Table 4 reveals a consistent pattern of shatterbelts being associated with foreign intervention. Militarized disputes are somewhat more likely to attract foreign intervention in shatterbelts, although even then, more than 70% of shatterbelt disputes remain confined to the original two actors. More striking is the foreign intervention in wars taking place in shatterbelts, particularly in the cases of the wars in Korea and Vietnam. Intervention is almost twice as likely in extra-systemic wars, four times as likely in interstate wars, and six times as likely in civil wars occurring in shatterbelt regions. Nevertheless, the second half of *Table 4* reveals that conflict in shatterbelts does not seem to expand any more than in other areas of the globe. For those cases in which intervention occurs, there is little difference between shatterbelts and other regions in the average number of intervenors.

The notable exception to these findings involves interstate wars, the difference in which is largely due to the influence of the Korean and Vietnam Wars.⁸ Even though shatterbelts may be more likely than other regions to prompt intervention, they do not seem to produce intervention on a larger scale, with the sole exception of interstate wars.

[Table 4 about here]

Table 5 shows that major powers intervened in 15.3% of the militarized interstate disputes, 18.2% of the civil wars, and 37.5% of the interstate wars occurring in shatterbelts, in each case more frequently than in non-shatterbelt regions. When intervention does occur, the average rate of major power intervention is greater in shatterbelts than in other regions for interstate wars and disputes, but the reverse is true for extra-systemic wars and civil wars. Surprisingly, *Table 5C* reveals that for each type of conflict, major powers were equally or more likely to be primary actors in conflict occurring outside of shatterbelts. Such activity often relates to concern with maintaining dominance in their own spheres of influence. But it is not likely that activity will involve a competing major power. Thus, the United States intervened in Central America and the Caribbean directly, but the Soviet Union did not. Major power activity in shatterbelts, then, seems largely to be confined to intervention into ongoing conflict; major powers are much less likely to begin conflicts in shatterbelts.

[Table 5 about here]

A comparison of *Tables 4B* and *5C* reveals that, despite the differences in frequency of intervention, the vast majority of interventions--into all four types of conflict--involve minor powers joining the conflicts, which confirms the findings of van der Wusten and Nierop (1990). For example, the Arab-Israeli wars saw the frequent involvement of multiple regional adversaries, but the major powers typically avoided playing a direct role (with the 1956 Suez War being a notable exception). Taking *Tables 4* and *5* together, we can see that a majority of conflicts of each type tends to remain dyadic, attracting no foreign

intervention. The most notable exception involves interstate wars in shatterbelts, in which both major powers and other states frequently join the struggle.

Conclusion

The idea that some geographic regions, known as shatterbelts, are more conflict-prone than others has appeared and resurfaced in geopolitical writings throughout the twentieth century. Yet much of that work has been impressionistic, reflecting the prevailing political and military events of the time. In addition, the argument that shatterbelts are more conflict-prone has largely been a tautological one, as the frequency of conflict has often been part of the identification of shatterbelt regions. Here we have tried to sort out the conceptual components of shatterbelts from their hypothesized consequences, and to test propositions that shatterbelts have a greater likelihood of interstate war, internal war, and conflict expansion and intervention.

Our empirical results indicate that shatterbelts are more likely than other regions to be the setting for interstate wars, but this is largely because they also generate more disputes that can go to war, rather than because of any greater likelihood that those lesser conflicts will escalate. Internal conflicts were also more common in shatterbelts, although the effect was more modest than with interstate conflict. In any event, the claim that all or most conflict occurs within shatterbelts is misguided. These results were also strengthened by controlling for region size and the number of border in each region. The portion of conflicts, especially interstate wars, that involve outside intervention is substantially greater in shatterbelts, with major powers more likely to intervene; major powers proved to be more likely to intervene in ongoing shatterbelt conflicts than to initiate them. Yet, given that intervention takes place, conflicts in shatterbelts (with the exception of interstate wars) are not more likely to expand further or to include major powers as the intervening parties.

The most stunning findings were those related to the severity of the conflicts that occurred. Shatterbelt conflicts, be they internal or external, were generally considerably

longer and bloodier than conflict in other regions. Part of this finding may be attributable to the propensity of shatterbelt conflicts to involve third parties in the conflict; nevertheless, this alone cannot explain the magnitude of the effect (in one case, shatterbelt conflict was over fifty times as severe as other conflict).

What are we to make of these findings? It is clear that there is some merit to the contention that shatterbelts are prone to military conflict. Yet the case may have been overstated somewhat by previous works, as with Kelly's (1986) claim that virtually all twentieth-century major power war occurred within the confines of a shatterbelt. As our analyses have shown, not all conflict occurs in shatterbelts. The effect of shatterbelts has been exaggerated in the past, not only because of the imprecision of past studies, but because of the severity of conflict in shatterbelts (i.e., the frequency of shatterbelt conflict *seems* to be greater because of the severity). Shatterbelts are approximately twice as prone to militarized conflict as other regions, when appropriate controls are employed; yet they seem to be most dangerous because of the greater scope and brutality of their conflicts, particularly interstate wars.

Our analyses suggest a series of questions that remain unanswered here or elsewhere in the literature. The first is why disputes and civil wars are more frequent in shatterbelts than elsewhere. Is the effect primarily due to competition between major powers, or to fragmentation and political immaturity in the region (or to some combination or interactive effect)? The answer to this question may help us to understand whether the focus on major power ties is illusory and whether domestic or regional characteristics may be a better predictor of conflict. The answer also has profound policy implications for the post-Cold War era. If shatterbelts are primarily dangerous because of their internal characteristics, then the end of the superpower rivalry will only have a minor impact on regional conflict. In contrast, if major power competition is responsible for the observed conflict occurring in shatterbelts, then we should expect to see a substantial diminution in hostilities.

A second concern is how militarized interstate disputes and other conflicts arise in shatterbelts. We have noted that regions that shift shatterbelt status also undergo a transformation of conflict propensity. Furthermore, shatterbelt states do not experience constant conflict. What leads some states to succumb to conflict, while others do not? What conditions might dampen the conflictual effects of major power footholds or fragmentation?

The issue of conflict expansion is not explained clearly by the shatterbelt literature. Does the propensity for intervention stem from the resource value of the territories in conflict (not considered in the present study), or does it flow from a contagion process based primarily on geographic concerns? The answer to this question will begin to account for why intervention is common in shatterbelts, but the size of the intervention is not substantially greater. Finally, a major question to be answered is why shatterbelts produce longer and more deadly conflicts. This may be a function of the conflict's intractability, the higher stakes in shatterbelts, the external supply of arms and other aid by the major powers, or the lack of a predominant major power in the region to mitigate conflict between minor power states (as might happen in a major power's sphere of influence).

With all of the questions here, it must be recognized that the answers may vary with the type of conflict involved (e.g., civil vs. interstate). Nevertheless, in our view, there is sufficient empirical evidence to suggest that shatterbelts are worth further rigorous study. A good first step would be to measure shatterbelt characteristics (e.g., fragmentation and major power involvement) on a continuous scale and test for their effects on conflict propensity; this is a better approach than assuming a vague and ill-defined threshold for shatterbelt effects to be manifest. Such an approach will also give some clues to whether the internal or external components are more important. In addition, such an analysis may reveal whether shatterbelt conflict might be explained by extant factors or models unrelated to the shatterbelt literature. Our study has established in a systematic fashion how shatterbelt conflict differs (and by what magnitude) from that in other regions. We now

must look to the various questions surrounding shatterbelts. We do not yet have the answers to all of these questions, but their empirical importance makes them worth asking.

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Notes

1. It should be noted that our definition does not require the presence of strategic resources, naval chokepoints, or similar measures of a region's "importance." We left this out for several reasons. First, if a region is considered to be important for these (or any other) reasons, then we would expect that multiple major powers will maintain some type of alliance, colonial, or patron-client foothold in the region anyway. Also, as Kelly (1986: 177) observed, strategic resources or chokepoints--far from being exclusive to shatterbelts--occur in every region of the world. We therefore felt that including such factors in our definition would not produce any meaningful gains in explanatory power.
2. This list differs from that used by Cohen (1973) in two ways. First, North America (the United States and Canada) has been removed from Central America and the Caribbean. Also, four North African states (Libya, Algeria, Morocco, and Tunisia) are here treated as part of the Middle East, rather than Western Europe. Kelly (1986) also used a similar list of regions, except that he excluded the USSR, United States, Canada, and these four northern African states from his analyses entirely.

3. In this list, we have not allowed for the possibility of certain states being members of multiple regions; Libya, Turkey, and the USSR come to mind as examples. If we were to count these states in multiple regions, though, we would face the added problem of double-counting any resulting conflicts involving those states, which would skew our results.
4. The specific requirements vary between the different types of war, as described by Small and Singer (1982). Interstate wars require sustained combat between the regular government forces of two members of the interstate system, resulting in at least 1000 battle deaths to these forces. Extra-systemic wars require the involvement of at least one member of the interstate system, resulting in at least 1000 deaths to the system member's forces; this total ignores the fatalities suffered by the non-system member. Civil wars require that at least 1000 battle deaths result from the war, including both the government and opposition forces.
5. The COW militarized dispute data set broke down several interstate wars into multiple disputes. To avoid misrepresenting the likelihood of dispute escalation to war, we aggregated such disputes together. Two wars were affected by this during the period of our study: the Korean War (two disputes) and Vietnam War (five disputes).
6. Because the analyses do not include sample data, cannot be assumed to be normally distributed, and are aggregates of single events, the use of inferential statistics would be inappropriate.
7. Part of the reason for the comparative lack of bloodshed in shatterbelts may be the nature of the war data. The COW data for extra-systemic wars only reports battle deaths for one side (the nation-state); no fatalities are provided for the non-state adversary (e.g., the nationalist or separatist movement). Thus, all that this finding means for certain is that nation-states involved in extra-systemic wars in shatterbelts suffered less battle deaths than those involved in such wars elsewhere.
8. The Korean and Vietnam Wars, both of which occurred in shatterbelt regions, seem at first glance to skew the results for shatterbelts relative to other regions in terms of intervention, war duration, and severity. Yet the fact that both of these wars occurred in shatterbelts strikes us as non-trivial.

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Table 1: Regions, 1945-76

1. North America

Canada
USA

2. Central America / Caribbean

Bahamas
Barbados
Costa Rica
Cuba
Dominican Republic
El Salvador
Grenada
Guatemala
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Panama
Trinidad-Tobago

3. South America

Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
Guyana
Paraguay
Peru
Suriname
Uruguay
Venezuela

4. West Europe

Belgium
Denmark
France
(West) Germany
Iceland
Ireland
Italy
Luxembourg
Malta
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
UK

5. East Europe

Albania
Austria
Bulgaria
Czechoslovakia
East Germany
Finland
Greece
Hungary
Poland
Romania
USSR
Yugoslavia

6. Sub-Saharan Africa

Angola
Benin / Dahomey
Botswana
Burkina Faso / Upper Volta
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Congo
Equatorial Guinea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Ivory Coast
Kenya
Lesotho
Liberia
Malagasy (Madagascar)
Malawi
Mali
Mauritania
Mauritius
Mozambique
Niger
Nigeria
Rwanda
Sao Tome e Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Swaziland

Tanzania
Togo
Uganda
Zaire / Belgian Congo
Zambia
Zanzibar
Zimbabwe / Rhodesia

7. Middle East / Maghreb

Algeria
Bahrain
Cyprus
Egypt / UAR
Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Libya
Morocco
Oman
Qatar
Saudi Arabia
Sudan
Syria
Tunisia
Turkey
United Arab Emirates
N.Yemen (YAR)
S.Yemen (PDRY)

8. South Asia

Afghanistan
Bangladesh
Bhutan
India
Maldives
Nepal
Pakistan
Sri Lanka

9. East Asia

China
Japan
North Korea
South Korea
Mongolia
Taiwan

10. Southeast Asia

Burma / Myanmar
Indonesia
Kampuchea / Cambodia

Laos
Malaysia
Philippines
Singapore
Thailand
(North) Vietnam
South Vietnam

11. Oceania

Australia
Fiji
New Zealand
Papua New Guinea
Western Samoa

Table 2: Shatterbelts and Interstate Conflict, 1945-1976

	Shatterbelt Regions	Non-Shatterbelt Regions
<u>Militarized Dispute Frequency</u> (Number of disputes)	242	147
<i>Controlling for borders:</i>	0.084	0.046
<i>Controlling for region size:</i>	0.173	0.073
<u>Interstate War Frequency</u> (Number of wars)	8	6
<i>Controlling for borders:</i>	0.00277	0.00188
<i>Controlling for region size:</i>	0.00572	0.00297
<u>Dispute Escalation to War</u> (Percentage)	3.3%	4.1%
<u>Average Interstate War Magnitude</u> (Nation-months of war)	201.58	4.67
<u>Average Interstate War Severity</u> (Battle deaths in war)	400,525.25	6275.5

Table 3: Shatterbelts and Internal Conflict, 1945-1976

	Shatterbelt Regions	Non-Shatterbelt Regions
<u>Extra-systemic War Frequency</u> (Number of wars)	14	8
<i>Controlling for borders:</i>	0.00485	0.00251
<i>Controlling for region size and years:</i>	0.01001	0.00396
<u>Average Extra-systemic War Magnitude</u> (Nation-months of war)	108.2	50.6
<u>Average Extra-systemic War Severity</u> (Battle deaths in war)	10,771.4	40,462.5
<hr/>		
<u>Civil War Frequency</u> (Number of wars)	22	20
<i>Controlling for borders:</i>	0.00762	0.00626
<i>Controlling for region size:</i>	0.01574	0.00991
<u>Average Civil War Magnitude</u> (Nation-months of war)	107.1	25.55
<u>Average Civil War Severity</u> (Battle deaths in war)	160,968.2	51,953.8

Table 4: Shatterbelts and Foreign Intervention, 1945-1976

	<u>Shatterbelt Regions</u>	<u>Non-Shatterbelt Regions</u>
<u>A. Percentage of Conflicts Involving Foreign Intervention</u>		
Militarized Interstate Disputes	70 / 242 = 28.9%	28 / 147 = 19.0%
Interstate Wars	5 / 8 = 62.5%	1 / 6 = 16.7%
Extra-systemic Wars	6 / 14 = 42.9%	2 / 8 = 25.0%
Civil Wars	7 / 22 = 31.8%	1 / 20 = 5.0%
<u>B. Average Number of Foreign Intervenors, Given Intervention</u>		
Militarized Interstate Disputes	144 / 70 = 2.06	56 / 28 = 2.00
Interstate Wars	42 / 5 = 8.40	4 / 1 = 4.00
Extra-systemic Wars	7 / 6 = 1.17	2 / 2 = 1.00
Civil Wars	12 / 7 = 1.71	2 / 1 = 2.00

Table 5: Shatterbelts and Foreign Intervention, 1945-1976

	<u>Shatterbelt Regions</u>	<u>Non-Shatterbelt Regions</u>
<u>A. Percentage of Conflicts Involving Major Power Intervention</u>		
Militarized Interstate Disputes	37 / 242 = 15.3%	9 / 147 = 6.1%
Interstate Wars	3 / 8 = 37.5%	0 / 6 = 0.0%
Extra-systemic Wars	0 / 14 = 0.0%	1 / 8 = 12.5%
Civil Wars	4 / 22 = 18.2%	1 / 20 = 5.0%
<u>B. Average Number of Major Power Intervenors, Given (Any) Intervention</u>		
Militarized Interstate Disputes	50 / 70 = 0.71	13 / 28 = 0.46
Interstate Wars	11 / 5 = 2.20	0 / 1 = 0.00
Extra-systemic Wars	0 / 6 = 0.00	1 / 2 = 0.50
Civil Wars	3 / 7 = 0.43	2 / 1 = 2.00
<u>C. Percentage of Conflicts Involving Major Power Primary Actor:</u>		
Militarized Interstate Disputes	47 / 242 = 19.4%	50/147 = 34.0%
Interstate Wars	0 / 8 = 0.0%	2 / 6 = 33.3%
Extra-systemic Wars	4 / 14 = 28.6%	5 / 8 = 62.5%
Civil Wars	0 / 0 = 0.0%	0 / 0 = 0.0%