# The Concept and Measurement of Rivalries

The concept of militarized rivalries lies at the core of our project. The existence of standard data sets of wars and disputes means that the concept and operational definition of war are now largely agreed upon, at least in practice. In contrast, the concept of a rivalry, particularly a nonenduring one, is new and cannot be taken for granted. We cannot understand enduring rivalries nor fully consider the utility of the rivalry approach until we have explicated the concept of a rivalry. We have spoken of the "rivalry approach" to war and peace, but this depends crucially on the concept of a militarized rivalry. Hence we devote this chapter to a theoretical and operational discussion of our core concept.

The historical origins of the idea of the *enduring* rivalry lie in its testing functions: enduring rivalry as a concept initially played a role only in case selection and was a minor theoretical concern at best. Our central focus is rivalries, and therefore the debate on "operational definitions" of enduring rivalries takes place in a very different light. One advantage of the rivalry approach is that it moves the focus of debate from enduring rivalries to rivalry relationships in general. Unlike recent work on enduring rivalries, we start with the concept of rivalry *tout court*. As we proposed in the previous chapter, rivalries can be brief or protracted. Although common usage does not refer to an isolated conflict as a rivalry, it is important to include such cases in the rivalry continuum.[1] This is largely because an isolated conflict is a potential rivalry, and one goal of research is to understand why some short-term conflicts do not become enduring rivalries. We will direct much of our attention to the more enduring rivalries, but it is crucial that the concept of rivalries not be limited to a particular

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[1]In our conception, rivalries are placed along a continuum based on the duration of the competition and the time-density of major conflict events between the two rivals. Thus, the end points of the continuum would be very brief, single militarized encounters on one side and numerous, frequent clashes over many decades or centuries at the other extreme.

subset of enduring cases. We shall argue that the enduring subset is a very important one, but in order to understand its processes, we need a concept that encompasses rivalries that are very short as well as those that are very long.

The first half of this chapter thus focuses on the conceptual components of a militarized rivalry. The second half uses this conceptual framework to develop an operational definition of rivalry. With a clear view of what a rivalry is (and is not), we avoid potential confusion. For example, the "enduring" rivalry literature has tended to confound the duration of rivalry (i.e., "enduring") with its severity (e.g., frequency or magnitude of conflict). Empirically these two dimensions are modestly correlated, but conceptually we must keep them separate. This distinction should not be controversial because conflict studies usually concentrate on the severity of conflicts (e.g., disputes versus wars), not their duration. Historically, the concept of rivalry has not played a key role in conflict theories. Its use as a case selection device has meant that most users have skipped the conceptual step and moved directly to the operational definition of rivalries. Because the rivalry concept forms the core of our enterprise, we first consider the concept, after which we move to developing an operational definition of rivalry (with particular attention to enduring rivalries), generating the list of cases that will form the basis for analyses in the remainder of the book.

## Conceptual Components of a Rivalry Relationship

The term *rivalry* has long been part of the lexicon of international relations scholars, used casually to characterize feelings of enmity between states. Rarely, however, has the concept of rivalry received close attention. Certainly it has not attracted the attention, for example, that power and interdependence have. Nevertheless, concepts similar to rivalry have appeared over the last twenty years, and recently several works have sought to define carefully the concept of rivalry, enduring rivalry in particular. We briefly review a number of those efforts (see also Hensel 1996 for a review), in preparation for the presentation of our own conceptual scheme.

Early work considered the idea of "international enemies" (Finlay, Holsti, and Fagan 1967; Feste 1982), which signified states that exhibited overt or latent hostility that might lead to war. The concept of enemies conveyed the militarized element characteristic of many rivalry schemes and definitions and indicated that war was recognized as a significant possibility; yet it provided little sense of temporal length. In contrast to the enemies concept, which tended to stress sovereignty, the concept of "protracted conflict" (Azar, Jureidini , and McLaurin 1978; Brecher 1984; see also Starr 1999) emphasized the temporal duration of conflicts. Protracted conflicts referred to a long series of hostile interactions. Although this concept included a temporal element not explicit in the idea of international enemies, it did not necessarily differentiate different degrees of hostility, potentially mixing trade disputes that are protracted but

have little prospect of war with dangerous military competitions that may experience multiple wars over time. Ideas such as international enemies and protracted conflict were largely precursors to the recent attention given to enduring and other rivalries.

The first mentions of the term *enduring rivalry* in the scholarly literature (Wayman 1982; Diehl 1983; Gochman and Maoz 1984) did not explicitly discuss the concept. Rather, the term was used to describe an empirical set of cases characterized by states clashing repeatedly in militarized disputes (Gochman and Maoz 1984) over a period of time. This was a case of putting the cart before the horse, and rivalries did not receive extended conceptual attention until a small critical mass of studies had been conducted. It was then that scholars began to examine critically just what was meant by rivalry.

The literature on protracted conflicts, as well as the operational definitions of enduring rivalries, provides implicit criteria that define the rivalry concept. It contains three dimensions: (1) spatial consistency, (2) time or duration, and (3) militarized competitiveness or conflict. An adequate conceptualization of a militarized interstate rivalry must address satisfactorily these three issues. We discuss them in order of relative controversy in current debates about enduring rivalries.

## Spatial Consistency

One dimension of rivalries is the character and number of actors. Actors in rivalries consist of *states,* and rivalries are *dyadic*. Rivalries consist of the same pair of states competing with one another, and the expectation of a future conflict relationship with the same specific opponent. These two aspects of spatial consistency have gone virtually unchallenged and hence are not discussed in the literature on enduring rivalries. For this reason, we discuss these two aspects of spatial consistency only briefly.

Because our project consists of the study of international conflict, the main actors are states. This is all the more so in that we focus on militarized relations. Although some colonial companies (e.g., the British East India Company) had their own armies, in international militarized relations states are the dominant group of actors. Heavily armed nonstate actors almost invariably are involved in civil, not international, wars (of course these civil wars may have international implications, and spill over into the international realm). Hence, we consider rivalries as consisting of a pair of states competing with each other repeatedly over time.

Given that most militarized conflict has thus far been dyadic (Gochman and Maoz 1984), one can anticipate that most rivalries will involve only two states. Nevertheless, it is possible that, by virtue of alliances, for example, more than two states might be involved in a rivalry; the hostility between some members of the North Atlantic Treaty Organization (NATO) and the Warsaw Pact (WTO)

might qualify as such. It is also possible that a multistate rivalry might overlap with a dyadic rivalry. The Cold War competition between the United States and the Soviet Union included aspects related to the NATO–WTO competition. France and Britain were jointly involved in a series of conflicts with the declining Ottoman Empire during the nineteenth century. One could also envision a rivalry involving more than two states arrayed in opposition to one another in a multilateral fashion. Three major powers, for example, may compete among themselves over the same issues, no one power aligned with another and each with its own set of preferences that is incompatible with those of the other two states. An example might be the United States, the Soviet Union, and China in the postwar era (Goldstein and Freeman 1991). States in the Concert of Europe may also qualify.

Multilateral and linked dyadic rivalries are related to what Buzan (1983) refers to as a "security complex." A security complex is "a group of states whose primary security concerns link together sufficiently closely that their national securities cannot realistically be considered apart from one another. Security complexes tend to be durable, but they are neither permanent nor internally rigid" (106). Although security complexes are broader than rivalries, rivalries and related conflicts are often at the heart of the complex and define its parameters. Indeed, those who adopt security complexes as a framework for analysis are urged to focus attention on "sets of states whose security problems are closely interconnected" (1983, 113–14). Not surprisingly, Buzan uses the South Asian security complex as an example, with the India–Pakistan rivalry as its dominant feature.

As we note below in our operational definition, we see rivalries as dyadic relationships. In this way, we have emphasized the temporal component at the expense of the spatial one. It might be argued that such an emphasis is myopic. In part, our emphasis on the temporal aspects is a reaction against the dominant cross-sectional paradigm in conflict research. In addition, most multilateral disputes and wars (with rare exceptions) start as dyadic competitions, and decisions for intervention (or not) are individual ones for each state to make. We do not claim that rivalries are uninfluenced by outside parties or by other rivalries. Clearly rivalries with overlapping memberships influence each other; we explore this phenomenon in chapter 12. Yet one should not assume, as with China, the Soviet Union, and the United States, that each leg of the triadic linkage is symmetrical in duration, processes, or relative importance. By looking at rivalries as dyadic phenomena, we are able to assess the extent of the interrelationships present.

Another concern under spatial consistency is how many rivalries a state can maintain at one given time. We believe that many states are capable of carrying on several rivalries at the same time; it would seem likely that major powers, with global interests and capabilities, would be more likely to have multiple rivalries than weaker states. The possibility of multiple, concurrent rivalries

permits us to see how the multiple rivalries a state is involved in influence one another, one of the several types of rivalry linkage that we consider in chapter 12. By considering multiple rivalries, scholars might also understand how the beginning or end of some rivalries is conditioned by the number and type of interactions with other rivalries; this would not be possible if one were to make a priori decisions to ignore lesser rivalries.

## Time or Duration

Distinctive of the rivalry idea is its emphasis on the duration of rivalries. Hence the second component of rivalries is temporal. Although it is recognized that wars and disputes also have duration, this has never been a focal point of conflict studies (although a small literature on war duration exists; see, for example, Bennett and Stam 1996). With this background in mind, the emphasis on enduring rivalries is unsurprising. In some notable cases (e.g., United States–USSR), it is easy to think of the rivalry as one long, protracted conflict.

In the evolution of rivalry research, concern has revolved around the meaning of enduring. Operationally, the definition has increased over time, from 10–15 years in early research to current requirements that a rivalry last at least 20–25 years to qualify as enduring. Yet there is no reason to limit the general concept of rivalries to those that are enduring. Rivalries obviously vary in length, ranging from brief competitions to those that extend over many years, the latter of which we label enduring.

Enduring rivalries may be the most obvious candidates for study, but from a conceptual point of view they are not a good place to start. For example, if one wants to explain why some rivalries become enduring, one needs a control group of nonenduring rivalries. Empirically, we know that some militarized relationships are short-term. As an illustration, these will play a key role in our analysis of the democratic peace in chapter 6, because there is only one case of an enduring rivalry between two democratic states,[2] but several cases of short-term rivalries between democracies.

We might suggest that the duration of enduring rivalries be left to measurement rather than conceptual definition, generally requiring, however, that the militarized competition last long enough for the states involved to adjust their behavior and long-term strategy because of the competition. This allows for national security decisions that are not transitory and are conditioned by the competition; these include alliance formation, weapons acquisition, troop deployment, and the like. The duration of a rivalry in large part affects, at any given point in time, the relative influence of the past on current and future interactions in the rivalry relationship. It also helps determine the strength of the expectation of future hostile interactions.

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[2]There is only one case of an enduring rivalry that involved states that were both democratic throughout the lifetime of the rivalry. There is another case in which two democratic states began an enduring rivalry, but during the course of the rivalry one of those states underwent a regime change and lost its democratic status. See chapter 6 for details.

Although we regard rivalry as a continuous concept, we can subdivide the rivalry continuum for some analytical purposes. For purposes of comparison and description, we divide it into several parts: (1) sporadic or isolated rivalries between a pair of states, (2) proto-rivalries, which consist of repeated conflict between the same states, but not to the extent that an enduring rivalry can be said to exist, and (3) enduring rivalries, which are severe and repeated conflicts between the same states over an extended period of time.

Isolated rivalries are those of brief duration. The conflict is sometimes very severe, but the bases of military conflict are resolved in a short period or wither away such that recurring conflict and war are no longer central concerns in the relationship.[3] Enduring rivalries are the longest of the rivalries and have the greatest expectations of an ongoing conflictual relationship. The impact of the past is also potentially greater because there is more history to affect the relationship. One might think of enduring rivalries as lasting elements in international affairs. Proto-rivalries represent something of a middle ground between the isolated and enduring kinds; they persist for moderate periods of time but last longer than isolated competitions. Indeed, proto-rivalries can be thought of as potential enduring rivalries that terminate in adolescence, whereas isolated rivalries undergo something akin to crib death. In the operational section, we develop specific criteria for classifying rivalries into these three categories. If for no other reasons we need proto- and isolated rivalries as control groups. For example, we cannot understand what makes an enduring rivalry persist or end, unless we compare them to potential enduring rivalries (i.e., proto-rivalries).

In summary, duration plays a central role in the conceptualization of a rivalry. The concept of war, as defined by the Correlates of War Project (Small and Singer 1982), involves only level-of-hostility criteria. Hence, the rivalry approach is much more symmetrical in that it understands duration to be as important as severity. In short, the second defining characteristic of rivalry is its temporal dimension, which can vary from short term to enduring.

## Militarized Competitiveness

Rivalry relationships form a particular subset of international relations. As in traditional international relations scholarship, we focus on the relationships between states—as defined by Correlates of War (COW) Project criteria (Small and Singer 1982). Nevertheless, we do not focus on "relations" in general, but on those that are *militarized* and *conflictual*. A rivalry relationship means a conflict or competition in which one or both sides use the military tools of foreign policy: foreign policy is conceived of and conducted in military terms. This

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[3]In our conception, rivalries could be as short as one day. Yet this still qualifies as a rivalry because it fits the conceptual criteria noted herein. Rather than merely an artifact of semantics, there are theoretical and empirical advantages to this kind of definition. For example, identifying very short competitions as rivalries and including them in the rivalry continuum allows scholars to ask (and potentially answer) why some competitions are so transitory and thus why they don't evolve in enduring rivalries.

dimension has, not surprisingly, provoked the most debate in discussions of enduring rivalries. On the dimensions of spatial consistency and duration, we currently have some consensus on dyadic, state relationships that last at least 20 years. On the competitiveness dimension, we find much more divergence in approaches.

When states are engaged in a rivalry, they have conflicting goals over the disposition of scarce goods. Conflicting goals do not necessarily mean that preferences of the competitors are irreconcilable or that the competition is entirely zero-sum (although this may be the case in some rivalries). These goods may be intangible, such as political influence (as in "power politics" conceptions) or ideological/religious dominance. States may also compete for more tangible goods such as natural resources or territory. In practice, individual rivalries reflect varying mixes of these sources of competition. As in conflict and war studies in general, we limit ourselves to competitions that take a military turn.

One alternative approach uses the idea of "issue" to conceptualize rivalry. In this approach, what characterizes a rivalry relationship is not military force, but conflict over one issue or set of issues. Issue constancy over time thus permits one to say that all the competition in the rivalry belongs to the "same" relationship. The advantage of issue conceptions is that they make one more certain that the various incidents in a rivalry belong together as part of same relationship. Because the issue or issues remain constant, one can link the various disputes of a rivalry. In addition, this approach makes it easier to code the beginning and end of rivalries. Once the issue or issues have been resolved, the rivalry is over. A looser variation of this approach is provided by Bennett (1993, 1996), who allows for the continuation of rivalries if there is a plausible connection across issues, such that the rivalry can be said to have continuity even if the original issue in dispute is no longer center stage or has been resolved.

All concepts of rivalry depend—implicitly or explicitly—on data about military conflict, either through diplomatic histories or data sets. Hence the military competitiveness dimension comes before the issue dimension. For example, Bennett (1996) begins with militarized relationships and *then* applies issue criteria to code rivalry termination. We can contrast this with an approach that looks at all conflicts over territory, for example, and then examines their beginning and end. Some of these conflicts become militarized, while others do not.

Although rivalries are competitions (often perceived to be zero-sum by the rivals), the source of the conflict is not necessarily consistent over the life of the rivalry. States may fight over essentially the same issues during a rivalry (e.g., the Egyptian-Israeli conflict since 1948), or there may be some variance in the issues (e.g., Britain and France in the eighteenth century). States may compete over a series of goods, and their confrontations may vary according to which goods are in dispute at the time. Rather than talk about issues in dispute, we use the concept of "the expectation of a continued militarized and conflictual

relationship." This expectation can arise for different reasons, some of which fall under the idea of issues. Unresolved territorial claims are an issue that can produce such expectations, but so too can a history of mistrust and struggle between two states. It can be the case that different sources of competition lead to the same rivalry effect, much as different foreign policy choices can produce the same outcome (see the idea of "substitutability" in Most and Starr 1989). Hence for us the key factor is that the relationship between two states involves treating some issues with the military tools of foreign policy.

Thus, one must conceptualize rivalry as more than a continuing competition over one issue or set of issues (state competitions rarely address a single issue, and issues in a rivalry may shift over time). Nevertheless, there must be some connection between these "different" competitions. Too close a temporal connection might classify a single, integrated conflict event as a rivalry (e.g., long wars such as the Vietnam War). In contrast, too remote a connection leads one to question whether the competitions are indeed related. There seems to be a middle ground for tying rivalry competitions together. This connection may be provided by a temporal component (see below), but it is also established by the presence of a thread linking the competitions (e.g., regional hegemony), some intangible good (e.g., influence), or by the behavior of the states involved such that their actions are conditioned by previous interactions in the rivalry and by anticipation of future confrontations (the expectation of a continuing conflict relationship). The former is particularly conducive to rivalries, as intangible issues are more conflict-prone and less divisible, and therefore less likely to be resolved easily or quickly (Vasquez 1983).

The mere notion of competition or issue consistency is insufficient to constitute a rivalry (at least in the context of international conflict research). One could give any number of sports analogies that reveal that competitions can be friendly. Similarly, states and corporations compete for the same markets, but usually with little chance that such competition will result in war. In international conflict research, a rivalry connotes (and for us denotes) "militarization"—that the threat of, or actual use of, military force to resolve competing claims is an ever-present possibility. This requirement is similar to the notion of threat perception offered by Hensel (1996) and related to the necessity for hostile interactions stated by Bennett (1993). This is more than merely saying that one state is a potential threat to another; such claims are often made in the abstract. Here, rivalry means that the threat is immediate, serious, and may involve military force. Thus, competition in a rivalry (at least in this context) has a hostility dimension involving the significant likelihood of the use of military force (including, of course, full-scale war).

Some scholars argue that militarized competition, and therefore rivalries, must involve states that can realistically challenge one another's security; in

effect, rivalries can exist only between states of approximately equal capabilities. There can be major-power or minor-power rivalries, but no mixed major-minor rivalries (Vasquez 1993). Thompson (1995) acknowledges the possibility of asymmetrical rivalries, but not among his critical "positional" types. Even among "spatial" rivalries, he expects the asymmetrical variety to be of lesser duration. Those who contend that rivalries are conducted between approximate equals believe that a preponderant state does not have to compete with a weaker foe because there is little chance that the weaker state will prevail in the competition. We think that this is an unnecessary limitation and argue that the question is an empirical one.

From the perspective of power politics, enduring conflict between unequals is implausible. Yet perhaps the power politics model is flawed in this respect. It is incorrect to assume that the distribution of power must remain constant throughout the rivalry. Furthermore, a rivalry does not begin or suddenly end merely because one side has dramatically increased its strength. Similarly, declaring a series of hostile interactions as a rivalry only after approximate parity is achieved may ignore the roots of the competition and the shift from preponderance to parity (e.g., the power transition model). Major-minor power rivalries may exhibit different characteristics than other types (as acknowledged by Vasquez and Thompson), but this is a theoretical and empirical question. We prefer not to exclude, a priori, any class of protracted hostile militarized interaction from consideration as a rivalry. If Vasquez and others are correct, then there should be few significant and enduring major-minor power rivalries identified when the operational criteria are applied. Recalling several historical instances of such rivalries and recognizing that even "big states lose little wars" (Maoz 1989), we do not expect this result.

Again, that foreign policies are conducted in a militarized fashion may mean that each state is a security threat to the other, but it could also show a preference for military force as opposed to other means of influence. The British used their naval forces, for example, to collect debts from Latin American states in the nineteenth century; although these states could hardly be called a security threat to Britain, such actions count as "militarized disputes" in conflict studies. Similar to our analysis of issues, we think these considerations are better left as hypotheses for analysis, not as components of the conceptualization of rivalry itself.

In short, rivalry for us means a militarized competition. One key dimension of a rivalry is how severe it is, with severity defined in terms of level of military force. This concept of rivalry severity replaces war as a dependent variable in many of our analyses. But unlike the "causes of war" approach, this is not the only defining characteristic of a rivalry. The rivalry approach emphasizes that these militarized relations can last for decades. At the more

general level, all rivalry approaches implicitly or explicitly define the competition as militarized, since all these studies fall within the field of peace-and-war research. The debate is over how best to conceptualize military competition.

## Other Conceptions of (Enduring) Rivalry

As we mentioned above, much of the debate in the rivalry literature revolves around the competitiveness dimension. The primary alternative approaches to enduring rivalries, Bennett's, Hensel's, and Thompson's and our own, agree on the dyadic, interstate character of rivalries. Many of us also agree that an enduring rivalry must last at least 20 years. Thompson focuses on the competitiveness dimension (see below). His "principal" rivalries, however, almost all qualify as protracted conflicts, and indeed he expects that principal rivalries will be on the whole longer than nonprincipal ones.[4] Given this general agreement on the first two dimensions of rivalry, we primarily concentrate our review on the third, disputed aspect of the rivalry concept.

Bennett (1993) has conceptualized enduring rivals as those states that have disagreed over the same issue for an extended period of time. Excluding minor disputes and those between allies, Bennett also stipulates that the rivals must have devoted significant resources (military, economic, and the like) to the rivalry, and his operational definition suggests that a willingness (and acting on that willingness) to use or threaten military force against one's rival is also an essential part of the rivalry relationship. Vasquez (1993) claims that states define rivals in terms of what gaining or losing stakes will mean for one's competitors; thus, the concern in rivalries is with relative, rather than exclusively absolute, gains and losses.

Hensel (1996) develops a general notion of rivalry that is not confined to a specific focus on enduring rivalries and is applicable beyond interstate relations. He argues that rivalries are composed of three elements: (1) competition, (2) threat perception, and (3) time. The first component, competition, is almost self-explanatory in that there must be some disagreement over the division of some good. Yet Hensel notes that his focus on militarized interstate rivalries requires the second component, namely that states believe that their rival threatens national security interests. Threat perception then distinguishes a wide variety of competitions (e.g., some trade disputes) from hostile disputes involving the potential use of military force. Hensel also introduces a temporal component, indicating that for a competition to be a rivalry, it must last long enough to focus each state/rival's attention on the other.

Hensel argues that multiple types of rivalry share these conceptual components. The foci of his study are militarized interstate rivalries, such as that between France and Germany between 1870 and 1945. Yet he also lists the possibility the rivalries can be nonmilitarized. In cases such as trade competitions

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[4]The exception may be the principal rivalry of Britain versus Italy, which lasts only from 1934 to 1943. Yet, most of the other principal rivalries on his list last for several decades.

between the United States and Japan in the 1980s and after, states can perceive that national security is threatened, but no military threats or actions are contemplated or executed by the rivals. Furthermore, rivalries can also be nonenduring. This category of rivalries includes competitions in which the issues in dispute are resolved in a short period of time or in which rivals direct their attention away from the present competition to other threats to national security. Finally, Hensel indicates that rivalries do not have to involve nation-states. The components of rivalries might just as easily be applied to subnational or ethnic groups; the rivalries between the Serbs, Muslims, and Croats in Bosnia are an example.

The previous attempts at conceptualizing rivalry have been heavily influenced by a research focus on enduring rivalries and more subtly by the operational definitions of rivalry that rely on the occurrence of militarized disputes (see below). Thompson (1995) complains that the enduring aspect of enduring rivalry has been overemphasized at the expense of the competitiveness or importance of the rivalry. Accordingly, he sees most conceptual and operational definitions as overly broad. In his view, a state's rival is more than simply an external threat or continuing source of problems. In place of the typical notion of enduring rivalries, Thompson (1995) advocates the adoption of the term "principal rivalries." Principal rivals means that states have primary, some might say exclusive, opponents; thus, Thompson distinguishes competitions that represent the primary threat to security from those that are secondary (see also McGinnis and Williams 1989). Thompson, agreeing with Kuenne (1989), rejects the notion that rivalries are mere competitions. Unlike most market competitions, for example, rivalries exhibit nonanonymity in that the competition is focused directly on one competitor. Some level of duration is implicit in Thompson's idea of principal rivalry, but the importance of the rivalry seems to be a more major concern. So while much of the "enduring" rivalry literature places the first stress on duration and the second stress on importance, Thompson argues that the priorities should be reversed.

Thompson's more narrow focus on principal rivalries should not imply that he regards them as all the same. He classifies rivalries according to two dimensions: (1) the type of competition and (2) its locale or scope. With respect to competition type, he distinguishes spatial from positional rivalries. Spatial rivalries are fought over territorial control and tend to be less intense than their positional counterparts. Spatial rivalries are more likely to involve minor powers and can even involve states with asymmetrical capabilities, although such asymmetry is thought to make the rivalries end more quickly. In contrast, and more interesting from Thompson's theoretical perspective, positional rivalries are competitions over relative positions in a power hierarchy. These are essentially regional or global power struggles that inherently assume some capability symmetry (a competition over power and influence is unlikely if one state is dramatically stronger than another).

The second dimension, location, indicates where the rivalry is contested, and there are four possibilities: (1) dyadic, (2) regional, (3) global, and (4) regional-global. Dyadic rivalries are competitions confined to a narrow geographic area and are thought to be primarily of the spatial variety. Regional rivalries concentrate on slightly broader areas and are competitions over power in a more defined region, such as the rivalry between Spain and France in the sixteenth century. Global rivalries, such as between Venice and Portugal in the fifteenth century or the United States and the Soviet Union in the twentieth century, are international competitions for leadership, as with the framework of the long-cycles literature (Modelski 1987; Modelski and Thompson 1988). The final category combines the previous two and is illustrated by the Netherlands' rivalries with Spain and France in the sixteenth and seventeenth centuries respectively.

## Summary

We end this section with a brief summary of our conceptualization of rivalries. On the spatial consistency dimension we adopt the standard limitation to *states* as the actors and the relationships as *dyadic*. In contrast with the literature that focuses exclusively on enduring rivalries, we insist that rivalries can be of any duration, from one day to decades. Rivalries are characterized by their duration, *but not by any particular duration*. We shall define categories of isolated, proto- and enduring rivalries, but each is a subcategory of the general rivalry concept. Finally, we conceive of rivalries as *militarized relationships:* rivalries are conflicts that governments conduct using the military means of foreign policy. The issue can vary from trade to finance, from territory to regime type; the common point is that states deal with the issue in military terms. Our approach focuses on the militarized behavior of states—actual militarized disputes and wars—and we make no requirement that issues remain constant.

There are clearly some limitations to our conceptual approach. Most obviously, we have confined our analysis to militarized relationships. Accordingly, we may miss significant competitions that involve some measures of threat or security risk for the participants, but never or rarely manifest themselves in direct militarized confrontations. This may lead us to miss competitions that share all the other characteristics of rivalry, but lack the militarized component. Thus, we will be limited in answering the questions of how, when, and why rivalries become militarized. Nevertheless, for largely normative reasons, we are most concerned with those rivalries that are militarized, while not diminishing the validity of considering the nonmilitarized variety. Our exclusive focus on states leads us to miss rivalries involving nonstate entities, a salient concern in the post–Cold War era. Nevertheless, we are not certain that nonstate rivalries necessarily follow the same patterns or exhibit the same causal processes as state rivalries and do not wish to mix apples and oranges in the same rivalry fruit basket. Thus, at this stage of the inquiry, we continue the traditional focus of international conflict scholars on state behavior.

FIGURE 2.1: Conceptualizing Rivalries
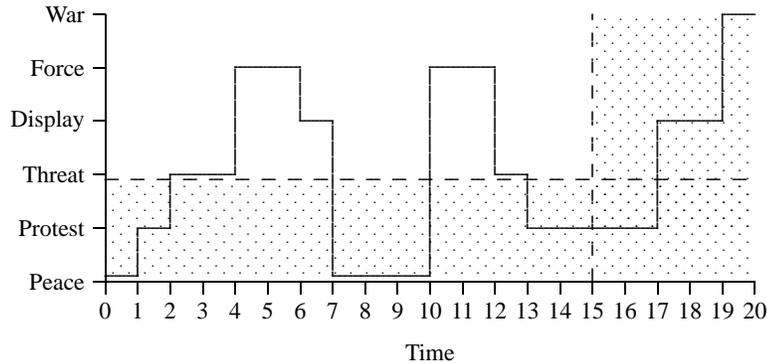


## Operational Definitions of Rivalry

With a clear conceptual definition of rivalry, we move on to a discussion of how it should be operationalized. This must produce a comprehensive list of rivalries, and eventually enduring ones. Success in this enterprise will be evident not only by the face validity criterion—the list of rivalries appears plausible—but also by the convergence between the definition and criteria central to our theoretical purposes. We turn now to those criteria.

### Criteria for Evaluating Rivalry Definitions

How are we to judge if a potential definition or operational measure of rivalries is adequate? In this section, we discuss what a good operational definition of rivalries must do, and in the following section we examine current definitions of rivalries.

In order to guide our discussion of criteria for a good definition, we use the hypothetical rivalry presented in figure 2.1. Two dimensions of the rivalry concept are represented by the x- and y-axis. On the x-axis we have time periods indicating the temporal component of rivalries, while on the y-axis we have the level of militarized competition.

Because many current operational definitions use the Correlates of War (COW) Project militarized dispute data set (Gochman and Maoz 1984; Jones, Bremer, and Singer 1996), we have constructed the hypothetical rivalry with that data set in mind, but it is clear that the same issues arise if other conflict data sets are used.[5] It is important to keep in mind that other options exist in distinguishing rivalries of differing severities. One can ask: what indicates a

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[5]Rivalry lists or measures do not have to be generated with extant, quantitative data sets. Huth, Gelpi, and Bennett 1992 and Thompson 1995, 1998 developed their lists of rivalries through careful analysis of diplomatic histories.

militarized relationship? Clearly, the existence of militarized disputes and wars does, but other indicators can be found as well. For example, an arms race may signal a rivalry, but obviously we can have rivalries without arms races.[6] Hence we can examine foreign policy statements as well as arms acquisition and strategy for evidence of a rivalry. In a more behavioral mode, events data could be used to detect rivalries (see Hensel 1997). Because most of the work (including ours) on rivalries comes out of the COW tradition, we use the militarized disputes data set to illustrate our discussion, although no key conceptual points hang on doing so.

Rivalries do not endure forever—they have beginnings and endings. A good definition will pinpoint these two points in time. Many of the key aspects of a good definition of rivalries are interwoven with these two concerns. Rivalries are situations in which the risk of military confrontation is significant—the militarized competitiveness dimension. The rivalry can be considered to have begun when that risk reaches a certain level, when the relationship takes a militarized turn. Of course, there is a gray area between clearly nonmilitarized and clearly militarized relationships. A major theoretical and practical question is determining what this threshold should be.

The Correlates of War Project militarized dispute data set's (Gochman and Maoz 1984; Jones, Bremer, and Singer 1996) minimum threshold for inclusion is a "serious threat to use military force," symbolized by the dashed horizontal line in figure 2.1. In that figure, the rivalry begins at time 2, when the threshold is reached. Yet the possibility of military conflict has arisen at time 1, but was not severe enough to meet the definition of the COW dispute data set. Using events data, we might want to say that the rivalry began at time 1, or starting at that time the pair of states began to expect that the risk of war was significant. Depending on where the horizontal line representing the minimum threshold of militarized competitiveness is drawn, an operational definition may mistakenly designate the rivalry as starting too late or too early. A number of rivalries may be coded as beginning with a war, but we might suspect that for some period beforehand the threat of war was significant.

The symmetric problem occurs at the other end of the rivalry. In many respects, however, this problem is worse. If the beginnings of rivalries are often signaled by concrete events, rivalries often do not have clearly defined ends. Even peace treaties may not signal that a rivalry is over. In figure 2.1, the rivalry ends at time 7 when peaceful relations are reestablished and neither party sees a significant risk of war. The expectation now may be that future disagreements will be settled by diplomacy and not military force.

A new rivalry apparently begins at time 10, but is the rivalry indeed a new one, or is it a continuation of the previous rivalry (what might be called the interrupted rivalry problem)? An ideal definition should be capable of making such distinctions. Even if a new rivalry does not begin and no disputes occur

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[6]For a discussion of how rivalries differ from arms races, see Goertz and Diehl 1993.

after time 7, a good definition must provide a basis for deciding when the rivalry is over. Thus, an ideal definition must have explicit termination criteria that determine accurately when the rivalry is over and distinguish between new and continuing rivalries. Of course, the exact precision needed for the ending date of an enduring rivalry will vary according to theoretical purpose. For example, a study may only posit that an effect will occur over a range of years rather than one year, making the specific end year of a rivalry less important than specifying an approximate range. Furthermore, we argue below that assigning an exact date of rivalry termination may be misleading.

The choice of criteria for rivalry termination has a significant effect on pinpointing the end of rivalry and influences the conclusions drawn from empirical analyses about rivalry termination. Bennett (1997b) compared the effect of detecting rivalry termination through (1) the absence of militarized conflict for a sustained period of time and (2) the timing of the resolution of the issues under contention. He reports that there can be a 25-year difference in determining when a rivalry is over. Furthermore, such divergent determinations may make a difference in empirical tests of models of rivalry termination.

A related concern is the interconnection of the conflict events in the rivalry. This not only affects the time frame of the rivalry, as noted above, but also the domain of events in the rivalry. For example, a certain conflict event may be unrelated to a rivalry. Wrongly classifying that event as part of the rivalry results in misleading conclusions about its dynamics. In addition to termination criteria, a good definition should also specify provisions to insure the interconnection of events within a rivalry.

Rivalry in our conception signifies a certain level of militarized competition; enduring means that the competition is not ephemeral. In figure 2.1, the first rivalry lasts for five periods (times 2–7), the second lasts for at least 11 (times 10–20). Depending on the time frames those periods represent, the second rivalry might be considered enduring, the first only a proto-rivalry. A good definition should provide convincing criteria and rationale for the choice of cutoff points between enduring and other rivalries. This will necessitate some attention to the temporal dimension of rivalries, as well as other considerations.

There are two approaches, which are not mutually exclusive, to the problems of defining the beginning, end, and persistence of rivalries, along with the subproblems of setting severity levels and the like. One is to base the definition on purely theoretical arguments. For example, it might be argued that actions below the militarized threat level do not indicate a significant probability of war. The second approach is empirical, that is, to make the judgments inductively after surveying the data. For example, there may be large numbers of state dyads at the "peace" level, few at the "low-intensity conflict" level, and a significant number at the militarized threat level, which is then a natural threshold for rivalries.

An ideal definition of rivalries, therefore, must in graphic terms draw three lines in figure 2.1: one horizontal representing the minimum level of severity (either at specific points or cumulatively) and two vertical denoting the beginning and end points of the rivalry. The definition must also specify the minimum time interval necessary to classify the rivalry as enduring and provide some basis for connecting important conflict events in the rivalry. In the next section, we describe some previous definitions of rivalry and evaluate each according to the considerations outlined here.

## Previous Operational Rivalry Definitions

There have been no attempts to define rivalry operationally in a general way, but there have been a few systematic attempts to develop a population of enduring rivalries. This is not to say that scholars have not studied rivalries or conflict phenomena that can be labeled as rivalries. The dominant method in defining enduring rivalries has been to use historical judgment. In most of these efforts, a universe of cases is not the goal. These are historical case studies in which no attempt is made to generalize beyond the limited domain of the study. Some cases, such as the Anglo-German conflict at the beginning of the twentieth century or the U.S.-Soviet conflict after World War II (Nincic 1989), are consistent with conventional wisdom on what constitutes an enduring rivalry. For example, Lieberman (1995) is interested in the Arab-Israeli rivalry, which is relatively easy to delineate, with the independence of Israel as the event signaling the onset of the rivalry and several wars serving as signposts along the way. In other cases, the particular theoretical questions posed by the researcher inexorably lead to the identification of certain rivalries for study. For example, Kinsella (1995) sought to understand the effects of superpower competition and arms transfers on Third World conflict; obviously, he focuses on the U.S.-Soviet rivalry and on four other enduring rivalries (drawn from Huth and Russett 1993) that involve superpower client states. Yet these methods do not result in systematic criteria to develop a universe of cases.

Despite the absence of attempts to define rivalries in general, the range of definitions for enduring rivalries is such that we can use those efforts to develop an operational definition of rivalry. One consequence of the rivalry approach is to move away from dichotomous conceptions of rivalries (enduring and nonrivalries) to a continuous one. The rivalry perspective makes us view the definitional issue in a new light. Only after we define rivalry can we move on to the problem of enduring rivalries. In this section, we make reference to definitions of an enduring rivalry, as this is where existing work has concentrated, but this step is preliminary to the goal of defining rivalries of any variety.

There have been several data-based efforts (somewhat influenced by one another) to develop a list of enduring rivalries. Not surprisingly, most have relied on the COW list of militarized interstate disputes (see Gochman and Maoz

1984 for a discussion of the definition and operationalization of militarized disputes; and Jones, Bremer, and Singer 1996 for an update and presentation of the current version of the data set) to identify enduring rivalries. Each effort using militarized disputes has established some threshold for the frequency of such disputes involving the same pair of states over a given time to distinguish sporadic conflict from an enduring rivalry. The presence of militarized disputes is used to satisfy the militarized competitiveness component, whereas the temporal and spatial components are inferred from the time frames established and the same states' involvement.

Wayman (1982, 1996) designates a dyadic enduring rivalry as any instance in which two states oppose each other in two or more disputes within a 10-year period. He assumes that a militarized dispute has a decade-long impact on a dyadic relationship. If that hostile relationship is reinforced by another dispute, the two states have extended their hostility and are considered to be in an enduring rivalry. Thus, a rivalry lasts from the onset of the first dispute until 10 years after the last dispute.

Diehl (1985a, 1985b, 1985c; Diehl and Kingston 1987; Diehl 1994b) identifies an enduring rivalry as any situation in which two nations engage in at least three militarized disputes within a period of 15 years. Diehl argues that once established, enduring rivalries need a lesser frequency of disputes for their maintenance; the competition cannot be considered fully dissipated until the relationship experiences a significant period without military confrontation. Accordingly, the time frame for a given enduring rivalry is extended if a militarized dispute between the rivals occurs within 10 years of the last dispute in the original rivalry sequence. Therefore, a 10-year "dispute-free" interval must pass before a rivalry can be certified as ended. This definition specifically excludes disputes related to ongoing world wars, so as not to confuse their effects with those of the enduring rivalry. Diehl's criteria are more specific than Wayman's, and his definitions are more sensitive to the termination of rivalries.

Gochman and Maoz (1984) construct a list of enduring rivalry dyads that include major-power, minor-power, and mixed types. Their operational criteria, however, are somewhat vague. They include "the pairs . . . of states that most often have engaged in disputes with one another" (609). In practice, this turns out to be a minimum of seven militarized disputes over the 1816–1980 period. There appears to be no temporal criterion, as disputes may be years apart and involve unconnected issues. The only common factor is the participants.

The most developed set of criteria for enduring rivalries is that centered around the Correlates of War Project (Jones, 1989; Wayman and Jones 1991; Huth and Russett 1993; Goertz and Diehl 1992a, 1995b; Geller 1993; Bennett 1996; Hensel 1996; Maoz and Mor 1996). Each of these efforts shares a number of characteristics and produces similar lists of enduring rivalries. Despite the similarities in construction and output, there are minor differences in the definitions, and it is unlikely that there will be one uniform COW definition

of enduring rivalries, as there is in the case of militarized disputes, for example. Nevertheless, we label this class of enduring rivalry definitions the COW definition, recognizing the common origins of that body or work, but not implying any official endorsement by the COW Project. The differences between the definitions are relatively minor, usually dealing with auxiliary conditions.

First, the COW definition specifies a severity condition. For an enduring rivalry to exist, there must be a minimum of five to seven militarized disputes involving the same two states. The second condition of the COW definition is durability. There must be at least 20 or 25 years between the outbreak of the first dispute and the termination of the last dispute.[7] The final condition is intensity. In order for any two disputes to be part of the same rivalry, there must be no more than 10 years between them, or in some conceptions the issues around which the disputes revolve must be the same and unresolved. This condition is designed to satisfy the notion that states must consistently be challenging one another either through frequency of conflict within a narrow time frame or over the same issue across a broader time frame.

In addition to these major requirements, certain minor conditions may be specified. In one variation, each dispute must last at least 30 days and include reciprocal threats, displays, or uses of military force (e.g., Jones 1989; Maoz and Mor 1996). The reciprocity requirement is designed to eliminate confrontations in which the use or threat of force did not prompt a reaction from the other party. This ensures that the disputes represent actual competition and hostility by both sides. The duration requirement (about the median for disputes involving the display of force) is apparently designed to prevent single incidents from being classified as rivalry-producing disputes; in effect, severity is inferred (in part) from prolonged confrontation. This adds a temporal requirement for the disputes as well as for the rivalry. In addition, several of the individual definitions in the COW group approach stipulate that the two rivals must be the primary initiator and primary target of the dispute, respectively, or that there needs to be direct and prolonged military confrontation between the rivals in a multiparty dispute in which they were not the primary parties. This requirement is designed to eliminate third-party interventions in which one rival does not directly confront the other.

The reader should keep in mind that each of these definitions was designed for a different purpose and that the criteria selected were related to this broader purpose. Wayman and Diehl looked only at major-power behavior and perhaps would not use the same definition of enduring rivalry if the focus included minor powers. Wayman used enduring rivalries to study power transitions. He sought to establish only that the two major powers had a significant hostile relationship (a prerequisite for a power transition war) in a given decade. Diehl's studies involved arms races. He wanted to define a context in which an arms

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[7]Hensel 1996 is an exception, having no maximum elapsed time for a rivalry to qualify as enduring.

race was possible. In each case, the authors use enduring rivalries as a background condition to draw a sample for a different theoretical analysis. Gochman and Maoz described only the most dispute-prone dyads and used the label "enduring rivalries." Only the COW definition was developed for use in a wide variety of analyses. Whatever criticisms might be directed at each definition below, they are presented in the context of evaluating the general utility of the definition, not with respect to the authors' original purposes.

We should note that looking at militarized disputes is not the only mechanism to generate a list of rivalries, enduring or otherwise. The most notable alternative is to consult diplomatic and military histories for references to which states regard themselves as rivals. Such histories also reveal the defense resources and attention that are devoted by a given state toward other states. From these accounts, scholars can identify rivalries and approximate how long they last. Huth, Bennett, and Gelpi (1992) were the first to adopt this approach, identifying 18 great power rivalries over the period 1916–75. More systematically, Rasler and Thompson (1998a, 1998b) have developed a list of 25 major-power rivalries, using a similar, labor-intensive reading of historical documents.

## A Comparison of Previous Operational Definitions

In order to evaluate the four data-based definitions of enduring rivalries, we consider their correspondence to the conceptual components and operational criteria noted above. What is clear is that these different definitions identify different levels of severity as the cutoff points for differentiating between enduring and nonenduring rivalries. There are several dimensions along which these definitions differ: (1) number of disputes, (2) minimum length, and (3) termination criteria. These will be crucial in defining rivalries in general as well as in classifying rivalries as isolated, proto, or enduring.

All four definitions use the same data set (a now outdated version of the Correlates of War Project militarized dispute data set—Gochman and Maoz 1984) and rely on the frequency of militarized disputes to identify enduring rivalries. On the one hand, each definition is open to the criticism that militarized disputes are only one manifestation of an enduring rivalry (Thompson 1995). Yet, militarized disputes are a better indicator than others such as arms races because they better meet the conceptual standard for militarized competitiveness, that the use of military force or resort to war is an ever-present danger.

Nevertheless, militarized disputes are not without their problems. Looking at figure 2.1, we can see that all the definitions will pick up on militarized dispute activity as it attains a certain threshold. According to all definitions, the enduring rivalry begins at $t = 2$, even though there was low-intensity conflict at $t = 1$. In statistical terms, the data are "truncated" from below (OLS regressions will accordingly give biased estimates), and the beginning of conflict in the rivalry may be missed. One effect of the minor requirements of some COW definitions is to raise the minimum level for rivalry in figure 2.1. Requirements about reciprocity, duration, and multilateral disputes mean that the truncation

TABLE 2.1: Data-Based Operational Definitions of Enduring Rivalries

| Author | Minimum Years | Minimum Disputes | Maximum Interval | Multiple Disputes | End |
|---|---|---|---|---|---|
| Wayman | 11 | 2 | 10 | dyadic | 10 |
| Diehl | 0 | 3 | 15 | dyadic | 10 |
| Gochman and Maoz | 0 | 7 | 0 | dyadic | 0 |
| COW | 25 | 5[a] | 10 | primary parties only[b] | 10 |

*Source:* Wayman 1982, Diehl 1985a, Gochman and Maoz 1984, COW (Jones 1989).
[a] Disputes must be reciprocated and last at least 30 days.
[b] Or, the dispute is over the same issue.

line is moved upward and this increases the risk of missing a rivalry or misdating one.

What is not apparent is the behavior of the rivals in the periods that do not include a high level of hostility. If interactions are still hostile (although not quite to the degree of a militarized dispute), this poses little problem; one can safely say that a rivalry is ongoing. Nevertheless, in figure 2.1, the "rivalry" becomes cooperative from $t = 7$ until a new dispute arises at $t = 10$. All rivalry definitions include this dispute as part of the old rivalry, when it might represent the beginning of a new one. If the interactions below the dispute threshold are cooperative, then there may be some question about the existence or continuation of a rivalry. Using only militarized disputes to identify rivalries is potentially vulnerable to this problem. It may also be the case that deterrence prevents the onset of militarized disputes, giving a false sense of how or when a rivalry is beginning, evolving, or ending.

Table 2.1 shows the variation of the four data-based definitions along various dimensions. For comparison purposes, we use the Jones (1989) definition from the COW group because it was the starting point for many of the later variations within the COW group definitions; as we note above, however, all the definitions in this group produce similar results. An important conceptual component of rivalries is the temporal one, and a good rivalry definition should be able to distinguish between different types of rivalries. A glance at the first column reveals that at least two of the definitions have serious problems meeting this standard. The Diehl definition requires only that three disputes occur within 15 years of each other. The Gochman and Maoz definition specifies no temporal component at all. In either case, a rivalry could be identified through the occurrence of the minimal number of disputes in a narrow time period, blurring the distinction between enduring and other kinds of rivalries (this is significant in that both definitions purport to identify only enduring rivalries). This

might be very misleading in that such disputes may be over an isolated issue and the conflict may be quickly resolved. The Wayman definition is only slightly better in that it provides for a 10-year period following the last dispute for the rivalry to persist (but this causes difficulties in identifying its termination). Only the COW definition offers a broad time frame, requiring almost a generation of conflict before classifying hostilities as enduring. Because all definitions are focused only on identifying a population of enduring rivalries, they suffer from the tendency to classify rivalries dichotomously rather than treat rivalries as a continuous concept.

Another dilemma faced in operationalizing enduring rivalries is deciding how frequent conflict must be before it can be considered part of an enduring rivalry. Wayman requires only two disputes to establish a rivalry. The other definitions require a varying number of disputes, in part dependent on the time frame established for the rivalry. For example, Diehl sets three disputes for the minimum, an average of about one every five years (equivalent to the Wayman requirement for two disputes in a 10-year period and to some in the COW group who look for five disputes in a 25-year time frame), whereas the Gochman and Maoz requirement of seven disputes (the highest among definitions) translates to one every 23-years over the 1816–1980 period, and there may be little connection between those disputes. Although a serious military threat may be a potentially justifiable minimum level of militarized competitiveness, how long "enduring" should be is not clear. We know of no theoretical arguments for the minimum of 20–25 years, but as noted below, there is an empirical argument for it as a natural breakpoint in the distribution of rivalries.

Most of the definitions rely on temporal proximity to imply an interconnection between the disputes. Without specified theoretical underpinnings, three of the definitions use the somewhat arbitrary 10-year distance to define the termination period for an enduring rivalry. Only some of the COW group definitions specify an issue component, and even in that case, the temporal criterion (i.e., time between disputes) can override the requirement that the disputes concern the same issues.

There are also problems with ongoing rivalries when the data points end before the rivalry does (or begin in 1816). In figure 2.1, suppose that the data set ends at $t = 15$. There is no way to tell if the lack of disputes since $t = 13$ is the end of the rivalry or just a pause in dispute activity; indeed, figure 2.1 shows another dispute at $t = 17$. In statistical terms, the data are "censored," because we do not know the final outcome. The shaded areas of figure 2.1 are those that the enduring rivalry definitions that use dispute data will not detect: truncation, censoring, and peaceful interludes. As far as we can tell, most of the actual work on rivalries has not addressed this issue.

Another criterion of a good definition is the ability to detect the termination point of the rivalry. It is often easier to see a rivalry begin, because of a

key set of events, than to understand when it is over. Almost none of the definitions provide termination criteria distinct from those related to the maximum time between disputes. The problem is that states might resolve their major differences through war and/or international agreement whereas all the definitions will not recognize the end of rivalry until at least 10 years after the last dispute. One cannot pinpoint the exact year of termination for the rivalry according to these approaches. If we refer again to figure 2.1, the definitions here will be unable to detect behavior below the threshold of militarized disputes. This means that the four approaches will only be able to pick up hostile actions and must await the passage of time to make an ex post facto judgment on termination. This is most evident in the recent demise of the Cold War, which according to the definitions here may not end until almost the turn of the century. The use of the COW dispute data set thus implies that all the definitions have problems accurately determining the beginning and end points of rivalries. All definitions (except ours, see below) consider that a rivalry continues 10 years after the last dispute, but similar consideration suggests that a rivalry could begin 10 years prior to the first dispute; none of the definitions appears to argue for this approach.

One important distinction is between (1) the criteria for deciding that rivalry is over and (2) the date the rivalry ended. The same applies to beginning dates. Because rivalries may begin and end gradually, there may be no clearcut date to choose as the beginning or end. In figure 2.1 one could reasonably code the rivalry beginning at time 1 or time 2. A peace treaty might be considered the *effect* of the end of the rivalry, which occurred in fact earlier. The 10-year termination rules can thus be interpreted in two ways. One can take the end of the 10-year no-dispute period as the end of the rivalry (option 2) or use it as a diagnostic tool to say that the rivalry is considered over (option 1). We shall adopt the diagnostic view (see below). This is similar to a doctor who runs tests after chemical therapy and declares that the cancer is gone, without specifying when it was eradicated. The 10-year no-dispute period allows us to declare the rivalry dead, but we do not specify an exact time of death. Analogous arguments apply to beginning dates.

Bennett (1993, 1996) has estimated the actual time of death for enduring rivalries. Perhaps because he is interested in rivalry termination, he adopts additional and specific criteria, beyond no-dispute diagnostic tests. More than just a cessation of military hostilities, Bennett requires that the issues under dispute also be resolved. This is indicated by the signing of a formal agreement or a public renunciation of claims by the rivals. This method obviously better pinpoints the end of certain rivalries, but it does perhaps miss the conclusion of rivalries that "wither" away without final resolution.

Another concern in comparing different concepts of rivalries is interrupted rivalries. In a number of cases, such as Turkey and Greece, there are rivalries that end according to various criteria (e.g., 10 years without a dispute) and

then start up again some time later. The behavioral definitions of Wayman and Diehl consider these as new rivalries. Some of the COW definition variations are more discriminating. They allow rivalries to have no significant behavioral signs (i.e., militarized disputes) for an extended period of time and still be considered enduring; the presence of unresolved issues is the means of connecting temporally disparate disputes. The extreme case is the Gochman and Maoz definition, which classifies all disputes between the states as part of the same rivalry; in this definition, there are no such things as interrupted rivalries. Yet this is hardly a satisfactory solution to the problem.

We also made a comparison between the dispute density definitions above and those based on historical and diplomatic documents. Necessarily there will be some differences, as the militarized component is an essential element of the former, whereas it is not a necessary condition for the latter. The comparisons also cannot be complete given that the historical approach has thus far only generated lists of major-power rivalries, whereas the dispute density lists include rivalries of all varieties. Nevertheless, we first find some convergence between the two historical lists of Huth, Bennett, and Gelpi (1992) and Rasler and Thompson (1998a, 1998b) respectively. They generally identify the same pairs of rivals. Nevertheless, there are significant differences. The beginning and ending dates for the rivalries identified on both lists are dramatically different. Rasler and Thompson also identify several rivalries that are absent from the Huth, Bennett, and Gelpi list, for example the United States–United Kingdom (1816–1904) and France–Russia (1816–90) rivalries.

The differences are more dramatic in comparing the dispute density and historically derived lists (see also Rasler and Thompson 1998a for a comparison). Virtually all the enduring rivalries identified in the COW lists appear on the Rasler and Thompson list, although they do not converge on the starting and ending dates. Yet the Rasler and Thompson list includes approximately 10 major power rivalries that are not found on the COW list. Rasler and Thompson might be criticized for including virtually all major-power combinations in which the two states have some opposing interests. Thus, to a great extent, their list of rivalries is related to one derived by simple dyadic combinations of all states with overlapping memberships in the major-power subsystem (Small and Singer 1982), with some concessions to political alignments. The reasons for the discrepancies are hard to determine and then assess, given that we do not yet have a full explication of coding procedures and criteria used for the historically derived lists.

## A New Operational Definition of Rivalry

In devising our own operational definition of rivalry, we are influenced by both the strengths and the pitfalls of previous approaches. With this in mind, our general approach to measurement is characterized by several elements. First, we identify rivalries according to their propensity for military conflict. This is

not to say that we do not recognize that rivalries cannot have other, less violent manifestations. Rather, our theoretical concern in this book with military conflict (its origins, repetition, escalation, and resolution) leads us to concentrate on militarized disputes and specify militarized competitiveness as an essential component of rivalries. Accordingly, we consider only militarized rivalries and are essentially concerned with those rivalries during the time of militarization, that is, from the onset of that militarization to the final acts involving military force. In this way, our approach is similar to that of Hensel (1996) and much of the rivalry literature for its focus on military force.

With a focus on militarized rivalries, we are therefore drawn, like many of our colleagues, to the Correlates of War Project data set on militarized interstate disputes (Gochman and Maoz 1984; Jones, Bremer, and Singer 1996). Our position is that militarized relationships signify overt and direct military conflict, not merely the hypothesized probability of it. In principle, but almost never in practice, deterrence policies utilized by both sides could result in no overt military conflict. We consider slight the risk (to researchers) that deterrence will completely suppress overt conflict. A more serious concern is that the MID data set the level of severity too high (i.e., we miss some military rivalries). This would be an argument for using events data collections that include data on less severe actions. Our impression is that this is also not a serious problem, at least in terms of identifying rivalries. It may become much more critical when it comes to deciding on beginning and end points of rivalries.

The COW data set now includes all disputes with at least one recognized nation-state (Small and Singer 1982) on each side of the dispute and meeting the threshold for militarization: "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). A total of 2,042 conflict incidents meet these criteria and form the basis for helping us identify when rivalries occur and how severe they become.[8]

Thus far, our approach is quite similar to those of our predecessors. Yet several other characteristics of our approach differ considerably from past efforts. The second characteristic of our measurement approach is the inductive method of identifying and classifying rivalries. Most previous approaches made some a priori designation of dispute frequency for the occurrence of an enduring rivalry (e.g., three or five militarized disputes). The logic behind these choices was often quite vague, with little sense of what theoretical principles

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[8]The maintainers of the MID 2.1 data set have made minor modifications of that data set over time without changing the version number. This means that not all official MID 2.1 data sets are identical. Although most of these changes are minor, they do pose a problem for replication. The MID 2.1 data set we used is available on this book's web site—see appendix A for details—along with all the data used in the analyses in this book. We note, in passing, that even using exactly the same data in the "same" analysis will not guarantee exactly the same results reported here. Different statistical packages do things differently, and there are also bugs in hard- and software.

guided these choices, and there was certainly no suggestion that actual empirical patterns in conflict were used to distinguish enduring from other rivalries. We will consider those empirical patterns as a guide to understanding how conflict patterns are empirically manifested.

Although we adopt an inductive approach, our method of identifying rivalries is not "barefoot empiricism." As a guide, we rely heavily on the theoretical components that comprise rivalries. Thus, the third characteristic of our measurement approach is to rely on time-density of militarized disputes to identify rivalries and distinguish between them. This is consistent with our specification of time and militarized competitiveness as components of the rivalry concept. Militarized competition is signified not only by the presence of militarized disputes between states, but also by the frequency of those disputes. The time element is the basis under which competitive actions are connected to, or differentiated from, each other. That is, those conflict events closer in time are said to be connected (or may be part of the same rivalry), whereas those more distant in time are thought to be part of different competitions or rivalries. Put still another way, the time element is also a mechanism to help us construct termination criteria for rivalries; rivalries without the outward manifestations of a violent conflict behavior are said to be ended after a period of time has elapsed. The final characteristic of our approach is to focus on dyadic rivalries for the reasons discussed above in the section on spatial consistency (e.g., separable decision-making, desire to assess interconnections between rivalries, etc.) and because even among rivalries that overlap there is always some conflict behavior that is unique to the dyad (i.e., different rivalries never involve exactly the same set of disputes).

With these general principles in mind, we move to identifying a population of rivalries over the 1816–1992 period (the domain of the data). Following this, we can divide the rivalry continuum into several segments and in the next chapter begin an empirical description of rivalries. Disputes that occur within 10 to 15 years of each other are considered to be part of the same rivalry. A dispute is considered part of the same rivalry if it involves the same two states and occurs within 11 years of the first dispute of the sequence, 12 years after the second dispute, up to 15 years after the fifth dispute. This is consistent with extant data-based definitions of (enduring) rivalries and the notion that after a rivalry is well established, it needs fewer disputes to sustain itself (Diehl 1985a).

In order to identify rivalries, we took all possible combinations of states involved in a given dispute on the opposite sides of one another (for example, the Cuban Missile Crisis is a part of both the U.S.–Soviet Union rivalry and the U.S.–Cuba rivalry). The general assumption is that all states on one side of a multilateral dispute have a rivalry with all states on the other side. Nevertheless, this is not always the case. The most common occurrence of the problem is in multilateral wars in which states may formally declare war (e.g., Brazil in World War II) but never really join the fight against the enemy (e.g., Bulgaria).

Hence, we examined multilateral disputes in which there was more than one state on *each* side of the dispute. The coding rule is that there must have been direct interaction or intent for interaction between the two sides. This may have been facilitated by an ally—for example, the United States transporting Australian troops to Korea. We eliminated those dyads in which there was no clear contact between two states in a multilateral coalition (considerations of contiguity and the length of relative participation in the dispute, and consultation of historical narratives assisted in these decisions). We also eliminated pairs of states that were involved on opposite sides of the same dispute, but with no temporal overlap in participation (i.e., one disputant exits the dispute before the other enters). Generally, these cases involved World War I, World War II, the Korean War, and the Persian Gulf War. All total, we identified 1,166 rivalries, and these data are publicly available (see appendix A). These new data provide the empirical core of the rivalry approach. Instead of analyzing issues of war and peace with crises, disputes, or event data, we make use of rivalry data.

## Defining Enduring Rivalries

Although many of our analyses utilize all rivalries, and indeed we are critical of an exclusive focus on enduring rivalries, it is necessary to differentiate rivalries for several reasons. First, we hope to contrast enduring rivalries with other types of rivalries in several analyses to show the distinguishing features of those phenomena, but it is also essential to test various propositions, including those related to the democratic peace in chapter 6. Second, the latter half of this book is devoted to enduring rivalries (although we again use other types of rivalries as control or comparison groups). Thus, we need some basis for differentiating enduring from other types of rivalries.

Above, we sought roughly to distinguish three types of rivalries—isolated, proto, and enduring—along the rivalry continuum. These three types of rivalries were primarily distinguished by their duration. But, more generally, we can distinguish rivalries on two dimensions: duration and dispute occurrence. These correspond to two facets of the rivalry concept: time and militarized competitiveness, respectively.

As we noted above, no definition of enduring rivalries provides a true theoretical rationale for its operationalization. In contrast, we have emphasized that rivalries lie on a continuum from short to enduring. Yet, like other researchers, we find enduring rivalries of particular interest. Hence, we need a method for identifying these rivalries, which form the focus of part 2 of this book. Although the rivalry continuum is smooth in a theoretical sense, empirically the distribution of rivalries along this continuum may be uneven. Our procedure, then, consists of examining the duration and dispute occurrence of our 1,166 rivalries and looking for empirical breakpoints to define isolated, proto-, and enduring rivalries. Tables 2.2 and 2.3 show rivalries by their dispute propensity and duration.

TABLE 2.2: Rivalries by Dispute Propensity, 1816–1992

| Number of Disputes | Number of Rivalries | Mean Duration | Median Duration |
|---|---|---|---|
| 1 | 678 | 0.63 | 0.16 |
| 2 | 202 | 3.43 | 2.46 |
| 3 | 101 | 5.86 | 4.39 |
| 4 | 54 | 9.96 | 8.34 |
| 5 | 33 | 14.89 | 11.44 |
| 6 | 25 | 17.80 | 17.81 |
| 7 | 10 | 17.70 | 15.19 |
| 8 | 11 | 22.90 | 22.57 |
| 9 | 8 | 29.06 | 32.74 |
| 10 | 6 | 26.21 | 29.97 |
| 11 | 5 | 26.21 | 19.05 |
| 12 | 3 | 39.87 | 45.01 |
| 13 | 3 | 23.53 | 24.44 |
| 14 | 4 | 31.77 | 32.31 |
| 15 | 2 | 30.39 | 30.39 |
| 16 | 2 | 22.44 | 22.44 |
| 17 | 4 | 48.83 | 52.26 |
| 18 | 3 | 53.38 | 45.97 |
| 20 | 2 | 41.31 | 41.31 |
| 21 | 1 | 64.12 | 64.12 |
| 22 | 1 | 36.55 | 36.55 |
| 24 | 1 | 22.89 | 22.89 |
| 34 | 1 | 84.90 | 84.90 |
| 36 | 1 | 41.05 | 41.05 |
| 40 | 1 | 43.95 | 43.95 |
| 43 | 1 | 89.58 | 89.58 |
| 45 | 1 | 38.23 | 38.23 |
| 50 | 1 | 124.08 | 124.08 |
| 53 | 1 | 39.91 | 39.91 |
| Total | 1,166 | 4.78 | 0.72 |

Most apparent is that over 75 percent of rivalries involve only one or two militarized disputes. Furthermore, most of these rivalries end within three years of onset. This type of rivalry allows virtually no "history" to have an impact, given that there are few confrontations that set the tone and pace of the rivalry, and given that the rivalry is over before firm expectations have a chance to set in. Whereas one- and two-dispute rivalries are relatively common, there is a significant drop in the number of rivalries that involve three disputes. There is also a jump in the average duration (whether calculated by mean or median) by almost 80 percent at that juncture as well (see table 2.2). The ability to distinguish rivalries by their duration at the lower end of the scale is less obvious. Most of the rivalries in the one-, two-, and three-dispute categories last less than eight years. Based on these patterns, we decided to rely on dispute frequency

alone and designate any rivalry with one or two disputes as one of the "isolated" variety. These are conflicts of short duration and low dispute frequency, and not much pull of the past or push of the future is associated with them.

Having defined isolated rivalries, we now must distinguish between proto- and enduring rivalries among the remaining almost three hundred rivalries that involve three disputes or more. Turning again to the empirical patterns, there are several clear breakpoints in the data. First, the average duration jumps over 50 percent at the six-dispute threshold; the mean duration stabilizes there at around 18 years until the next dramatic jump at approximately eight-dispute rivalries. Second, the number of rivalries falls significantly through the five-, six-, and seven-dispute categories, with few rivalries ultimately having more than 17 militarized disputes between them (about 1 percent). Third, the mean number of disputes increases significantly with rivalries that have a duration of 22 years or greater (see table 2.3).

Extant definitions of enduring rivalries have tended to use a standard of five or six disputes as a cutoff point to distinguish enduring rivalries from other types of rivalries or conflict relationships. There is often some reference to a 15-, 20-, or 25-year time frame as well.[9] Our division of rivalries into proto and enduring categories must be based on concern for both the frequency and duration of disputes. An enduring rivalry is one with an established history and an expectation of future conflict. Those are achieved by a combination of dispute interactions and the passage of time in conflict. In light of our own empirical observations, it appears that the cutoff for enduring rivalries should fall between the five- and seven-dispute levels if one goes only by conflict frequency and between 20- and 25-year duration levels if one goes by the time element alone.

Keeping both past definitions (especially the COW set of definitions) and our own empirical observations in mind, we have decided to define as enduring rivalries any of those rivalries that involve six disputes or more *and* last for at least 20 years. The six-dispute minimum ensures that states have reached a significant level of military competition (the severity or seriousness part of enduring rivalry). The 20-year time ensures that the competition is indeed enduring, and therefore the conflicts are not bunched together in a narrow time frame. Indeed, most rivalries with six or more disputes last 20 or more years, and longer rivalries tend to have more than the minimum number of disputes. Only 16 rivalries meet the duration criteria but not the dispute threshold, and indeed many fall more than one dispute short of the six necessary to qualify as an enduring rivalry. Considerably more (35) meet the dispute threshold but not the duration one. Yet, several of these are competitions that had brief, but very intense, hostile interactions. Still others are cases "censored" by the data end

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[9]Of course, prior definitions of enduring rivalries used an older version of the militarized dispute data set, which included significantly fewer disputes overall, and most definitions were not based on actual empirical patterns.

TABLE 2.3: Rivalries by Duration, 1816–1992

| Duration in Years | Mean Number of Disputes | Median Number of Disputes | Number of Rivalries |
|---|---|---|---|
| 1 | 1.06 | 1.00 | 609 |
| 2 | 1.80 | 2.00 | 87 |
| 3 | 1.80 | 2.00 | 86 |
| 4 | 2.28 | 2.00 | 72 |
| 5 | 2.42 | 2.00 | 43 |
| 6 | 2.66 | 2.00 | 38 |
| 7 | 2.73 | 3.00 | 22 |
| 8 | 3.59 | 3.00 | 17 |
| 9 | 3.36 | 2.50 | 14 |
| 10 | 3.44 | 3.00 | 18 |
| 11 | 4.24 | 4.00 | 17 |
| 12 | 4.63 | 4.00 | 19 |
| 13 | 5.50 | 5.00 | 4 |
| 14 | 3.50 | 3.50 | 6 |
| 15 | 4.64 | 4.00 | 11 |
| 16 | 6.50 | 6.50 | 2 |
| 17 | 4.75 | 5.00 | 4 |
| 18 | 7.00 | 6.00 | 9 |
| 19 | 8.50 | 8.50 | 4 |
| 20 | 8.00 | 5.00 | 5 |
| 21 | 4.80 | 5.00 | 5 |
| 22 | 5.17 | 5.00 | 6 |
| 23 | 10.75 | 7.00 | 4 |
| 24 | 6.60 | 7.00 | 5 |
| 25 | 7.93 | 6.00 | 14 |
| 30 | 11.79 | 9.00 | 24 |
| 40 | 20.69 | 17.00 | 13 |
| 50 | 16.75 | 17.00 | 4 |
| 78 | 42.33 | 43.00 | 3 |
| 80 | 18.00 | 18.00 | 1 |

in 1992, for which there has not been the opportunity for a full 20 years to pass; a good number of the 13 censored cases could eventually become enduring rivalries, although cases such as Zambia–South Africa are just as likely to end without reaching enduring status.

Thus, operationally, isolated rivalries are those that experience two or fewer disputes (by definition, these will be less than 11 years in duration, given how disputes are connected to one another in rivalries), and enduring rivalries are those that experience at least six disputes and do so in a time period lasting at least 20 years. Those rivalries not fitting in either category comprise the middle of the rivalry continuum and are therefore considered proto-rivalries.

The initiation date has not been the topic of much discussion in debates about the conceptualization of enduring rivalries. The standard procedure takes the first day of the first militarized dispute as the beginning. As we mentioned

above, this takes as the initiation the first act that passes the minimum threshold (the dashed horizontal line in figure 2.1), which varies from one definition to another. Our position is that the beginning of the first dispute is the first "clinical sign" that the rivalry has started. It is quite possible that the relationship was militarized before this date, particularly if the first dispute is a war. Instead of coding a precise (day and month) date, we consider the rivalry to have potentially begun before this date. We continue to use the date of the first dispute for some purposes (for example, it was used to generate the data in tables 2.2 and 2.3) but for other purposes (see chapter 11) we consider that the rivalry may have begun before this date.

Analogous considerations determine our end dates. For descriptive purposes such as the tables above we use the last date of mutual participation in the last dispute.[10] We identify the last militarized dispute in the rivalry sequence, and the conclusion of that dispute signals the beginning of the period in which rivalry termination occurred. Generally, we consider rivalries ending somewhere between the date of the last dispute and approximately 10 years after that. As with the initiation, the end of the last dispute is the last clear signal that the relationship is militarized.

Determining exact dates of termination (and analogously of initiation) is akin to asking when someone was cured of cancer. One is reasonably certain about the cure only after a certain period of time with no symptoms, and a recurrence becomes less and less likely only after the passage of time. In such cases, one cannot say that the cancer was cured at any particular date. Similarly, the end dates of rivalries are important, but difficult to observe with exactitude. Formal agreements may apparently signal the end of a rivalry, but later events may prove otherwise. Sometimes the formal treaty symbolizes changes that have already taken place a few years before. Nevertheless, one should not misunderstand the problems with post hoc judgments. Viewing things post hoc does not mean that the coding decisions are wrong, but that we only really know post hoc. We may only know that cancer surgery succeeds some time after it is all over.

For our analyses of enduring rivalry initiation and termination we do not need precise dates because our key dependent variables—political shocks— also cannot be pinned down to a specific day or month. Hence we consider it more accurate to consider that initiation and termination occur over a period, and avoid the fallacy of misplaced accuracy in trying to fix a specific day or month to these events.

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[10]If this happens to be a multilateral dispute, we take the earliest termination date of the two rivals, which may be before the end of the whole dispute. In other words, a given rival may continue in that multilateral dispute with other countries.

## Caveats and Limitations

We do not have a monopoly on virtue when it comes to generating a list of rivalries. Indeed, we favor a modified pluralistic approach with respect to operational definitions. Certainly operational definitions of enduring and other rivalries must be systematic, be based on strong conceptual grounds, and have good face validity. Yet it is not inherently undesirable for scholars to begin with different definitions or lists. If there is a convergence of findings across multiple studies using somewhat different definitions, we have greater confidence in their robustness than in findings based on a single definition of enduring or other rivalries.

We recognize that our operational definition is open to a number of criticisms. Most simply, some of the enduring rivalries do not have face validity for what scholars would regard as the most serious international competitions; the United States–Haiti rivalry is cited as an example (Rasler and Thompson 1998a, 1998b). Although we acknowledge than any list of rivalries (and any other phenomenon for that matter) is likely to have an anomaly or two, one should not confound the severity dimension of rivalries with the duration dimension. Not all enduring rivalries are more serious than lesser rivalries. Some enduring rivalries may operate at lower levels or involve less than grand geopolitical issues, such as the United States–Haiti one. This should not eliminate them from a list of enduring rivalries, but rather should allow us to question why (assuming that empirical patterns bear this out) that such rivalries persist at lower levels of severity. And there are many potential answers—power asymmetry, lower salience issues—to such a question.

More serious are the critiques that center on our imprecision in designating beginning and ending dates for the rivalries (Rasler and Thompson 1998a, 1998b; Bennett 1997b). We readily admit that by focusing on the first and last dispute in the rivalry sequence, we run the risks of truncation and censoring in determining the origins and termination of rivalries. And indeed, different end dates for rivalries can have significant impact on empirical results, as Bennett (1997b) has demonstrated. Yet as our discussion above indicates, we have serious problems with assigning any one date to the beginning or end of a rivalry and assiduously avoid analyses in this book that require such a fixed point. Furthermore, it is not reassuring that the historical approaches of Huth, Bennett, and Gelpi (1992) and Rasler and Thompson (1998a, 1998b) are so divergent on their beginning and ending dates, even when they identify the same rivalries. Comparing their efforts to those of Bennett (1993, 1996, 1997b, 1998), who systematically codes end dates for enduring rivalries, does not produce any greater convergence. Although theoretically we have difficulty in identifying rivalry beginning and end dates, these comparisons suggest that no easy empirical solution is available, even if one does suspend those concerns.

Finally, Rasler and Thompson (1998a, 1998b) allege the problem of endogeneity, namely that rivalry data that are identified by the frequency of militarized disputes may then be used to explain the frequency of those same disputes. This, of course, ignores that there is a temporal dimension to rivalry identification and that it is not merely a matter of dispute frequency. Nevertheless, this is a serious charge that correctly points out the problems if scholars attempt to make circular arguments. Yet we are unaware of such efforts. Except for one analysis in chapter 3, in which we look at the frequency of disputes in different rivalry contexts (and even then we do an alternate analysis to control for endogeneity), we do not use rivalry context to explain dispute frequency. Indeed, we know of no previous research that does. More commonly, rivalry contexts are the objects of analysis, not independent variables. Although we may seek to explain certain characteristics of rivalry, the analyses contained herein are not contaminated by the definitional criteria.

## Conclusion

In the introduction we stressed that the rivalry approach had significant implications for data, testing, and theory. This arises from changing the focus of conflict research from war and dispute to militarized rivalry. At the core of the rivalry approach lies the concept of a militarized rivalry. Actual hypothesis testing requires data on rivalries. This chapter thus lays the theoretical and empirical foundations for the rivalry approach. We have defined the rivalry concept along three dimensions: (1) spatial consistency, (2) duration, and (3) militarized competition. We created a data set of 1,166 rivalries of all sorts. Of course, enduring rivalries especially interest us and others. Instead of arbitrary criteria, we defined enduring rivalries based on natural breakpoints in the empirical distribution of rivalries. The rivalry concept and data developed here form the basis for all the chapters to come.