NORMATIVE AND STRUCTURAL CAUSES OF DEMOCRATIC PEACE, 1946-1986

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Democratic states are in general about as conflict- and war-prone as nondemocracies, but democracies have rarely clashed with one another in violent conflict. We first show that democracy, as well as other factors, accounts for the relative lack of conflict. Then we examine two explanatory models. The normative model suggests that democracies do not fight each other because norms of compromise and cooperation prevent their conflicts of interest from escalating into violent clashes. The structural model asserts that complex political mobilization processes impose institutional constraints on the leaders of two democracies confronting each other to make violent conflict unfeasible. Using different data sets of international conflict and a multiplicity of indicators, we find that (1) democracy, in and of itself, has a consistent and robust negative effect on the likelihood of conflict or escalation in a dyad; (2) both the normative and structural models are supported by the data; and (3) support for the normative model is more robust and consistent.

Recognition of the *democratic-peace* result is probably one of the most significant nontrivial products of the scientific study of world politics. It may also be the basis of far more important insights into the workings of the international political world in modern times (Levy 1988; Ray 1992, chap. 6; Russett 1990, chap. 5). This result consists of two parts of equal importance: (1) democratic states are in general about as conflict- and war-prone as nondemocracies; and (2) over the last two centuries, democracies have rarely clashed with one another in violent or potentially violent conflict and (by some reasonable criteria) have virtually never fought one another in a full-scale international war.

Beyond the extraordinary convergence of research results that confirm that "democracies rarely fight each other" (see Maoz and Abdolali 1989 and Russett 1993 for reviews), there is, more importantly, significant evidence that this finding is causally meaningful. There is something in the internal makeup of democratic states that prevents them from fighting one another *despite the fact that they are not less conflict-prone than nondemocracies*. Attempts to attribute this result to factors other than the democratic system of the states revealed that the relationship between democracy and peace is probably not a spurious one (Bremer 1992; Maoz and Russett 1992). Disputes between democracies are far less likely than expected when compared with disputes between rich, rapidly growing, noncontiguous, and allied states.

The robustness of this result and its theoretical and practical significance call for a deeper inquiry into the causes of democratic peace. Specifically, a better understanding is required of the causal mechanism explaining simultaneously both the democratic-peace phenomenon and the lack of difference between democracies and nondemocracies in terms of their overall conflict proneness. This study continues and extends a number of inquiries on democratic peace by addressing the following questions: (1) Does the degree of democratization of a dyad, in addition to the effort of other factors, reduce its likelihood to engage in conflict? (2) What specific factors in the politics and norms of democratic societies prevent them from fighting one another? (3) Why is it that the same factors that prevent democracies from fighting one another fail to reduce the general rate of conflict involvement of democratic states?

We shall outline two principal explanations that have been invoked to account for the democratic-peace phenomenon, derive the logical and empirical implications of each of these explanations, and test the deduced propositions on the contemporary international system.

THEORETICAL CONSIDERATIONS

The empirical findings on the democratic-peace proposition present us with a seeming paradox, because there appears to be a contradiction between its two parts. This requires that any explanation of the democratic-peace phenomenon must simultaneously account for two observations that connect democratic political systems to international conflict. Any explanation that accounts for only one observation is incomplete and hence cannot be acceptable theoretically.

We will examine herein only two of the many possible explanations of these two observations. We regard these as the most general and potentially powerful explanations of the democratic-peace result. We label these two explanations as the normative and structural models of democratic peace.

The Normative Model

Elements of this model can be traced back to political thinkers such as Immanuel Kant and Woodrow Wilson; it is also represented by such modern scholars as Doyle (1986). It is based on two basic assumptions.

NORMATIVE ASSUMPTION 1. *States, to the extent possible, externalize the norms of behavior that are developed within and characterize their domestic political processes and institutions.*

NORMATIVE ASSUMPTION 2. *The anarchic nature of international politics implies that a clash between democratic and nondemocratic norms is dominated by the latter, rather than by the former.*

Assumption 1 suggests that different norms of domestic political conduct will be expressed in terms of different patterns of international behavior. Democratic regimes are based on political norms that emphasize regulated political competition through peaceful means. Winning does not require elimination of the opponent, and losing does not prohibit the loser from trying again. Political conflicts in democracies are resolved through compromise rather than through elimination of opponents. This norm allows for an atmosphere of "live and let live" that results in a fundamental sense of stability at the personal, communal, and national level. We term these *democratic norms*.

In contrast, political competition in nondemocratic regimes is likely to be more zero-sum in terms of the conception of the parties and in its consequences. The winner may take all, denying the loser the power or opportunity to rise again. Political conflicts in nondemocratic regimes are more likely to be conducted and resolved through violence and coercion. This norm creates an atmosphere of mistrust and fear within and outside the government. Stability may be maintained only in the absence of an overt and effective political opposition. This is the essence of *nondemocratic norms*.

Assumption 2 deals with the limits of the ability to apply certain norms in an anarchic international system. In such a system, states put their survival above any other value they seek to promote. If states come to believe that their application of domestically developed democratic norms would endanger their survival, they will act in accordance with the norms established by their rival. Democratic norms could be more easily exploited than could nondemocratic ones. Hence democracies are more likely to shift norms when confronted by a nondemocratic rival than is the nondemocratic rival to shift to democratic norms of international conduct.[1]

It follows that when two democracies confront one another in conflicts of interest, they are able effectively to apply democratic norms in their interaction, thereby preventing most conflicts from escalating to a militarized level, involving the threat, display, or use of military force, and—of course—from going to all-out war. However, when a democratic state confronts a nondemocratic one, it may be forced to adapt to the norms of international conduct of the latter lest it be exploited or eliminated by the nondemocratic state that takes advantage of the inherent moderation of democracies.

A conflict between nondemocracies would be dominated by the norm of forceful conduct and by both parties' efforts to resolve the conflict through a decisive outcome and elimination of the opponent. Thus, conflicts between nondemocracies are more likely to escalate into war than are conflicts between a democratic and nondemocratic state.

In disputes between democracies, however, the expectation that conflicts can be settled peacefully, by compromise, lowers the relative benefit to be achieved from violence. Dependence on democratic norms tips rational cost–benefit calculations toward further support of those norms. Empirically, disputes between democracies are more likely to be settled by third-party conflict management, by agreement or stalemate (rather than an imposed solution), and by strategies of reciprocation (Dixon 1993; Leng 1993).

Political culture and political norms constitute images that a state transmits to its external environment. One of the most important images that a democratic state can communicate to its environment is a sense of political stability. Likewise, instability conveys images linked with nondemocratic states. We elsewhere specify just why instability or the perception of instability may work to encourage the use of force by an unstable regime or to identify an unstable regime as the object for the exercise of the use of force (Huth and Russett 1993; Maoz 1989; Maoz and Russett 1992).

Perceptions of instability may be based on the recency and immaturity of experience with democratic processes and norms; a new democracy will not yet have developed wide experience in practices of democratic conflict resolution. Perceptions of instability may also be based on a high degree of violent opposition to the democratic government; a democracy under seige of domestic terrorism, insurgency, or civil war is one in which the ostensible norms of peaceful conflict resolution simply are not working well. To the degree that the practice of democratic forms of government is very recent, subject to violent domestic challenge, or incomplete, it may be imperfectly constrained by the norms of democratic government that are supposed to keep conflict nonviolent. Or uncertainty about the commitment to democratic norms by a state with which one has a conflict of interest may lead to perceptions and expectations that it will practice those norms imperfectly.

The Structural Model

This model was discussed by modern students of international conflict (e.g., Bueno de Mesquita and Lalman 1992; Rummel 1979, vol. 4; Rummel 1983; and Small and Singer 1976).[2] It rests upon the following assumptions:

STRUCTURAL ASSUMPTION 1. *International challenges require political leaders to mobilize domestic support to their policies. Such support must be mobilized from those groups that provide the leadership the kind of legitimacy that is required for international action.*

STRUCTURAL ASSUMPTION 2. *Shortcuts to political mobilization of relevant political support can be accomplished only in situations that can be appropriately described as emergencies.*

International action in a democratic political system requires the mobilization of both general public opinion and of a variety of institutions that make up the system of government, such as the legislature, the political bureaucracies, and key interest groups. This implies that very few goals could be presented to justify fighting wars in democracies. It also implies that the process of national mobilization for war in democracies is both difficult and cumbersome. On the other hand, in nondemocratic societies, once the support of the key legitimizing groups is secured, the government can launch its policy with little regard to public opinion or for due political process. Because, in many cases, the legitimizing groups may benefit from the use of force in foreign affairs, the leadership may feel little restraint in its dealings with other states.

This set of assumptions implies, therefore, that due to the complexity of the democratic process and the requirement of securing a broad base of support for risky policies, democratic leaders are reluctant to wage wars, except in cases wherein war seems a necessity or when the war aims are seen as justifying the mobilization costs. The time required for a democratic state to prepare for war is far longer than for nondemocracies. Thus, in a conflict between democracies, by the time the two states are militarily ready for war, diplomats have the opportunity to find a nonmilitary solution to the conflict.

Conflicts between a democracy and a nondemocracy, however, are driven by the lack of structural constraints on the mobilization and escalation process of the latter. The democratic state finds itself in a no-choice situation. Leaders are forced to find ways to circumvent the due political process. Thus, in such a conflict, the nondemocracy imposes on the democratic political system emergency conditions enabling the government to rally support rather rapidly.

Conflicts between nondemocratic systems are, by the same token, likely to escalate because both leaderships operate under relatively few structural constraints. The failure of initial efforts to find a peaceful solution may result in a rapid flare-up of the conflict into a violent level.

Comparing the Models

These two explanations are not mutually exclusive. They do emphasize, however, two different facets of democratic politics that are presumably responsible for the democratic-peace phenomenon. The structural model views the constitutional and legal constraints on executive action as a key to understanding how governments act in their international politics. The normative model looks primarily at the effects of norms of domestic political behavior on international politics.

Obviously, it is extremely difficult to distinguish between these models in terms of contradictory predictions. Normative and structural explanations are often not well differentiated conceptually, thus enhancing the difficulties of testing them as alternative hypotheses.[3] For example, both models would claim that the tendency toward conflict decreases with the extent of political participation in a society. The normative model explains this relationship in terms of a correlation between political participation and democratic norms. The structural model explains this relationship in terms of a correlation between political participation and structural constraints on the executive's ability to use force. There may be, however, a number of areas where the models differ in their predictions. Two, in particular, come to mind. First, democratic norms take time to develop. Hence if the normative model is right, then older democracies should be less likely to clash with one another than would newer ones. The structural model would claim that as long as structural constraints operate on the executive, the age of the political regime should not matter. Second, the structural model implies variations between democracies in terms of their conflict behavior. Presidential systems should be less constrained than parliamentary systems, in which the government is far more dependent on the support it gets from the legislature. Coalition governments or minority cabinets are far more constrained than are governments controlled by a single party. On the other hand, the normative model does not expect variation within democratic political systems; despite different structures, they operate within the same normative system.

Before examining the two models, however, it is important to assess the extent to which democracy, relative to other variables, accounts for the conflict involvement patterns of international dyads. For the purpose of such an analysis, we reiterate briefly the factors that have been variously mentioned as potential causes of democratic peace, outside of the realm of democracy.

OTHER POTENTIAL CAUSES

Three other potential causes of democratic peace should be considered.[4] First, rich states do not fight one another because they have far more to lose than to gain by doing so. Rich states are often engaged in heavy trading with one another. The costs of a war would be enormous and the benefits would be little. Since most democracies in the post–World War II era were economically developed states, it was their economic structure, rather than their type of political system, that prevented them from fighting one another.

Second, rapidly growing states would harm them-

selves by engaging in conflict against other rapidly growing states—again, because conflict and war would harm the economic benefits associated with growth. Fighting other rapidly growing states is both more costly and risks reversing the positive economic-growth pattern. Most democracies experienced rapid economic growth and for that reason refrained from conflict with each other.

Third, most democracies in the post–World War II era have been in some sort of a direct or indirect alliance with one another.[5] These alliance bonds, rather than their political system, prevented them from fighting one another.

In addition to these factors, we examine the potentially confounding effects of geographic contiguity and military capability ratios on dyadic conflict involvement. These factors are included because they have been found to be highly potent predictors of conflict escalation (Bremer 1992; Geller and Jones 1991; and Siverson 1991).

RESEARCH DESIGN

The normative–cultural and the structural–institutional models suggest several testable hypotheses. In addition, multivariate statistical analysis allows assessment of how far each of various influences other than type of political system (e.g., contiguity, wealth, economic growth, alliance, and military capability ratio) affects conflict. Critical tests allow for a competitive and simultaneous assessment of the relative power of the two models. We test these hypotheses:

HYPOTHESIS 1. *The more democratic are both members of a pair of states, the less likely it is that militarized disputes break out between them, and the less likely it is that any disputes that do break out will escalate. This effect will operate independently of other dyadic attributes (e.g., wealth, economic growth, contiguity, alliance, capability ratio).*

HYPOTHESIS 2 (NORMATIVE MODEL). *The more deeply rooted are democratic norms in the political processes operating in two states, the lower the likelihood that disputes will break out or that disputes will escalate.*

HYPOTHESIS 3 (STRUCTURAL MODEL) *The higher the political constraints on the executives of the two states, the lower the likelihood that disputes will break out or that disputes will escalate.*

Spatial–Temporal Domain

We look at pairs of independent states in the world during the period 1946–86, in essence, at the Cold War era. This era is appropriate for three reasons. First, although a score or more of democracies existed in the first half of the twentieth century, the number of pairs of democratic states was three times as large in the later era.

Second, as a "nice" generalization at least partly context-dependent, the role of democracy in restraining violent conflict between democratic dyads may have been stronger in the past half-century than earlier (Most and Starr 1989). Democratic norms have become deeply entrenched, since many states have been democracies for long periods and principles such as true universal suffrage have been put into practice. Similarly, many countries' democratic institutions have been reinforced over time. Continuity of democracy in a state encourages its partners in foreign affairs to perceive it as stably democratic. The experience of three world "wars" (World War I, World War II, and the Cold War)—each characterized by both rhetoric and some reality as a conflict of democracies against authoritarian states—helped build normative principles that democracies ought not to fight among themselves.

Third, many influences put forward as confounding and contributing to the phenomenon of peace between democratic states were much more prominent after World War II. The post-1945 era brought unprecedented global wealth and growth, and the alliance system was far wider and more durable than any that preceded it. Thus a more complex test of the basic hypothesis becomes possible—a test designed to display the power of competing hypotheses. Moreover, data on economic levels and growth rates are much more reliable and widespread for the past half-century than before.

Our unit of analysis is the dyad-year; we look at each pair of countries in each year to see whether they engaged in any kind of militarized dispute. Over the period 1946–86 the international system averaged about 110 countries per year, which would give us roughly 265,000 dyad-years to study. But the vast majority are nearly irrelevant. The countries comprising them were too far apart and too weak militarily, with few serious interests potentially in conflict, for them plausibly to engage in any militarized diplomatic dispute. Contiguity and major-power involvement are the two most important static factors accounting for the likelihood of war between any pair of states (Bremer 1992). If we limit the analysis to pairs of states that are directly or indirectly contiguous or in which one member is a major power (*contiguity* and *major power* will be defined), we have a total of 36,162 dyad-years, with disputes occurring in 714 of them by the Militarized Interstate Dispute (MID) data set or 448 by the International Crisis Behavior (ICB) data set.[6]

Some disputes do, of course, arise between "implausible" pairs, as between a minor European power like Belgium or the Netherlands and a former colony or the case of distant collective security action, as in Korea and Vietnam. In dropping all but about 12% of total dyad-years, the list of plausible pairs nevertheless retains 74% of disputes in the MID data set and 80% in the ICB one. In the more comprehensive MID data it picks up 78% of all the disputes that democracies engaged in with anyone and all but one of the 15 disputes between democracies. Thus we are fairly confident that no major case-selection biases exist in favor of the hypothesis, and the refined "universe" of politically relevant dyads is theoretically appropriate.

Data and Measurement

We want to explain patterns of conflict. The conflict data are from two different data sets, compiled for somewhat different analytical purposes and using different definitions. That allows us to establish whether our conclusions remain consistent over different measures of the concepts. The more robust the results are to such changes (in measures of independent variables, as well as conflict), the more confidence we can have in the generalization.

Dependent Variables. One data set is the MID data from the Correlates of War (COW) project. These data were derived from a set developed for the period 1816–1976 (Gochman and Maoz 1984). They were updated to 1986 by Maoz and compared (with a nearly perfect match) to a list produced by Daniel M. Jones of the University of Michigan. A MID is defined as "a set of interactions between or among states involving threats to use military force, displays of military force, or actual uses of force. To be included, these acts must be explicit, overt, nonaccidental, and government sanctioned" (Gochman and Maoz 1984, 586). The MID data lists the starting and ending date for each dispute and the states that participated on each side. A dispute with three states on one side and four on the other makes 12 dispute dyads. We use the data in two forms. First, we identify each dyad-year dichotomously as having some kind of dispute or none. In doing so, we include both disputes begun any time in this year and ongoing disputes that continued into this year from a previous one. This variable is labeled *dispute involvement*. Second, we record the highest level of hostility reached by either member of the dyad in that year, using the Gochman–Maoz five-level scale of hostility.[7] This is termed *dispute escalation*.

The other set of conflict data is that collected by the ICB project (Brecher and Wilkenfeld 1989; Brecher, Wilkenfeld, and Moser 1988). Its compilers define an international crisis as "a situational change characterized by an increase in the intensity of disruptive interaction between two or more adversaries, with a high probability of military hostilities. . . . The higher-than-normal conflictual interactions destabilize the existing relationships of the adversaries and pose a challenge to the existing structure of an international system—global, dominant, and/or subsystem" (Brecher and Wilkenfeld 1989, p 5). Levels of hostility for international crises are the same as for disputes.

The two data sets are not strongly related. Due to different definitions and criteria, among politically relevant dyads there are 959 with MID conflicts begun or underway, only 260 (27%) of which were identified by the ICB data set. This is not surprising, given the latter's concern with "a high probability of military hostilities" and the likelihood that many MIDs neither carried (nor, often as symbolic acts in a bargaining process, were they always intended to carry) great likelihood of escalating to actual violence. It is also true, however, that out of the 359 politically relevant crisis dyads identified by ICB listing, only 260 (72%) are found in the MID data. This is not to imply that either set is inaccurate; rather, there is sufficient variability in case identification to enable us to use the two data sets as a check on the robustness of our results.

Independent Variables: Democracy. Our foremost independent variable is of course form of government, or "regime." Our chief source of data here is developed from the Polity II data (Gurr, Jaggers, and Moore 1989). It updates and extends data collected earlier (Gurr 1974) based on the regime classification of Eckstein and Gurr (1975). We defined the type of regime as follows. First, we identified the level of authority of a political system as a combination of (1) competitiveness of political participation, (2) regulation of participation, (3) competitiveness of executive recruitment, (4) openness of executive recruitment, and (5) constraints on the chief executive, following Gurr, Jaggers, and Moore 1989. Their aggregation of these dimensions produced one 11-point scale for the level of democracy (DEM) and another for autocracy (AUT) (pp. 36–39).

Second, because the Eckstein–Gurr conception is not linear, a state can have mixed characteristics; some features may be democratic at the same time that others are highly autocratic. Indeed, in the Polity II data set the correlations are negative and high, but far from perfect.[8] Therefore, we created a *continuous* index taking into account both democratic and autocratic features—and also the level of power concentration, which reflects how far the state authorities exercised effective control over their constituents. This measure of power concentration (PCON) is also an 11-point scale from 0 to 10 (Gurr, Jaggers, and Moore 1989, 39–40). The regime index (REG) then is defined as REG = PCON(DEM − AUT), with a possible range from −100 (most authoritarian) to +100 (most democratic). Toward the extremes, these judgments are not problematic, but around zero the regime characteristics are not clearly defined. Either democratic and authoritarian features may cancel each other out if a state scores fairly high on both, or the power concentration score may be so low that even if the regime is predominantly democratic or authoritarian the characteristics cannot effectively express themselves. This situation is common in highly unstable political systems or in systems undergoing rapid change. Though more recent than these codings, conditions in the Soviet Union in 1990–92 offer a good example.

Then, we needed to convert the individual scores into a joint democratization one because our analysis requires a dyadic characterization of regime type. The joint measure (JOINREG) must reflect two things simultaneously, namely, How democratic or undemocratic are the members of the dyad? and How different or similar in their regime types are the two states? Our measure is

$$\text{JOINREG} = \frac{\text{REG}_h + \text{REG}_l}{\text{REG}_h - \text{REG}_l + 1},$$

where REG_h is the regime score of the member with the higher score and REG_l that of the lower-scoring member.[9]

We also needed an alternative measure, transforming the continuous regime score into a *discrete* (dichotomous) regime type. Some common hypotheses say that the more democratic both members of the pair, the less likely they will become embroiled in a militarized dispute, but others simply posit a difference in conflict behavior between different regime categories. Moreover, our continuous index is generated by an arithmetic operation performed on ordinal variables. Since the ordinal variables (DEM, AUT, PCON) are probably not linear within categories, the overall index may be only crudely reliable—across certain ranges but not for specific values (e.g., between states scoring 35 and 50).

We use a threshold of +30 as the lower limit for democracies and categorize all states with scores from −25 onward as authoritarian. (States scoring between these two points, with a mixture of democratic and authoritarian characteristics or a low concentration of power, are termed anocratic; see Gurr 1974; Maoz and Abdolali 1989.) With the simple categorization of each regime as democratic or not (combining autocratic and anocratic), we have a dichotomous variable of democratic–democratic pairs and all others, consistent with the hypothesis that democratic pairs are different from all other kinds of pairs. Virtually all previous empirical studies investigating the relationship between democracy and international conflict have employed some threshold for establishing categories of regime types (e.g., Bremer 1992; Chan 1984; Doyle 1986; Maoz and Abdolali 1989; Morgan and Campbell 1991; Morgan and Schwebach 1992; Rummel 1983; Small and Singer 1976; Weede 1984). We innovate in using the continuous version.

Whether in continuous form or as dichotomized, we prefer our multidimensional regime index to the Gurr–Jagger–Moore 11-point index employed in other studies. In the 1946–86 era, 338 nation-years (nearly 22% of all democratic nation-years) would have been characterized as democratic on the Gurr index of democracy alone (ignoring his autocracy scale) but not on our multidimensional index. Some major cases lack face validity. For example, Gurr's democracy score for Rhodesia was 7 for 1965–78, as was South Africa's for the entire period; on our scale, both received 16, well below the democracy threshold of 30. India had a Gurr score of 9 during the 1975–79 period of emergency rule limiting fundamental democratic rights, whereas it scored only 27 (slightly below the threshold) on our index.

We created an alternative measure from data of Arthur Banks (1986) included in the Polity II data set. We identified democratic states as those in which both legislature and executive were selected in a competitive election and in which the legislature was at least partially effective. This simpler categorization is less fully documented than Gurr's. The two are moderately correlated, suggesting, as with the two conflict data sets, that each measures a similar concept but with enough difference to provide a good test for robustness.[10]

Degree of Institutional Constraints. To distinguish between the two models for explaining the rarity of conflict between democracies, we used several key attributes identified by Gurr and his associates (Eckstein and Gurr 1975; Gurr, Jaggers, and Moore 1989). We constructed a multifaceted measure from related but distinguishable elements, in which an executive is considered to be subject to the least restraint when able to operate by "one-man rule," without institutionalized constraint, in a centralized political system in which the government exerts a wide scope of control over economic and social life.

Degree of "one-man rule" (*monocratism*) ranges on a five-point ordinal scale from states where it prevails to "those in which some kind of assent is required, whether by especially prestigious minorities . . . numerical majorities, or virtually all of them" (Eckstein and Gurr 1975, 375). *Degree of executive constraint* represents the extent to which the executive must abide by clear and distinguishable rules—institutionalized constraints—while making policy decisions, whether the chief executive be an individual or collectivity, measured on a seven-point ordinal scale. *Centralization* distinguishes between unitary and federal political systems, on a three-point ordinal scale. As Gurr, Jaggers, and Moore point out: "Federal polities have greater complexity of Conformation than do centralized polities. Opportunities for participation also tend to be higher in federal systems, and regional units of government potentially are more responsive to local inputs than are centralized governments" (1989, 21). Federalism is probably not as severe a constraint on foreign policy as on domestic policy, but even on foreign policy it somewhat restricts the ability to mobilize economic and political resources rapidly in the event of a serious international dispute. It also provides an institutionalized base from which regional political leaders can challenge government policy. *Scope of government actions* "refers to the extent to which all levels of government combined—national, regional, and local—attempt to regulate and organize the economic and social life of the citizens and subjects." It is measured on a seven-point scale from *totalitarian*, or those governments that "directly organize and control almost all aspects of social and political life," to *minimal*, or those whose operations are largely or wholely limited to such core functions as maintenance of internal security and administration of justice" (pp. 21–22).

These four measures are summed over their categories to produce an overall scale of institutional constraints ranging from 4 (a totalitarian system lacking any form of constraint) to 22 (a highly constrained political system in which the government must go through a long, complex, and uncertain political

process to invoke national action). As with regime type, we divided the scale into three levels (4–10, 11–15, and 16–25) and for a dichotomized variable defined *high constraint* as 16 and above. This measure is related to, but makes substantial differentiations from, the measure of democracy, suggesting that we can validly use it as an independent measure to test the structural explanation.[11] Democracies exhibiting low constraint include the French Fifth Republic under Charles DeGaulle and Georges Pompidou, Venezuela after the 1958 overthrow of the military dictatorship, and Argentina under the elected government of the Perons in 1973–75. Nondemocratic governments operating under rather high constraint include Pakistan shortly after independence, Indonesia into 1956, and several Middle Eastern states in the 1950s (King Hussein's Jordan being the clearest example).

Democratic Norms. The extent to which some norms of democratic behavior have become accepted in a political regime may not be closely related to states' political structures. For example, a system may lack a democratic institutional structure yet be widely regarded by its citizens as politically legitimate; such a regime would require little overt oppression of opposition in ways obviously violating democratic norms. On the other hand, a democratic government undergoing violent insurgency and a fundamental crisis of legitimacy may resort to political and military oppression in the name of maintaining public order and, indeed, of maintaining democratic institutions.

We employ two related but distinct ways of measuring the extent to which democratic or other kind of norms operate in a society. The first is through the concept of political stability. It is based on the notion that it takes time for norms to develop. A society that undergoes fundamental change requires a considerable period of time to develop norms of political conduct and for the citizens to internalize those norms and become accustomed to them. The longer a given political system or regime exists in a society without fundamental change, the more likely that norms of political conduct, whether democratic or nondemocratic, will form and influence the foreign policy codes of conduct of the regime.

We can then measure the prevalence of political norms in a society as the persistence of its political regime in years (Gurr 1974). By this conception, democracies that are highly stable (i.e., have kept their fundamental political structure for a long time) are said to be more influenced by democratic norms than democracies that have existed only a short while. Conflicts between stable democracies should thus be far less common than conflicts between democracies in which one (or, worse, both) are unstable. Note that our stability measure is not fully distinct from structures. It can also be an institutional constraint in the limited sense than an unstable democracy is subject to overthrow, releasing the institutional constraints on leaders. Also, we are measuring the duration of political institutions more directly than the norms that support them. Nonetheless, this measure still seems separable from the indices we introduced to measure the strength and breadth of institutions.

An alternative procedure for measuring democratic norms relies directly on the level of violent internal social and political conflict. All states experience some degree of social conflict. The difference between states where democratic norms prevail and states where they do not, however, is twofold. First, in democracies these conflicts are predominantly nonviolent; both challengers and defenders of the status quo usually find peaceful avenues for expressing their differences. In nondemocratic systems conflicts are likely to take on violent forms because most forms of peaceful protest are forbidden. Second, in a democracy, the government rarely needs to use force to resolve conflicts; order can be maintained without violent suppression. But in nondemocracies, order is often maintained by overt state violence. Democratic norms are tested in times of political unrest and instability.

Therefore, we measure democratic norms by the amount of political violence within a state. Two types of measures are used: deaths from political violence and extent of domestic conflict. First, from data reported by Taylor and Jodice (1983), we use two related indicators: the number of deaths from political violence indicates the general level of domestic violence in a state, and the number of political executions indicates the degree of regime-initiated violence. The definition of democratic norms is the average number of deaths from domestic political violence (or the average number of political executions) over the last five years per state, averaged over the dyad. Specifically,

$$\text{Pol Deaths} = \frac{1}{2}\sum_{j=1}^{2}\frac{\sum_{t=0}^{-4}\text{POLDTHS}_{jt}}{5},$$

where t is a given year and j is an index of the member of the dyad.[12] For a dichotomized variable, the scale is divided at the mean.

Second, the COPDAB domestic data set (Azar 1980) contains information about both conflictual and cooperative political events within states. These events are placed on a 14-point scale. Scores 1–7 represent high-to-low cooperation, a score of 8 represents neutral actions, and scores 9–14 represent low-to-high conflict. Since the unit of analysis in the COPDAB data set is an event, we first had to aggregate the scale values for each of the conflictual and the cooperative events separately over the each year.[13] The measure of conflictual events was similar to that of political deaths. Specifically,

$$\text{Conf Event} = \frac{1}{2}\sum_{i=1}^{2}\frac{\sum_{t=-5}^{0}(\text{SumConf}_{it} - \text{SumCoop}_{it})}{5},$$

where SumConf and SumCoop are, in a given year, the weighted sums of conflictual and cooperative events, respectively. Here again, the joint conflict event measure is an average, over both states, of the mean level of net conflict in each state over the last five years.

Wealth. Average levels of income were rising over the period, so we needed a measure of relative rather than absolute wealth. Since the standard economic data are delineated in U.S. dollars, we simply used the cross-national estimates (Summers and Heston 1988) as a baseline for each year. The income data produced a continuous dyadic measure computed in the same way as that for regimes (JOINREG).

Economic Growth. Economic growth is the percentage change in a state's gross domestic product (in constant 1980 prices) from one year to the next, computed as the average growth rate over the three years preceding the first year.[14]

Alliance. Alliance data have been compiled as part of the COW project (Singer and Small 1968), to which we added a category for indirect alliance with the United States. An indirect alliance occurs where two states which have no direct alliance with each other are each allied individually with another. Weede (1983) reasons that restraints imposed by the "hegemon" may moderate disputes between indirectly linked states. We use a dichotomous break between any direct or indirect alliance and none.[15]

Contiguity. Here too we used a revised version of a COW data set listing several degrees of contiguity, to which we added colonial contiguity for cases where one state bordered another's colony or trusteeship.[16] Conceptually, contiguity is meant to identify states with the capability and possible reason for fighting each other, so our sample also includes all dyads containing a major power with the ability to exert military force beyond immediately contiguous states. We identified the United States, United Kingdom, France, and the Soviet Union as major powers and (perhaps more arguably) followed the COW designation of China as a major power from 1950 onward. This procedure is close to that used by Weede (1983) to test for conflict only among "strategically interdependent" dyads. The major difference is our inclusion of France and Britain to pick up their many postcolonial conflicts. We make a dichotomous break between any kind of contiguity and the noncontiguous dyads including a great power.

Military Capability Ratio. Are two states with similar capabilities more likely to dispute with each other than are states whose economic and military capabilities are very disparate? This question, vigorously debated without clear resolution, may confound this analysis. Power disparity represents one final control variable. We use the widely employed COW military capability index (Singer, Bremer, and Stuckey 1972). In effect, that composite index weights about equally (two separate indices for each) military forces in being, economic strength, and demography, suggesting both capacity for winning a short war with existing military forces and long-term capacity for waging a war of attrition. It only imperfectly reflects the perception or reality of military power (Russett and Starr 1992, 145–46) but is adequate here as an interval measure of the ratio of the capability score of the stronger state to the weaker.

Data Analysis Methods

Data analysis was done in three steps. The first step was designed to perform a multivariate analysis of the various factors that may support the hypothesis that the democratic-peace phenomenon is spurious. This is a replication and extension of earlier analyses we conducted (Maoz and Russett 1992). The second step in the analysis was to examine jointly the structural and normative models of democratic peace.[17] If one of the models were supported consistently while the other were rejected consistently, no critical testing would be required. But since both models received some empirical support, we moved to a third analysis with a critical test.

Design-related Problems

Use of the dyad-year involves a statistical problem in that a particular dyad's conflict status is not independent from one year to the next. It is complicated by the fact that in this analysis we treat a continuing conflict as present in each year, not just when it began—as, of course, continuing peace is counted for each year. More generally, the nonindependence inflates the apparent sample for statistical testing, lowering the threshold for a relationship to be considered significant.

Sensitivity checks indicate that our treatment of continuing conflicts does not materially change the results. In any case, using the dyad-year is unavoidable, given that states' political systems and other variables typically change frequently during the 40-year period; aggregation of the differences into a single value for the period would be meaningless. Moreover, realist theory itself implies that events are inherently interdependent because the structure of the system, rather than preferences of decision makers, "dictates" decisions on conflict and war. Consequently, a decision by one state to engage in conflict with another alters the structural constraints on other states, and the other's set of feasible actions is changed.[18]

The research design is a pooled time-series analysis. Many of the diagnostics appropriate to such analysis using multiple regression are unavailable when the dependent variable is dichotomous or ordinal; the necessary computing power is lacking. There is no easy way to know whether and to what extent results are biased by heteroscedasticity and autocorrelation. The realist variables (notably conti-

guity and capability ratio) and wealth are quite stable over time, introducing autocorrelation. One of the indirect ways of estimating the degree of autocorrelation is also problematic because the skewed nature of the dependent variable (i.e., the very low ratio of conflict to nonconflict years for each dyad) also introduces autocorrelation.

In order to redress this problem at least partially, we conducted a set of tests. First, we sorted our data set by dyad by year. Then we computed a lagged dichotomous conflict variable. Next we ran all of our logistic regressions twice—once with the lagged conflict variable included and once without it. In most of the cases and as we had suspected, the lagged conflict variable had a significant positive effect on the likelihood of conflict (both in the MID data set and in the ICB data set). However, the sign, magnitude, and significance level of the parameter estimates of all other variables in the equations did not change significantly in the case with the lagged conflict, compared to the case without the lagged conflict. This led us to conclude that the autocorrelation problem, though valid, does not have a major biasing effect on the results.[19]

RESULTS

We start by examining the effect of several variables that potentially confound the relationship between democracy and peace on dyadic conflict involvement and conflict escalation, along with the democracy variable. This test of hypothesis 1 is shown in Table 1. Table 1 shows the effect of the independent variables, measured in continuous terms (with exception of alliance and contiguity), on the dependent variables. Tests with dichotomized measures of democracy give similar or stronger results and need not be shown. In the upper half, the dependent variable is defined as the presence or absence of a dispute (crisis) between a pair of states at a given year. In the lower half, the dependent variable is defined as a five-point ordinal scale with 0 representing no dispute crisis and 4 representing a full-scale war.[20] The multiple dependent variables and the different measurement scales of the independent variables serve as a way of assessing the stability of the results and their robustness. Analyses performed on the same dependent variables using the Banks measure of democracy yielded consistently similar results.

Hypothesis 1 is—with some exceptions—supported by the data. In the MID data both the continuous version of democracy and the dichotomous one (not shown in Table 1) have a significant effect on conflict involvement. In the TCB data the continuous version of democracy is not significant, but the dichotomous version (not shown) is consistently related to crisis involvement. Among the confounding variables, almost all are related to both the MID measures of conflict and the ICB measures. The results for dispute or crisis escalation are nearly identical to those obtained for conflict involvement. The level of democratization has a significant main effect on dispute escalation, and when dichotomized, on crisis escalation even when we control for potentially confounding variables. Democracies are less likely to escalate disputes against other democracies than are states that have other types of political systems.

TABLE 1

Effects of Joint Democracy and Potentially Confounding Factors on Conflict Involvement and Escalation

INDEPENDENT VARIABLE	MILITARIZED DISPUTES[a]	INTERNATIONAL CRISES[b]
	Effect on Conflict Involvement	
Democracy	−.004 (.002)**	−.002 (.003)
Wealth	−.022 (.008)**	−.040 (.016)*
Growth	−.107 (.021)**	−.133 (.032)**
Alliance	−.517 (.105)**	−.339 (.165)*
Contiguity	1.419 (.108)**	1.964 (.190)**
Capability ratio	−.007 (.001)**	−.002 (.001)**
	Effect on Conflict Escalation	
Democracy	−.004 (.002)*	−.001 (.003)
Wealth	−.022 (.008)**	−.040 (.016)*
Growth	−.111 (.021)**	−.139 (.031)**
Alliance	−.522 (.105)**	−.336 (.164)*
Contiguity	1.417 (.108)**	1.962 (.190)**
Capability ratio	−.007 (.001)**	−.002 (.001)*

Note: N = 19,020. Entries are unstandardized parameter estimates in logistic regression equations; standard errors are in parentheses. Gamma is a measure of the difference between the observed and expected values throughout the analysis, appropriate for a priori prediction of monotonic relationships (Hildebrand, Laing, and Rosenthal 1977).
[a]Gamma = .54.
[b]Gamma = .59.
*$p < .05$.
**$p < .01$.

Taken together, these findings corroborate our bivariate results (Maoz and Russett 1992). Not surprisingly, power relationships make a big difference. Great disparities in power sharply discourage the expression of diplomatic disputes in any militarized form. Contiguity also matters, with its power-related emphasis on capability, as well as on the possibility of incentive for dispute. But the other variables also make a significant difference in almost every instance. The multivariate analysis also corroborates Bremer's (1992) findings regarding alliance effects on dispute involvement and dispute escalation. It appears that while the bivariate relationship between alliance and conflict is positive (Maoz and Russett 1992), after controlling for other relevant variables, allied parties are less likely to fight each other than would be expected by chance alone.

All the theories competing with that about democracy find solid support. Nevertheless, a strong, independent, and fairly robust role for joint democracy remains evident. In the ICB data democracy in continuous form is not significant, but the dichotomous version (democracy/nondemocracy) is. A strong relationship is apparent in the MID data in both contin-

TABLE 2

Effects of Joint Democracy and Potentially Confounding Factors on Conflict Involvement

	NORMS MEASURED BY STABILITY		NORMS MEASURED BY EXECUTIONS	
INDEP. VAR.	MILITARIZED DISPUTES	INTERNATIONAL CRISES	MILITARIZED DISPUTES	INTERNATIONAL CRISES
Political stability	−.053 (.013)**	−.111 (.031)**	—	—
Political executions	—	—	.272 (.044)**	.162 (.065)**
Institutional constraints	−.021 (.004)**	−.026 (.007)**	−.016 (.004)**	−.031 (.007)**
Wealth	−.022 (.007)**	−.034 (.015)*	−.018 (.007)**	−.024 (.014)
Capability ratio	−.009 (.001)**	−.002 (.001)**	−.008 (.001)**	−.002 (.001)**
Alliance	−.483 (.108)**	−.237 (.174)	−.570 (.114)**	−.365 (.182)*
Contiguity	1.225 (.104)**	1.846 (.188)**	1.176 (.108)**	1.747 (.193)**
Gamma	.54	.61	.54	.58
Number of cases	18,762		17,317	

Note: Entries are unstandardized parameter estimates in logistic regression equations; standard errors are in parentheses.
*$p < .05$.
**$p < .01$.

uous and dichotomous form; the more democratic each member of the dyad, the less likely is conflict. The phenomenon of democratic peace is real, not spurious.

We tested a large number of interaction effects between sets of variables. In the interest of brevity, we do not report these terms in the tables. In most of the analyses, interaction effects were not statistically significant. This applies to interactions between pairs of potentially confounding variables, as well as to interactions between each one of the confounding variables and democracy.

Given these findings, we can meaningfully assess the extent to which each of the two models discussed withstands an empirical test. Table 2 shows the effects of democratic norms (defined once in terms of political stability and once in terms of political executions) and institutional constraints on conflict occurrence. Equations for escalation produced almost identical results and need not be shown. The table reports only a summary of the runs we conducted in this set of analyses. Other tests with similar results included the use of alternative indicators of democratic norms (e.g., deaths from political violence, or level of domestic conflict from COPDAB).[21] Both models seem to be supported by the data. When defined as continuous variables, both institutional constraints and democratic norms reduce national conflict involvement and conflict escalation. Here, too, the relationship is generally robust: it holds *across conflict data sets* and is invariant to definitions of the independent variables. The effects of both norms and institutional constraints on conflict involvement and conflict escalation hold fairly consistently *even when we control for the potentially confounding factors* that have been mentioned by other theories as nonregime causes of democratic peace. However, when institutional constraints and democratic norms are dichotomized (low and high constraints, not shown in the table), the relationship between institutional constraints and

FIGURE 1

Critical and Noncritical Cases from the Perspective of the Normative and Structural Models of Democratic Peace

Case #	Dyad's Attributes		Prediction of Normative Model	Prediction of Structural Model	Type of Case
	Level of Democratic Norms	Level of Political Constraints			
1	Low	Low	Conflict	Conflict	Noncritical
2	Low	High	Conflict	Low Conflict	Critical
3	High	Low	Low Conflict	Conflict	Critical
4	High	High	No Conflict	No Conflict	Noncritical

dispute involvement and dispute escalation ceases to be statistically significant.

This initial bit of evidence suggests that institutional constraints may not be as good an explanation for the lack of conflict between democracies as are democratic norms. However, this is not sufficient for determining that the structural model of democratic peace is outperformed by the normative model. We must move to the critical test.

The critical test examines the differences in the probabilities of conflict in the cases denoted by Figure 1, rows 2–3 (low level of norms with high level of political constraints, vice versa). If the probability of conflict in the case denoted by row 2 is significantly lower than the probability of conflict in the case denoted by row 3, then the structural model is judged superior to the normative one. If the reverse, then the normative model can be said to provide a superior account of the data. Should the difference between them not be statistically significant, then the critical test would be inconclusive.

We also control for democracy in each of the two critical cases to examine whether, beyond the explanation of the model itself, some interaction of political constraints or political stability with democracy takes place. Both models imply that the relationship between political constraints/democratic norms and conflict behavior is independent of whether the states are democracies. If this does not hold and the introduction of democracy significantly alters the relationship between the independent and the dependent variables, then one can argue that the relationship of the critical variable derived from a specific model is spurious.

In order to enable a focused analysis of which model provides a better account of the data in critical cases, we conducted a set of log-linear analyses of the dichotomized versions of the independent variables (stability, executions, and the COPDAB domestic conflict data), using multiple indicators of democratic norms. We first do our analyses only with measures of norms and institutional constraints as independent variables; then we control for democracy (dichotomized) to see if it made a separate contribution.

Table 3 provides the parameter estimates from these analyses. This table shows that generally speaking, the normative model is related to the log odds first for conflict and then for war involvement in all of the cases and with all three measures of political norms. In the table as a whole, the normative constraints are significant in all but two of the 24 cells, whereas institutional constraints are significant in the correct (negative) direction in a minority (11 cells). Controlling for regime type eliminates many of the previously significant parameter estimates of political constraints, but not those for norms, and democracy itself is always significant, even in the crisis (ICB) column.

The relationship of the structural model to conflict occurrence is not nearly as robust as the normative results. Institutional constraints do prevent escalation to war, but they do not prevent states from entering into lower-level disputes—engaging in the kind of lower-level bargaining behavior that conveys toughness and commitment.[22] They may in fact encourage it so long as each side knows that its adversary will be tightly constrained from escalating the dispute all the way up to war. Normative restraints, on the other hand, help to prevent even the emergence of conflicts. Insofar as democracies only rarely engage in

TABLE 3

The Effects of Democratic Norms, Institutional Constraint, and Regime Type on Conflict Involvement and War Involvement

INDEPENDENT VARIABLE	MILITARIZED DISPUTES	INTERNATIONAL CRISES
	Effects on Conflict Involvement	
Stability	−.401 (.058)**	−.525 (.110)**
Constraint	−.211 (.051)**	−.223 (.089)**
Executions	.416 (.041)**	.391 (.068)**
Constraint	−.089 (.056)	−.108 (.095)
Domestic conflict	.178 (.045)**	.191 (.079)**
Constraint	−.100 (.058)	−.129 (.105)
	Conflict Involvement, Controlling for Regime Type	
Stability	−.306 (.058)**	−.437 (.110)**
Constraint	.013 (.052)	−.025 (.091)
Democracy	−.985 (.128)**	−.900 (.215)**
Executions	.339 (.041)**	.322 (.068)**
Constraint	.124 (.057)*	−.087 (.097)
Democracy	−1.031 (.146)**	−.864 (.218)**
Domestic conflict	.131 (.044)**	.146 (.079)
Constraint	.109 (.059)	−.077 (.107)
Democracy	−1.037 (.157)**	−1.010 (.300)**
	Effects on War Involvement	
Stability	−1.528 (.503)**	−.709 (.231)**
Constraint	−.977 (.293)**	−.739 (.231)**
Executions	.715 (.127)**	.426 (.118)**
Constraint	−.795 (.298)**	−.591 (.236)**
Domestic conflict	.511 (.156)**	.245 (.149)
Constraint	−.674 (.299)*	−.667 (.300)*
	War Involvement, Controlling for Regime Type	
Stability	−1.504 (.503)**	−.665 (.230)**
Constraint	−.790 (.293)**	−.508 (.230)*
Democracy	−4.750**	−4.927**
Executions	.657 (.126)**	.364 (.116)**
Constraint	−.585 (.295)*	−.335 (.233)
Democracy	−4.716**	−4.991**
Domestic conflict	1.054 (.155)**	1.314 (.149)**
Constraint	−.468 (.297)	−.429 (.299)
Democracy	−4.926**	−4.968**

Note: N = 26,129 (stability); 22,870 (executions); and 16,254 (domestic conflict). Entries are unstandardized parameter estimates in log-linear regression equations; standard errors are in parentheses except where standard error cannot be estimated due to zero value in one category of the dependent variable. Chi-squared statistics are infinite.

*$p < .05$.

**$p < .01$.

TABLE 4

Critical Test of the Effects of Democratic Norms, Institutional Constraints, and Regime Type on Conflict Involvement

MEASURE OF DEMOCRATIC NORMS	COMBINATIONS OF INDEPENDENT VARIABLES	PROBABILITY OF DISPUTES	PROBABILITY OF CRISES
Stability (N = 26,129)	Low norms, high constr.	2.89%	.95%
	High norms, low constr.	2.11%	.56%
Z-score		−2.07**	−1.87**
Executions (N = 22,870)	Low norms, high constr.	5.71%	1.95%
	High norms, low constr.	2.27%	.82%
Z-score		−3.76**	−2.08**
Domestic conflict (N = 16,262)	Low norms, high constr.	3.96%	1.20%
	High norms, low constr.	1.97%	.38%
Z-score		−5.37**	−4.51**
		Controlling for Regime Type	
Stability			
Not both democracies (N = 22,292)	Low norms, high constr.	3.82%	1.29%
	High norms, low constr.	2.16%	.58%
Z-score		−3.56**	−2.68**
Both democracies (N = 3,837)	Low norms, high constr.	.95%	.03%
	High norms, low constr.	.00%	.00%
Z-score		−3.32**	−1.73*
Executions			
Not both democracies (N = 19,577)	Low norms, high constr.	5.91%	2.12%
	High norms, low constr.	2.48%	.89%
Z-score		−3.58**	−2.08**
Both democracies (N = 3,293)	Low norms, high constr.	.25%	.00%
	High norms, low constr.	.00%	.00%
Z-score		−1.01	—
Domestic conflict			
Not both democracies (N = 14,345)	Low norms, high constr.	3.31%	.64%
	High norms, low constr.	4.10%	1.24%
Z-score		1.34	2.16**
Both democracies (N = 1,917)	Low norms, high constr.	.85%	.15%
	High norms, low constr.	.00%	.00%
Z-score		−3.33**	−1.42

Note: Z-scores represent a difference of proportions test. Negative scores imply that the normative model provides a better explanation than does the structural model; positive scores imply that the structural model provides the superior explanation.
*$p < .05$.
**$p < .01$.

such conflicts, normative restraints seem to deserve the greater credit.

Tables 4 and 5 use information from the Table 3 analyses in the critical test format, to give a sense of how the models perform. The bottoms of the tables also show what happens when the joint regime type for each dyad is controlled for. Columns 1 and 2 in each table represent the occurrence of conflicts and the occurrence of war, respectively. For simplicity, we omit the individual cells and show just the standardized estimates of effects.

Table 4 shows the differences in the probabilities of conflict involvement in the critical cases, and Table 5 does the same for war. They compare the frequency of involvement (both dispute and crisis data) by pairs of states with the combination of low normative constraints and high institutional ones versus high normative and low institutional. They strengthen the previous impression regarding the relative superiority of the normative explanation over the structural–institutional one. In 16 of the 30 separate tests in the two tables, the probability of involvement when the level of democratic norms is high and the level of political constraints is low is significantly below the probability of involvement in the reverse case (with only one test significantly the other way). As before and as expected, the difference almost always appears for conflict involvement in general, much less often for war involvement. The bottom of Table 4, controlling for regime type, shows clearly that three different measures of democratic political norms usually significantly reduce the probability of conflict in dyads, even when the institutional constraints on the regimes are low and even when at least one member of the dyad is not democratic.

These results suggest that the normative model

TABLE 5

Critical Test of the Effects of Democratic Norms, Institutional Constraints, and Regime Type on War Involvement

MEASURE OF DEMOCRATIC NORMS	COMBINATIONS OF INDEPENDENT VARIABLES	PROBABILITY OF DISPUTES	PROBABILITY OF CRISES
Stability (N = 26,129)	Low norms, high constr.	.08%	.14%
	High norms, low constr.	.03%	.15%
Z-score		−.96	.09
Executions (N = 22,870)	Low norms, high constr.	.15%	.20%
	High norms, low constr.	.20%	.30%
Z-score		.35	.58
Domestic conflict (N = 16,262)	Low norms, high constr.	.56%	.42%
	High norms, low constr.	.00%	.00%
Z-score		−6.18*	−5.30*
		Not Both Democracies	
Stability (N = 22,292)	Low norms, high constr.	.12%	.21%
	High norms, low constr.	.03%	.15%
Z-score		−1.21	−.49
Executions (N = 19,577)	Low norms, high constr.	.16%	.00%
	High norms, low constr.	.22%	.00%
Z-score		.38	—
Domestic conflict (N = 14,345)	Low norms, high constr.	.58%	.09%
	High norms, low constr.	.00%	.00%
Z-score		−6.18*	−2.45*

Note: Z-scores represent a difference-of-proportions test. Negative scores imply that the normative model provides a better explanation than does the structural model; positive scores imply that the structural model provides the superior explanation. There are no entries for effects on war involvement between democracies because there were no such wars.
*$p < .01$.

provides a more robust and consistent fit to the data than the structural one. The former model has a consistent relationship with both conflict occurrence and war occurrence, almost irrespective of the specific measure of democratic norms used, whereas the latter model sometimes provides a significant relationship, but often not. Moreover, in the critical situations (when one model suggests high levels of conflict and the other suggests low levels of conflict), the predictions of the normative model are more consistent with the data.

CONCLUSION

We have offered a comprehensive analysis of potential explanations of the democratic-peace phenomenon. We draw four conclusions:

1. The democratic peace phenomenon, that is, the relative lack of conflict and complete absence of war between democracies, is probably not a spurious correlation. When controlling for other potentially confounding factors, regime type has a consistent dampening effect on international conflict.
2. These results are robust. They usually hold regardless of the conflict data set used, the definition of the dependent variable, and the scale and type of measure of democracy. This increases our confidence in the substantive results.
3. Both political constraints and democratic norms provide reasonably good explanations of why democracies rarely fight each other.
4. However, the relationship between institutional constraints and measures of dispute and war occurrence is not as robust as the relationship between measures of democratic norms and the dependent variables. This suggests that the normative model may be a better overall account of the democratic-peace phenomenon than the structural model.

Both the fact that the democratic-peace phenomenon is causally meaningful and the fact that we are beginning to move toward a substantive understanding of its causes carry important theoretical implications. First, they suggest that domestic political processes and structures significantly affect state behavior and that these effects are quite generalizable. Second, they provide strong evidence that the strict top–down or outside–in models developed by system theorists are in deep trouble.

In terms of processes operating in the present interstate system, this result suggests that to the extent that norms and institutions take time to develop, newly created democracies in Eastern Europe and elsewhere may still experience some significant amount of interstate conflict while their political systems are in the process of transition to democracy. But the process of global democratization may carry long-term prospects of international stability that arises not out of the missile launchers but out of

popular control of governments and of norms of peaceful resolution of political conflicts associated with democratic political systems.

It is possible that major features of the international system can be socially constructed from the bottom up; that is, norms and rules of behavior internationally become extensions of the norms and rules of domestic political behavior. When many states are ruled autocratically (as they were at the Peace of Westphalia and throughout virtually all of history since then), playing by the rules of autocracy may be the only way for any state—democracy or not—to survive in Hobbesian international anarchy. But if enough states become stably democratic—as may be happening in the 1990s—then the possibility emerges of reconstructing the norms and rules of the international system to reflect those of democracies. A system created by autocracies may be recreated by a critical mass of democratic states.

Notes

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1. Axelrod's (1984, 1986) work on the evolution of cooperation and the evolution of norms suggests that norms of behavior are dependent upon the environment in which they are applied. If a conditionally cooperative strategy such as tit-for-tat is confronted by a noncooperative strategy, it would confront the latter on its own noncooperative ground. In fact, short of teaching cooperation to "meanies"—which takes a long time—noncooperative strategies typically force cooperative strategies to become noncooperative. See also Behr 1980; Dacey and Pendegraft 1988.

2. Other writers (e.g., Rummel 1979, vol. 4; Rummel 1983) include elements of both the normative and structural models. Lake (1992) theorizes that any structurally constrained state should be less warlike and imperialistic. His argument should apply to various strong structural constraints by central or federal institutions, whether the state is democratic or not.

3. One inconclusive effort to test them in the modern system is Morgan and Schwebach 1992; on other political systems, see Ember, Ember, and Russett 1992; Russett and Antholis 1992.

4. For a more elaborate discussion of the presumed relationship between these three factors and democratic peace, see Maoz and Russett 1992.

5. An indirect alliance refers to a case where states A and C do not have an alliance with one another but both are aligned to state B. The inclusion of indirect alliance as a constraint on war stems from the structural realists' arguments that states with a common enemy tend not to fight one another (e.g., Mearsheimer 1990, 50–51).

6. In the analysis, the actual number of cases is often much lower due to missing data for some variables and years.

7. These levels are *no dispute, threat of force, display of force, use of force,* and *war* (Gochman and Maoz 1984, 587).

8. For the entire 1800–1986 period, the correlation between democracy and autocracy is $r = -.70$, $p < .001$; for the 1946–86 period, $r = -.74$, $p < .001$.

9. Adding 1 prevents division by 0 when the two states have identical scores.

10. $\text{Tau}_b = .48$, gamma = .58; $p < .001$, N = 30,049.

11. Because one of the variables used to produce the institutional constraints index was instrumental in producing the democracy–autocracy index in the original classification (Gurr, Jaggers, and Moore 1989), we expected to find some correlation between the degree of constraints and the degree of democratization. But because other elements also determined both measures, the empirical association is only moderate ($r = .76$, $p < .001$ for the two continuous measures; $\text{Tau}_b = .72$, $p < .001$ for the categorical versions). This allows us to use the two measures in the same analysis without serious problems of multicollinearity. We assessed the validity of this measure by correlating it with Morgan and Campbell's (1991) three separate indicators: method of executive selection, decisional constraints, and degree of political competition. The correlations were tau_c and gamma equal to .46 and .72, .63 and .80, and .51 and .66, respectively, with $p < .001$ and N = 4,472 nation-years.

12. Data are available only for the period 1948–82, restricting the number of years that can be analysed with this measure. These data tend to overreport political violence in democracies and other states in the "center" of the world political system relative to that in nondemocratic and peripheral states (in which information may be suppressed and to which the press gives less attention). Also, highly repressive states are able to prevent much manifestation of antiregime violence. See Duvall and Shamir 1980.

13. Cooperative events were scaled as COOP = 8 eventtype. Conflictual events were added up as CONFLICT = −1(8 − event). This enabled assignment of high cooperative values to the most cooperative events and high conflictual values to highly conflictual events. COPDAB data are available only for 1948–78.

14. Since our economic data cover only the period 1950–84, the dyad years available for analysis with this variable (and for wealth) are fewer than those for which we have conflict data. This variable is responsible for a particularly large number of missing cases due to the temporal averaging of growth levels, which requires three valid annual data points for each state.

15. Revised and updated COW alliance data were provided to us by Allan Ned Sabrosky of Rhodes College. Maoz also updated and refined the COW data from the appendix to Oren 1990.

16. We used these data as reported in Maoz and Russett 1992. The original COW data set ended in 1982; Maoz cleaned and updated it to 1986, then checked it with a parallel cleaning and updating by Charles Gochman (whose data, and a similar typology, are used in Bremer 1992).

17. To the extent that any of the nonregime factors examined in the first stage was found to have significant effect on the probability of dispute in the dyad, this factor was controlled for at this point also. This was done to ascertain that the relationships between any one of the two models and dispute involvement or escalation were not spurious.

18. Bruce Bueno de Mesquita, personal communication, 1992; cf. Bueno de Mesquita and Lalman 1992, 281–82.

19. We thank Christopher Achen for advice on dealing with this problem.

20. Regarding the use of logistic analysis on polychotomous dependent variables, see Fienberg 1980 and Hosmer and Lemonshow 1989. The results in some tables differ slightly from those computed earler and reported by Maoz and Russett in Russett 1993, chap. 4.

21. The growth variable is not included in this set of analyses due to the large number of missing cases that it generates. Specifically, the introduction of the growth measure along with the domestic political conflict or the political-executions variables in one equation reduces the number of dispute dyads by 65%, thereby considerably distorting the distribution of the dependent variable.

22. Another set of analyses was performed using the deaths from political violence as an indicator of democratic norms. This set yielded basically the same results as those shown in the table. The same is true for the results reported in Table 5.

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