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The Third Leg of the Kantian Tripod for Peace: International Organizations and Militarized Disputes, 1950–85

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Immanuel Kant's vision of "perpetual peace," expressed more than two centuries ago, was built on a tripod of complementary influences: (1) "republican constitutions" (in modern parlance, representative democracy) would constrain autocratic caprice in waging war; (2) a "commercial spirit" of trade and economic interdependence would reinforce structural constraints and liberal norms by creating transnational ties that encourage accommodation rather than conflict; and (3) international law (and, in the contemporary era, international organizations), building on an understanding of the legitimate rights of all citizens and of all republics, would provide the moral and legal edifice for the peaceful resolution of conflicts. In Kant's view, it is not simply that each of the three legs of the tripod is useful; each is essential to maintaining the structure of stable peace.[1]

These same elements underlie the structure of practical vision and action erected by the statesmen of Europe following World War II—the third devastating European war in seventy years. Konrad Adenauer, Alcide de Gasperi, Jean Monnet, Robert Schuman, and others were instrumental in creating the peace Europe has enjoyed over the last fifty years. First, they acted to restore and stabilize democratic governments in their countries. Then they created a network of economic interdependence that would make future war among those countries economically irrational. And they moved to embed this in the myriad institutional structures that have emerged, in widened and deepened form, in the European Union (EU). They succeeded in their aims. The absence of war—or even the serious expectation or preparation for war—among members of the EU represents a historic achievement. Furthermore, they demonstrated a liberal institutionalist response to the problem of conflict that can be extended beyond the borders of Europe.

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1. See Kant [1795] 1991; and Doyle 1992.

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In examining the conditions promoting peace during the post–World War II era, we have previously concentrated on the effects of joint democracy and economic interdependence. Both of these elements have a statistically significant and substantively important independent effect on reducing the frequency of militarized disputes between dyads (pairs) of states. The more democratic a pair, and the greater their economic interdependence, the less the likelihood of military conflict. This remains true even after holding constant the influence of other theoretically relevant variables, such as alliance ties, relative power, proximity, wealth, and economic growth.[2] In this article we turn to the third Kantian element, asking whether dense networks of intergovernmental organization (IGO) membership make an additional contribution to the avoidance of serious militarized disputes, separate from or in interaction with joint democracy and economic interdependence. We find that shared memberships in IGOs do make a difference, completing the structure of Kant's tripod. Furthermore, in a preliminary analysis testing for a reverse effect, we also find support for the complementary hypothesis that disputes between states causally affect their readiness to join or remain in IGOs with each other, suggesting a positive feedback system between IGOs and peace.

We focus on IGOs rather than on the far more numerous international nongovernmental organizations (INGOs). Although many of the latter can also be expected to make some direct or indirect contribution to international peace, their memberships consist chiefly of individuals or private organizations rather than states, and their functions are even more diverse than those of IGOs. We prefer to concern ourselves with the possible effect of organizations composed of states directly addressing the responsibilities of states.

The Network of International Organizations

Arguably the first IGO was the Congress system for security in Europe, inaugurated when the Congress of Vienna opened in September 1814 and continued with regular institutionalized consultations among the great powers. It ended with the Congress of Verona in 1822; its successor, the Concert of Europe, lacked any institutional structure. Proposals to establish international organizations to maintain peace are much older, however, going back as far as Pierre Dubois in the thirteenth century.[3] The oldest extant IGO is a functional organization, the Central Commission for the Navigation of the Rhine, which was established in 1815. Although important IGOs were established in the nineteenth century, they are primarily a phenomenon of the twentieth century—especially post–World War II. In this, the spreading network of interna-

2. See Maoz and Russett 1993; Oneal, Oneal, Maoz, and Russett 1996; and Oneal and Russett 1997a. The theoretical linkages between political and market forms of liberalism are also pointed out by Stein 1993, 255; and McMillan 1997, 35.

3. Jacobson 1984, chap. 2.

tional organizations corresponds to the growth and diffusion of democracy and economic interdependence. (Interdependence was higher in the years before World War I than after it, especially among European states, but by the 1970s it had surpassed the earlier peak.) By one common count, IGOs numbered 37 in 1909, 132 in 1956, and 293 in 1990. The last count followed a zenith of 379 in 1985.[4] The decline after 1985 shows that IGOs can cease to exist or become dormant as states' interests change. Nevertheless, most IGOs are fairly stable and long-lived. According to one study, of the 34 IGOs that existed in 1914, 18 were still operating in 1989. The average age of those that disappeared was about twenty years.[5] This is consistent with the requirement that a political actor must have "a claim of institutional coherence and authority" and with a definition of institutions as "persistent and connected sets of rules, formal and informal." [6]

An IGO can be defined as a formal, continuous institution established by treaty or other agreement between governments, long-range in nature, multilateral (the Union of International Associations specifies three or more member states), with a secretariat and more-or-less regular meetings, and an "international legal personality" with legal standing.[7] The system of international organizations can be characterized as decentralized and nonhierarchical and composed of quasi-universal and regional or spatially limited organizations. An organization's purpose or functions may be general or limited to specific economic, social, cultural, political, or security matters. The League of Nations was the first multipurpose quasi-universal intergovernmental organization; in the post–World War II era the universal organizations include the UN proper, various specialized agencies, and other organizations whose members vary to some degree. Switzerland, for example, does not belong to the UN itself but has joined many of the specialized agencies of the UN; the Republic of China (Taiwan) has been replaced in most IGOs by the People's Republic of China (PRC).

The existence of a substantial number of "universal" organizations provides a base for our count of the shared memberships of pairs of states in the postwar period. That is extended in various degrees by memberships in "regional" groupings. For the period of our analysis, 1950–85, the mean number of shared IGOs is 33, with a maximum of 129. The densest network of international organizations is found in Europe (particularly Western Europe), followed at some distance by Latin America. These are, of course, the areas of the world exhibiting the least interstate conflict since World War II. At the other end of the spectrum, some pairs of states are not members of any of the same IGOs. Most notably, this was the case with the United States (and some other countries) and the PRC before 1971.

4. Maddison 1991, 326; and Union of International Associations 1992–93, 1610–11. This provides the basis for long-term comparisons.

5. Cupitt, Whitlock, and Whitlock 1996. Using a broader definition of IGOs that includes "emanations," Shanks, Jacobson, and Kaplan found that of all the IGOs extant in 1981, only 68 percent were still alive in 1992. Shanks, Jacobson, and Kaplan 1996, 599.

6. See March and Olsen 1984; and Keohane 1990.

7. See Feld and Jordan 1994, 10–11; and Archer 1992, 33–37.

Why and How IGOs May Matter

Although the literature on the relation between various types of IGOs and peace, and particular organizations and peace, is vast, aggregate analyses of the effect of a dense network of IGOs on interstate relations are sparse. At the systemic level of analysis, previous research indicates that numerous IGOs are set up during the peaceful periods immediately following major wars; hence, one would see a correlation between IGOs and peace but not necessarily a causal relationship linking IGOs to peace.[8] Another examination found limited evidence for slower rates of increase in the number of IGOs in the international system and subsequent outbreaks of war.[9] One early dyadic study found a positive relationship between dense IGO memberships and the frequency of conflict, but that relationship is apt to be spurious because IGO memberships—like alliances and trade—are to be found predominantly among countries that are geographically proximate.[10] The effect of proximity or contiguity in providing both opportunity and cause for militarized disputes is well known.[11] Other studies show that shared IGO memberships increase the level of cooperation among allied nations.[12]

Before undertaking our dyadic analysis, we need to identify a variety of ways international organizations can promote peaceful relations. IGOs share various functions with other institutions. These functions range from quasi-supranational capabilities for enforcing rules by military action, through facilitating the rational pursuit of self-interest in ways that also serve existing mutual interests (the standard liberal view), to "teaching" a set of norms that may sharply revise actors' preferences and sense of their self-interest.[13]

Many analyses dismiss international organizations as unimportant because they typically lack means of enforcement that are independent of the international distribution of power.[14] But most international organizations, while rarely able to exercise centralized means of coercion, fulfill many other functions of "government" carried on by organizations operating within the "anarchy" of international relations.[15] Relatively decentralized institutions may encourage cooperation by enhancing facilities for consultation, coordination, norm creation, and initiatives by member states to make and enforce cooperative arrangements among themselves. Somewhat more centralized organizations may themselves produce instruments of efficiency, legitimacy, and weak enforcement.[16] Indeed, a close look at various international organizations indicates they may serve any of six functions: coercing norm breakers; mediating among conflicting parties; reducing uncertainty by conveying information;

8. Vasquez 1993, 269ff. See also Jacobson, Reisinger, and Mathers 1986, 156.
9. Domke 1988.
10. Russett 1967, 200.
11. See Siverson and Starr 1991; Goertz and Diehl 1992; Vasquez 1993, chap. 3; and Kocs 1995.
12. See Oneal 1990a,b; and Oneal and Diehl 1994.
13. Finnemore 1993.
14. For example, Mearsheimer 1994–95.
15. Milner 1991.
16. See Abbott and Snidal 1998; and Snidal 1997.

problem-solving, including expanding states' conception of their self-interest to be more inclusive and long-term; socialization and shaping norms; and generating narratives of mutual identification.

Coercing Norm-Breakers

The use of coercion to maintain or restore peace is straightforward and can largely be derived from realist theories of international relations rather than liberal ones. Realists and liberals, of course, disagree as to how important IGOs are likely to be in this respect. The UN, in its role as a collective security organization, in theory acts on the principle of unified action of all against *any* state, including a member, that may commit an act of aggression or other breach of the peace. The organization's deterrent function would be to prevent or repress even a threat to the peace. The realist founders of the UN recognized the difficulties the institution would have if the great powers were in serious conflict, but nonetheless they gave it the potential to make such contributions under the right circumstances. Alliances are typically directed against other states; but in the interest of solidarity, they may operate, using many mechanisms, including overt military coercion, to suppress violent conflict among their members.[17] Institutions with coercive powers often exercise many of the other functions as well.

Mediating Among Conflicting Parties

Some mediating activity is performed by quasi-coercive legal institutions of adjudication and arbitration; by resolving disputes, they reduce contracting costs and thus encourage more exchange.[18] Such institutions, like the European Court of Justice or the Permanent Court of Arbitration, may incorporate a degree of voluntarism in their use by states, and rarely is enforcement carried out by threatening or using military force. Other entities, such as institutions for mediation and diplomatic good offices, participate in dispute resolution, though without the capacity to enforce a settlement.[19] Manlio Brosio, as secretary-general of NATO, helped mediate the dispute between Greece and Turkey over Cyprus in 1967. Even in caring for refugees fleeing across interstate borders from civil wars, IGOs may engage in mediation.

Reducing Uncertainty by Conveying Information

The International Telecommunication Union, established in 1865, and INTELSAT, since 1964, are examples of IGOs primarily concerned with facilitating international

17. The line between collective security organizations and alliances, and the differentiation between internal and external targets of action, is often blurred. See Kupchan and Kupchan 1991; and Claude 1984, chap. 12. The Congress system and the Concert of Europe were not formally IGOs. On their role as collective security institutions, see Schroeder 1994. Game-theoretic treatments include Downs 1994; Martin 1992; and Morrow 1994.

18. Stone Sweet and Brunell 1998a.

19. Discussions of the role of IGOs in mediation and other activities for peaceful settlement of disputes include Bercovitch and Langley 1993; Haas 1993; Miall 1992; and Young 1967.

communication; but every institution constitutes "a set of channels for processing information, solving problems, and transmitting capabilities."[20] All institutions reduce transaction costs.[21] "Information-rich institutions . . . may help governments pursue their own interests through cooperation" by reducing uncertainty.[22] They make it easier to identify defectors and to punish them.

Problem Solving

According to James Caporaso, "International organizations may provide arenas within which actors learn to alter perceptions of interest and beliefs." [23] From a rational-choice perspective, institutions may establish expectations for gain, and congruence of interests, that did not previously exist. For example, to the degree they succeed in promoting economic interdependence, both parties come to share a common self-interest in the long-term prosperity of the other's economy as a reliable source of imports and a market for exports. These common interests may be manifest as the "spillover" anticipated in the functionalist and neofunctionalist literature.[24] Institutions create the possibility of "diffuse reciprocity," of issue linkages, permitting trade-offs and side payments to facilitate agreement.[25]

Socialization and Shaping Norms

Institutionalists "emphasize the discursive, deliberative, and persuasive aspects of communication and argument. The interstate system is a forum as well as a chessboard, and its actors debate, argue, and justify as well as signal moves."[26] Their discussion provides legitimacy for collective decisions and so promotes adherence. Norms and rules may facilitate arms control and delegitimate the use of force. The Agency for the Prohibition of Nuclear Weapons in Latin America, for example, helped in denuclearizing that area. Shared norms create common interests and thus facilitate cooperation.

Generating Narratives of Mutual Identification

Deutsch et al.'s classic *Political Community and the North Atlantic Area* stresses the importance of building a shared sense of values and identity among peoples.[27] A sense of mutual identity means that as others are incorporated into one's essential reference group, their self-interests become not just instrumentally shared, but integrally one's own. Deutsch et al. were skeptical of the role in this process of "amal-

20. Russett 1967, 98.
21. Coase 1937.
22. Keohane 1984, 146–47.
23. Caporaso 1992, 602.
24. See Mitrany 1966; and Haas 1964 and 1990.
25. See Keohane 1986; and Kupchan and Kupchan 1991, 132.
26. Caporaso 1992, 627.
27. Deutsch et al. 1957.

gamated" supranational institutions with coercive powers; but they acknowledged an interaction whereby institutions and a sense of community might strengthen each other. Recent contributions have picked up this theme, giving more credence to the role of institutions in building mutual identity. One analyst contends that the porous and transparent character of democracies makes them, in relations with other democracies, "likely to develop a collective identity facilitating the emergence of cooperative institutions for specific purposes. . . . Democratic features of liberal democracies enable the community in the first place. But the institutionalization of the community exerts independent effects on the interactions. In the final analysis, then, democratic domestic structures and international institutions do the explanatory work together."[28]

In considering IGOs as instruments for reducing the likelihood of violent interstate conflict, one should bear in mind their possible indirect effects in addition to the direct ones we are able to investigate here. Joint democracy and economic interdependence, the other legs of the Kantian tripod, reduce the incidence of disputes; IGOs could have important indirect effects by supporting and promoting democracy and interdependence. Although the evidence for IGOs as agents of democracy and interdependence is largely unsystematic, the connection is nevertheless widely asserted. Indeed, it is central to the thesis of three major reports issued by the previous UN secretary-general.[29] Several reports on the reform of the UN can accurately be characterized as Kantian in perspective.[30]

The Conference on Security and Cooperation in Europe, and the human rights "baskets" of the Helsinki accords, legitimated and sustained political dissent in the Soviet Union and Eastern Europe.[31] The EU's insistence on democratic government as a condition of membership has certainly discouraged some reversions to autocracy. Various agencies of the UN have assisted in transitions to democracy of recently authoritarian states or colonial territories. A little-appreciated part of the UN system, the Division of Electoral Assistance in the Secretariat, has aided and monitored democratic elections in more than sixty states. Its services include far more, however; it also offers advice on establishing political parties, constitutions, electoral laws, and press freedom.[32] Many parts of the UN, and several regional IGOs, have engaged in massive post-conflict peace-building efforts, creating the preconditions for free elections and new, democratically accountable legal and administrative systems. The record includes substantial successes as well as conspicuous failures.[33]

Major IGOs devoted to development, financial stability, and the freer flow of international goods, services, and capital include the Bretton Woods institutions (the World Bank and the International Monetary Fund [IMF]), the World Trade Organization

28. See, respectively, Deutsch et al. 1957, 7–8; Wendt and Duvall 1989; Wendt 1994; and, for the quotation, Risse-Kappen 1995, 215.

29. Boutros-Ghali 1992, 1995a, and 1996.

30. Russett 1996. For a fuller discussion of the system of mutually reinforcing feedback loops among democracy, interdependence, international organizations, and peace, see Russett 1998.

31. Adler 1998.

32. Boutros-Ghali 1995b.

33. See Bertram 1995; Ratner 1995; and Zartman 1995.

(formerly GATT), and numerous regional institutions.[34] These organizations help to establish norms and rules for international interchange, increasingly with an emphasis on "good government" and "transparency"—virtually synonyms for "democracy"—as well as market economics. They, too, have played a major role in providing the resources to reconstruct war-shattered societies. Such a role means both building institutions and teaching appropriate norms. Arguably, the creation in the late twentieth century of powerful transnational capitalist institutions, including IGOs, has provided the conditions for an international regime that makes interdependence a more effective force for peace than earlier.[35] Their accomplishments deserve recognition, without ignoring or obscuring critiques that they have been too attuned to the interests of international capital and the economically advanced countries.

In discussing the multiple forms of causality within a well-articulated Kantian framework, two points are important. The first concerns the possibility of complementarity and interaction between some of our key variables—notably IGOs and democracy and IGOs and economic interdependence. Indeed, much institutionalized cooperation occurs only between states that already have substantial common interests. Institutions may "have an interactive effect . . . depending on the nature of power and interests." [36] Such interests can be reflected in democratic institutions, economic interdependence, or military alliances. Institutions and trade, in their information-carrying roles, may be important in promoting accurate perceptions of the democratic character of a partner. Thus, they might encourage peaceful relations between democracies or exacerbate conflict between democracies and autocracies. The institutions of preferential trading areas provide a forum for bargaining and negotiating to resolve trade disputes, thus preventing them from creating other kinds of conflict. Democracies are more likely to use IGOs in resolving their conflicts than are other kinds of states, and regional IGOs (though not universal ones) are reported to be more successful in preventing violence in crises that involve democracies.[37] An interactive term for democracy and IGO membership may pick up some of these effects, though long-term influences may not be readily captured, as when international organizations promote democratic institutions, which in turn increase the prospects for peace. Such lags are likely to vary greatly by organization and function and cannot easily be modeled in the aggregate.

Second, the possibility of a reciprocal relationship between international institutions and peace must be recognized. States will sometimes form institutional links with other states, for example, in the UN, just because their political relationships are *not* stably peaceful. When this process is successful, it is possible to say that the institutions in part caused or facilitated the improvement in relations. But other institutions, for example, the EU and its predecessor structures, reflect both an aspiration for peace and a readiness to deepen institutional ties because their members have

34. Jacobson 1984 provides a useful discussion.

35. See Brawley 1993; Murphy 1994; and Wendt forthcoming, chap. 8.

36. Keohane and Martin 1995, 42.

37. See Coplin and Rochester 1972; Garrett and Weingast 1993; Mansfield and Pevehouse 1998; Bercovitch 1991; Dixon 1994; Raymond 1994; and Hewitt and Wilkenfeld 1996.

become confident in expecting peace with other members of the organization. We think the Kantian hypothesis linking international organizations to peace is plausible because of the potential benefits of the six functions of IGOs previously discussed, but the issue of reciprocal causation is important. We cannot sort out all the effects in each direction for the large number of institutions examined here. Therefore, we must be careful about pushing correlational findings too far. The second equation we consider, however, suggests that the mechanism of causation works in both directions.

Research Design

We begin by exploring the "Kantian peace" using probit analysis[38] of dyadic data observed annually for a total of nearly twenty thousand observations.[39] This part of the analysis builds on our previous reports, the first of which established the role of shared democracy in reducing the likelihood of militarized disputes between states (the "democratic peace") and the second and third of which, with some improvements in data and measurement, established an additional and independent effect for economic interdependence in reducing conflict (the "liberal peace"). Since we discuss our theory, methods, and most of our data at length in those reports and others cited there, we condense that discussion here.[40] In the second analysis of this article we construct a new equation to explain IGO memberships as a check on the direction of causation between IGO membership and low frequencies of disputes between members.

Probit analysis is a form of multiple regression appropriate to a dichotomized rather than continuous dependent variable (here, the presence or absence of a militarized dispute). We limit our study to contiguous pairs of states and those that contain at least one state defined as a major power by the Correlates of War (COW) project (Britain, China, France, Soviet Union, United States). This excludes dyads that, in the majority of cases, had no reasonable opportunity to engage in armed conflict because they were too weak militarily and had few serious interests at stake. We examine the years 1950–85—essentially the Cold War era. This period is suitable because there was a relatively large number of democracies, trade grew rapidly, and the network of IGOs was at its densest. Moreover, influences which might confound our analysis—notably relative power, alliances, and economic growth rates—are amenable to statistical control.

38. *Stata Reference Manual* 1995.

39. We dropped from the analysis cases with any missing data. The lack of economic data was the most common reason for omitting cases. This surely biases our tests against our hypotheses, because data on trade and GDP are missing for several conflict-prone autocracies, in particular North Korea, (North) Vietnam, and Cuba, that were also isolated from most of the network of IGOs. The most obvious cases of conflict for which data are unavailable involve the Korean and Vietnam Wars, which pitted mostly democratic states against autocracies with whom they had no significant economic or institutional ties.

40. See Maoz and Russett 1993; and Oneal and Russett 1997a.

Dispute

To create our dependent variable, we use the recently updated and expanded set of militarized interstate disputes assembled by the COW project.[41] A militarized dispute is an international interaction involving threat, display, or actual use of military force; it must be explicit, overt, not accidental, and government sanctioned. $DISPUTE_{ij,t}$ is a dichotomous variable that equals 1 when members of a dyad (i and j) were involved in a dispute during year t, and 0 otherwise.

Shared IGO Membership

Density of shared IGO membership is a new explanatory variable. We include all "conventional international bodies" listed as intergovernmental organizations in sections A–D of the *Yearbook of International Organizations*; "dormant" IGOs are not counted.[42] Our measure for each dyad is the number of IGOs in which they shared membership in a given year. To reduce the likelihood that we will distort our causal inference, we lagged that measure one year ($t-1$) behind that in which conflict is to be explained (t), and our second equation will address the possibility of reverse causation. The absolute number of IGOs and their members grew even more rapidly than the number of states in the international system over most of the period under examination. Our measure of the influence of international organizations reflects this, as our measure of economic interdependence reflects the growing share of trade in most national economies over the same period.

In creating our measure of shared IGO memberships (IGO_{ij}), we weighted all organizations equally. Of course, not all types of IGOs are likely to have an equal effect in promoting peaceful relations. Many are weak and only tenuously related to security. One might reasonably expect alliances or collective-security organizations to have the greatest impact, but there is variation within this category, too. The Arab League, for example, has not had as great an effect as NATO. In fact, other types of organizations, such as those devoted to promoting human rights or economic interdependence, may well have had a greater effect than weak alliances. They may make important contributions to conflict management and conflict resolution in nonsecurity fields, and these contributions reduce tensions that might lead to a military conflict. Any prior weighting, therefore, would be arbitrary. We concur with Tom Nierop

41. Bremer 1996.

42. For 1965 and earlier, we use data compiled by Wallace and Singer 1970 and made publicly available through the Interuniversity Consortium for Political and Social Research. Like them, we compiled the subsequent data at approximately year-year intervals. When obliged by some irregularity in the *Yearbook's* publication or the unavailability to us of an issue, we used the nearest available issue. Intervening years were filled in by linear interpolation; other missing data were extrapolated. IGOs are identified as such in the *Yearbook* by *IGO* at the bottom of the listing before 1980 or by the designation *g* at the end of the code number since then. We did not include purely bilateral organizations, as Wallace and Singer did. The difference is minimal, since they found only a few bilateral cases, chiefly organizations that were usually multilateral but temporarily fell to two members. Except for minor corrections, variables in Oneal and Russett 1997b are unchanged. All our data will be available on the Web site for the United Nations Scholars' Workstation at Yale (*http://www.library.yale.edu/un/unsydata*).

that "Designing a simple, unambiguous, workable, and satisfactory classification of IGOs as to 'political weight' or strength of political links proves virtually impossible." [43] We hypothesize instead that the strongest peace-promoting effects are likely to be achieved by a dense network of IGOs devoted to diverse purposes.

As is apparent from our initial discussion, IGOs may reduce the propensity to violent conflict in a variety of ways. Moreover, these mechanisms are apt to operate with different force in different types of organizations. This precludes reducing our empirical tests to one or two relatively simple propositions corresponding, for example, to the normative and structural hypotheses for the democratic peace. It will ultimately require a more fully developed theoretical structure and more attention to detailed case analysis and process tracing. A refined theory would make detection of the beneficial influences of IGOs more likely.

Joint Democracy

Save for our new IGO variable, for the sake of replication the rest of the variables in this equation are exactly the same as in our most recent publication in which we explored the effects of democracy and economic interdependence.[44] Following our earlier work, we hypothesize that a pair of democracies will be less prone to conflict than a democracy in its relations with an autocracy or than a pair of autocracies. We assess the effect of political regimes on dispute involvement using an improved continuous measure of joint democracy and recently revised data regarding political regimes. We employ a "weak-link" assumption[45] that postulates that the likelihood of dyadic conflict is primarily determined by the less constrained (more autocratic) of the two states in a dyad.

To measure individual states along the democracy-autocracy continuum we use the corrected Polity III data.[46] Those data evaluate countries using separate scales for autocracy (AUTOC) and democracy (DEMOC). Following the compilers, we create a summary measure of the political character of a regime using both: DEM_i equals DEMOC_i minus AUTOC_i. This creates a simple, easily interpretable index that ranges from +10 (most democratic) to –10 (most autocratic). Using this index is preferable to using either component alone, because many governments have characteristics of each. Although we expect DISPUTE to be primarily a function of the lower democracy score in a dyad (DEM_L), we also consider the influence of the political character of the other dyadic member by including the higher regime score (DEM_H) in our regression equation as well. This allows us to clarify the effect of differences in political regimes, or political distance along the democracy-autocracy continuum, on the likelihood of conflict. We can also construct interactive measures ($\text{DEM}_L * \text{IGO}_{ij}$ and $\text{DEM}_H * \text{IGO}_{ij}$) to explore whether the combination of democracy and shared IGO memberships are particularly beneficial.

43. Nierop 1994, 100. See also Russett 1967, chap. 6.
44. Oneal and Russett 1997a.
45. See Dixon 1994; and Bueno de Mesquita and Lalman 1992.
46. Jaggers and Gurr 1995 and 1996.

Economic Interdependence

Again following our earlier work, we hypothesize that the probability of conflict will be inversely related to the degree of economic interdependence between states. Interdependence both raises the economic interest countries have in continuing peaceful exchange and provides a medium of communication that can be useful in preventing or resolving conflicts short of violence. We use IMF data regarding the direction of trade as the basis for our bilateral measure of economic interdependence.[47] The IMF reports reasonably complete information regarding most countries' exports (X) and imports (M). The greater the proportion of a state's economy that is represented by trade with another, the greater the influence should be on the state's foreign relations. Thus, we calculate the economic importance of trade relative to the gross domestic product (GDP). We use GDPs computed with purchasing-power parities,[48] because exchange rates are known to distort international comparisons involving nontradeable goods. Specifically, the dependence of country i on trade with j is DEPEND_{ij}, which equals $\text{X}_{ij} + \text{M}_{ij} / \text{GDP}_i$.

As with democracy, we assume that the less constrained state has the greater influence on the likelihood of dyadic conflict. It should have greater freedom to initiate conflict because both its economic costs and the beneficial effect of communication would be less. Accordingly, we include in our analysis the value for the state with the lower dependence score (DEPEND_L). We incorporate a one-year lag to help ensure that trade has not been affected by any dispute to be explained.

Since the likelihood of military conflict may be a function of the trend in interdependence as well as its level, we add a term for the change in dependence between the two states over the three years prior to the year in which conflict is to be explained. Thus, dDEPEND_i equals $\text{DEPEND}_{i,t-1}$ minus $\text{DEPEND}_{i,t-4}$. We assess the effect of changing levels of interdependence using dDEPEND_H, which equals whichever of dDEPEND_i or dDEPEND_j has the larger absolute value. To minimize the loss of cases that otherwise would occur at the beginning of each dyadic time series, we substitute the change in trade over just the previous one or two years when earlier values are missing. We expect a decline in the economic importance of trade to increase the likelihood of conflict.

Many IGOs are formed specifically to promote and preserve trade among their member states. Indeed, IGOs with economic functions constituted more than half of all IGOs in the post–World War II era.[49] This provides a reason to consider a second interactive effect ($\text{DEPEND}_L * \text{IGO}_{ij}$). It may be that states with the opportunity to consult in international organizations and to regulate their economic relations will

47. International Monetary Fund 1993. Aggregate trade is an imperfect measure of economic interdependence. It ignores both the composition of trade, with the possibility that certain goods are of particular economic or strategic importance, and international investment; adequate country-to-country data on these other elements are not available. Oneal and Russett discuss why aggregate trade is an acceptable substitute. Oneal and Russett 1997a.

48. Summers and Heston 1991.

49. Jacobson 1984, 49.

derive greater pacific benefits from trade than will those whose contacts are less institutional.

Economic Growth

States enjoying economic growth are disinclined to fight. Their populations are likely to be satisfied with the economic and political status quo, and violent conflict is inconsistent with many financial and commercial relations. Moreover, leaders do not have an incentive to divert attention from an economy in decline. These considerations suggest that the member of a dyad with the lower rate of economic growth is the greater danger to peace. So we calculate the average annual real change in per capita GDP for both countries of the previous three years (or, as for change in trade dependence, the previous one or two years when needed to avoid missing data). We enter the slower-growing country's growth rate in the equation as GROWTH_L.

Capability Ratio

It would be foolish to try to explain the incidence of militarized disputes without also looking at the effects of such *realpolitik* influences as relative power and alliances. Realist analysis typically holds that a preponderance of power inhibits overt conflict. To measure relative power we use the COW military capabilities index[50] composed (in equal weights) of a country's share of the system's total population, urban population, energy consumption, iron or steel production, military manpower, and military expenditures. $\text{CAPRATIO}_{ij,t}$ is the ratio of the stronger state's capability index to that of the weaker member of the dyad. We expect it to be negatively related to the frequency of conflict.

Alliance

A military alliance is likely to reduce the frequency of violent conflict between the allies. Both institutional mechanisms for resolving conflict at lower levels and the interest and ability of strong members to deter the initiation of conflict by weaker ones point in that direction. Furthermore, in most instances states ally with one another because they already have common interests and reasonably cordial relations. Hence, it is necessary to include a term ALLIES_{ij}, which equals 1 if the two countries of a dyad are formally allied or if both are allied with the United States; otherwise it is 0. By including indirect alliances through the United States we guard against the possibility that it was the hegemonic influence of the United States in the Cold War era rather than the character of states' political regimes or trade that promoted peace.

50. Singer, Bremer, and Stuckey 1972.

Contiguity

We analyze politically relevant dyads that are composed of two subsets of cases: contiguous states and noncontiguous major power pairs. Both of these groups are prone to conflict, but geographical proximity is especially correlated with the incidence of disputes.[51] Contiguity often provides the territorial or other substantive issue of disputes; and it gives states, especially weak ones, the opportunity to engage in military action that otherwise would be beyond their capability. Controlling for contiguity is also important because bordering states are more likely to trade with each other and, we would hypothesize, to form IGOs to address common interests. If the effects of proximity on conflict are ignored, the beneficial effects of trade and IGOs would be understated. To control for this we add a term CONTIG_{ij}, which equals 1 for the contiguous dyads in our set of cases, including states contiguous through their colonies. It is 0 for the noncontiguous states involving one of the five major powers.

An alternative specification would be to measure the actual distance between states. Because we limit our study to the politically relevant dyads, the use of actual distances affects only the major power pairs, and the ability of major powers to project military force is less sensitive than that of weaker states. The importance of distance would be apparent, however, if all possible pairs of states were analyzed. In the interest of replicating our earlier analyses for this equation we report here only the analyses using the simple measure of contiguity; the results using distance are little different. We will introduce a new measure of distance later, when we try to explain IGO membership.

We are now ready to assess the Kantian peace by considering the influence of political regimes, interdependence, and IGO membership, as well as controlling for the effects of other theoretically plausible influences. To do so we employ an equation identical to Eq. (6) from our most recently published analysis[52] and the same data set, except that we add IGO_{ij} as a new explanatory variable. The entries for IGOs and trade dependence are lagged one year.

$$\begin{aligned}\text{DISPUTE}_{ij,t} = {} & \beta_0 + \beta_1 * \text{IGO}_{ij} + \beta_2 * \text{DEM}_L + \beta_3 * \text{DEM}_H + \beta_4 * \text{DEPEND}_L \\ & + \beta_5 * \text{dDEPEND}_H + \beta_6 * \text{GROWTH}_L + \beta_7 * \text{CAPRATIO}_{ij} \\ & + \beta_8 * \text{ALLIES}_{ij} + \beta_9 * \text{CONTIG}_{ij}\end{aligned}$$

Results: IGOs Matter

Table 1 shows the empirical results. For each variable the table gives the estimated coefficient, the standard error, and the level of statistical significance. The signifi-

51. Bremer 1992.
52. Oneal and Russett 1997a.

TABLE 1. *Involvement in militarized disputes: The pacific benefits of democracy, interdependence, and IGOs*

	Coefficient	*Standard error of coefficient*	*Probability*
Joint IGO memberships$_{t-1}$	−0.008	0.003	.01
Democracy score$_L$	−0.023	0.007	.002
Democracy score$_H$	0.017	0.007	.02
Dependence score$_{L,\,t-1}$	−21.087	12.296	.09
Trend in dependence	−3.915	1.770	.03
Three-year economic growth$_L$	0.012	0.007	.10
Capability ratio	−0.0010	0.0003	.10
Allies	−0.245	0.103	.02
Contiguity	0.746	0.118	.000
Constant	−1.760	0.140	.000
Log likelihood function	−3210.2		
N	19,752		

cance levels were computed using Huber (or White) robust standard errors that correct for heteroskedasticity. We also corrected for correlation among the error terms within dyads.[53] These make the tests much more conservative than those we have previously reported and reduce the statistical significance levels accordingly. The statistical tests are two-tailed, even though we could report one-tailed tests because all our hypotheses are signed.

Virtually all variables are significant as hypothesized. The coefficients for the three elements of the Kantian peace, IGO_{ij}, DEM_L and DEM_H, and $DEPEND_L$ and $dDEPEND_H$, are all related to the incidence of militarized disputes, supporting the three Kantian hypotheses. Each is statistically significant, though $DEPEND_L$ is only marginally so. As constraints on the use of force diminish by reducing the level of democracy in the state that is freer to resort to violence, by reducing economically important trade or by reducing the number of IGOs in which the states share membership, the likelihood of dyadic conflict grows.

The three major Kantian variables are substantially correlated with one another. The Pearson correlation coefficient is .52 for IGO_{ij} and DEM_L, .47 for IGO_{ij} and $DEPEND_L$, and .32 for DEM_L and $DEPEND_L$. Clearly, good things do go together. Democracies are economically interdependent[54] and share membership in large numbers of international organizations. Recall that half the IGOs in the post–World War II period were functional organizations concerned with economic relations among their members. Although the level of statistical significance is a bit low for the level of interdependence, it is substantial for the other Kantian measures, especially considering the correlations among them. Allies too would be expected to share common

53. The latter relaxes the assumption of the independence of observations within groups. We did this with the Stata option CLUSTER (DYAD).

54. Bliss and Russett 1998.

interests and membership in the same IGOs (the correlation is .39), and democracies are more apt to cooperate with one another in general and within international organizations in particular.[55]

Despite its overlap with these other independent variables and the conservative standard errors, the new term for shared IGO memberships is quite significant. Each Kantian influence reinforces that of the others, even when the effect of other, potentially confounding factors, such as the existence of an alliance, are held constant. As we will see, the independent benefits of democracy, interdependence, and shared IGO memberships are also substantial. Furthermore, the results are robust to such variations in the specification as eliminating the lag, dropping the term for trend in dependence, and using the more sophisticated measure of distance that we introduce later.[56]

Of the other variables, greater economic GROWTH is, as hypothesized, negatively associated with the likelihood of disputes, but the relationship is barely significant. The term for relative power, CAPRATIO, is significant and negative as hypothesized. Another realist variable, ALLIES, reduces the frequency of disputes somewhat, as anticipated. CONTIG is strongly related to disputes, as expected. States that share a common border are especially prone to violence.

We tested for interactive effects between IGO and both DEM_L and DEM_H, and between IGO and $DEPEND_L$ as indicated earlier, but none proved significant, nor was the overall explanatory power of the model notably improved by including any of the interactive terms. Collinearity among the constituent variables and the interactive terms impedes confirmation of the hypothesized interactions.

Note the effect of the higher democracy score in a dyad on the likelihood of a dispute. The coefficient is positive and very significant. It shows the impact of political differences on the incidence of conflict. The relative peacefulness of three types of dyads—democratic-democratic, democratic-autocratic, and autocratic-autocratic—can be calculated using DEM_H and DEM_L. Making a dyad less democratic by lowering the democracy score of the less democratic state raises the likelihood of conflict. Increasing the level of democracy in the more democratic state, holding the other regime score constant, also increases the distance separating the pair along the democ-

55. See Dixon 1994; and Raymond 1994. Regarding democracies' cooperation within the UN, see Kim and Russett 1996. Democratic states are also somewhat more likely than autocracies to join intergovernmental organizations. Jacobson, Reisinger, and Mathers 1986; see also Shanks, Jacobson, and Kaplan 1996.

56. They are also robust in a theoretically superior way to control for power and alliance, namely, the measure of expected utility that we introduced in Oneal and Russett 1997b. Time dependence raises methodological problems. As a correction, Beck, Katz, and Tucker propose a spline function with knots for peace-years; see Beck, Katz, and Tucker 1998. Introducing a spline with three peace-years (additional peace-years have no significant effect) does make the trend in trade dependence in this equation statistically insignificant, but it strengthens the effect of the other Kantian variables. The coefficients for IGOs and the lower democracy score become significant at the .001 level, and that for trade dependence goes to $p < .03$. Economic growth also becomes highly significant ($p < .003$). We initially adopted the convention of a two-tailed test as an (admittedly inadequate) effort to be conservative given that our observations violate independence assumptions; see Oneal et al. 1996. Adding the Beck, Katz, and Tucker correction to those for heteroskedasticity and correlation within dyads makes that unnecessary. With one-tailed tests, the values of p are halved.

racy-autocracy continuum. Greater *political distance* makes a dyad more prone to conflict. Although two democracies are much less likely to fight each other than are two autocracies, democratic-autocratic pairs engage in the most disputes.

To better understand the substantive importance of the independent variables on the occurrence of international disputes, we can forecast the influence that changes in each independent variable would have on the probability that a dispute would occur in a dyad during a year. We begin with a baseline scenario in which all of the continuous variables are set at their mean values; we set CONTIG at 1 as for two states sharing a common border. Given this scenario, the probability that a dispute will occur is .093, or nearly 10 percent in any year.

If we then adjust the scenario so that both bordering states are fully democratic, the probability of a dispute occurring drops to .061, or a 35 percent reduction from the baseline value. However, if we look at mixed dyads in which one member is at the democratic extreme of the scale and the other at the authoritarian end, the probability of a dispute occurring increases by 50 percent from the baseline, to .139. Democracies and autocracies often do not get along well.

As for the other Kantian variables, an increase of one standard deviation in the trade–GDP ratio of the less dependent state ($DEPEND_L$) reduces the likelihood of a dispute to .065—slightly less effect than if both states were democratic. But in combination with an increase of one standard deviation in the trend in dyadic trade, the probability of a dispute falls to .058, a slightly greater effect (a 38 percent drop) than that of joint democracy. And an increase of one standard deviation in the number of common IGO memberships cuts the probability of a dispute to .072, or 23 percent below the baseline.

Regarding other influences, if the capability ratio for contiguous states is dropped from its very high mean value (163:1) to an even balance, the loss of a one-sided deterrent effect raises the probability of a dispute during the year to .123, an increase of 32 percent. If the states are allied, the probability of conflict drops to .59, a decrease of 37 percent. The effect of increasing economic growth by a standard deviation is slight, a fall of just 7 percent in the probability of conflict to .086.

Finally, we can predict the joint effect of increasing all the Kantian variables at once. By making both states fully democratic, and raising by one standard deviation each the number of common IGOs, the level of trade dependence of the less dependent state, and the trend in trade dependence, the probability of a dispute occurring drops to only .026, almost a three-fourths (72 percent) reduction from the baseline rate.

Do IGOs Promote Peace, or Vice Versa?

We have developed a plausible set of reasons why intergovernmental organizations can be expected to promote peace and reduce the likelihood of violent conflict. And we now have systematic empirical evidence from the 1950–85 era to support that expectation. Although the evidence is exemplified by the experience of Western Eu-

rope, it is not limited to that area. The Kantian hypotheses have withstood testing against major realist hypotheses about the effect of relative power and alliances. The evidence here is, of course, limited to a particular historical era. That era may be a particularly auspicious period for the hypothesis, when so many IGOs were formed on either side of the great East–West divide and were, in many instances, intended to promote solidarity among states that shared common interests in the Cold War rivalry. (Only about 10 percent of IGOs in this period can be classified as "universal.") In effect, peaceful relations among states may lead them to form intergovernmental organizations with each other and to minimize their IGO linkages with states with which they tend to have militarized disputes.

A possibility not damaging to our hypothesis but important to explore as a complement to it is that a complex reciprocal relation exists, with peace and IGO memberships forming a mutually reinforcing feedback loop or virtuous circle. In principle we could look for reverse causality or a reciprocal relationship by constructing a system of two simultaneous equations. Methodologically, however, this is an extremely demanding task, in large part because our analysis requires combining two different kinds of equations, probit for a dichotomous dependent variable (dispute) and ordinary least squares (OLS) regression for a continuous dependent variable (number of IGO joint memberships). Satisfactory computing algorithms for such an analysis do not seem to be available.[57] Resolution of these problems will have to await a subsequent article. Meanwhile, we conduct a preliminary exploration by estimating another single equation, this time to explain the extent of common IGO memberships. This will at least give us an initial look into whether disputes have an important reciprocal effect on the density of states' IGO linkages.

With a good model for explaining peace in hand, we thus build a parallel model for explaining shared IGO membership (IGO_{ij}). Many of the same variables are appropriate for both models, but there are some important differences. We begin, of course, with disputes, since our chief purpose is to ascertain whether the causal inference of IGO membership reducing the likelihood of a militarized dispute is correct. Here, then, $DISPUTE_{ij}$ becomes the first independent variable, testing the contrary hypothesis that if two states have recently experienced a military dispute they will be less likely to join the same IGOs or to remain in them. We lag disputes one year behind IGO memberships just as we lagged IGOs behind disputes in the first equation.

We then recall our earlier observations that democracies are somewhat more likely than other states to join IGOs. Kant expected that representative democracies, shar-

57. A common solution to simultaneous equation bias with continuous endogenous variables is two-stage least squares (2SLS). However, 2SLS is difficult to implement in this situation, which is a mixed continuous–discrete dependent variables case. None of the major econometrics packages has ready-made routines to solve these problems. We attempted three different solutions: an instrumental variables approach based on Gujarati, Amemiya's generalized probit model, and Maddala's two-stage estimator. See Gujarati 1995; Amemiya 1978; and Maddala 1983, 244. Unfortunately the results are inconsistent across the three techniques with dramatically different estimated signs, coefficients, and standard errors. To further complicate matters, none of the three sets of results were consistent with well-established findings in the political science literature. Therefore, pending further investigation, we simply present the model with lags.

ing common principles of law and political morality, would form "federations" (international organizations) with other democracies. From there it is an easy step to hypothesize that democracies may be especially likely to join IGOs populated by other democracies. As with the newest members of NATO, they may in part do so with the express purpose of strengthening their new democratic institutions. So we include the regime variable, DEM_L, again with the weak-link assumption that the level of democracy of the less democratic member of the pair will most affect the likelihood that the two states will share many IGO memberships. We do not, however, include DEM_H to pick up a separate effect for political distance. Autocracies come in diverse ideological and institutional forms, so we do not hypothesize that autocracies in general are more likely to join IGOs with each other than with democracies.

Similarly, we earlier observed that many IGOs are organized to promote and manage economic interdependence among their members. High volumes of international trade demand stable commitments to the limitation or elimination of tariffs and nontariff barriers. As in the development of the EU, if carried very far they also have deep implications for the flow of capital and labor and for controlling environmental degradation. Information must be gathered and disseminated; rules and procedures must be put in place and monitored; systems for mediating, adjudicating, or otherwise resolving disputes must be created.[58] All these require institutions, frequently IGOs. So we hypothesize that the density of IGO memberships will be in part a function of the degree of economic interdependence, and therefore we include $DEPEND_L$ in the new equation as well. Once more we make the "weak-link" assumption that the higher the level of interdependence for the less dependent state, the more IGOs it will join with another state. As before, we lag trade one year behind IGO membership.

We expect states sharing national security interests to form and join IGOs together. In particular, we hypothesize that states that are joined together in military alliances will share a great many other international organizations, often designed to build on or strengthen their military ties. So we again include $ALLIES_{ij}$. As before, we code as "allied" those states that though not directly allied with each other are "indirectly" allied through a common alliance with the United States (for example, members of NATO and of the Rio Pact). This allows us to consider the possibility that the hegemonic influence of the United States, as expressed in the whole system of alliances, accounted for the pattern of IGO memberships during the Cold War.

From the hypothesis that contiguous states are likely to have both common interests and common problems, $CONTIG_{ij}$ would be another obvious candidate to retain in this model. But in addition to joining IGOs with bordering countries, states often also need organizations to address interests and problems they share with states that, though not contiguous, are still reasonably near. Many IGOs are explicitly regional

58. The frequency with which national judges in EU countries refer cases to the European Court is strongly related to the level of their countries' trade with other EU states. See Stone Sweet and Brunell 1998b.

in character. We hypothesize that common IGO memberships will in part be related to geographical distance but not in a simple linear fashion. Thus, we create a new term for the distance between two states. We use the great-circle distance in miles between the capital or major ports of a state and those of other countries for the noncontiguous dyads involving one of the major powers; for the contiguous pairs we set this to 0.1 mile, because they actually share a border. We then convert this measure to its logarithmic equivalent ($DISTANCE_{ij}$). Joint memberships in IGOs should be much greater the closer two states are geographically.

In the equation to explain disputes, not all of the other variables, however, offer plausible hypotheses for a causal relationship to shared IGO membership. We see no compelling reason why high rates of economic growth should cause IGO membership. A successful IGO may produce higher rates of growth in its member states, but that is another matter. Thus, we do not include $GROWTH_L$ in this equation. Nor do we include the trend in dyadic trade ($dDEPEND_H$). It may be true that a trend of increasing trade, as well as a high level of trade dependence, encourages the formation of IGOs to manage its effects. Equally plausible, however, is the hypothesis that IGOs will deepen and intensify economic ties, producing growth in trade among members. Lacking strong theoretical grounds for preferring a causal hypothesis in one direction rather than the other, we leave this matter for subsequent investigation.

Nevertheless, one new variable seems potentially important to an adequate explanation of why states may share common IGO memberships. Per capita income is moderately correlated with the number of IGOs to which a state belongs.[59] Rich states tend to have complementary economies for manufactures and to form IGOs to facilitate that trade. High-income countries have widespread interests in international health, environmental, and educational conditions and a concern for global political and economic stability. They are more able to afford the costs of membership in many IGOs than are poor states. To test the hypothesis that higher income countries will be more likely to join IGOs with each other we add a term for GDP per capita ($GDPPC_L$) to the equation, assuming that the income level of the less wealthy state will have the greater impact.

Adding GDP per capita to the other five variables gives us the following model for explaining IGOs. Disputes and trade dependence are lagged one year.

$$IGO_{ij} = \beta_0 + \beta_1 * DISPUTE_{ij} + \beta_2 * DEM_L + \beta_3 * DEPEND_L + \beta_4 * ALLIES_{ij} + \beta_5 * DISTANCE_{ij} + \beta_6 * GDPPC_L$$

Since the dependent variable (IGO membership) is continuous rather than dichotomous, we use OLS regression analysis to estimate this equation. Again the standard errors reflect the Huber (White) correction and the correction for correlation of error

59. Jacobson, Reisinger, and Mathers 1986, 149. Milanovic finds that both per capita wealth and democracy promote the integration of economic institutions between states. Milanovic 1996.

TABLE 2. *Joint IGO memberships as affected by militarized disputes, democracy, and interdependence*

	Coefficient	*Standard error of coefficient*	*Probability*
Dispute involvement$_{t-1}$	−2.151	1.073	.05
Democracy score$_L$	0.604	0.063	.000
Dependence score$_{L,\,t-1}$	348.013	130.465	.01
Allies	7.503	0.742	.000
Distance	−0.0019	0.0001	.000
GDPPC$_L$	0.0032	0.0002	.000
Constant	34.449	0.910	.000
Adjusted R^2	0.63		
N	18,657		

terms within dyads. Table 2 displays the empirical estimation of IGO membership patterns.

Notice in Table 2 that the coefficient for the impact of disputes on IGO membership is negative and moderately significant ($p < .05$, two-tailed test). Such an association may indicate that if states have military disputes, they may for that reason reduce the number of IGOs in which they share membership, and that fewer disputes lead to more IGO membership. It does not lead us to question the result of our first equation, with its evidence for a causal relationship from lagged IGO membership to fewer militarized disputes. Rather, it suggests a feedback loop between IGOs and peace, with each reinforcing the other in a "virtuous" circle.[60] Further support for this interpretation, however, will require additional investigation as more sophisticated techniques become available.

All the other variables are more significant in the expected direction. Geographical distance has the anticipated effect of diminishing the number of IGO memberships. Rich states share a strong propensity for joining IGOs together, as do military allies. And the "Kantian" variables make independent contributions: democracy and trade interdependence promote higher densities of IGO membership, even with national security ties (ALLIES) controlled.

Our primary purpose in creating this equation was to begin to address the possibility of reverse or reciprocal causation between IGOs and disputes and to control for influences that might confuse that relationship, rather than to develop a full theory of why states join IGOs. We have explored some additional hypotheses with other variables and specifications. For example, we have included terms for the more democratic and dependent partners (DEM$_H$ and DEPEND$_H$) as well as the "weak-link" partners and have tested the hypothesis that generally (not just dyadically) open economies will require greater international organization. These additional variables often are statistically significant but without notably changing the coefficients or

60. Russett 1998.

significance levels of the other variables or increasing the overall explanatory power of the preceding model by more than a percentage point or two. Since together the variables employed here produce a rather powerful model, with an R^2 of .63, we rest with this robust and parsimonious result, acknowledging that for some purposes a more extended equation to explain IGO memberships could be useful.

Conclusion

In 1795 Kant suggested that democracy, economic interdependence, and international law and organizations could establish the foundations of a "perpetual peace." Our analyses of pairs of states during the years 1950–85 indicate that each of the three elements of the Kantian peace does make a statistically significant, independent contribution to peaceful interstate relations. These pacific benefits are evident even when the influence of other theoretically interesting, potentially confounding factors—geographic contiguity, economic growth, alliances, and relative capabilities—are held constant. More important is the substantive weight of the Kantian forces for peace. Increasing the number of shared memberships in IGOs by a standard deviation reduces the incidence of militarized disputes by 23 percent from the baseline rate for the typical dyad. We continue to find major benefits of joint democracy and economically important bilateral trade. If both members of a dyad are fully democratic, conflict is 35 percent less likely; increasing the level and the trend of the trade–GDP ratio by a standard deviation lowers the probability of a dispute by roughly the same amount (38 percent). Together, all the Kantian variables reduce the likelihood of a dispute by 72 percent.

In a second equation we found preliminary support for the hypothesis that the absence of militarized disputes between two states has a causal effect on their subsequent readiness to join IGOs together and to remain in such organizations. Thus, we see some evidence for the existence of a virtuous circle of reciprocality between IGOs and peace. In addition, we found that democracies and economically interdependent states are more likely than others to join IGOs together. The set of reinforcing relations shows how during the post–World War II years the mostly democratic, mostly free-market countries of the West constructed the basis for stable peace among themselves.[61]

Our results are not likely to please ideologues of either the left or the right. Both may feel comfortable with our results linking democracy to peace. The benefits of both free trade and international organizations may be more unsettling. Modern-day liberals may applaud the role of IGOs but hesitate to accept that markets, too, can encourage peace. Conservatives are apt to have the opposite biases. We rest our argument, however, on the analysis. We have made the theoretical links among democracy, economic interdependence, and peace in our previous publications. Here we developed a plausible set of reasons why IGOs should be expected to promote

61. Ikenberry 1996.

peace and reduce the likelihood of violent conflict, and we have systematic empirical evidence to support that expectation.

We need to extend our investigation of this third leg of the Kantian tripod. Our evidence so far is limited to one historical era, the Cold War. That may be a particularly propitious period for testing a Kantian thesis about international organizations, what with the effects of bipolarity in promoting cooperation among Cold War allies. The East–West rivalry may have encouraged states to form IGOs with allies and to minimize contacts with states in the other bloc. Yet inclusion of a control for alliances suggests that the pacific benefit of shared IGO membership cannot be attributed solely to states' common security interests. We shall subsequently expand our analyses into other historical eras, both before World War II and into the early post–Cold War years. This will allow us to explore the robustness of our results and to test some alternative hypotheses, tapping such systemic influences as changes in polarity, hegemony, and growth in "embedded liberalism."[62] But all the data needed for that effort are not yet available to us. Ultimately, we hope to have a systemic model with simultaneous equations to explain not just militarized conflict and international organizations, but trade and alliance patterns as well. Only then can we have a fully satisfactory understanding of the complex interactions of Kantian and other influences on international relations.

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62. Ruggie 1982.

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