SOWN FOR PEACE? INTERNATIONAL ORGANIZATIONS

AND INTERSTATE CONFLICT

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To Jenine Leskiw

A blessing

that makes all things possible

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CHAPTER I

SOWN FOR PEACE? : AN OVERVIEW

A factor that has long been identified as promoting peace between states is international governmental organizations (IGOs). Few other ideas have held nearly universal association with the creation and extension of peace than that of international organization. From Kantian musings to Wilsonian idealism, international organizations have been seen as mechanisms for states to reach out of their inherent confines of self-interest and militant propensities to realize peace. The purpose of this project is to refine our understanding of the relationship between IGOs and peace. Specifically, this analysis posits that the type of IGO has a significant relationship with the prevention and de-escalation of militarized interstate conflict.

Nearly all of the research conducted on the link between IGOs and peace has treated IGOs as if they were equal (Ness and Brechin 1988:247). The present analysis contends that painting IGOs with a broad-brush obfuscates the relationships of most interest. The literature uses indicators of IGO shared memberships as catch-all variables to measure the level of interdependence between states (a technique I refer to as the density approach). Utilizing IGOs in this fashion is essentially saying that IGOs do not matter per se, they only matter to the extent they reflect the ties between countries. Figure 1.1 illustrates how two contending theories, one offered by the literature and the other consisting of my own reformulation, position IGOs along the path of states headed to military confrontation.

The Density Approach   The Peace System Approach

IGO 1

State A   IGO 2   State B   State A   State B

IGO 3   IGO 1

                                    IGO 2

                                    IGO 3

War   War
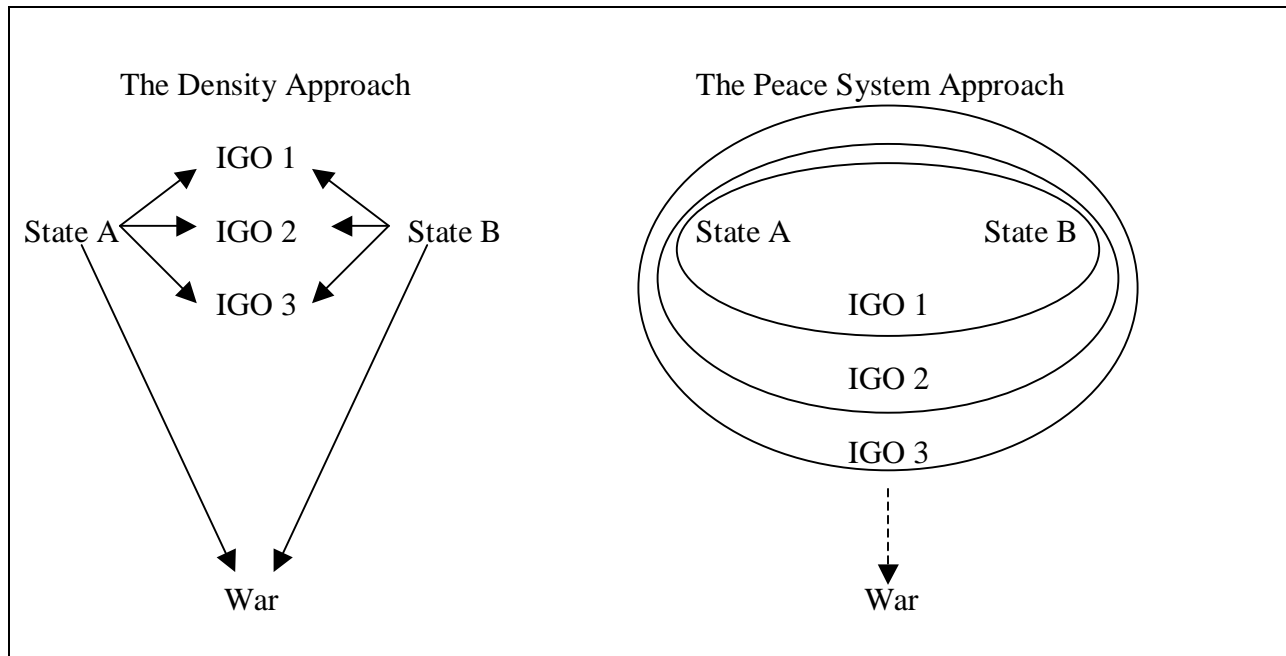
Figure 1.1 International Governmental Organizations on the Road to War

The density approach, which sums the number of joint memberships, uses IGOs as indicators of the interdependence of two states. The more interdependent the two states the more shared memberships they have. Ultimately, it is the density of the network of institutions that produces peace between the states. On the other hand, the peace system approach places IGOs as barriers between states and war. The organizations may be able to work toward a resolution of the issue at hand and thus halt the progress to war.

By employing a typology of IGOs, this research will analyze the *active* role that IGOs play in bringing about peace. Specifically, I use the typology as an indicator of the type and strength of the norms that emanate from IGOs. I will begin by establishing the groundwork of my theory of peace that I build upon throughout the project. Subsequently, I will discuss the contours and scope of the overall project.

A Purposeful Peace

Peace comes only to those who seek it. It does not come to the inactive, the ignorant, nor those who merely wait. The scientific study of war and peace was conceived to identify the conditions that help to bring about peace. Often, however, peace is analyzed indirectly. A

popular technique in the literature, logistic regression, often includes in the endogenous variable an indicator that a pair of states experienced 'no war'. However, peace should not be characterized in the negative. It is not merely the absence of conflict, it is something far greater. It is something that needs to be sought after and requires work.

The theory of peace that will be used throughout this research project is best described as a 'purposeful peace'. A purposeful peace is just that, a peace that is desired and worked toward. It is the active engagement of states for the purpose of avoiding war. Peace must be sown and nurtured. There may be multiple paths to peace, and a pair of states may only need to find and follow one path. Which paths are most promising? Few other paths offer such illumination and guidance as those based on intergovernmental organizations. IGOs are often created not only as a means through which states interact, but as institutions that make states accountable to peace. These organizations tend to the fields of peaceful state relations.

How then is a purposeful peace different from say the classical theory of a working peace system of IGOs created by David Mitrany? What Mitrany envisioned and subsequent functionalists emphasized were the bonds that formed, via these international institutions, between states. Subsequent integration would occur if the first steps were successful ones. Ultimately, this process will thicken the bonds between states and would ameliorate a crisis should one arise. The how and why a crisis would be averted, aside that it was in the states best interest to do so given the potential losses incurred with the destruction of these bonds, was never fully addressed by the functionalists. For instance, this working peace system would somehow result from the mere fact that states were integrating. Yet, the automated mechanics of process are unclear. A purposeful peace is a modification of functionalist theory. It empowers IGOs as actors for the cause of peace. Being able to distinguish between IGOs that maintain the peace and those that do not, is the reason to develop a new IGO typology.

What are types of relationships between IGOs and peace that can be identified? Moreover, if we are conceptually discussing a purposeful peace and how IGOs are an integral component, how is this peace measured? To best reflect the complexity of this concept I will operationalize peace in a number of ways. I adopt a three-fold approach to the measurement of peace. First, I investigate the conditions that draw states into militarized conflict and war. Second, I uncover and review the elements that affect the course of states on the conflict spiral. Lastly, I look at the factors that are associated with the peaceful resolution of disputes and the

maintenance of peace. The analysis that follows in subsequent chapters is constructed to present a clear picture of a purposeful peace.

In this Chapter, I give an overview of the project and then discuss the theoretical rationale as to why IGOs are a vital component of a purposeful peace, and why a typology of IGOs is necessary. Subsequently, I will review the existing literature to highlight insights and identify short-comings that will be addressed by this analysis. The second Chapter will explain the need for new data, establish the data collecting procedures, and finally, present a snapshot of the network of IGOs.

If IGOs embody the norm of peace, what effects do they have on the amount of conflict experienced in the system? Moreover, are there certain types of organizations that strongly support the system of norms in eras that are more peaceful? Chapter 3 investigates the relationship between the number of wars in the system and the number and type of IGOs the typical dyad belongs to. It is theorized that shared memberships in military and political organizations are more prevalent in historical eras that are considered more peaceful.

With the systems level effects of IGOs established, Chapter 4 looks into militarized interstate dispute (MID) and war involvement. If IGOs maintain a normative context of peace and have mechanisms for conflict resolution, then a crucial test is whether or not IGOs can keep dyads from entering disputes in the first place. Here I expect the types of organizations to have disparate effects on dispute involvement. Given that military and political organizations may represent the higher realms of state integration, and arguably have the greatest potential for successful conflict resolution initiatives, I expect these organizations to provide the strongest reduction in the likelihood of dispute involvement. I also anticipate regional organizations to be more effective in reducing the conflict propensities of states, since they are immersed in the context of the area.

Next, I look at whether shared memberships, and more specifically the type of membership, constrain dyads from escalating to war. Here again I hypothesize that organizations dealing with 'high politics' are more effective in the prevention of war than are IGOs that deal with 'low politics'. Moreover, I suspect that dyads with shared memberships in military IGOs will be the least likely to enter a war with each other.

In Chapter 5, I have a substantively different take on dispute escalation. I investigate whether or not dyads use more severe crisis management techniques as they meet in recurrent

conflict. In other words, what is the weight of the past in the conduct of the current dispute? Looking at how states interact across time has become a growing part of the literature in the form of rivalry studies. The present query, though, was sparked by the seminal work of Russell Leng (1983) where he found that by the third militarized conflict interaction there was a very high probability of war in the dyad. My research attempts to uncover intervening influences that may stave off this recurring pattern. By examining the conflict history of a dyad, I will be able to determine what types of IGOs affect the likelihood of a dyad escalating across time in successive disputes. Theoretically, I expect that regional political organizations will have the greatest impact in de-escalating conflict spirals in recurrent disputes.

The third operationalization of peace, conflict resolution and the endurance of peace, takes place in Chapters 6 and 7. A direct test of the conflict resolution abilities of IGOs involves the examination of the likelihood of dyads in a MID to resolve their dispute using peaceful resolution techniques. I hypothesize that social organizations will be the least likely to help realize a peaceful resolution to a conflict. On the other hand, I expect military and political (both regional and universal) to be comparatively much more able to produce mediated outcomes.

Just as important as how a dispute ends is how long it takes to come to a conclusion. Do IGO memberships hasten the resolution of disputes through the use of peaceful conflict management techniques? In general, a shorter dispute is more desirable than a long drawn out dispute. A dispute that ends in a negotiated settlement may have a stronger potential to produce a lasting peace. Lastly, I test the impact of IGOs on the duration of peace between MIDs. IGOs are often created to maintain the peace that follows a militarized dispute. Therefore, if IGOs are in fact doing their job I would expect to find states with more shared memberships to experience a peace that endures. Specifically, military and political organizations are best equipped to oversee the peace.

In sum, the theory concerning the relationship between IGOs and peace can be evaluated using the following operationalizations. First, if IGOs uphold the norm of peace by creating a peace system, there should be more joint memberships in peaceful eras in history. Second, IGO memberships should be negatively related to the likelihood of MID involvement. Third, if a dyad with substantial shared IGO memberships does enter a dispute, it will be constrained from crossing the war threshold. Fourth, I look to IGOs to reduce the escalation of hostilities across time in recurrent disputes. Finally, joint IGO membership should shorten the duration of

disputes while lengthening the peace that follows disputes. I expect military and political organizations to make the most substantial contributions to a purposeful peace throughout the various chapters. To begin this endeavor, I first establish the theoretical foundation of the relationship between international institutions and peace.

The 'Why and How' of the Relationship between IGOs and Peace

Why is it the case that international organizations have been linked to peace? The literature is rich with plausible rationales that are derived from a diversity of theoretical paradigms. A cursory study of the various roles, both direct and indirect, which IGOs fulfill will help in understanding why these organizations are associated with peace. The direct roles include the institutional structure of the IGOs themselves, while the indirect roles utilize a sense of collective identity and international norms.

From a structural perspective, IGOs have an expansive repertoire of tools to aid in the peaceful conduct of international relations. For instance, IGOs provide an arena that fosters discussion, cooperation, and bargaining between member-states (Abbot and Snidal, 1998). This forum allows for information to be efficiently dispersed among the membership, which lessens the atmosphere of uncertainty (Keohane, 1984; Jacobson, 1984; Archer, 1992). The reduction of uncertainty may mitigate conflict or allow conflict to be avoided outright, since the intentions of a particular policy or action are exposed.

IGOs provide a degree of legitimacy to state action, an ability that especially empowers weak states. As arenas, IGOs facilitate "the handling of more demands … permit decisions to be reached more openly...with greater opportunity for interest articulation and aggregation, thereby increasing the possibility that the process will be perceived as legitimate" (Rochester, 1993:45). Alternatively, a realist perspective would dictate that IGOs are "arenas for acting out power relations" (Evans and Wilson 1992, qt. in Martin and Simmons, 1998:746; see also Mearsheimer, 1994/1995). Through the ability to form agendas and link issues, the IGO arena elevates the status of weaker states. With these abilities, weaker states can raise issues that they normally could not through conventional bilateral diplomatic means (Archer, 1992:141).

Without an IGO as a forum, strong and weak states alike may turn to more conflictual means to redress their grievances. Lacking the tools with which to wage a peaceful battle (engagement through debate and resolutions), states may have little alternative to a military

solution. IGOs can be thought of as problem solvers. They can facilitate bargaining by reducing transaction costs and act as outright mediators in disputes, such as the International Court of Justice (ICJ). Additionally, organizations like the UN can provide monetary and military aid to make or keep the peace within a state (Diehl et al., 1996).

IGOs do not exclusively act as tools of states, but can be seen as 'governance without government'(Rosenau and Czempiel, 1992; see also Vasquez 1993, chapter 8). In this perspective, IGOs are actors in the international system. By controlling 'international regimes', such as environmental monitoring or banking systems, IGOs have fulfilled roles that have been traditionally reserved for states only (Jacobson, 1984; Keohane and Nye, 1989;Haas, 1990).

The forgoing linkages between IGOs and peace have been direct, observable characteristics or behavior. An alternative approach emphasizes the notion of an international norm. This approach utilizes the non-corporal nature of an organization and looks beyond the organization as a structure or actor, but instead looks to the ideals it upholds. In other words, it is not the IGO per se that is of primary interest, but the bonds (and types of bonds) between states that the organization is indicative of. Norms are patterns of behavior around which expectations and obligations form (Krasner, 1983:2). These norms are institutionalized in the form of international organizations (Keohane, 1983; Keohane and Nye, 1989). IGOs are often thought of as the physical embodiment of international norms (Russett and Oneal, 2001:175). These patterns dictate the boundaries within which state action is determined to be satisfactory (Goertz and Diehl, 1992;Cortell and Davis, 1996). Norms constrain state action, the extent to which "even governments with superior capabilities...will find it hard to work their will when it conflicts with established patterns of behavior with existing networks and institutions" (Keohane and Nye, 1989:55). Norms pervade the system, but not all pertain to peace. Furthermore, norms of peaceful resolution of disputes vary in strength and applicability. Some norms restrict unilateral state behavior and encourage multilateral approaches in deriving solutions (Martin, 1992:767-68; Wallensteen, 1984). Still other norms discourage the use of certain types of weaponry that can be deployed in war (Claude, 1984:chp. 13). One could argue that most states abide by the norms manifested by IGOs most of the time. War, for instance, is still a rare event.

This research posits that some types of IGOs are better at realizing peace than are others. Thus a typology of IGOs will be created. How can the development of a typology be justified on a theoretical basis? Unfortunately, a comprehensive and unified theory that could explain the

necessity for the typology does not stand out of the existing literature. Identifying international norms as the substance behind the relationship between IGOs and peace IGOs is only the first step. Leading researchers in this area have addressed this issue by saying, "ideally the total [number of international organizations] should be broken down and some organizations given special weight, but this is hard to do as a practical matter and there is *little theory to guide the attempt*." (Oneal and Russett, 1999:15, emphasis added). I will offer a theory that is not from one source, but of multiple origins. I borrow primarily from the neo-functionalist, neo-liberal institutionalist, and the social constructivist traditions (see Finnemore, 1996a and Ruggie, 1998 for a detailed history of these approaches).

The norms embodied by IGOs are signposts that guide state behavior. Essentially, these signposts are the sum of the lessons learned in the conduct of state relations. IGOs teach the prevailing norms of the community of states (Finnemore,1993, 1996b; Finnemore and Sikkink, 1998). Furthermore, not all norms are of equal strength and do not necessarily pertain directly to peace. Consequently, I will distinguish among IGOs to identify those types that have the greatest likelihood of producing normative frameworks that promote peace. For example, I do not expect the International Institute of Agriculture to emanate the same norms as say the North Atlantic Treaty Organization (NATO). While the former plays an important role in agricultural research and ensures quality standards are upheld, the latter is more salient to the norm of peace.

Essentially, I create the typology by assuming there is a distinction between high and low politics. The seasoned functionalist distinction assumes high politics deals with security or law/governing issues, while low politics pertain to such issues as trade, environmental protection, health and safety. In a seminal work, David Mitrany establishes a theory of peace that builds from low level state cooperation, trade organizations for example, into international integration that forms peace systems (1946). For Mitrany, cooperation that took place at a technical (low politics) level would successfully build into higher forms, where states would have so many bonds, so much in common, that non-military means of conflict resolution would become commonplace.

In the current literature, the high versus low politics delineation has been grayed. Many argue that trade for instance should be considered high politics in modern statecraft (Skålnes, 2000). I use the high/low politics distinction not as an inflexible guide as to how to classify

IGOs, but as a heuristic tool. It provides the starting point for the search for IGOs that sow and nurture peace.

I diverge from functional theory, and its neo-functional variants, in that I neither ascribe to its gradualistic perspective nor its diluted vision of norms. The functionalist path to peace is one of extensive bonds between states. Later scholars build upon and reformulate this path by focusing on the density of IGO networks and labeling this phenomena 'interdependence' (Keohane 1984, Keohane and Nye 1989). Yet the existing theory is still not satisfying. The problem as I see it, resides in the fact that this tradition argues that the extensiveness of the ties, the norms, that bind states together are what matters, not the effectiveness of those ties. As one progresses from low to high politics, I argue that the inclusiveness and the strength of the norms embodied in IGOs increases. For example, an international trade union can foster mutually beneficial relationships of cooperation. While this norm of cooperation cannot and should not be readily dismissed, it may be less persuasive than the norms of, for instance, a mutual security organization.

A final justification for using a typology of international organizations is its ability to be used as a tool to map the international global institutional context. This context conditions both state actions and expectations, in how it makes and evaluates policy decisions. Restrictive international contexts discourage unilateral state behavior in favor of multilateral approaches and conflict resolution techniques that use a non-military or a restricted military means. On the other hand, a permissive context does just the opposite and is less conducive to peace (Wallensteen, 1984; Domke, 1988; Kegley and Raymond, 1990; Vasquez, 1993: esp. chp 8; Raymond 2000). One would expect that stronger norms pervade restrictive contexts, and would be embodied in effective 'high politics' international organizations.

The forgoing approaches on the link between IGOs and peace can be divided into a simple, though not mutually exclusive, dichotomy: IGOs as peace mechanisms vs. IGOs as normative institutions. The aforementioned functions of IGOs, in general, illustrate the means by such organizations have the potential to reduce conflict between states. This first approach holds great promise for resolving or pre-empting disputes by having IGOs act as mediators, information and forum facilitators, etc. On the other hand, IGOs are linked to peace through international norms. Norms guide state actions and teach expectable means of behavior. While both approaches can be utilized as justification for developing a typology, I find the normative

linkage between IGOs and peace to be a stronger argument. As sentinels that will not allow past lessons to be lost, IGOs infuse the system with effective norms that promote peace.

Relevant Empirical Literature

    While the literature on international organizations in general is quite large, there is only a handful of quantitative efforts that test the link between IGOs and peace (for an informative review of the history of the study of international institutions see Martin and Simmons, 1998). The breadth of the literature can be placed in three types of analysis. The first type is composed of IGOs and their relationship with peace in the system as a whole. In general, these studies measure the number of IGOs or memberships in IGOs in the system and the number of wars that occur annually. Secondly, a comparative case study approach is used to track the specific actions of IGOs as actors (mediating, peace-keeping, etc) and how they help to realize peace. Lastly, a dyadic approach investigates how IGOs form specific bonds between states and how those bonds affect the occurrence of war. After a brief summary of where the literature stands on this relationship, I hope to illustrate the need for further research. Moreover, my research will refine the accumulated knowledge concerning IGOs and peace by filling a very evident gap that exists in previous research efforts.

    The first large-scale quantitative assessment of the relationship between war and IGOs is on the system level was done by Singer and Wallace in 1970. They theorized that the system would experience less war if more organizations were present, since IGOs would form a context that encouraged non-military means of conflict resolution.   They utilize the Wallace and Singer (1970) data on IGOs from 1816-1964, and the only distinction they make among international organizations are those that are international governmental organizations (IGOs) and those that are non-governmental organizations (NGOs). They do acknowledge that they:

> fail to discriminated between the most and least 'important' (or relevant or powerful) or that we might do well to distinguish between those which are 'really' intended to contribute to peace and those which are little more than a façade for preserving the distribution of power or wealth in the system. We think such comments are well taken in principle but that they pose two serious problems. First,… capricious subcategories … [will] reflect little more than one's personal (and not reproducible) biases. Second, and more important, a cardinal rule of research strategy is to avoid refinement of one's data until certain brush-clearing analyses have been completed. (1970:528)

Though they are engaged in a "brush-clearing operation", they do in fact ignore their own advice and implement a distinction that weights organizations according to their 'diplomatic importance'. In footnote 11, they describe this diplomatic importance measure as one that ranks and counts the number of diplomatic missions a state possesses; thus weighing more heavily those organizations that have in their membership states that are thoroughly diplomatically engaged in the fabric of the international system (a measure in a similar spirit in the contemporary literature, may be the major power status of a state). What Singer and Wallace find is that there is a positive correlation between the termination of war and the increase in the number of organizations (Singer and Wallace, 1970:540). However, the correlation could not be used to directly substantiate the claim that IGOs help to realize peace, since it was found that IGOs were generally created after wars were fought. In other words, a causal relationship between the number of IGOs in the system and the prevention of war (in terms of the number of nations at war per month) could not be established (537).[1]

However, the finding that IGOs follow wars is not devoid of insight. A war can be seen as a breakdown of the order, rules of the game, of the system. One perspective of IGOs is that they help to establish an order or guides for state action. Therefore, the number of IGOs that were created following wars seemed to substantiate the notion that IGOs were perceived to reduce the occurrence of war. Thus the high correlation between the end of wars and the creation of new IGOs to prevent further war (547). They state that their finding suggests " that quite a few statesmen *did*, when the costs and tragedies of war were still fresh in their memories, seek to avoid further slaughter via the establishment of new or additional intergovernmental organizations" (531, emphasis in original). The Singer and Wallace analysis was later criticized for the fact that it only had seven IGOs in the data from 1815 to 1870, and it was theorized that during this time period states used diplomatic conferences to resolve disputes (Faber and Weaver 1984:523).

In his book *War and the Changing Global System* (1988), William Domke embarks on an ambitious project where he is one of the earliest scholars to test the impact of regime type, international trade, and IGOs on the probability of international war. His overall theory is that states that follow power politics practices are more likely to make decisions to go to war, than

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[1] It is interesting to note that their measure of the weighted memberships was consistently out-performed (in terms of rank-order and product-moment correlations) by both the sheer number of organizations and the aggregate number of memberships.

those states that are not bound by power politics thinking. Participation in IGOs are key to preventing war since "international organization serves to undermine power politics through the replacement of self-interest and rivalry with institutional arrangements to support common interests"(55).

Like Singer and Wallace, Domke adopts a systems level perspective though he only investigates state behavior from 1870 to 1975. Domke counts the number of wars in a given year and the aggregate number of memberships that nations have in international institutions. What is of particular interest here is that he implemented a typology of IGOs, since he theorized that "IGOs with different purposes may have different relationships to decisions for war" (152). His typology differentiates between three functional purposes: security, economic, and social. Domke theorizes that security organizations will provide the strongest constraint on a state's decision to go to war, since they both deter disputes and have means to resolve disputes peacefully. He finds in his previous research that trade acts as a deterrent on the use of war, and suspects it may have the same effect when institutionalized in economic IGOs. His final category identifies those institutions that deal with social issues, where he hypothesizes they would be negatively related to war. "In other words, governments with a greater involvement in IGOs dealing with social and cultural issues may be more interdependent and have weaker advocates of independent national action and power politics" (153). An additional criterion employed by Domke looks at the type of membership of the organization; is it a regional organization or a universal organization? He posits that regional organizations may be in a better position to produce peace since they are more cohesive and are more readily identified with common principles of interaction, than are IGOs that are universal in scope. There are clearly some interaction effects at play here between the issue focus and the geographic scope of the membership of the IGO; however, Domke instead does two separate tests, one that looks at the purpose and one that looks at membership scope.

Despite a promising theoretical contribution, the empirical findings of Domke's tests are for the most part inconclusive, a fact he admits, since so few of his models produce any statistically significant coefficients. He does find supporting evidence that regional organizations tend to reduce the probability of war, though the issue type of the organization does not seem to matter. It is in my opinion that Domke's results are so weak for two reasons. First, Domke conceptualizes his entire framework of 'the decision to go to war' as an individual

state's decision irrespective of any characteristic or influence of its potential adversaries. When he discusses membership in IGOs theoretically, he is indirectly referring to a *dyadic* relationship, though his empirical focus become the monad and the system. True, while an individual state's propensity to join IGOs of various types may be reflective of its willingness to dismiss practices of power politics, how is it to behave when confronting an adversary who embraces power politics? For a security IGO to resolve a dispute, would it not be the case that it has jurisdiction over the states involved? While I think Domke's brief theoretical rationale as to how the various types of IGOs are to impact war is on the right track, he chooses the incorrect unit of analysis to test his hypotheses.

Secondly, Domke's study suffers from an unusual choice of estimation technique, a probit analysis on a dichotomous dependent variable of 'war' and 'no war'. Instead of looking at the number or intensity of wars per year, he is only concerned about whether *any* war occurred that year. Since he is using Wallace and Singer's data (updated to 1975 using Jacobson, 1979), it seems strange that he throws out information about the number and intensity of wars to conduct a probit analysis. Another problem with using a dichotomous variable here as the dependent variable is that it considers only the first year of a multi-year war as a qualified 'war'. In other words, his cases of 'not war' include the five years when WWI was ongoing, as well as the years of 1940 through 1948 that follow the start of WWII, among others (1988: 149). Therefore, it is not surprising that his statistical testing on the bivariate level is inconclusive. However, in his multivariate analysis, where he includes the degree of the freedom of political participation and the extent to which states are involved in international trade, he does find that statistically significant coefficients that imply IGO membership in the system reduces war. Moreover, he finds good evidence that regional IGOs are especially well equipped to prevent war.

Oneal and Russett (1999; also Russett and Oneal 2001) update and modify the systems level hypothesis and find encouraging results for the IGO and peace relationship. Unlike previous analysts, Oneal and Russett analyze the average number of IGO memberships instead of the sheer number of IGOs. They find a significant inverse relationship between the average number of shared IGO memberships in the system and the probability of militarized disputes for contiguous dyads from 1954-1992 (1999:27). They theorize that a high average membership is reflective of a strong normative constraint on militaristic state behavior. Russett and Oneal cite Wendt (1999), among others, who stipulate that the evolution of the international system is

conducive to the Kantian tripod for peace- democracy, trade, and IGOs. And that the benefits of these factors will spill over into other pairs of states who may have small quantities of the components of the Kantian system (2001: 179).

Another prominent systems level study finds the IGO path to peace to be an indirect one. While Wallace (1972) is primarily concerned with the relationship between status inconsistency and war, he does attribute much of the peace he discovers to IGOs. Wallace finds IGOs prevent war by reducing the number of arms races that are in turn, a major cause of war (66).

From a theoretical perspective, one can conclude the following on the impact of IGOs and conflict in the system. First, and most strongly, IGOs follow major shocks in the system. They are often created at the end of major wars. This can be seen as establishing new rules of the game in the conduct of statecraft. Secondly, that IGOs of different types have disparate impacts on the war-proneness of the system. Eras that have more regionally focused organizations tend to have less war than those that are dominated by universal organizations.

By far the largest area of the literature on IGOs and peace are specific case studies of conflicts. The relationship between IGOs and their ability to resolve ongoing conflict has been a frequent topic of investigation. Early work in this area looked at the number of conflicts brought before IGOs and the organization's ability to manage the conflict (Holsti 1966; Coplin and Rochester 1972; Nye 1979; Haas 1983). The results of the early efforts have been confirmed by more contemporary ones, showing that IGOs provide mixed results in their ability to provide peaceful ends to conflict (Diehl et al.1996, Diehl 1997, Legro 1997). One of the difficulties in the assessment of the organization and its peace making effort is in how to define a success. Is a success judged in terms of whether the parties no longer fight, do not fight for a few years, or the number of casualties that are reduced? Or by resolving the issue at hand or by ending a rivalry without a war?

Another approach that rounds out the literature in IGOs and peace, is done on the dyadic level of analysis. It has been shown that shared IGO memberships decrease the probability that a dyad would experience war (Skjelsbaek, 1971; Hopkins, 1974; Russett et al., 1998; Oneal and Russett, 1999; Russett and Oneal, 2001). It is important to note that these analyses treat all IGOs as equals. The studies argue that it is the density of the network of IGOs between two states that creates peace. Furthermore, they perceive IGOs as just one component of an overall system of peace. Russett and Oneal in particular cite the Kantian tripod for peace where it is theorized that

IGOs in combination with trade and democratic governments create norms that reduce the probability of war. Therefore, while not alone in a path to peace, IGOs do play a very important role (see also Archibugi, 1992).

It is crucial to note the impact of a research design on the testing of the link between IGOs and peace. The selection of a population sample is important in any analysis, but the IGO-peace linkage seems to be particularly sensitive to such concerns. A dyad year approach, a sample of all possible dyads, suggests that the relationship between IGOs and peace is negative, while a politically relevant dyad[2] design, a subset of all possible combinations of states, produces a positive relationship (Oneal and Russett 1999: 23). Additionally, a directed versus a non-directed dyad year format plays an important role. It was found that in non-directed dyads, from 1885 to 1984, there was no statistically significant linkage between IGOs and peace; however, a directed dyad approach found that shared memberships in IGOs had lessened the likelihood of an occurrence of an MID (Bennett and Stam, 2000:671).

While the vast majority of the quantitative literature does not distinguish amongst IGOs, two dyadic level analyses stand out. David Hopkins (1974) and Boehmer, Gartzke, and Nordstrom (2000) develop typologies of IGOs to capture the diverse effects IGOs have on peace. While Hopkins offered insight on how different organizations behave, his work has been completely ignored by the quantitative literature- a fact likely due to his only work on the subject being confined to his doctoral dissertation. His dependent variable ranges from trade disputes to diplomatic and military confrontation. Hopkins casts his typology in terms of scope (universal versus regional) and function, which range from political/law governing IGOs, to military/security pacts, to social and economic organizations. His major findings are that regional organizations and political/law organizations have the highest potential to reduce the level of military conflict in a dyad (Hopkins, 1974:316-23). Overall, Hopkins finds that dyads with any type of organization fare better than dyads without shared IGO memberships in terms of the amount of peace they experience. While this study certainly cannot be called comprehensive, due to methodological (simple correlations) and temporal domain concerns

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[2] A politically relevant dyad is defined as a dyad that either is contiguous and/or one state in the dyad is defined as a Major state. A Major state is one that can project its capabilities or influence globally; see Small and Singer 1982 for a listing. Oneal and Russett (1999:28) argue that including all possible dyads "obscures the contribution of international organizations to peaceful interstate relations across time". They cite the proliferation of IGOs throughout the system and the unlikely possibility that a non-major, non-contiguous dyad would have the opportunity to engage in a MID as their reasons to place emphasis on their politically relevant dyad findings.

(limited 10 year sample), it does help to justify the deployment of an IGO typology in this research.

An enormous advance in the study of the relationship between IGOs and peace came with the Boehmer et al. (2000) study. First, they are interested in determining whether IGOs do influence state behavior; second, they empirically investigate how these organizations matter. They provide an overall theory of bargaining between states in which IGOs can participate. They theorize that based upon a three-prong typology of IGOs -the degree of institutionalization, its mandate, and contentiousness within the involved IGOs themselves- they can demonstrate which organizations are effective and can make a substantive impact on the dispute making propensities of states. Their assessment of institutionalization ranges from weak organizations where the "member-states themselves are responsible for coordination and cooperation" to those with formal structures regarding control of the agenda and voting (Boehmer et al. 2000:21). Finally, the highest degree of institutionalization is evidenced in those that posses mechanisms of mediation, the ability to sanction or provide economic aid. Their second component of the typology is the mandate, which they code as either security, economic, or other. The final aspect they measure is the degree of contentiousness in the IGO itself, that looks at the voting position similarity of the members in the UN General Assembly.

The Russett and Oneal (1999) data are a starting point of Boehmer et al.(2000) analysis, and they code those organizations according to the typology. With a dyad year perspective from the years 1951 to 1992, they find that IGOs that have a formal institutional structure, reduce the likelihood of a dyad entering a MID, while those that have the ability to intervene (sanctions, etc.) have no effect on the onset of disputes (26). They also find support for the theory that security organizations that have the potential to intervene reduce the probability of a MID. Lastly, the more contentious the debate in an organization, particularly among the major power members, tends to exacerbate conflict (29). In sum, they illustrate the fact that some types of IGOs are more effective in producing peace than are other types.

Conclusion

How then, do IGOs contribute to the creation of a purposeful peace? Singer and Wallace (1970) have shown that as a whole IGOs are established following major wars. What we do not know, however, are the types of these organizations. Furthermore, are there certain types that

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precede war? From Domke's (1988) research we find that regional organizations are associated with peace, but we do not know why this is the case. Do these organizations resolve an issue of contention, over water resources for example, or are they designed to uphold general norms of peaceful dispute resolution? Russett and Oneal (1999) provide additional linkage for IGO membership being associated with peace in the system, but cannot point to which kinds of organizations are responsible for this relationship.

The dyadic studies of Russett and Oneal (2001) have certainly paved the way for IGOs to be recognized as a crucial component of peace. They do, however, find the IGO contribution to peace only among politically relevant dyads. They essentially argue that when looking at the full population of dyads, IGO membership is so ubiquitous that it is too difficult to find those organizations that are effectively producing peace between states. Implementing a typology of IGOs will most certainly provide insight beyond Russett and Oneal's findings and explanations. David Hopkins (1974) and Boehmer, Gartzke, and Nordstrom (2000) take the first steps at producing a classification scheme, but for a variety of reasons mentioned above, they do not go far enough. A new typology is certainly warranted to identify which IGOs are sown for peace.

My research makes a substantial contribution to the established literature by concentrating on the independent variable, the IGOs themselves. The research thus far has not tested the variance of the independent variable. The selection of IGOs to test theories has been too narrow to draw out the full implications or the robustness of the relationship between IGOs and peace. Therefore, a new measure of IGOs is needed. In the next chapter, the coding rules and the population of IGOs to be studied will be presented. Some time will be devoted to uncovering the type of state that gets involved in IGOs and how IGOs in general contribute to an overall context of international peace.

CHAPTER II

A SNAPSHOT OF THE NETWORK OF ORGANIZATIONS

Since the focus of this research effort is IGOs, it is first necessary to define the population of such organizations. Additionally, since a potential contribution of this research is a data set of IGOs that can be used in the larger community of peace research, a thorough discussion of the data is warranted. I will begin the research with a discussion of a formal definition of an international governmental organization. Next, I will develop a typology that will identify those characteristics of an IGO that are particularly related to peace. Subsequently, I will discuss how the data were generated and then discuss their contours. Thereafter, I will look to develop a profile of dyads that are likely to share memberships in general, and then in the different types of organizations.

What is an IGO ?

For the casual observer, IGOs may seem as simple as being mere meeting halls under which traditional diplomacy takes place, or as governmental actors themselves (Jacobson, 1984: chp 1).   In reality, IGOs may actually embody both images. IGOs are most often formally defined as "those associations established by governments or their representatives that are sufficiently institutionalized to require regular meetings, rules governing decision making, a permanent staff, and a headquarters" (Shanks, et al., 1996:593).

One of the key criteria is that the organization must be established by formal agreement between sovereign states. Therefore, non-governmental organizations (NGOs) can incorporate nearly all the same characteristics or functions of IGOs except they were not formed by governments; though governments, individuals, or corporations may be members of NGOs. While IGOs are vastly outnumbered by their NGO counterparts, 25 to 1 (241 to 5,036 conventional IGOs vs NGOs or 6,556 to 45,674 non-conventional -see discussion below) in 2001, they do not play the same roles in international politics (UIA, 2001: Appendix 3). IGOs have an institutionalized place in the fabric of international politics and often deal directly with issues of war and peace; in other words, IGOs provide a deep network of connections between states. On the other hand, NGOs are typically involved on the sub-regional level and can be

concerned with just about any topic under the sun. I would argue, NGOs are more focused on improving the networks between people(s), than they are between states[3]. From Clowns Without Borders to the International Red Cross, the network of NGOs is a vibrant one, but its relationship to the conflict propensities of states is far from clear. That is not to say that NGOs do not have any impact on the conduct of international relations, nor specifically on war and peace.

A good example of emerging power of NGOs can be seen in the campaign to ban landmines. In 1992, six NGOs pooled their energies to form the International Campaign to Ban Landmines (ICBL). The agenda setting of this organization cannot be overstated. In 1997 it was awarded the Nobel Peace Prize, and was recognized for its effort to change " a ban on antipersonnel mines from a vision to a feasible reality" (qt. in Willams, 2002).   Subsequently, an international agreement was signed by 121 governments to formally institutionalize this commitment to rid the world of landmines. Clearly, this initial NGO effort has begun to change state behavior.

The notion that NGOs do not matter when dealing with war and peace generally, cannot be supported merely from the fact that they do not consist of sovereign international states. The difficulty in linking NGOs and war and peace is two-fold. First, there is no theory as to how these organizations are to have an impact on interstate relations. Secondly, the typical definition of an NGO is too amorphous to be of much use. According to the UN, per Resolution 228 (X) of 27 February 1950 when the consultative status to the UN of many organizations was being considered, "any organization which is not established by intergovernmental agreement shall be considered as a non-governmental organization" (qt. in UIA, 2001: Appendix 2). Marina Ottaway, a senior associate at the Carnegie Endowment for International Peace (an NGO?), has commented on the explosion of NGOs in the area of economic development by stating "in Africa, a $10,000 grant buys you an N.G.O….[and] one of their main characteristics is that they have three people: a director, a secretary, and a driver." (qt. in Onishi, 2002). Clearly, NGOs should be the subject of a major research effort to identify their impact on war and peace; however, the study of how intergovernmental organizations relate to war and peace is on much stronger theoretical and empirical ground.

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[3] My thanks to John Vasquez for pointing out that NGOs can be seen as types of organizations of liberal modernity to generate a civil society for the global political system. This civil society, however, can have a strong political bias that may or may not be representative of any one state or the aggregate of states.

Another component of the definition of an IGO is that it must have some sort of an "international legal personality". This personality essentially means that the membership recognize the IGO as such, that they purposefully constructed this organization for a given reason and breath some degree of life into it (funding, jurisdiction, staff, etc.). That is, the organization must be afforded legal standing in accordance with international law. Typically, UN recognition has served as a means for an organization to be granted an independent legal status (Russet et al., 1998,443; Archer, 1992).

The majority of definitions also require that the IGO have a minimum of three qualified members of the international system to be included (Shanks et al., 1996). The original data set on IGOs produced by the Correlates of War Project (COW) set a two state minimum. It was argued that a three state standard would drop many important early IGOs or would drop an organization that dips to only two states for a short period of time (for further explanation of this two state rule see Wallace and Singer, 1970:248-251). Since most definitions, including in the Economic and Social Council of the United Nations definition in Resolution 288(x) of 27 February 1950, utilize a minimum of three member-states, the same standard is applied herein (it is not clear which organizations Wallace and Singer had in mind when they were concerned that it would temporarily dip to a two state institutions, since a thorough review of the data does not reveal such a case).

To date, the most widely used source for information on IGOs is the *Yearbook of International Organizations* produced by the Union of International Associations (UIA). The UIA has been publishing information on IGOs since 1907, and their mission and methodology has been endorsed by the United Nations under Resolution 128B (VI) of 10 March 1948 of ECOSOC (UIA 2001, Appendix 7). Their publication began as a half-decade yearbook and had grown to the point in the 1980s when it was offered as an annual publication (additionally, the UIA offers extensive internet based resources that are very useful).

I argue that a critical weakness in the IGO literature is that it treats all IGOs as if they all were equal in importance in realizing peace, as if the United Nations is no more important in pacifying interstate relations than the International Tin Council (governance versus an economic interest group). As stated previously, a survey of the literature dissuades any attempt at distinguishing among IGOs and weighing their effectiveness in state relations (Wallace and Singer 1970, 241-2; Nierop 1994, 100-2; Russett et al. 1998). However, the theory suggested

here allows one to distinguish between IGOs overcomes the caution of the literature (see also Boehmer, Gartzke, and Nordstrom, 2000). It is interesting to note that the prominent scholars studying the relationship between IGOs and peace, Bruce Russett and John Oneal, seem to be moving toward distinguishing between types of IGOs. Early on, like Wallace and Singer, they speak against a typology of IGOs:

> We concur with *Tom Nierop* that "Designing a simple, unambiguous, workable, and satisfactory classification of IGOs as to 'political weight' or strength of political links proves virtually impossible." We hypothesize instead that the strongest peace-promoting effects are likely to be achieved by a dense network of IGOs devoted to diverse purposes. (Russett et al., 1998: 451) [emphasis added]

However, in their latest iteration of IGO research they apparently do not concur so strongly with Nierop; they say in footnote 7 "We are not so pessimistic as Nierop [as to developing an IGO classification], but further research and considerable ingenuity will be required."(Russett and Oneal, 2001 :170). I suspect in the future we will see a typology similar to the one proposed here being offered by Russett and Oneal.

Different types of IGOs produce different norms of different strengths. The question then turns to the type of filter that should be applied. How does one theoretically identify an IGO that is good at promoting peace? Should the age and the size of membership matter? Is the ability of an IGO to remain close to its formally stated purpose a relevant issue? While no list could be considered complete by every researcher who reviews it, there are a number of essential characteristics that have been made evident in the IGO literature in one way or another. The following six criteria can be employed in a theoretically relevant manner:

Table 2.1

IGO Typology

1. Scope of membership, regional or universal.
2a. Issue area that the IGO is intended to address:
   a. Military = Security concerns; territorial, border questions
   b. Political = Legal, administrative
   c. Economic = Trade organizations, customs unions, economic development, banking
   d. Social = Natural resource management, health, culture, education, safety, infrastructure, communications, tourism, science and research

2b. Presence of specific structural mechanisms for conflict resolution
3. Status of membership (major states/minor states)
   a. Considered an emanation?
   b. Number of emanations related to 'parent' IGO
4. Number of international conferences held; number of treaties created
5. Size of budget; personnel
6. Decision-making structure/ degree of legalization

The first distinction between IGOs to be made is the scope of membership. This measure is a simple indication of the demography of an IGO. It may be the case that regional organizations are more important since the membership would have a clearer sense of their expectations from such an organization (Nye, 1979;Domke, 1988; Feld et al. 1994). Regional IGOs may perform better than universal IGOs since they may have a more direct purpose and connection to the members. On the other hand, a universal IGO, where membership is open to any state, may be more important since it provides a wider audience for interest articulation. It may also be the case that a universal IGO may have the ability to provide the necessary incentives to change or encourage a specific state's behavior. Within this measure, one also needs to be aware of the distinction between who is allowed to join a given organization versus which states actually join.

The second characteristic of the typology is the issue focus of the organization. Identifying the issue area of an IGO may not be as straightforward as it seems. Numerous IGOs are multifaceted mechanisms that have the breadth to address a host of issues. It is difficult, for instance, to characterize the United Nations into a tight category that would encompass all of its functional types. Theoretically, the issue focus of an organization may provide the simplest

distinction that allows one to identify organizations that help to realize peace. For example, an organization that oversees territorial questions may more effectively promote peace than say an economic organization.

The difficulty in coding the issue area comes in specifying the number of categories that make useful distinctions between organizations and yet are theoretically informed. What is the ideal number of categories? The functionalist theory of high/low politics coupled with the notion of a purposeful peace best applies to four categories: IGOs that deal with military, political, economic, or social concerns (see Domke, 1988 for a similar distinction). Table 2.1 also lists many of the sub-categories of organizations that may make important distinctions among IGOs, but do not have theory to explain their relationship with peace. For example, how or why would IGOs with an agricultural focus impact conflict differently than a health organization or an IGO concerned with navigation? Within the issue area, I will also determine whether or not the IGO has specific mechanisms for conflict resolution. Such 'in house' mechanisms may prove very useful for pacifying member state disputes.

Of all the criteria, the status of an IGO most closely resembles an ordinal variable. An IGO can have more or less status relative to another. Within the realm of international politics, organizations that consist of major states (ie. US, Great Britain, Russia, China, etc) are typically considered more powerful than those organizations of minor states (Chile, Egypt, Canada, etc.) (Jacobson, 1984).[4] They are more powerful in the sense that they are afforded more prestige in traditional diplomatic circles and that their voice and decisions are given more weight in state decision making.

Additionally, whether an IGO is considered an emanation is taken into account. The UN defines emanations, or second-order IGOs, as those IGOs that are part of a family or network of IGOs. The fundamental characteristic of an emanation is that it was not created by a formal agreement between states, but was created by a parent IGO (Shanks et al, 1996:593). For example, the UN created the World Heath Organization when it decided it needed a specialized agency to deal with a specific issue area. Since the parent IGO is branching off into different directions, it may be a sign that the cooperation established between the original member-states is useful to the members. Consequently, expansion is undertaken to strengthen member-state

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[4] The standard definition of a major state is taken from the Correlates of War project and can be found in, Jones, Bremer, Singer 1996.

relations and reflects the salience of the IGO to its members. Typically, the membership of the parent IGO is transferred to the emanation with consent of the former. Since the literature does not offer a systematic definition of an emanation some difficulties arise. For instance, when is an emanation considered as a 'true' IGO? The UIA means to identify an emanation are unsatisfactory. It measures an emanation as an organization that incorporates "the name of another organization" (UIA, 2001:Appendix 2). The World Trade Organization was originally created under the auspices of the UN, but has it grown to become an independent IGO? The criteria I will use to determine independence will be whether the leadership of the IGO is self-appointed (not determined by the parent IGO), and that it has its own secretariat, headquarters, and budget.

The number of conferences called and treaties that result are illustrative of the utility found in IGOs. This relationship is hypothesized to be a direct one. The more conferences (in excess of the number they are formally required to hold as specified in their constitutions) and treaties created under the auspices of an organization, the more effective the IGO in the conduct of foreign relations. The size of the budget also gives one the sense of the importance of a given IGO. If available, the actual size of the funds received will be compared to the amount the IGO asked for from its members. An IGO that asks for a large amount of money, but receives very little may not be perceived as a useful IGO by it members. On the other hand, a state that refuses to pay its allotted budgetary commitment may feel that the IGO is too powerful and needs to be reigned in (e.g. the US refusing to pay all its UN dues may be a sign of a stronger UN).

The final criterion distinguishes among the type of decision making. For instance, is the organization centralized or are important decisions made at the plenary level? Different types of decision making are stronger than others in the extent to which they can condition actions of states. A decision by the Security Council versus the General Assembly of the UN is a good example. A factor closely tied to the type of decision making is the degree to which the organization is legalized. Legalization can be characterized by three components: obligation, precision, and delegation (see Goldstein et al 2000, Abott and Snidal 2000, and Keohane et al 2000 for a complete discussion). Briefly, obligation refers to the 'boundedness' of states to the rules of the organization or a commitment made thereof. Precision refers to the clarity of the rules, and delegation refers to the ability of third parties to implement decisions and interpret rules. This criterion will borrow heavily from the literature of international law.

Operationalizing this definition legalization may prove to be untenable for this project, but much of the information can be gained by reading the treaties that create the organizations.

Methodology of Data Collection

To undertake the proposed research, one must first have the necessary data that describe IGOs. The relevant question is 'where does the data come from'? Ultimately, it was determined that the theory and data requirements demanded that a new data set be created. Below, I will assess the rationale for rejecting existing data followed by a full explanation of the method followed to generate the new data and the implementation of the typology.

In the current empirical literature, the Russett and Oneal data on joint IGO memberships provide the only large-N source data on IGOs that is ready for analysis. For a host of reasons, however, the Russett and Oneal data are not used. First, the Russett and Oneal data only indicates the number of joint memberships shared in a dyad for a given year. Their data do not contain any of the requisite substantive information about the actual IGOs that are shared in dyad to implement the typology.

Secondly, the Russett and Oneal data limit their temporal domain to 1886-1992. Russett and Oneal do not give a theoretical rationale as to why they adopt this start date, but it looks like it was due to missing trade data (see page 90 and footnote 6 on page 140 in Russett and Oneal, 2001). While the population of IGOs prior to 1886 is not large, there is little missing data back to 1815. Since the MID data set starts at 1815, there is no reason to look arbitrarily only at IGOs from 1886 onward.

Thirdly, the Russett and Oneal data are not used here, even as a starting point, due to their coding rules. " We include all 'conventional international bodies" listed as intergovernmental organizations in Sections A-D of the *Yearbook of International Organizations*, 'dormant' organizations are not counted" (Russett and Oneal, 2001: 169). By excluding organizations from other sections, section E and F specifically, they are eliminating important organizations as will be shown below. The *Yearbook* does a very good job establishing its selection criteria for organizations that conform to the various sections as follows:

Table 2.2

UIA Type
A= federations of IGOs
B= universal mem. Organizations
C= intercontinental membership organs.
D= regionally defined memb. Organs
E= emanations
F= organizations having a special form

Source: UIA, 2001: Appendix 2

As previously stated, I am not excluding emanations, section E type, if they meet the other stringent criteria discussed below. Since they do not want to analyze emanations, this exclusion is not surprising. However, when Russett and Oneal exclude all organizations of type F in Table 2.2 they are potentially leaving out very important IGOs such as the World Bank and the International Monetary fund. Since the Russett and Oneal data use the Wallace and Singer data from 1970 as a starting point in the construction of their data, as does the new data that is described herein, significant attention should be given to the Wallace and Singer (1970) study.

In 1970 Wallace and Singer, set out to conduct a comprehensive study of IGOs that entailed a major ground-breaking research effort. The scope of the data was from 1815-1965. The original data included the names of the organization and its entrance and exit dates from the system. The data also included a country membership list for the majority of the IGOs. The original data collection effort broke up the temporal domain into half decades, and identified gaps in their data, especially during the inter-war period, as problems with their primary sources (Wallace and Singer, 1970:244). Precise beginning and ending dates for IGOs are difficult to determine for a number of reasons. Is a birth of an organization marked by the full ratification of its charter or by the date of its first session? Likewise, IGOs seldom die, even when their mandates are outdated or have been completed (Shanks et al., 1996:593,597). Wallace and Singer address these issues by establishing beginning dates with the first plenary session, and the death of an IGO coming with the "lapse of ten years without a plenary meeting" or when "one organization is formally replaced or succeeded by another." (1970:247). Additionally, a more widespread problem not addressed in existing compilations is that of membership turnover. Just as IGOs can become inactive, so can their membership. The fact remains that few states

formally withdraw from IGOs, and are purged from organizational rolls in an arbitrary and unsystematic way. Table 2.3 summarizes the selection criteria for Wallace and Singer.

Table 2.3

For an IGO you need (Wallace and Singer 1970)
1. At least 2 qualified members of interstate system 2. Hold regular plenary sessions at intervals not greater than a decade 3. Must have a permanent secretariat and headquarters

The issue of updating the temporal domain of the Wallace and Singer data set to 1992 aside, while providing a foundation on which to build, cannot be readily implemented for the complete testing described thus far. First, the 1970 data were primarily created for use in a systems level analysis. This means that for much of the data, the authors were more concerned with identifying and counting IGOs than they were describing the memberships of those IGOs in detail. Subsequently, much of their membership level data are incomplete. Of course, the Wallace and Singer data were the first of its kind and sparked much of the initial (and current) interest in international organizations. Likewise, the authors could not have imagined all the future applications of their data, so shortcomings of their data for the present analysis is not due to any omission of information on purpose. Since the data has systemic analyses in mind (see Singer and Wallace, 1970) their data do not contain most of the information called for by the typology, thus further data collection is needed.

The new data set collected here relies the Wallace and Singer data as a basis to extend the data to 2001, with some changes. In the new data set, an IGO must now consist of three member states instead of only two. The primary impact this change in the coding for the original Wallace and Singer data is that a few bilateral treaties between the US and Canada are excluded. For example, the North American Aerospace Defense Command (NORAD) is dropped since it is purely a bilateral agreement between the US and Canada. The inclusion of NORAD in the original data set is rather troubling since research reveals that it does not meet the other coding rules of having plenary sessions or a secretariat. It is unlikely that NORAD has an 'international

legal personality' that is recognized by the UN. After all, it is not the typical example one would identify when thinking or talking about IGOs.

In addition to their criterion of a permanent secretariat, I require that it is an independent secretariat. That is, it is not a shared workforce among IGOs that wears multiple hats and serves a multitude of interests. IGOs that are considered emanations, have a secretariat that is either full or in part, independent of the 'mother' IGO. A secretariat can be considered independent in part when it is required to have at least one of its secretariat officers appointed from the 'mother' institution. An example of an emanation with a partly independent secretariat is the Inter-American Court of Human Rights (IACHR). The IACHR was created out of the Organization of American States, which votes to elect the judges of the Court.   The judges in turn elect a secretary general, who among other things administers the budget of the Court.

The form of the Wallace and Singer data has not been changed in the data here from snap-shots of IGOs every five years. A yearly observation of IGOs and their memberships is ideal since both are quite dynamic (Shanks et al., 1996).   The yearly observations standard is good in theory, but in practice it cannot always be upheld. For instance, the UIA has significant gaps in its *Yearbook* clustered around both World Wars; prior to the first installment of the yearbook in 1911 the observations cannot obviously be yearly ones.   Where available, yearly observations are used but the majority of the data prior to 1970 is created using five year windows.[5]

The typology includes the geographic scope of its membership, and the issue area (economic, security, etc.) of the IGO. The geographic scope, whether regional or global, was determined by the actual demography of the member-states. If seventy-five percent of the member-states resided in a given region, defined in the traditional sense (Europe, Asia, etc.), then the IGO was labeled as regional organization (see Domke, 1988 for a similar characterization).   Perhaps a more theoretically succinct distinction is to label these organizations as regional or non-regional. Since I am primarily interested in the ability the types of bonds created and maintained by organizations, the scope of membership is extremely important. Do states feel a sense of collective ownership over the organization and believe that it is adequately immersed in its international context, or is the organization seen as representing the

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[5] Russett and Oneal also use the five year observations and statistically estimate, inter-polate, the intervening years. I do not use this technique since any change in the intervening five years is noted in the *Yearbook.*

interests of the world at large? For example, following this operational definition, the South East Asian Treaty Organization (SEATO) is considered to be a universal military organization.   At first, one would think that since this organization has a region specified in its very title that it must necessarily be a regional organization. However, with the inclusion of the US, France and, Great Britain the organization has a decisively non-regional character about it—how decisions are made, how it is to be utilized, etc. For example, is the commitment by some of President Kennedy's advisors, most notably Walt Rostow, to propose to use SEATO to bail out the French in Vietnam reflective of a regional interest? Or was it for an interest that was vastly larger? Would it be a different story if the junior partners of SEATO, such as New Zealand or Pakistan, were in favor of the commitment? Diem himself refused to consider the SEATO option since it reflected international interests (Halberstam, 1992: especially Chapter 9 and 10). Essentially, the categorization is an attempt to quantify the 'voice' of the organization- does it speak for geographically clustered states or someone else? Indirectly, this characterization adds an indicator of major state participation in the organization, since they are typically the only type of state capable to participate in organizations outside their geographic region.

The issue areas, listed in Table 2.1, were determined by coding the purpose and aims of the organization, as reported by the UIA. While for most analyses, the four-point issue area typology will be used in the forgoing analysis, the sub-categories are also coded. These sub-categories, IGOs concerned with water resources for example, will be presented when they clarify or deepen the picture rendered by the four –point issue area. The UIA will also be the primary source of information for the remaining characteristics of the typology in Table 2.1, such as the number of conferences held, decision making structure, etc.

While the typology presented in Table 2.1 is not extremely complex, it will provide the first steps toward understanding the relationships between IGOs and peace. In the present analysis, however, only the first three aspects of the typology, scope, purpose and status of the membership, are fully operationalized for the complete time period. Data based on the other criteria cannot be generated in a manner conducive to large-N empirical analysis. The data concerning the budgets and number of international conferences held are few and far between. These type of data are much easier to come by in the 1990s. However, since the dependent variables are only tracked to 1992 in the current MID dataset, it is not possible to conduct statistical analysis at this point. Case studies are the only method to fully implement the

typology in Table 2.1. Even if they are not operationalized here, discussion of these other IGO characteristics is important given the caveats listed by Russett and Oneal concerning the lack of theory on distinguishing between types of organizations.

The Lay of the Land

In my research, I uncover information regarding 434 IGOs, fifty-two of which are emanations, for the time period 1816-1992.   Examining the trends in the creation and demise of IGOs is a useful venture. This type of study accounts for the largest number of empirical studies of intergovernmental organizations (Wallace and Singer, 1970; Jacobson et al., 1986; Cupitt et al., 1996; Shanks et al., 1996). Describing the life-cycles of these organizations provides some insight into the motivation for their creation and their usefulness in the international arena. Figure 2.1 presents a graphical display of the trends in IGOs by their issue type and geographical scope.
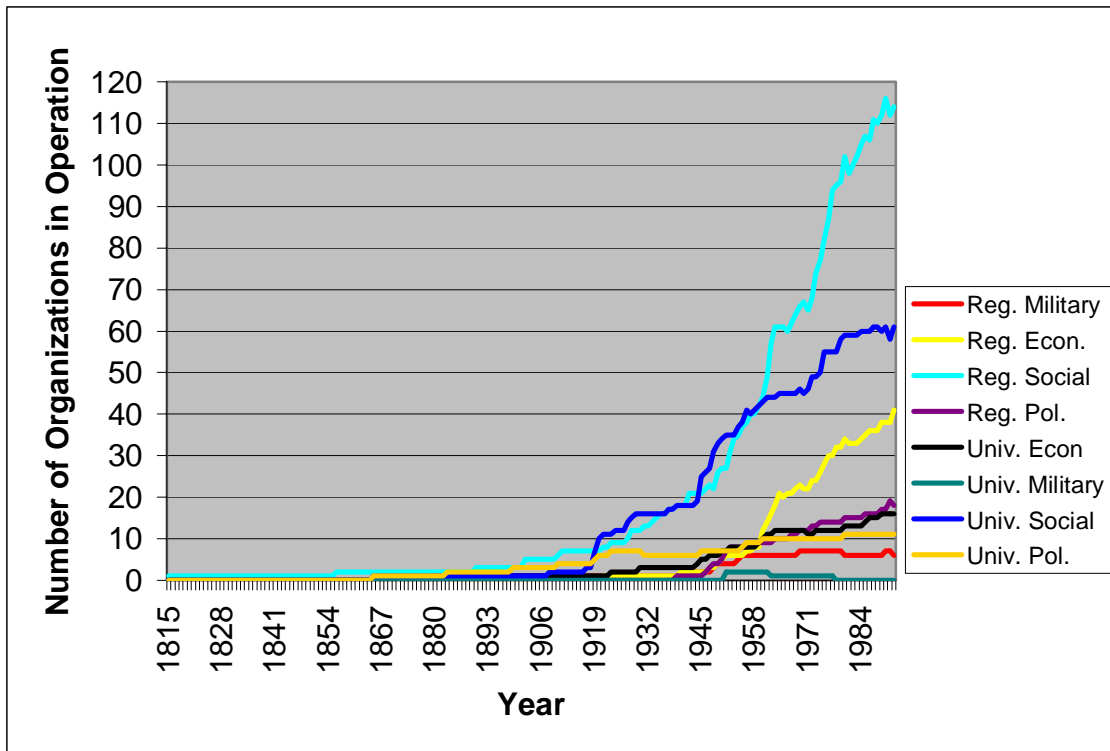
Figure 2.1 Growth in the Number of IGOs by Type, 1816-1992

The types of organizations that are graphed are regional military, economic, social, and political organizations, as well as their universal counterparts. IGOs that have a 'social' focus are the leading types of organizations in both the regional and universal categories, which is not surprising given that they are essentially catch-all classifications. On balance, there are more regionally focused organizations than there are universal ones. Early empirical findings pointed to a negative relationship between war and the number of IGOs underway in the system, and figure 2.1 may illustrate why (Singer and Wallace, 1970). The correlation is primarily due to a marked increase in organizations, especially social and political focused ones, after the World Wars. In their attempt to provide for new rules of the game and to reorder the system, IGOs are established to institutionalize this change. Therefore, in this simple approach the causal relationship is reversed-- war creates IGOs. The significant increase in the number of IGOs after the First World War, plateaus during the inter-war period. Perhaps the explosion of IGOs of all types after World War Two demonstrates the commitment to the promise of IGOs as means to realize peace. Here, regional and universal IGOs that have a social focus experience the most dramatic increases. This large increase in this type of organization is likely due to the reconstruction efforts after the war. The gains in the number of all types continues until the late 1980s and early 1990s when much of the communist bloc IGO network disintegrates. While the information on IGOs is not used in the present analysis after 1992 (though the author has data up to 2001) due to the limitations of the dependent variable, throughout the 1990s, the network of intergovernmental organizations has become increasingly dense. For example, a snapshot of the data for the year 1995 reveals 266 conventional IGOs with an additional forty-seven emanations. These numbers compare to the 266 conventional IGOs listed by the UIA for that year but the forty-seven emanations are just a fraction of the 1497 possible "non-conventional" IGOs listed (UIA 1995/96 Vol. 1, Appendix 4). The trend since 1992 however, has been an upward one for all but IGOs focused on military issues.

A more relevant snapshot to the investigation of how IGOs impact dyadic state relations is to look at shared memberships. Just because there may be a growing number of a certain type of organization does not mean states are joining them. After all, I am most interested in the density and types of IGO bonds between states, not the overall population dynamics of IGOs.

The average number of shared memberships in a given type of organization in a typical dyad is shown in Figure 2.2. Since we are looking at shared memberships, one would expect that

IGOs that have a universal scope should have a higher average than regional organizations since states that are separated by significant physical distance are highly unlikely to have a mutual membership in a regional organization. Looking at shared memberships paints a different picture than that presented in the previous figure. When just looking at the number of organizations that exist in Figure 2.1, one gets the impression that dyads are most likely to be members of regional and universal IGOs that have a social focus. When looking at the typical shared membership for the average dyad in Figure 2.2, universal political and universal economic IGOs seem to have the most consistently high memberships over the longest period of time. However, universal social organizations do become the leading category with the highest number of shared memberships for the average dyad after 1920, at numbers unrivaled by the other categories.
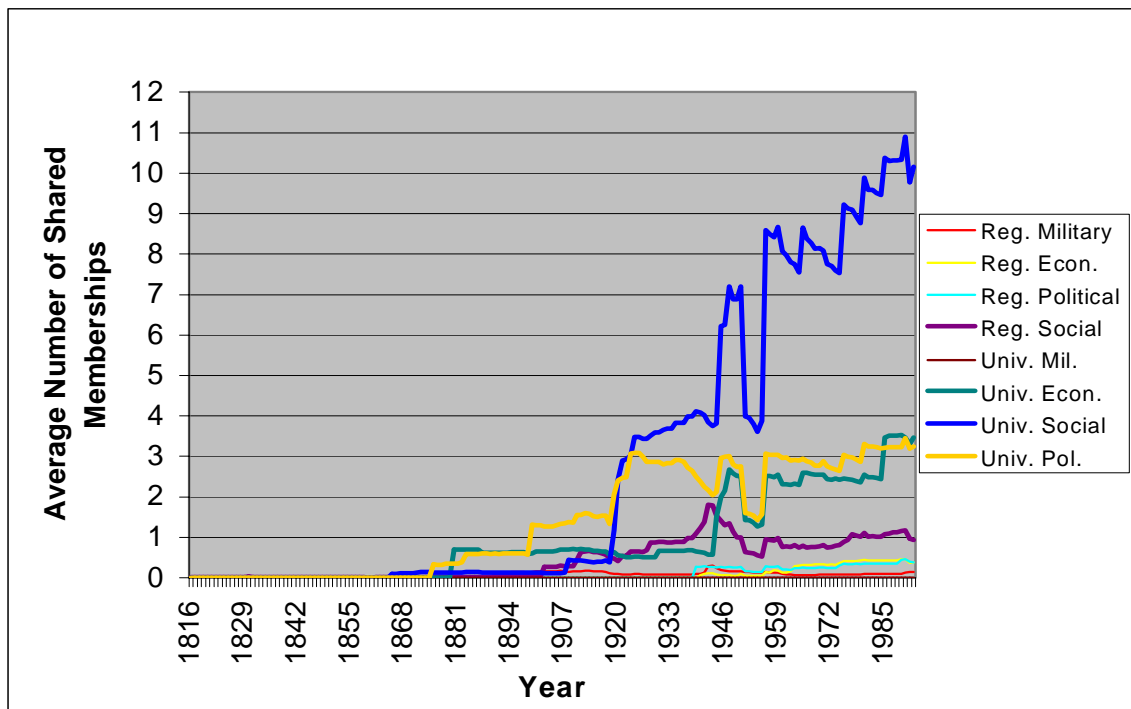
Figure 2.2 Growth in Average Shared Memberships by Type of IGO, 1816-1992

Relying on functionalist theory, I would have expected to see the average dyad enter into social oriented IGOs before they work their way up the ladder of integration to economic and political organizations. Oddly enough, the first experiments in intergovernmental institutions that elicited sizable participation by states were political or economic in nature. If the League of

Nations was created after the First World War, why is universal political IGOs the leading category up until that time? Organizations such as the International Union for the Protection of Industrial Property Rights and the Permanent Court of Arbitration, predate the League and ultimately out live it as well. The Universal Postal Union and the World Health Organization lead the charge in the dramatic increase in universal social IGOs in the 1920s.

The most dramatic of the trends visible in Figure 2.2 is the sharp drop in shared memberships of all types immediately following WWII. This drop can be primarily explained by the wave of newly independent states that were established after the war. Their presence only momentarily weighs down the average shared memberships, since once these states gain their bearings they begin to join organizations, as evidenced in the sharp increase in shared memberships in the 1950s. Of course, the way in which the Germanys, the Koreas, and China, were afforded diplomatic recognition in the years following WWII also contributes to the drop in Figure 2.2.

A full description of IGOs needs some discussion of what types of dyads are likely to join the various types of institutions. What are good indicators of the likelihood of state participation in IGOs? Studies that attempted to give a picture of individual state participation in IGOs, as opposed to shared memberships, have frequently identified the fact that democracies are more likely to join IGOs than are autocracies (Jacobson et al., 1986; Shanks et al., 1996). The literature offers three rationales, of varying strength, as to why democracies are more likely to join than are autocracies: population attitude toward the institution, stability, and system structure (Shanks et al., 1996:614).

First, it is argued a democracy is less able to suppress a population's attitude toward an IGO thus making membership more likely. However, this rationale does not specify why the population of a democracy would have a more favorable attitude toward an IGO than would a similar population under a non-democratic regime. Second, Shanks, Jacobson, and Kaplan argue that democracies are more stable, and "predictability is thought to be both a prerequisite for IGO membership and a consequence of it, the more stable countries should belong to more IGOs than their peers"(1996:614). Without delving deeply into the question of regime type and stability, this seems like a plausible explanation. Stable states have the luxury of having a presence in international institutions, whereas unstable regimes are too inwardly focused to do so. The most persuasive argument as to why democracies are more likely to join intergovernmental

organizations than non-democracies is the structure of the system. Essentially, the explosion of organizations after WWII is due to the fact that they were established by democratic states from the West.   While there are very few, if any, IGOs that have among their stated purposes to bring democracy to the whole world, many organizations espouse the virtues of democracy in their preambles. For instance, the preamble to the United Nations is heavily laden with values amenable to democracy:

> … to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and … to promote social progress and better standards of life in larger freedom,…

Consequently, the IGOs themselves support the democratic status quo. I would furthermore expect that since democracies are more likely to join IGOs, that they would also be more likely to have shared memberships in these organizations when looking at a pair of democracies.   Other factors that have been associated with IGO membership are GDP levels and the maturity of the state (Wallace and Singer 1970, Jacobson 1986, Shanks et al. 1996).

States that are more economically developed tend to become members of IGOs and states that are more advanced in age tend to join them at a higher probability than newly independent states. In predicting shared memberships in IGOs, I will be looking at the level of trade between the states. I use Barbieri's (1999) trade data in my analysis. Higher levels of trade translate into higher levels of shared memberships, the wealth of the state, as well as the duration of the dyad since they entered the international system. To create the wealth variable, I use Bremer's (1992) conceptualization of an economically advanced state as one in which its share of system-wide economic capability is greater than its share of system wide demographic capabilities. The economic and demographic capability scores are derived from the CINC scores of the states (Singer, Bremer, Stuckey, 1972). As operationalized here, the wealth variable can assume one of three outcomes in the following dyadic form: a less-economically advanced state and a less-economically advanced state; a less advanced and an advanced state; and two economically advanced states. Additionally, I theorize that states that are contiguous are more likely to share IGO memberships, as are major powers. The major power variable can assume three values on the dyadic level- two minor power states, a mixed dyad, and two major powers.

Intuitively, one would expect states that are more similar, broadly defined, would have a higher likelihood of belonging to multiple organizations. Since the number of shared

memberships can range from 0 to 80, a regression model is the appropriate technique to use. Table 2.4 displays the results of a time-series regression (AR1) of the aggregate number of shared memberships of dyads. The analysis is conducted upon yearly observations of dyads with a lag of the dependent variable included as well as an error correction for temporal dependence (see Beck and Katz, 1995).

Table 2.4

Determining Shared Memberships in IGOs Using Time-Series Regression, 1816-1992

Variable	Coefficient	Standard Error	P-value
Democratic Dyad	.256	.0203	.0000
Dyadic Trade	.00002	<.00001	.003
Wealth	.023	.0075	.002
Dyad Duration	.0002	.0003	.0000
Contiguous	.176	.0187	.0000
Major Powers	-.562	.087	.0000
Lag of Shared Memberships	.971	.0007	.0000

Note: N=139290; R^2 =.92; *=p<.05, **=p<.01

The lag of the dependent variable is highly significant and robust. It is included since the number of the current years' shared memberships is a function of the previous years number of shared memberships. Whether the two states in the dyads are major powers has the very strong negative impact on the likelihood of shared memberships in the dyad. While this finding is not expected, it can be explained. This finding may be indicative of the geography of IGO membership. IGOs are clustered in regions with high numbers of minor powers. If the dyad can be considered democratic, then it is likely to have higher numbers of shared memberships. Shared memberships increase .256 when the dyad becomes dually democratic. Other operational variants of democracy were used (two variables containing the 'autoc'-'democ' score from the Polity III data, and a 'weak-link' democracy variable of the lowest democracy score of the state

in the dyad), and while they were in the same direction, they had smaller coefficients than the jointly democratic dummy variable. Contiguous states are more likely to belong to the same international institution than are non-contiguous states. The indicator of the comparative wealth has a positive and statistically significant relationship with IGO membership. As the wealth increases in the dyad, for instance from two less economically advanced states to a mixed dyad, it on average belongs to .023 more IGOs.   The relationship between the duration of the dyad and the number of shared memberships is statistically significant and positive. Shanks et al. (1996) found that as the age of the state increased so did its memberships in IGOs. In sum, Table 2.4 provides a good profile of a dyad that has a significant amount of memberships. Dyads that are democratic, are contiguous, and are minor powers have a stronger likelihood of sharing memberships in an IGO, than would other dyads.

Now that we have found what types of dyads tend to have shared memberships in general, does that pattern hold when looking at memberships in the various types of organizations? The dyad year perspective is utilized here, as are the same independent variables used to predict shared memberships in IGOs in Table 2.4. Table 2.5a illustrates the relationship between the characteristics of a dyad and the type of regional IGO. Since I am interested in the number of memberships by type, a count model is in order. A traditional Poisson regression, however, is inappropriate for the question being researched. The Poisson technique assumes that "the probability of an event occurring at any instant is *constant* within period i and *independent* of all previous events during that observation period" (emphasis in original; King, 1989; 764). Failing to adhere to this assumption leads to inconsistent estimates through a process called overdispersion (see King 1989, Long 1997). It could be the case that joining a particular type of organization increases the probability that the dyad will join an additional IGO, potentially of a different type. The phenomena under study can be *contagious* and lead to a higher probability of an event occurring in the same period, thus violating the assumption of independence. The solution is to use a negative binomial model that does not assume that the probability of events occurring in the same time period is independent.

Table 2.5a

Negative Binomial Count Model of the Number of Shared Memberships in the Types of Regional IGOs by Varying the Characteristics of the Dyad, 1816-1992			
Variable	Regional Military	Regional Economic	Regional Political	Regional Social
Democratic Dyad	.092**(.015)	.116**(.009)	-.139** (.009)	.0422** (.004)
Dyadic Trade	-.00002 (.0000)	.00004**(.000)	-.00002**(.000)	-.000006**(.000)
Wealth	.321** (.008)	.169 (.004)	-.062** (.003)	.025** (.001)
Dyad Duration	.002** (.001)	-.001**(.000)	.00008 (.001)	-.0003 (.0003)
Contiguous	.176** (.010)	-.653** (.004)	-.055** (.006)	-.01** (.002)
Major Powers	-.096**(.072)	-.555** (.057)	-.67** (.019)	.106** (.017)
Lag of Shared Memberships	2.46**(.009)	1.98** (.005)	1.9** (.006)	1.56** (.002)

Note: N=139290. Robust Std. Errors in parenthesis; *=p<.05, **=p<.01

None of the independent variables behaves uniformly across the various types. I will first indicate the overall effect of the independent variables, then turn to a specific discussion by IGO type. Being a democratic dyad increases the probability of shared memberships in all types of IGOs, save for political institutions. Political IGOs often are created to provide a common forum that links disparate regime types. Dyadic trade tends to decrease the number of mutual IGO memberships in all but the IGOs with an economic focus. Whether or not the dyad is contiguous also has a consistent impact on the types of IGO memberships. For the most part, more contiguous (measured in the range of not contiguous, water contiguous, land contiguous) the fewer shared memberships. Of course, the lagged dependent variable has a highly positive and significant impact on the membership.

For regional military IGOs, more economically advanced dyads are more likely to have more memberships than relatively less economically advanced dyads. The more mature the dyad, the more likely it is going to have memberships in a regional military organization. Minor power states are more likely to have memberships in these regional organizations than are major powers.

As a dyad becomes more wealthy, it is more likely to share in a high number of regional economic institutions. Minor power status seems to positively impact the number of memberships. These states may band together to increase the likelihood of economic development. The maturity of the dyad is in the opposite direction than it was for military organizations, younger dyads tend to join more economic IGOs. Finally, as the maturity of the dyad increases, so does the number of economic IGOs it belongs to.

A non-democratic dyad has a better chance of belonging to a regional political organization than their democratic counterparts. The coefficient on the democracy variable is negative, and at first somewhat surprising. Regional political institutions are more likely to occur among dyads which are non-democratic. It may be the case that dyads of that are composed of states with disparate regime types, gravitate toward these organizations since they offer a means for political engagement that would not otherwise be likely. Less economically advanced states tend to have a higher number of political IGO memberships than more advanced states.

The variables in the regional social IGOs provide some interesting findings. Dyadic trade has a negative impact on the number of joint regional social IGOs a dyad belongs to. Here, I theorize that these type of organizations are the first and easiest step in integration. They offer the most benefit (improved healthcare for example) for the least amount of investment in terms of monetary and political capital. It looks like less wealthy dyads usually have fewer memberships in this type than relatively economically advanced dyads Likewise, major power dyads tend to have more memberships than minor power dyads.

The characteristics of dyads that join universal IGOs are different than that of regional IGOs. Table 2.5b illustrates the relationships between the exogenous variables of interest, and the number of memberships shared in universal IGOs. To start, most of the variables in the models do not have a consistent impact on the number of universal organizations the dyad belongs to. Not surprisingly, universal organizations are made up of a broader demographic profile of dyads than are regional organizations. It is typically only within the confines of institutions with a universal scope that diverse states have the opportunity in which to become mutual members. Contiguity has the only consistent impact on the number of organizations shared in a dyad across the various types. Contiguous dyads are less likely to share membership

in universal organizations. Again, this finding on contiguity is not much of a surprise due to the definitional distinction between regional and universal organizations.

Table 2.5b

Negative Binomial Count Model of the Number of Shared Memberships in the Types of Universal IGOs by Varying the Characteristics of the Dyad, 1816-1992				
Variable	Universal Military	Universal Economic	Universal Political	Universal Social
Democratic Dyad	.067** (.030)	-.011** (.001)	-.0001 (.0001)	.002** (.070)
Dyadic Trade	-.0006**(.000)	-.0007 (.000)	.0005** (.0001)	.001** (.000)
Wealth	.026* (.013)	.004** (.001)	.004** (.0001)	.00001 (.003)
Dyad Duration	-.001** (.000)	.00007**(.000)	.00005**(.001)	-.0005**(.000)
Contiguous	-.295** (.073)	-.0004** (.000)	-.007** (.0008)	-.005** (.000)
Major Powers	.026** (.013)	-.014** (.006)	-.04** (.005)	-.014** (.006)
Lag of Shared Memberships	8.53**(.207)	.816** (.003)	.74** (.003)	.961** (.007)
Note: N=139290. Robust Std. Errors in parenthesis, (.000) is <.00001; *=p<.05, **p=<.01				

Being a dyad that is mutually democratic, relatively economically advanced, and composed of major power states increases the likelihood of having one or two memberships in universal military organizations. No dyad in the data shares in more than two of this type of organization. Since belonging to a universal military IGO would require some ability to project a military presence across sizable geographic distances, rich major states are the typical members.

Regime type has a statistically significant impact on membership in universal economic organizations. Non-democratic dyads tend to have more of these types of memberships than democratic ones. Dyads that have a lower level of trade tend to belong to more universal economic organizations than those with higher levels of trade within the dyad, however, since the result is not statistically significant such an interpretation can not be given much weight. On the other hand, the more wealthy and mature the pair of states, the more likely they are to have multiple memberships in these organizations.

I would have expected that universal political organizations would be dominated by democratic dyad., Regime type, however, is not statistically significant for dyads that have these types of shared memberships. This lack of significance is likely a function of UN memberships, where the majority of the dyads since 1945 were likely mixed or non-democratic.

More shared memberships in universal social organizations, tends to be related to democratic dyads. The type of dyad that joins three or more social organizations seems to be, relatively young, share in a modicum of trade and are minor states. I suspect that much of this finding is driven by the interconnectedness of Europe. If this dense network were excluded, one would find that membership in universal social institutions are dominated by non-democratic dyads.

Conclusion

Advancing the study of IGOs by offering a new data set is a worthwhile pursuit. As with all data, rigorous coding rules need to be established and adhered to. Offering a typology of organizations that includes both ideal and more realistic components is key for the theories of IGOs to advance. Analysis of the trends associated with IGO growth show that many were created following major shocks to the system, such as WWII. Growth of the network of organizations has steadily increased, and a perceived downturn in growth in the early 1990's has been subsequently reversed.

In sum, the preceding analysis shows that different types of dyads tend to become members of different types of IGOs. It is interesting to note that there is no dyadic characteristic that consistently increases or decreases membership across all types. If membership is solely based on state similarity (as measured by, for example, regime type, economic status, alliance or foreign policy profiles), then one would expect to find uniform relationships between some independent variables and joint memberships. I do not find this uniformity, so it must be something else besides similarity that drives states to join the same IGO. I suspect the answer resides in the IGO itself, in what it offers.

As a whole, democracy and the amount of trade in the dyad, do seem to increase participation in international organizations. Clearly, having a profile of the membership propensities of dyads is useful in understanding of IGOs specifically as well as the relationship between such membership and dyadic conflict. Before we turn our attention to the dyadic

analysis concerning conflict, it is useful to first look at the relationship between conflict and IGOs on the systems level. A systems level approach is fitting not only because it is has been the typical application of the IGO peace relationship since the advent of the COW project, but has theoretical value as well.

CHAPTER III

IGOS AND WAR: A SYSTEMS PERSPECTIVE

For the most part, the systemic level of analysis has gone out of favor in the current research in the scientific study of war and peace. However, it has been making a return as a potential approach in the democratic peace proposition, where the question is asked 'is democracy good for the system?'(see Ray, 1995 for reasons why this may not be the case). Two reasons can be offered to include a systemic perspective in the current project. First, since much of the empirical work done in this area has focused on the system as the level of analysis, its presence here will aid in the cumulation of knowledge. The second justification for a systemic perspective can be found in the theoretic rationale offered as to why IGOs should bring peace. The theory speaks of 'dense networks' of IGOs, governance without government, and interdependence in general as a solution to violence, with very few introducing state or dyad specific qualities (Wallace and Singer, 1970; Krasner, 1983; Claude, 1984; Jacobson, 1984; Diehl, 1997). The systemic hypothesis will indirectly test the relationship between the number of IGOs in the system and war. Research has suggested that a restrictive international context reduces the likelihood of war (Wallensteen 1984, Kegley and Raymond 1990;1994). If restrictive eras (e.g. The Concert of Europe) are the outcome of a network of IGOs that actively promote multilateral or more consensus based state action, then one would expect less war. The following hypotheses are derived for testing here:

> H 3.1: As the average yearly IGO membership increases, the number of dyads
> experiencing war will decrease.

> H 3.2a: The types of IGOs will have different impacts on the number of dyads at
> war.

> H 3.2b: Military and Political IGOs will have a negative relationship with the
> number of dyads at war.

> H 3.3: Restrictive (Universalist) eras, in which multilateral state agreement and
> action is encouraged, will have a higher average number of IGO
> memberships, than those eras that are identified as permissive
> (Particularist), which encourage unilateral state action.

H 3.4a: Restrictive eras will have a different distribution of the given types of IGO than will be present in permissive eras.

H 3.4b: Military and Political IGOs will have a positive relationship with the likelihood of experiencing a restrictive era.

These hypotheses will begin to answer the question 'are IGOs indicators of norms that are conducive to peace'? Peter Wallensteen has identified time periods that are characterized as having norms that promote a formation of 'rules of the game', universalist periods, versus those periods where special interest of states permeate relations, particularist periods (1984). Wallensteen finds that during universalist periods, wars between major states are non-existent. Within these periods, there are restrictions placed on the menu of potential choices of states, and that multilateral and non-militarized mechanisms for resolving disputes are prevalent. Likewise, Russett and Oneal point out that IGOs create and strengthen the norms of the international system and that they may compel states to resolve disputes peacefully and prevent dyads from entering into disputes in the first place (2001, chp. 5). I will test if IGOs are used to establish these 'rules of the game' and contribute to the peace experienced, first by testing the number of wars in the system versus the number of IGOs, and then testing whether more IGOs (and specifically which types) are present during universalist periods. The promise of the latter test is that it will offer a quantitative indicator of the character of the historical context that is not based solely on historical understandings of these periods as they were so constructed by Wallensteen.

The approach adopted here will look at dyadic averages for a number of factors and attempt to explain the number of dyads at war for a given year. This hybrid systems analysis is used since the theory on IGOs and peace is best fit with dyadic level indicators. That is, if the simple aggregate numbers of organizations and war were used, one has little if any idea of the strength of international norms, as embodied in the IGOs, that are present. Thus if we look at the average shared dyadic membership we will be able to get a better sense of the density of the networks of IGOs (see Russett and Oneal 1999 and 2001). This indicator of the strength of international norms, the higher the average IGO membership the stronger the norms, will be incorporated in the subsequent chapters where the unit of analysis shifts to the dyad.

The first set of hypotheses concerns the number of dyads at war in a given year (which is a better indicator of war in the system then just adding up all wars in a year since if it is done

dyadically it necessarily incorporates the magnitude of war- instead of WWII counting for just one war in 1941 it is represented here as 111 dyads at war); therefore, a statistical event count model is in order. I will use a negative binomial model, since there is a lack of independence of cases. That is, one can envision that in a given year, the occurrence of a war in a particular dyad may lead to other dyads going to war in that same year. The relevant control variables that may affect the number of dyads at war in the system will need to be included in the models are the average dyadic democracy score (though the 'weak-link' democracy score was also used and did not provide different results) and the average level of dyadic trade. Given the growing evidence for the democratic peace proposition, I would expect that democracy has a pacifying effect on war (see Ray 1995 and Russett and Oneal, 2001 for contending explanations). Since the source of the dyadic trade variable, Barbieri 1999, begins coverage in 1870 two models, Model II and IV, will be run in Table 3.1 that have an attenuated temporal domain.

Table 3.1

Negative Binomial Estimation of the Number of Dyads at War in the System				
Variable	Model I (1816-1992)	Model II (1870-1992)	Model III (1816-1992)	Model IV (1870-1992)
Avg. Shared IGO	.114**(.008)	.094**(.009)	----	----
Avg. Democracy	.073**(.025)	-.021 (.048)	.205**(.035)	.294**(.068)
Particularist Period	.614**(.130)	.597**(.133)	.736**(.132)	.966**(.201)
Avg. Dyadic Trade	----	.001* (.001)	----	-.002 (.001)
Avg. Regional Military IGO	----	----	-4.43**(1.42)	-5.66**(1.58)
Avg. Regional Economic IGO	----	----	4.93**(.907)	6.97**(1.57)
Avg. Regional Political IGO	----	----	4.05**(1.34)	4.20**(1.26)
Avg. Regional Social IGO	----	----	.611 (.333)	.665* (.328)
Avg. Universal Military IGO	----	----	98.7**(29.4)	57.5 (40.6)
Avg. Universal Economic IGO	----	----	-.135 (.172)	-.183 (.171)
Avg. Universal Political IGO	----	----	.214 (.189)	.136 (.194)
Avg. Universal Social IGO	----	----	-.240* (099)	-.251**(.099)
Number of Observations	177	123	177	123

Robust Std. Errors in parenthesis; *=p<.05, **=p<.01

By simply counting up the number of IGO memberships and then taking the yearly average, Models I and II, show that there are positive relationships between these memberships

and the number of dyads at war.[6] This positive relationship was not what one would expect given the existing findings in the literature (Singer and Wallace, 1970). The difference though is in the time period covered as well as the dependent variable; Singer and Wallace were counting the number of IGOs per year and the number of wars per year for the time period 1816-1965. The inter-war period also contributes to this positive relationship, since memberships were on the rise with the wave of IGOs that were created following the Great War.

The average yearly democracy score for dyads also is in a positive relationship with war. That is, years were the mean democracy score was increasing, one sees an increase in the number of dyads experiencing war. Historical eras that can be characterized as particularist also tend to be associated with an increased occurrence of war in the system.   With the addition of the average dyadic trade variable in Model II, the measure of democracy changes to the direction that one would expect given the theories of a liberal peace, however it cannot be considered statistically significant. Hypothesis *H3.1*, as the average yearly IGO membership increases the number of dyads experiencing war will decrease, does not have any substantiating empirical evidence.

Models III and IV in Table 3.1 look at how the average number of shared memberships in the various types of organizations impact the number of dyads at war in a given year. In both models, an increase in the average democracy score is associated with higher numbers of wars experienced by dyads in that year.   Even with the control of average dyadic trade included, model IV, there are two types of IGOs that lessen the number of wars and three that increase their occurrence.   Increasing the average number of regional military organizations decreases the number of wars experienced. A security regime may have the most binding impact on states in terms of the international norm of peaceful dispute settlement. On the other hand, universal military organizations have by far the strongest positive influence on the number of wars of any variable in the model, though is not statistically significant when the average of dyadic trade is taken into account. What is driving the relationships between these organizations and war in the opposite direction? Indirectly, universal military organizations are accounting for major power

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[6] A number of alternative specifications were tested. First, an alternative endogenous variable was tested, the yearly percentage of dyads that experience war, and the variables in Models I and II of Table 3.1 are not statistically significant; however, the variables in Models III and IV were significant and in the same direction as those reported in the above table.   Second, instead of taking the average of these variables for a given year, the sum of the variables for a given year were used in alternative specifications of the models, but did not produce significantly

involvement around the globe. What is the reason for more global power involvement? Real and potential crises drive the major powers to become active in situations beyond their regional purview. The positive relationship is due to the fact that major powers are more apt to be involved with war (Bremer, 1992).

An increase in the average number of universal social organizations reduces the likelihood of war. From a functionalist perspective, the buildup of these institutions that have a non-controversial social focus is the first step in building a working peace system—constructing relationships that bond peoples across political borders where they share common interests that only prosper in peace. At this point though, the evidence is far from conclusive to say the functionalists were right. Alternatively, increasing the number of regional economic, political, or social IGOs increases the number of wars. Hypothesis *H3.2a* does find support, that the types of organizations have a non-homogenous affect on war. Hypothesis *H3.2b*, finds mixed results since military organization reduce the number of dyads at war, while the number of political organizations may in fact increase the number of warring dyads.

Looking at how IGOs in the system impact war is only one way to test the proposition that IGOs help to create and strengthen international norms of peace. Another way in which to test this proposition is to select historical eras that are considered to have had strong international constraints on use of military force to resolve disputes between states. Peter Wallensteen identifies such eras that have had a 'universalist' international context where the peaceful resolution of disputes was the norm. In Table 3.2 , I test hypotheses *H3.3* and *H3.4a* and *H3.4b* using a variety of model specifications. The independent variables are the same as those used in previous tables.

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different results than those given here. Third, the average duration of dyads for a given year, a control for system size and maturity, was shown not to impact any of the variables of interest in the models, and is thus not included.

Table 3.2

	Logit Estimation of Eras that Define the International Context as Particularist			
Variable	Model I	Model II	Model III	Model IV
	(1816-1992)	(1870-1992)	(1816-1992)	(1870-1992)
Avg. Shared IGO	-.011 (.031)	.407**(.115)	----	----
Avg. Democracy	-.029 (.109)	.268 (.204)	-3.32**(1.12)	-386**(14.5)
Avg. Dyad Duration	.099**(.024)	.295**(.064)	.885**(.271)	79.2**(3.16)
Avg. Dyadic Trade	----	-.017**(.001)	----	3.15**(.217)
Avg. Regional Military IGO	----	----	45.6**(43.6)	166 (594)
Avg. Regional Economic IGO	----	----	-276**(47.4)	-13332**(429)
Avg. Regional Political IGO	----	----	363**(103)	12343**(658)
Avg. Regional Social IGO	----	----	40.4* (17.4)	709** (17.8)
Avg. Universal Military IGO	----	----	14930**(4440)	474899**(----)
Avg. Universal Economic IGO	----	----	-19.3 (9.72)	-603**(145)
Avg. Universal Political IGO	----	----	1.87 (1.99)	263**(2.51)
Avg. Universal Social IGO	----	----	-6.91* (3.22)	55.4 (30.9)
Number of Observations	177	123	177	123

Robust Std. Errors in parenthesis; *=p<.05, **=p<.01

The dependent variable in Table 3.2 is coded 0 for universalist periods and 1 for particularist periods. Therefore, the positive coefficients exhibited in the table can be interpreted as contributing to a particularist era. The table presents a snapshot of various aggregate dyadic measures for each year from 1815-1992, save for Models II and IV which cover 1870-1992 due to missing data. The average dyad duration has a positive and significant relationship with the probability that the era is particularist; this may be largely due to the fact that the longest period of a universalist era ended at the turn of the century (1816-1895), whereas from 1933 to 1962 is considered particularist. In Model I, the average shared IGO membership and democracy score for dyads are in the hypothesized direction, but are not a statistically different result than would be expected by chance. A standard deviation increase in the average number of shared

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memberships in Model II increases the probability of having a particularist period from .439 to a predicted value of .642. On the other hand, dyadic trade reduces the probability of a particularist period. A one standard deviation increase in the amount of trade for the average dyad decreases the probability of having a particularist period by .165. Hypothesis *H3.3,* that restrictive eras, will have a higher average number of IGO memberships, than those eras that are identified as permissive, cannot be supported by the evidence in either Model I or II.

Model III introduces the substantive focus of the IGO and it is evident that some organizations have a huge positive impact on the probability of having a particularist period. Since some of the other organizations have a negative impact, hypothesis *H3.4a* , that restrictive eras will have a different distribution of the given types of IGO than will be present in permissive eras, can be accepted. First, the average level of dyadic democracy finally appears in the hypothesized direction and is statistically significant—having a higher average democracy score increases the likelihood of a universalist period. However, military and political organizations tend to be associated with eras that are particularist, thus *H3.4b* cannot be accepted.

What is evident in Model III, as will be shown to be a consistent pattern, is that the different types of organizations behave differently. Not all types of IGOs have the same kind of impact on interstate relations. Regional military, political, social IGOs have a strong and positive impact on the probability of the international context being particularist. I would have expected that regional political organization might have the strongest contribution to the maintenance of a peaceful context; however, these organizations seem to have quite the opposite effect on the systems level. The average number of shared universal military organizations has an unrivalled and tremendous positive impact on experiencing a particularist period. This coefficient is so large due to that fact that the only time these type of organizations appear, such as the South East Asian Treaty Organization (SEATO), are during the particularist period between 1933 and 1962. Both these organizations are established and wither away during this time period, and primarily reflect US, and other major powers, ambition to provide global security. On the other hand, as the average of regional economic organizations increases one standard deviation, the probability of having a particularist period decreases from a base probability of .434 to a predicted probability of .079. Is this impact due to efforts of the IGO itself, or is it something else? Certainly this type of organization can further the cooperation

among states and reduce the probability of a dispute that has economic issues at its origin. On the other hand, if one looks at the growth of regional economic organizations one sees a substantial increase in the late 1950's, a time that marked the switch from a particularist to a universalist era. What is the causality here? Did the growth of this type of IGO usher in the new era, or was it a product of the new era? I think a stronger case can be made that regional economic IGOs are a product of the new era, but also serve a significant role in maintaining it as well. In a similar manner, the average membership in universal social organizations decreases the likelihood of a particularist period.

Model IV controls for the average amount of dyadic trade and illustrates the fact that the majority of IGO types increase the probability of having a particularist period. As a matter of fact, a level of trade over and above what would be expected given the level of democracy, makes a period more likely to be particularist. This finding supports the notion offered by Barbieri (1996) and Barbieri and Levy (1999) that, contrary to the prominent Kantian notion that trade is a pacifying influence, trade is often a source of conflict. The major change from Model III is the both regional and universal organizations that have a political focus increase the probability of a particularist era.

Conclusion

What conclusions can be drawn here about IGOs and their contribution and maintenance to a peaceful international political context? Many of the positive outcomes for IGOs in Tables 3.1 (War) and 3.2 (Particularist Period) can be explained by the timing of the creation of many of these IGOs. As can be seen in the preceding tables and figures, the growth in organizations clusters around the end of WWII, an era that was both war prone and one in which the international context that would restrict states to only peaceful conflict resolution mechanisms was weak to nonexistent. Is the sharp increase in all types of organizations after WWII indicative of a desire to change this context? I think it is evidence of an attempt for change.

There is evidence that IGOs have an effect on the systems level. Regional military organizations and universal social organizations tend to be associated with lower numbers of dyads at war in the system. On the other hand, regional political, economic and social organizations are associated with higher numbers of dyads at war.

CHAPTER IV

IGOS AND MILITARIZED INTERSTATE DISPUTES

Constraining participants from ever getting into a MID or war is the effect described in the theories of most of the proponents of IGOs as well as the IGOs themselves. For example, the preamble of the Charter of the United Nations begins with, "We the peoples of the United Nations determined to save succeeding generations from the scourge of war…[will] practice tolerance and live together in peace with one another as good neighbors." Furthermore, a very large percentage of IGOs have as their most basic tenet the prevention of war and violence even if it seems as a stretch from their enumerated or day-to-day purpose. A case in point is the Central Commission for the Navigation of the Rhine created in 1815. The Commission set standards for boat safety, harbor design, trade routes but was also created after the Napoleonic wars to foster peaceful relations between the member-states (Claude, 1984). This supposition is given some additional validity considering the fact that the Commission had special responsibilities governing Germany as a provision of the Treaty of Versailles, especially Article 362, and that the US became a member of the Commission.

Since I argue that IGOs perform as a working peace system and do not just reflect a stagnant notion of peace through interdependence, certain types of IGOs will likely be better at producing peace. An IGO that is issue specific and deals with military and political issues and is regional in scope may prove to be better than a social organization with global membership. The following hypotheses are designed to illustrate the differences between the density approach of IGO membership and the proposed typology of IGOs.

> *H4.1: The more IGO memberships shared by a dyad, the more likely it is that the dyad will become involved in a MID.*

> *H4.2: The type of IGO that the dyad has membership in will impact the chances that it will enter a MID. Specifically, military and political IGOs will decrease the likelihood of MID involvement.*

> *H4.3: Once in a MID, The more IGO memberships shared by a dyad, the less likely it is that the dyad will become involved in a war.*

H4.4: Once in a MID, the military and political IGOs lessen the chances the dyad will escalate the dispute to war.

These four hypotheses also address a potential selection bias that plagues much of the empirical literature. If a random sample were taken from all the quantitative articles in the study of war and peace, chances are that they would be constructed in the following manner. A researcher would take the MID dataset, or similar dispute based set, and empirically identify a characteristic that is a pacifying factor since the unit of analysis, state or dyad, did not experience a war. However, since the researcher is only looking at those states already involved in a militarized dispute, and not states in general, he or she misses a very important relationship. The point here is that factors that promote war once a state or dyad is already in a dispute, may have just the opposite effect on other states and keep them from entering a dispute in general. It may be the case that shared memberships in IGOs and the type of IGO are a consequence of being involved in a dispute, and that states without IGOs do not experience disputes in the first place. For example, it may turn out that effective security IGOs tend to restrain escalation of conflict. However, if the states were not in a security IGO in the first place they may not have had conflict at all, and it might be found that these dyads typically have economic IGO bonds.

Research Design

In this analysis, I utilize two datasets: a dyad-year dataset and a MID involvement dataset.[7] One recent study found the choice between directed and non-directed has a great impact on the form of the relationship between IGOs and peace (Bennett and Stam, 2000). The choice between directed and non-directed dyad years is a theoretical one. Since I am interested in the bonds between the states, shared IGO memberships, a non-directed dyad year approach will be adopted. Certainly, not all states have the same probability to initiate a conflict. When studying initiation one typically searches for differences, over a variety of criteria (such as regime type, wining/losing status of last dispute, etc.), between the states that may explain the reason for the initiation. Here, the relationship between the states is under analysis, not how the states differ on a directed dyadic level. A directed year design would be required if it was hypothesized that a state with a substantial IGO profile may defer from using militarized methods of conflict

resolution, *regardless* of the IGO membership of the opposing state. Additional care is warranted since the recent findings on IGOs and peace (Oneal and Russett 1999) may have been a product of estimation techniques used to control for temporal autocorrelation (see Beck, Katz, and Tucker 1998; Bennett and Stam 2000 for discussion)[8].

The first two dyadic hypotheses are utilized on a dyad-year perspective. The dyad year creates an observation for every dyad from 1816-1992 regardless of whether or not that dyad experienced a MID or war. Typically, the studies (Oneal and Russett, 1999) that employ the dyad year approach focus on politically relevant dyads for theoretical reasons. The opportunity that contiguity or major state status affords the dyad to engage in disputes is the primary reason (see previous section, discussing consequences of using politically relevant dyads). Russett and Oneal (1999, 2001) do not have a compelling theoretical reason to use only politically relevant dyads. They state that their choice is based upon the fact that looking at all possible dyads do not produce statistically significant coefficients, due to the ubiquitous nature of IGOs (Russett and Oneal, 1999). Unlike Oneal and Russett, I will include all possible dyad years to best evaluate the proposed theory that the type of IGO affects the probability of MID involvement. I do not have any theoretical reason to suggest that IGO membership means something different for politically relevant dyads.

The second dataset consists of a cross-sectional perspective that tracks information for all the dyads involved in MID disputes. This format involves one observation of a dyad for each dispute initiation. For example, one MID has three participants, States A and B on one side (the initiating side) and State C on the opposing side. In dyadic-dispute form, the data would have just two observations, State A versus State C and the second observation has State B versus State C. The dataset will contain 3,045 such observations that are derived from MID 2.1 data. I will include variables that identify whether the states have shared IGOs memberships, and the types of IGOs they belong to. Hypotheses 4.3 and 4.4 apply to the dyad once it has entered into a militarized dispute. These hypotheses focus on the question of whether or not different types of shared memberships in IGOs affect the probability of the dispute escalating to war-as defined by crossing the 1,000 battle deaths threshold.

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[7] The Expected Utility Generation and Data Management Program (EUGene), created by Bennett and Stam (2002), is used to produce both the dyad year format and the indication of MID involvement that leads to war, the 'dyadic' dataset.

Aside from the IGO typology, a number of relevant control variables will be included in all of the tests. Since parsimonious models are desired, if a variable does not impact the model it is excluded from presentation herein. The regime type of the dyad, whether or not it is contiguous, and the level of wealth of the states in the dyad will be incorporated into the model. Additionally, the issue over which the dispute is fought (territory, policy, or regime) and the major state status of the dyad will be included. The regime type of the dyad is an essential control variable, since I want to be able to account for the claim that it is not IGOs but democracy that that is driving any relationships I may uncover. In other words, it may be the case that democracies join more IGOs in general (Shanks et al. 1996), so if I did not control for the regime type of the dyad I may mistakenly attribute a relationship to IGOs and peace when I was actually finding a relationship between democracy and peace. Thus democracy can be seen as a potential intervening variable. Contiguity has shown to be a salient variable in both the onset and escalation of a militarized interstate dispute and is necessary in this analysis. I include a variable to account for the fact that developed states may be more apt to be members of IGOs, and that the level of development in general in the dyad may have significant effects on war and dispute involvement (see Bremer 1992). The issue fought over in the militarized interstate dispute has a significant impact on the probability of war, and is also included in the models (see Vasquez 1993; Hensel 1996; Vasquez and Henehan 2001).

Findings

Since the IGO data set and typology offered in this analysis are covering new ground it should be able not only to offer new insight but find and explain previously discovered relationships between IGOs and peace. In other words, using my data I should be able to replicate the findings of the most comprehensive treatment of IGOs to date—the work of Oneal and Russett. This replication will not only allow the cumulation of knowledge to occur, but will demonstrate a degree of validity for the new data. Table 4.1 illustrates a replication of the major findings of Oneal and Russett (1999). Here I replicate their results in columns one and four as reported in their table 1 on page 22 of their article.

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[8] Temporal autocorrelation occurs when the events in a dyad at time t are a function of what happened in the same

Table 4.1

| | Oneal and Russett | | Leskiw | |
Variable	All Dyads	Pol. Relevant	All Dyads	Pol. Relevant
	Comparison of Oneal and Russett (1999) and Leskiw IGO Shared Membership, 1886-1992			
Lower democracy	-.066***	-.06***	-.065***	-.058***
Trade/GDP	-57.9***	-35.2**	-54.2***	-37.2**
IGO	**-.001**	**-.0068***	**-.002**	**-.013****
Capability ratio	-.237***	-.275***	-.239***	-.308***
Alliances	-.251	-.282*	-.259	-.301
Noncontiguity	-2.00***	-1.12***	-2.00***	1.14***
Log distance	-.465***	-.260***	-.450***	-.248***
Only minor powers	-1.84***	-.675***	-1.84***	-.577**
Constant	-1.94***	-1.58***	-2.08***	-1.49**
N	149,373	33,334	149,192	31,202

Note: *=p<.05, **=p<.01, ***=p<.001. Utilizes GEE estimation from Oneal and Russett (1999) Table 1 replication data and Stata do files. Oneal and Russett interpolate their IGO measure to fill in for missing cases.

The authors make available their data and exact commands used to generate their logistic coefficients, as a STATA 'do file', on their website. I first verified the results they report, and then substituted my measure of shared IGO memberships (a simple count measure without the typology applied) for theirs. The difference in the number of cases between the models is due to the fact that Oneal and Russett interpolate their data to eliminate missing information. I do not conduct any similar interpolation on my IGO data, and since the difference in terms of the number of cases is small the two are still comparable. Table 4.1 shows that my analysis not only duplicate the direction and statistical significance of their findings, but in the case of politically relevant dyads in the time period 1886-1992, my IGO variable has a stronger impact in reducing the probability of war. The coefficient for Oneal and Russett's IGO variable is -.0068 while my

dyad in time *t-1*. Thus, the data are not independent of one another over time.

shared membership variable produces a coefficient of nearly double the size at -.013 and has a smaller p value. Oneal and Russett theoretically justify their control variables, and they remain in the same direction and significance when I substitute my measure of shared memberships with their measure. Table 4.1 thus supports Hypothesis 4.1, that shared memberships reduce MID involvement. Minimally, this comparison test gives the new data face validity since it can account for, and may improve upon, important previous findings.

At this point in the research, only the first two aspects of the proposed typology—scope and purpose—have been implemented in the data. Table 4.2 presents some summary statistics concerning the distribution of the data. The various IGO variables, broken into type and scope, reflect the number of shared memberships of that type of IGO that a given dyad possesses.

Table 4.2

Summary Statistics of the IGO Typology in the Dyad-Year Perspective, 1816-1992				
	Mean	Std. Deviation	Min.	Max.
Regional				
Military Organization	.094	.409	0	3
Economic Organization	.270	.786	0	10
Political Organization	.246	.627	0	7
Social Organization	.831	2.12	0	22
Universal				
Military Organization	.001	.037	0	2
Economic Organization	2.18	1.62	0	12
Political Organization	2.62	1.84	0	9
Social Organization	7.19	5.57	0	36

Table 4.2 gives the number of observations, the mean value, standard deviation and the minimum and maximum values the IGO typology assumes in the dyad-year data. On average, social IGOs that are universal in scope have the most shared members per dyad at 7.19, followed at some distance by universal political organizations at 2.62 and universal economic organizations sharing 2.18 memberships on average. Though not reported in the table, the

average dyad has thirteen shared memberships in IGOs, with a minimum of zero and a maximum of eighty. The dyad with the eighty shared memberships is somewhat a surprise, France and the Netherlands. This highly networked relationship may reflect membership in organizations that concern themselves with former territories of France and the Netherlands, but a more detailed answer is beyond the scope of the present analysis.

Model I of Table 4.3 tests if the various types of IGOs have different impacts on the involvement of a dyad in a militarized interstate dispute.

Table 4.3

Estimated Logit Coefficients of Involvement in Militarized Disputes, 1816-1992				
	Model			
Variable	I		II	
Regional				
Military Organization	-.006	(.047)	.061	(.061)
Economic Organization	-.128***	(.029)	-.025	(.033)
Political Organization	.076	(.040)	.112***	(.042)
Social Organization	.210***	(.012)	-.013	(.016)
Universal				
Economic Organization	-.523***	(.021)	-.188***	(.028)
Political Organization	.079***	(.018)	.023	(.022)
Social Organization	.117***	(.008)	.077***	(.009)
Average IGO Shared Membership	----		-.018***	(.006)
Status	----		1.25***	(.046)
Contiguity	----		1.09***	(.030)
Regime Type	----		-.089*	(.040)
Wealth	----		-.045	(.025)
Peace years	-.822***	(.058)	-1.47***	(.080)
_cons	-3.23***	(.043)	-2.85***	(.090)
N	514,502		395,154	

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis. Peace year splines not reported.

Model I has six exogenous variables that count the type (ie. regional trade organizations) of organizations that both states in the dyad share in membership. Universal military

organizations are not included in either model since they are dropped in the statistical estimation process as they 'perfectly predict failure' or in other words are only present between dyads that never have entered a MID during the time the states were joint members.[9] The only control variable in Model I is the peace years correction variable (Beck, Katz and Tucker, 1998). The model demonstrates that different types of organizations have vastly different impacts on the probability of MID involvement. Three types have significant and positive impacts on the dispute involvement, whereas only two have significant negative effects. For instance, having joint membership in a regional IGO that deals with broadly defined social issues or a universal social organization increases the probability that the dyad will get involved in a dispute. Hypothesis H4.2 cannot be supported since neither military nor political IGOs, when controlling for other types of joint membership, decrease the chances a dyad enters a MID. On the other hand, shared memberships in economic organizations, both regional and universal in scope, decrease the likelihood of a dyad entering a MID.

Model II in Table 4.3 introduces control variables into the equation, which make substantive impact on the relationship between the IGO types and dispute involvement. While some the relationships of types of organizations and the dependent variable are no longer statistically significant at the .05 level, others change direction when the controls are applied. In fact, only universal economic and social IGOs remain in the same direction and at the same level of statistical significance.

The control relationships are all in the expected direction.[10] As the average membership in IGOs increases in general, the probability of having a militarized dispute decreases. This finding may be indicative of the strength of the norms present in the system, the denser the network in general the lower the probability of a dispute. The 'status' variable tracks the major power status of the dyad and illustrates that as the dyad increases the number of major powers, the likelihood of a MID increases. Contiguity has consistently been shown elsewhere as a major determinate (Bremer 1992) of a dyad entering a militarized dispute and the evidence in Table 4.3 is supportive of this claim. Increasing the level of democracy in the dyad has a negative impact

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[9] The analysis is conducted using the STATA 7.0 software, and it eliminates the universal military IGO from the models since it could not estimate a finite coefficient (see 'logit' in STATA manual Vol. 2, 1999).

[10] A number of alternative specifications of the models were conducted. First, dyadic trade was included but does not affect the direction or significance level of the IGO variables, and since it was not statistically significant itself it is not reported here. Second, the disparity in the military capabilities of the dyad (measured as the log of the ratio of

on the chances the dyad will enter a MID. The reason the wealth variable is included is two fold. First, it has been argued elsewhere (Mearsheimer 1994/1995) that IGOs are just tools of the powerful states, therefore, analysis conducted on IGOs should control for the degree of wealth in the dyad. Secondly, states that are relatively economically advanced have incentives not to fight each other since their well being is conditional on the support of the status quo- i.e. the free trade regime. However, while the less wealthy a dyad is considered the more likely it is to be involved in a dispute, this result is not statistically significant.

A clearer means of interpreting the results is to look at the predicted probabilities of Model II, as shown in Table 4.4. The table illustrates the change in the predicted probability of involvement in a militarized interstate dispute. The number of joint memberships is varied between one, two, and three organizations since these values are a good fit with the distribution of the data and the typical membership for the dyads in general.[11]

Table 4.4

Change in the Predicted Probabilities for MID Involvement, by Varying Type and Number of Organizations, 1816-1992		
Number of Joint Memberships		
1	2	3
Regional		
Military Organization(+) .0063	.0067	.0070
Economic Organization(-) .0060	.0059	.0057
Political Organization(+) .0065	.0071	.0078
Social Organization (-) .0061	.0060	.0060
Universal		
Economic Organization(-) .0073	.0063	.0053
Political Organization (+) .0059	.0060	.0061
Social Organization (+) .0043	.0046	.0049

Note: Base predicted probability of .0061 calculated with all variables at their mean values. Change in direction in parenthesis.

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the stronger state's capability CINC scores to that of the weaker side) does not impact the IGO variables and is not statistically significant, thus is not included.

[11] The predicted probabilities were created using the 'method of recycled predictions', as described in the 'mlogit' entry in the STATA Manual, Vol. 2, 1999.

The base probability of entering a MID is quite small at .0061, since the majority of dyads never have a dispute that becomes militarized. The presence of only one joint membership in a regional organization with a political focus, for example, increases the probability of the dyad getting into a MID to .00645. A dyad that shares two memberships in this type of organization further increases the probability of MID involvement to .0071, and with three mutual memberships the probability elevates to .0078. Clearly, not distinguishing between the types of IGOs leads one to believe that they all reduce MID involvement (Table 4.1); whereas, when a simple typology is introduced it is evident that different IGO types have significantly different impacts on dispute involvement. This testing confirms Hypothesis 4.2, different types of IGOs affect the probability of a MID in different manners.

I expected to find the differences in terms of the magnitude of the coefficients, not their direction. Therefore, a surprising and important finding is that membership in some types of IGOs actually *increases* the probability of dispute involvement. Why is it the case that the majority of the types have a positive relationship with dispute involvement? One potential explanation is that a heated discussion in a political IGO exacerbates tensions that erupt into a militarized dispute. It is more likely the case that the strength of the underlying reason that causes the dyad to enter the dispute, outweighs the pull of the IGO attempting to keep the peace. Additionally, political and social organizations typically have the most diverse membership. Political IGOs attempt to unite disparate states and provide them with a constant and uniform mechanism to interact with each other. Social organizations, on the other hand, emanate the weakest norms of peace. They are often some of the only organizations that dyads with serious conflict histories will join, since it is not the cooperation they are after but the services provided by the IGO.

In Chapter 1, it was indicated that a typology of IGO was on the strongest theoretical grounds if only four substantive issue areas were analyzed (military, economic, political, social). For instance, what theoretical rationale would suggest that IGOs concerned with health issues should behave differently than agricultural IGOs? However, a finer distinction was actually coded in the data, a ten-point scale, and should be looked at given the large variability of organizations that have been put into the 'social' (see Table 4.2). The 'social' category is desegregated below in Table 4.5.

Table 4.5

	Model			
Variable	I		II	

<table>
<tr><td colspan="5">Estimated Logit Coefficients of Involvement in Militarized
Disputes, With a Disaggregated IGO Typology 1816-1992</td></tr>
<tr><td></td><td colspan="4">Model</td></tr>
<tr><td>Variable</td><td colspan="2">I</td><td colspan="2">II</td></tr>
<tr><td colspan="5">Regional</td></tr>
<tr><td>   Military Organization</td><td>.011</td><td>(.048)</td><td>-.040</td><td>(.064)</td></tr>
<tr><td>   Economic Organization</td><td>.058</td><td>(.033)</td><td>.064</td><td>(.039)</td></tr>
<tr><td>   Political Organization</td><td>.017</td><td>(.043)</td><td>.185***</td><td>(.045)</td></tr>
<tr><td>   Agriculture, Natural Resource
    Management</td><td>.071*</td><td>(.033)</td><td>-.068</td><td>(.040)</td></tr>
<tr><td>   Health, Education, Culture</td><td>.197***</td><td>(.014)</td><td>.010</td><td>(.045)</td></tr>
<tr><td>   Water Resources</td><td>.582***</td><td>(.061)</td><td>-.163*</td><td>(.072)</td></tr>
<tr><td>   Communications, Transport</td><td>.294***</td><td>(.033)</td><td>.092*</td><td>(.042)</td></tr>
<tr><td>   Scientific, Research</td><td>-.187**</td><td>(.068)</td><td>-.334***</td><td>(.076)</td></tr>
<tr><td colspan="5">Universal</td></tr>
<tr><td>   Economic Organization</td><td>-.384***</td><td>(.022)</td><td>-.161***</td><td>(.029)</td></tr>
<tr><td>   Political Organization</td><td>.049*</td><td>(.020)</td><td>.012</td><td>(.024)</td></tr>
<tr><td>   Agriculture, Natural Resource
    Management</td><td>.195***</td><td>(.014)</td><td>.052**</td><td>(.017)</td></tr>
<tr><td>   Health, Education, Culture</td><td>-.016</td><td>(.022)</td><td>.010</td><td>(.025)</td></tr>
<tr><td>   Water Resources</td><td>.467***</td><td>(.041)</td><td>.295***</td><td>(.044)</td></tr>
<tr><td>   Communications, Transport</td><td>-.101***</td><td>(.023)</td><td>-.014</td><td>(.029)</td></tr>
<tr><td>   Scientific, Research</td><td>.380***</td><td>(.040)</td><td>.078</td><td>(.044)</td></tr>
<tr><td>Average IGO Shared Membership</td><td>----</td><td></td><td>-.014**</td><td>(.007)</td></tr>
<tr><td>Status</td><td>----</td><td></td><td>1.24***</td><td>(.046)</td></tr>
<tr><td>Contiguity</td><td>----</td><td></td><td>1.10***</td><td>(.030)</td></tr>
<tr><td>Regime Type</td><td>----</td><td></td><td>-.087*</td><td>(.041)</td></tr>
<tr><td>Wealth</td><td>----</td><td></td><td>-.035</td><td>(.026)</td></tr>
<tr><td>Peace Years</td><td>-.791***</td><td>(.058)</td><td>-.791***</td><td>(.058)</td></tr>
<tr><td>_cons</td><td>-3.06***</td><td>(.044)</td><td>-2.89***</td><td>(.092)</td></tr>
<tr><td>N</td><td>514,502</td><td></td><td>395,154</td><td></td></tr>
</table>

Note: *=$p<.05$, **=$p<.01$, ***=$p<.001$ Robust Standard Errors in Parenthesis. Peace year splines not reported.

All but one of the relationships between dissaggregated social organizations and dispute involvement is statistically significant in Model I. In Table 4.4, the regional social organizations had a negative but insignificant coefficient, where elsewhere in the table it had a strong positive and significant coefficient. The reason that the coefficient for aggregate category of regional social organizations turns out this way in Model II, is that the sub-category, more specifically focused, organizations behave differently. For example, on the regional level, having IGOs that govern the navigation and use of water resources has a significant negative impact on the probability of MID involvement. Historically, water, and territorial water boundaries, have been a point of contention between states; and the relationship uncovered here may be a result of these organizations working to maintain peace between the member states by resolving conflicts over this resource. IGOs that promote research and the transmission of technology tend to decrease the likelihood of militarized conflict, whereas communication based organizations may increase them.

It was theorized in Chapter 1 that one of the roles that IGOs play is one of a mechanism for communication, the positive result found here between communication organizations and dispute involvement is proof that the theory may need to be reformulated. First, since providing standards of communication and things like a interstate postal service does lay the groundwork for communication, though it does not guarantee that the right things will be communicated. Secondly, and more importantly, these organization are not meant to play any sort of mediation role in conflicts and may in general be a good example of 'low politics'. On the other hand, the positive relationship between MID involvement and universal social organizations illustrated in Table 4.3 is driven by Agricultural/natural resource management organizations as well as water resources organizations—though it is not clear why this is the case. Since water is a point of contention, it may be the case that organizations are formed *because of* the fact that the member-states are fighting over this resources.

Hypothesis 4.3, that shared memberships in IGOs reduces the probability that the MID will escalate to the use of war, finds support in Table 4.6. The higher the number of organization memberships shared in the dyad, the less likely that a MID will escalate to war. This result cannot be compared to any of Russett and Oneal's findings (2001), since to my knowledge they have yet to use war as the dependent variable in any of their published work.

Table 4.6

Estimated Logit Coefficients of the Escalation of MIDs to War, 1816-1992

Variable	Coefficient
Shared Memberships	-.025 (.005)***
Status	.394 (.110) ***
Wealth	-.280 (.079)***
Regime Type	-.163 (.127)
Contiguity	-.434 (.078)***
Revision (issue) Type	-.102 (.056)
_cons	-.883 (.161)***
N	2,472

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis

Having more major power states increases the probability that the dyad, once in a MID, will escalate to war. An increasing level of wealth in the dyad has a pacifying effect on the likelihood of war. While not statistically significant, increasing the relative democracy score for the dyad also decreases the chances of war. The finding that dyads that are contiguous are less likely to fight wars is likely due to the inclusion of the Two World Wars, where numerous non-contiguous dyads participated in the war. At least in this model specification, the type of issue fought over does not seem to impact the probability of war that is different than that expected by chance (though when the control for regime type is removed the variable is significant). There is likely some interaction affect between these two variables that should be explored elsewhere. The fact that IGOs decrease the probability of war has strong theoretical ground; however, without taking the types of organizations into account we are not getting the complete picture.

Table 4.7 displays the testing of Hypothesis 4.4, that the type of organization will have an impact on the likelihood of a MID to escalate to war. Table 4.7 includes two models, so the influence of the control variables that are added to the second model are clear.

Table 4.7

	Model			
Variable	I		II	
Regional				
Military Organization	-1.49***	(.425)	-1.39***	(.431)
Economic Organization	-.509***	(.148)	-.443***	(.138)
Political Organization	.414***	(.128)	.214	(.138)
Social Organization	.044	(.056)	.135*	(.056)
Universal				
Economic Organization	-.141***	(.037)	-.092*	(.047)
Political Organization	.024	(.050)	.074	(.055)
Social Organization	-.030	(.019)	-.004	(.024)
Average IGO Shared Membership	----		-.050***	(.015)
Status	----		.267***	(.107)
Contiguity	----		-.421***	(.076)
Regime Type	----		-.139	(.129)
Wealth	----		-.403***	(.076)
Power Ratio	----		-.039	(.035)
_cons	-1.15***	(.079)	-.572***	(.175)
N	3,045		2,668	

Estimated Logit Coefficients of the Escalation of MIDs to War, with IGO Typology 1816-1992

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

Looking at the coefficients in Model II, it is evident that the majority of the types of organizations *reduce* the probability of a MID escalating to war; however, there are certain types that *increase* the probability. As was the case in Table 4.3, universal military IGOs are dropped from the models since it perfectly predicts the outcome of no war. Recall that universal military IGOs can be considered alliances, though they have to meet the other criteria established in Chapter 2 to be considered IGOs (only a select few qualify). There are no MIDs or wars between members of universal military IGOs because these often reflect United States initiatives to create global institutions to counterbalance the communist threat during the Cold War. The members of these IGOs were strategic partners politically and militarily, and had little reasonable expectation of any sort of militarized conflict within the IGO.

In Model I, military and economic organizations have a negative relationship with dyads going to war. On the other hand, dyads that share political IGOs tend to have a positive relationship with war, given the number of dyadic ties they have in the other types of joint memberships. Model II introduces important control measures and most of the relationships between war and the IGO types hold true from Model I. Regional military organizations have the strongest impact on reducing the likelihood of war. As theorized, these organizations have the greatest potential for curtailing the conduct of international war among its members.

Both regional and universal economic organizations tend to lessen the probability of war in a dyad that shares a membership in one of these types of institutions. This finding concerning economic IGOs is theoretically significant. A functionalist would argue that economic IGOs provide the basis for a working peace system. Thus, dyads with a substantial number of these organizations have a dense network of ties that keep them from going to war with one another. Moreover, this finding is not picking up upon indirect effects of trade. When trade is included in the model (and alternatively, when trade is included but the economic IGOs are excluded) it does not result in a statistically significant coefficient. The negative relationship between economic IGOs and war is likely due to the ability of these organizations to resolve and manage disputes over issues related to economics.

Though not statistically significant, the coefficients for the political organizations are in the opposite direction than theorized. I would have expected that state engagement in a political forum would allow states in disagreement to work through their conflicts and halt their progress down the road to war. On the other hand, the organization also provides an opportunity for disagreement which may lead to militarized conflict. The case of the Arab League comes to mind here; how much of a restraint was this political organization to Saddam Hussein when he initiated a war with the fellow memberstate of Kuwait? The League condemned Saddam's actions, but were in no place to do anything about the incursion other than applying diplomatic pressures. Yet in the decade after the war, the League is the primary means of contact between Iraq and Kuwait, since they no longer exchange diplomatic officers.

With the disparate impacts the types of IGOs have on war, hypothesis H4.4 can be supported. Comparing Table 4.7 to Table 4.3 one finds that an organization that contributes to getting a dyad involved in a MID, also stimulates the probability of war once the MID begins.

Table 4.8 illustrates the change in the predicted probabilities by varying the types and number of shared memberships.

Table 4.8

Change in the Predicted Probabilities for MID Escalation to War, by Varying Type and Number of Organizations, 1816-1992			
	Number of Joint Memberships		
	1	2	3
Regional			
Military Organization(-)	.0471	.0123	.0031
Economic Organization(-)	.1118	.0762	.0510
Political Organization(+)	.1668	.1956	.2276
Social Organization (+)	.1450	.1659	.1834
Universal			
Economic Organization(-)	.1634	.1519	.1411
Political Organization (+)	.1361	.1442	.1528
Social Organization (-)	.1495	.1490	.1485

Note: Base predicted probability of .1469 calculated with all variables at their mean values. Change in direction in parenthesis.

The base probability of a MID going to war is .1469. Belonging to a regional military IGO has the strongest impact on reducing the probability of a dyad going to war, with one membership the probability of war drops to .0471, with two memberships the probability further declines to .0123, and with three memberships the chance that the dyad will go to war is below 1%. This finding is not supportive of a Realist interpretation. Realist theory is clear when it stipulates that alliances provide deterrent effects that lessen the chances of conflict with states not in the alliance. It does not say how states within an alliance are to behave towards one another. Nor do the findings support the 'friends-as-foes' thesis (see Ray,1990), that states may join the same alliance in anticipation of a future conflict (i.e. the proverbial 'holding ones enemies close').

Having joint memberships in economic organizations, especially ones with a regional scope, has a pacifying effect on the likelihood of war. On the other hand, a regional social

organization increases the predicted probability from .145 to .1659 with the increase of one shared membership to two memberships[12].

Conclusion

The majority of the extant empirical literature concerning IGOs focuses around how memberships impact MID and war propensities of dyads. As I have argued throughout, different IGOs emanate different types of norms of varied strength, therefore a typology needs to be tested. As the preceding tests demonstrate, different types of organizations do in fact impact dispute involvement and escalation to war differently, controlling for other types. A somewhat surprising result was the fact that some types actually increase the likelihood of dispute involvement and war. Political IGOs may give opportunity for disagreements that may add fuel to the fire and throw the states into militarized conflict (see Boehmer et al., 2001). Likewise, social IGOs tend to provide the least restriction on the conflict propensities of states, and may be reflective of an increase in the likelihood of conflict. The rise in the MID and war probability for states in social organizations is not due to the organization per se, but is due to the types of dyads that join these organizations.

Universal economic organizations have the most consistent impact in reducing the likelihood of militarized conflict of any kind- both disputes and wars. The promotion and institutionalization of the rules of a free trading system appears to be an extremely important norm that ultimately produces peace. In general, it seems being a member of the international free trade regime has more pacifying effects than does actual trade between a pair of states, since the dyadic trade variable was never statistically significant[13]. Likewise, military IGOs seem to shield its members from going to war with each other. On the other hand, belonging to a regional political organization both increases the probability of a dispute initiation as well as the probability of war. The tests herein have made a theoretical contribution, by putting the

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[12] Disaggregating the social IGO type as was done in Table 4.5 does not make the picture clearer (for instance the water resources organizations are not statistically significant) and therefore is not presented.

[13] My thanks to Jim Ray who rightly points out that dyadic trade may increase joint memberships in economic organizations. He says "then joint memberships in economic organizations are an intervening variable, which is why when you control for it, the relationship between trade and dispute involvement disappears. This actually would mean that the trade variable is more important (because it is more basic, fundamental) than the economic organization variable." My response is that even when I do not include economic organizations in the model, and include the dyadic trade variable, there still is no statistically significant relationship between trade and dispute or war involvement.

emphasis back on the active relationship between IGOs and peace, and not on a vague sense of peace through interdependence among states that pervades the literature.

CHAPTER V

IGOS AND DISPUTE ESCALATION

What factors allow some states to find their way to war, while others are lead to peace? What is it about these state relationships that lend themselves to become involved in conflict patterns that perpetually escalate and eventually reach a critical mass that brings about major war? States with a history of conflicts, may be more able to discern guideposts that allow them to stay the course to war (Brecher 1993; Brecher, James and Wilkenfeld, 2000; Holsti ,1989: Leng, 1993, 2000; Vasquez ,1993; Wayman, 1996, 2000). Alternatively, there may be international actors, IGOs, that seek to change this path of states. In this Chapter, I evaluate the proposition that the types of IGO membership, and the changes in the demographics of a dyad's IGO memberships over time affects the probability that a dyad will experience disputes that successively escalate in hostility.

In the literature, "escalation" as a theoretical term is predominantly used in two divergent ways: as an outcome or a process. The most typical usage of escalation is to refer to the level of hostility that is reached in the ending of a conflict—the outcome (Carlson, 1995). That is, a conflict that reaches the stage of war is said to have "escalated to war"; however, this can be a misleading usage of the term. Conceptually, the term "escalation" does not possess an absolute value. The escalation process can be thought of as having three major dimensions: the rate of behavior change; the magnitude coercive action; and the intensity or "mean magnitude" of escalation over an interval of time (Leng, 2000: 240). Arguably, escalation is best conceived as a bargaining tool that states use to make a conflict more costly for their opponents (Gochman, 1993; Leng, 2000). In this analysis, escalation of the level of hostility is framed as the change in the behavior of states as they participate in recurrent disputes. Specifically, escalation is measured as a change in the level of hostility in a dispute in time t, relative to a dispute in t_{-1}. The operationalization of this change in hostility will offer three distinct endogenous variables.

Why does recurrent conflict have a high propensity to lead to war rather than other events? The extant literature has shown that the behavior of states engaged in recurrent conflict is qualitatively different than that of isolated state disputes (see Diehl and Goertz, 2000; Thompson, 1999). To investigate this phenomenon, a brief review of the empirical findings that

relate recurrent conflict to escalation and war will be presented, at which time it will be evident that "there is a crying need for theoretical explanations of the substantive links that connect conflicts over space and time" (Goertz and Diehl,1997:12). I will first present a framework as to why states get the opportunity to experience escalation, then I will show how IGO membership changes that cycle. This framework identifies three rationale that may explain the relationship between recurring conflict and escalation: (1) types of issues that have been fought over in the past condition the hostility and salience of a current dispute; (2) conflict histories provide an availability heuristic for identifying targets; (3) conflict outcomes affect future interactions. First, I will fully develop these three explanations of escalating recurrent conflict. Next, I will establish the research design of this analysis, and present the empirical relationships it exposes. Subsequently, I will illustrate how and why IGO membership matters in the escalation or de-escalation propensities of dyads.

Theoretical Analysis

A cursory examination of the quantitative study of war would lead one to believe that the scholarly interest in recurrent conflict seems to be a relatively recent phenomena. Why is it the case that scholars have, for the most part, treated conflicts as independent events? Treating conflicts in this respect may stem from the fact that most research is done as an effort to uncover the causes of war. Since war is a rare event, it is logically plausible to treat each war as a separate case. In so doing, however, one has lost the true sense of that particular conflict. By excluding the past, a significant portion of the present is misunderstood. In addition, the technique of searching for causes of conflict, per se, may also confound the importance of past state conflicts on present ones.

A process model of conflict is much more conducive to the analysis of the relationship between recurrent conflict, escalation, and ultimately war. The very event of war itself can be used as an explanatory variable in future wars. State interactions, especially those that are conflictual, are dynamic events. Wars condition participants in ways that have lasting effects on subsequent development. Successive conflicts feed upon themselves, driving the participants further down the road to war.

In the literature, there are a number of ways in which the relationship between prior hostile interactions between states and current conflicts is conceptualized. I find the

operationalization of this concept to be most usefully thought of in terms of recurrent conflict. Some authors (Brecher, 1984) employ 'protracted conflict', still others (Maoz,1984) refer to this relationship as successive disputes, or the more general term of rivalry (for a review of the rivalry literature see Vasquez and Leskiw,2001). Thinking in terms of recurrent conflict, and the conflict history of a pair of states it develops, is the most relevant in explaining escalation. Recurring conflict gives one the sense that the end to hostilities are not easily marked; also the use of conflict, instead of crisis or disputes, implies that the level of military severity is substantial. Therefore, recurrent conflicts are defined as conflicts that occur in dyads that have previously experienced some sort of militarized conflict, including war.

There is a wealth of empirical relationships between recurrent conflicts and war. Russell Leng demonstrates that successive conflicts become increasingly escalatory and that after the third such encounter there is a high probability of war (1983: 135). A history of conflict in a dyad substantially increases the likelihood of an ambiguous outcome (Brecher, 1984: 263). Ambiguous outcomes, stalemates, in turn are often a cause of further conflict. Recurring conflict is also seen to affect the propensity of disputes to escalate, willingness of states to compromise, and the use of non-military measures to end disputes (Huth ,1996(a): 93, 133, 172).   Moreover, most quantitative research in interstate conflict neglects to incorporate the conflict histories of states in their models of state behavior. In point of fact, if such conflict history of a dyad is included, the ability not only to understand militarized conflict but to predict such conflict is greatly increased (see Crescenzi and Enterline, 2001).   In sum, dyads that experience recurrent conflicts tend to experience more violence, have a higher probability to go to war, and have a higher than expected tendency toward stalemate (Brecher et al ,2000; Diehl and Goertz ,2000; Huth, 1996; Vasquez, 1993). The following is an attempt to unpack the empirical relationships in order to highlight the reasons why recurrent conflict tends to become successively hostile and leads to war.

Revisionist Claims and Recurrent Conflict

What do states fight over? While it seems to be a straightforward question, illustrating what it is that motivates states to fight is a hugely challenging undertaking. One approach advocated in the extant literature is to focus upon the revisionist claims voiced by states that enter militarized disputes. A revisionist actor can be characterized as a state which is

"dissatisfied with the status quo prior to the onset of a militarized interstate dispute"(Jones, Bremer, and Singer, 1996:178). They seek to challenge the status quo condition of territorial claims, change the regime type of another state, or to resist or change the policy of another state.

Scott Bennett provides an important attempt to link the divergent literatures of issues types and recurrent disputes. "Leaving issues out of the study of rivalries [recurrent disputes] is problematic because issues are likely to be even more important in enduring rivalries than in other cases" (Bennett, 1997:231). He finds that when issues are settled, the recurring conflict ends. It is evident that issues play a significant role in the probability of future conflict- a process that will be tested below.

Arguably, the issue type that has yielded the most insight in regards to understanding interstate conflict, is the revisionist claim against territory. The territorial explanation of conflict and war is thoroughly dealt with elsewhere (Hensel, 2000; Huth, 2000; Vasquez, 1993, 2000; Vasquez and Henehan, 2001); however, some of its key findings are of special interest in light of the present analysis. One can make the rough distinction of two tracks of the territorial explanation. First, there is the idea of 'territoriality', where such issues surpass the tangible value of the land (Forsberg, 1996; Vasquez, 1993). The notion of territoriality is introduced to describe the fact that some authors believe that the drive to encompass more territory and thus conflict is somehow 'softwired' in the human mind (Vasquez, 1993: Chapter 4). Of all the issues that states fight over, territory is the most dangerous issue area in that it has the highest probability of leading to war (Vasquez forthcoming; Vasquez and Henehan,2001). Within the context of recurrent conflict, it has been shown that a history of territory disputes makes rivalries especially war-prone (Vasquez and Leskiw, 2001). The second tract of the territorial explanation works more with the actual value of the land in question. It has been shown that prior unsettled territorial disputes, existence of ethnic minorities, and the military and strategic value of a piece of land make territorial claims very war prone (Gochman and Leng, 1983; Hensel, 1994, 1996, 2000; Huth, 1996, 2000).

It is clear that the types of issues that states fight over condition their perceptions of each other and ultimately these issues affect their conflict propensities. It seems that territorial issues in particular tend to propel states down the road to war.

Identification as an Explanation of Recurring Conflict

A pair of states that has a history of violent relations is more likely to go to war than a dyad that lacks previous violent interactions (Vasquez,1993). An explanation of this phenomenon is that past conflicts between states identify future threats. What is the logic that accounts for the increase in the perception of threat and the escalation of hostilities?

From a realist perspective, the yearning for power is the motivation that guides state relations. Given that power is often measured by relative military capabilities, it is obvious that not all states in the system are peers. There is a natural tendency in the balance of power system to develop various echelons of capabilities (Major states, Minor States, etc.). Intuitively, one should expect that since power does not fluctuate to a great extent within these clusters, states are often faced with the same challengers over time. Therefore, past dyadic interactions affect the current distribution of power and the identity of a state's potential challenger (Anderson and McKeown, 1987, Lemke and Reed, 2001).

At its most elementary level, power transition theory suggests that wars occur when states that are not satisfied with the status quo approach those states that are associated with the status quo in terms of relative capabilities. There is empirical evidence that states in enduring rivalries have a greater probability of undergoing a war due to a power transition than states that are not suffering from a rivalry (Wayman, 1996:157). There is an implicit assumption of the power transition theory that is key to understanding why enduring rivalries suffer from such transitions (Lemke and Reed, 2001). There may be many instances where power transitions are not dangerous (i.e. the United States surpassing Great Britain in the 20th century), but the most important among them is when the players are unaware of an actual transition taking place. In fact, a transition can occur in relative capabilities in terms of actual numbers and strength, yet if the transition is not perceived, then a war is not fought. If State A had a previous war with State B, and the former was satisfied with the status quo, State A will hold the actions of State B more suspect than it would a state that it has no previous conflictual interactions. That is, State A will watch State B with a careful eye, and will be threatened by a shift in capabilities. This threat turns into a higher probability of war due to the fact that the challenge is seen by State A as credible and other effects of interaction norms that will be dealt with in a later section. Consequently, the model of escalation presented herein includes shifts in the relative capabilities of dyads from one dispute to the next.

States do not have an equal chance to interact with every other state in the system. They have a limited purview for their international interactions. In an expected utility framework created by Anderson and McKeown (1987), the availability of external targets is derived from previous conflictual experience. States weigh a decision to go to war with other states on the basis of capability profiles. As stated previously, when a state is comparing capabilities it does not do so in a sweeping fashion that analyzes all other countries in the system, but instead only involves states that are important to it. Anderson and McKeown establish an "availability heuristic [that represents]… decision making under conditions of uncertainty" (1987:13). Clearly, their framework demonstrates the phenomenan of recurring conflict, and more importantly, they imply an answer to why such conflict escalates over time and often involves war. Under conditions of uncertainly, states are more likely to adopt a restrained strategy of foreign policy. The implications of actions are not explicitly defined, therefore interactions with other states may be overly calculated and limited. Arguably, if two states already have a history of prior interaction that involves conflict and violence, then they have a reduction of uncertainty in their dyadic relationship. That is, the involved parties have a baseline to compare actions against to glean from them the true intentions of the opposing side. Uncertainty is reduced because the dyadic relationship can be defined—targets are identified.

As applied in the literature, a reduction of uncertainty tends to be associated with lesser probabilities of war; in this case, however, the opposite is argued. It may be counter-intuitive, but a reduction in uncertainty has the potential of increasing the likelihood of war using the same rationale in the case of power transition theory. Actions that may be interpreted as non-aggressive to parties outside of this dyadic relationship, are deemed to be hostile in the dyad because of comparison to prior interaction. States in such a dyad also engage in more resolute crisis management to demonstrate to the other side their strength, which increases the likelihood of escalation and war (Vasquez,1993). Thus the conflict history of a dyad itself provides the dynamic whereby future conflicts are spawned and hostilities are escalated.

Conflict Outcomes and Future Conflict

It is reasonable to assume that states have some, at least vague, sense as to the issue they go to war with another state. If the outcome of the conflict does not resolve this issue, there would be a good chance that the dyad will experience conflict in the future. Why would one

suspect that this future conflict would be realized in the form of war? Obviously, states do not like to be the loser of a conflict. Consequently, the status quo that forms after the conflict is not a desirable environment. Changing the status quo is a difficult task, and is unlikely to be altered unless a severe challenge is made against it. In general, when states have violent conflicts and one if not both states are unsatisfied with the outcome, there is a strong potential for future war. Three useful approaches to uncover the desired relationship are: analysis of the issues at stake, prospect theory, and learning theory.

As previously mentioned, there is substantial empirical evidence to support the claim that conflict outcomes have lasting effects over time. For instance, territorial issues are often associated with recurrent conflict (Hensel 1996; Huth 1996(a) and 1996(b); Vasquez ,1993). Moreover, the outcomes within recurring conflicts are two and a half times more likely to end in stalemates than if they were isolated conflicts (Hensel, 1996:63). Clearly, stalemates do not resolve the issue of contention between the states. The balance of power or calculated relative capabilities can be left out of the explanation why these states engage in conflict in the future. Realist assumptions may play a role in the timing of the next conflict, but the conflict in the future may not have anything to do with states seeking power. As noted above, the importance of the issue at stake may allow future conflict to occur, if they are not resolved.

Prospect theory establishes the notion that conflicts are related over time. In constructing the domains of gains and losses, implies that states use past outcomes for a reference point to judge their current situation (see Levy, 1992; McDermott, 1998; Stein and Pauly, 1993 for useful applications of prospect theory in International Relations). States in the domain of gain are risk averse, while those in the domain of loss are risk acceptant. By definition, one would expect that there is a substantial risk of war in the domain of loss. While prospect theory applies to states in general, it becomes all the more powerful if it is applied to the dyad with recurrent conflicts. Since the calculation of risk in the decision making process is a function of prior conflict outcomes, one can infer that the state in the domain of loss is very likely to employ aggressive foreign policy techniques to its old foes.

Thus far, only the conflict that is sparked by the loser that cites a past history of conflict as a justification for future conflict, has been discussed. It is, however, the case that the winner of the last conflict with a particular state may initiate further conflict. Under the rubric of learning theory, a state repeats actions that bring success and deviate from actions that fail (Leng,

1983). Victors had substantial incentive to maintain the status quo in their favor. There is evidence that if states feel as if the state they previously defeated is "catching up" they must therefore initiate a new conflict as a preemptive effort (Anderson and McKeown, 1987:19). Outcomes of previous conflicts have the ability to increase the conflict probability of successive disputes due to the nature of decision making. Strategies are chosen that give decision-makers the most utility in a situation. Issues that are not resolved in a satisfactory manner will be included in the cost-benefit calculations in the decision to go to engage in future conflict and escalate hostilities.

In summation, conflicts are most accurately perceived as connected across time and space. A dyad with a history of prior conflicts will likely continue the pattern in the future. Recurring disputes increase the probability of war between two states. Three rationale present themselves as explanations of the relationship between recurrent disputes and war. Conflict histories tend to make states identify each other as potential targets and highly scrutinize their actions. The outcome of conflict also drives the propensity for future conflict. States seek to achieve and maintain a status quo that satisfies their preference orderings. While this list is not exhaustive of the possible rationale, it is a starting point to introduce into the literature the realization that it is important to bring history back into scientific analysis (see Crescenzi and Enterline, 2001).

IGO Membership and Escalation

If we have seen the reasons why the typical dyad experiences recurrent disputes and subsequent escalation, why and how do memberships in given types of IGOs impact escalation? There are two basic ways IGO memberships are functioning here. First, some IGOs function as a working peace system. Military and political IGOs have conflict resolution mechanisms that put the brakes on acceleration on the conflict spiral. Instead of the exchange of military might as the only means to resolve a situation, other non-violent options appear (mediation, peace-making operations, etc.). A dispute between two members of an IGO serves as a wakeup call for that organization. It may be the case that it takes a militarized dispute for problems between two states to appear on the radar of some organizations. Consequently, the IGO has a clear motivation from stopping any subsequent conflict from escalating.   Secondly, as we have seen in previous chapters, IGO membership in certain types of organization promotes cooperation and

interdependence between states. In sum it has been shown that IGOs reduces the probability of that dyad entering a dispute in the first place, and then once in a dispute they constrain the movement toward the outbreak of war. The following hypotheses will be explored:

> *H5.1 The more joint memberships in a dyad, the less likely the pair of states will escalate in terms of severity across recurrent disputes.*

> *H5.2 Military and Political IGOs will reduce the chance of escalation across disputes to a larger extent than other types of organizations.*

Research Design

 The analysis undertaken herein utilizes a quantitative approach to understanding recurrent conflict. The scope of the data covers militarized interstate disputes (MIDs) from 1816-1992 (as defined in Jones, Bremer, and Singer, 1996). The MID data has been criticized for its mischaracterization of disputes when using the dyadic (a pair of states) level of analysis. Of most significance here, the hostility level assigned to a dyad comes from the dispute as a whole, and may or may not accurately reflect the interactions of those two states specifically. For example, the hostility level of the United States and Hungary dyad in 1941 is listed as war; though they did declare a war (which is properly labeled as a threat) neither side actually engaged in fighting each other (Maoz, 1999). A remedy to this problem comes in the form of the Dyadic Militarized Interstate Disputes (DYMID) data by Zeev Maoz, which among other things, corrects for inaccurate levels of hostility in dyads. The data has 2,219 observations of dyadic dispute initiations. The research below was also conducted on the same 2,219 observations, with hostility level indicators from the MID data and does not produce significant variation in the results. Consequently, the full MID 2.1 data that contains 3,045 observations of dyadic dispute initiations, generated by Bennett and Stam's 2001 Eugene program, are employed herein.

 Escalation, as it is operationalized here, is a simple relational concept that describes the distance between the hostility level in a dispute in time t_{-1}, and the level of hostility in a dispute in time t. The level of hostility of a dispute, labeled 'hostlev', is measured in five distinct strata: no militarized action, the threat to use force, the display of force, the use of force, and war (the threshold of 1,000 battle casualties) (Jones, Bremer, and Singer ,1996). Additionally, twenty-three state action codes, labeled the 'hiact' codes, are recorded as the sub-components of the five-point general hostility scale. Since very little quantitative research has been conducted on

escalation over time, there is no convention to adhere to when operationalizing escalation. Consequently, both the five-point scale and twenty-three point scale will be employed here. The justification for using both measures is that the five-point scale is the one most often used by analyses of the MID data and there is an established literature on the subsequent findings. The twenty-three point scale is a useful and viable alternative since, as it will be seen, the five-point scale lacks variability over time. Using the two basic hostility measures, a total of three endogenous variables are created that each have their own strengths and weaknesses. The first two escalation indices called 'hostility-escalation' and 'intensity-escalation' which are also developed from the five and twenty-three point hostility scales respectively, not only measure the direction of the change in hostility level, but accounts for the magnitude of the change. The third dependent variable, called 'real-difference', combines both the magnitude and direction of change and then goes a step further and accounts for the substantive change in hostility. For example, the variable would track the hostility level of the first dispute, threat, and the hostility level of the second, use of force, instead of merely looking at the direction of change and the numerical difference of the change (a +2 in hostility levels). Certainly escalation from a threat to a display of force is qualitatively different than escalation from a use of force to interstate war, yet without accounting for their starting point of hostility, the researcher would treat them as the same in that they both yield a +1 change in hostility. Table 5.1 sums up the proposed endogenous variables:

Table 5.1

The Operationalization of Three Indices of Escalation Across Recurrent Disputes, 1816-1992		
Name	Derived From	Range of Variability in Escalation
1. Hostility-Escalation	5 Point 'Hostlev'	-3 to +3
2. Intensity-Escalation	23 Point 'Hiact'	-8 to +8
3. Real-Difference	5 Point 'Hostlev'	0 to 15

The validity of the proposed escalation indices can only be evaluated by first clearly defining and enumerating the procedure employed in their construction. To begin, a brief discussion of the source of the data is necessary. A substantive interpretation of the new escalation measures will be offered and will be compared to existing measures. Here, the attempt will be made to show why existing measures are inadequate for the research question at hand. Additionally, descriptive statistics will be presented to flesh out the composition of the endogenous variables.

The Militarized Interstate Dispute Data

Arguably, the Militarized Interstate Dispute Data , hereafter MID, is one of the most often used dataset in the scientific study of war and peace. The dataset, as compiled by the Correlates of War (COW) Project, is an attempt at systematically describing conflictual behavior on the international level. A prominent measure employed in the data describes the extent to which a given dispute becomes "militarized" or "serious". The research approach identifies three types of state behavior that can reflect the seriousness of a dispute: "the explicit threat to resort to armed force, the display or mobilization of armed force,.. the use of armed force but short of the sustained combat that characterizes a war " (Jones, Bremer, and Singer, 1996: 167). The capstone of such a scale is of course war, which is defined as military combat that incurs a minimum of 1,000 uniformed battle deaths (Small and Singer, 1982). With this heuristic in mind, the project established coding rules that recognized a total of twenty-three state actions that qualified as militarized state behavior (labeled 'hiact' in the MID data). This measure does not take into account the process of escalation *within* disputes, but instead categorizes the highest level of militarized activity in the dispute.

The MID measures in themselves are insufficient to explore how hostility levels are related between disputes for two reasons, the lack of order and variance. On its face, using the twenty-three raw action codes would presumably be a good measure of changes in hostility. However, the data are not rigorously ordered such that they could be utilized in this fashion. For example, can a meaningful distinction in terms of intensity be made between a show of troops and a show of ships? On the aggregate level, the twenty-three action codes do fall within the general categories of threat, display, or use of force; however, "within each category, no effort

has been made here to rank their intensity" (Jones et al., 1996:171). The new intensity index adds the needed order to the various categories.

Since the sole purpose of the proposed index is to address the question of escalation in "intensity", then why not use the MID five-point scale of hostility? This measure is ordinal in nature and has been used elsewhere to measure escalation, though not the type of escalation discussed here (see Senese, 1996). The MID dataset collapses the twenty- three action codes into a five-point scale called the "Hostility Level". This approach to measuring the propensity of escalation between disputes is rejected because of practical reasons. Table 5.2 illustrates the distribution of the five-point hostility level over all the cases in the MID version 2.1 dataset, prior to it being transformed into dyadic dispute initiations.

Table 5.2

Hostility Level of All MID Cases		
Value	Frequency	Percentage of Total Cases
No Militarized Action	0	0%
Threat of Force	98	4.82%
Display of Force	446	21.93%
Use of Force	1388	68.24%
Interstate War	102	5.01
Total	2034	100%

Clearly, the use of force is the most prominent level of hostility. The problem when mapping escalation of hostility using this measure between disputes is that there is very little variance. It is evident that using the highest level of hostility as a measure of escalation is insufficient due to the overwhelming preponderance of the "use of force". The situation is further compounded when "dispute histories" of particular dyads are operationalized. That is, when investigating recurrent disputes, only those dyads that have had at least two disputes are included. The whole approach to studying recurrent disputes is that the conflict history of a dyad weighs into calculations that determine the scope of current disputes. Therefore, one needs a meaningful order and some variation. Figure 5.1 shows how the various measures of hostility, including the

new measure (dispute intensity index), vary across time for a randomly selected dyad, which in this case is Argentina and Chile. All multiparty disputes were dropped for reasons discussed in the research design below.
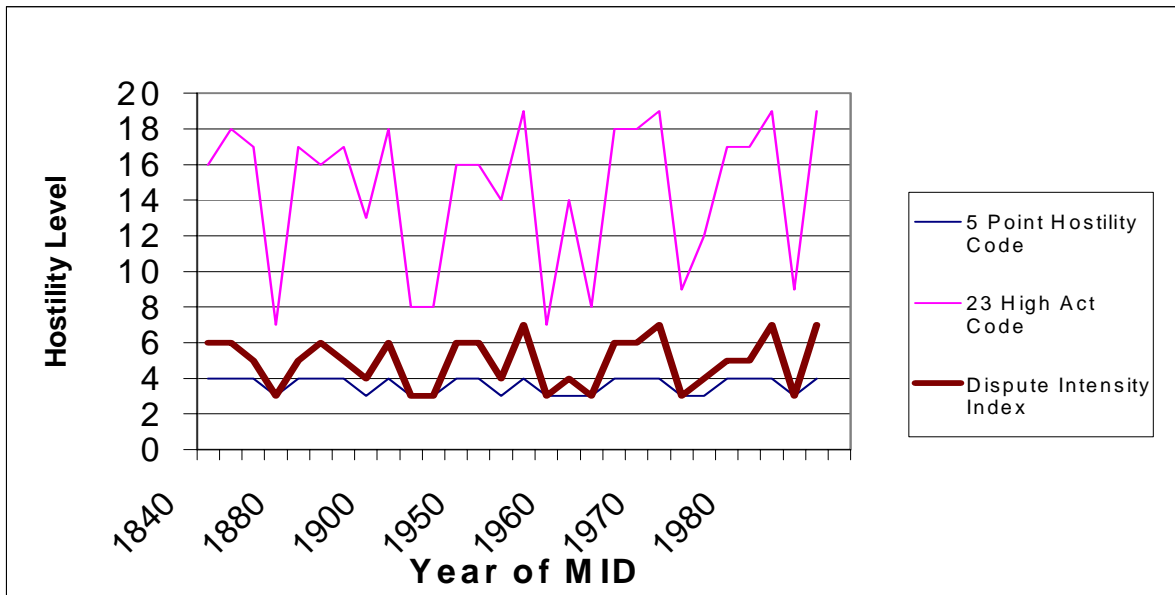
Figure 5.1   Comparison of Hostility Measures of Argentina and Chile, 1816-1992

At least for the case of the Argentine/Chile dyad, though one would suspect most dyads, the standard five-point hostility scale, while it does have an inherent order, does not capture much variance between disputes. On the other hand, the twenty-three point scale shows an incredible amount of variation that seems to be quite random. Furthermore, the sweeping increases and decreases that the twenty-three point scale illustrates may not show actual escalation because it is not strictly an ordinal variable (it is ordinal in the broad sense it starts with threats and ends with war, but the order of the intervening cases are not clearly defined). The dispute intensity index reflects the best properties of both 'out of the box' MID measures. The new index has both order and variation.

Escalation Between Disputes: The "Dispute Intensity Index"

The extent to which a measure is useful, is a function of its reliability and validity. To create a reliable measure, a quasi-experiment was performed. Four experts, who are intimately familiar with the MID dataset, were placed in a 'game' that would eventually result in the current

index.[14] The experiment participants were asked to create on note cards a scale of hostility that would measure escalation between disputes. The participants were told that the resulting index would be used to determine whether states in a given dyad that experiences successive disputes tend to become increasingly hostile with every encounter, the end result being eventual war. Each researcher was asked to independently rank order the twenty-three action codes in such a manner that created a scale from the lowest level of hostility to the highest. The ordering was to be based upon the definitions of the action codes as they appeared in tables one, two and three, in Jones, Bremer, and Singer 1996 (p171-73). To create the order, the participants drew on their knowledge of the MID dataset; published empirical findings; as well as case histories. The participants could construct an index that had any number of different categories; the largest index had twenty categories, two indices had ten, while the smallest index had only eight. Despite the range in the number of categories, for the most part all four indices had a great degree of continuity between them. The note cards were arranged to form an overall escalation index, and any deviation from an individual scale was discussed and the order was modified accordingly.   The result was a ten-point scale that characterized the intensity level of militarized disputes which is shown in the following table.

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[14] The experts included John Vasquez, the author, and Ph.D. candidates Yijia Wang and Mathew Randol.

Table 5.3

	Intensity Index and the MID Highest Act Code	
Dispute Intensity Index	Grouped Highest Act Codes	Description
1	1	No Militarized Action
2	2,3	Threat to: Use Force; Blockade
3	4,10	Threat to Occupy Territory; Alert
4	5,7,8,9	Threat to: Declare War; A Show of:Troops;Ships;Planes.
5	12,13,14	Mobilization; Fortify Border; Border Violation
6	15,17	Blockade, Seizure
7	16,18	Occupation of Territory; Clash
8	19	Raid
9	20	Declaration of War
10	22	Interstate War

Though the table is fairly straightforward, some time should be devoted to a substantive interpretation of the various levels of hostility. It should be reiterated that the index is an ordinal, rather than an interval scale. An interval measure would require that there be an equidistant 'space' between each category. For the index to be interval, a change between a score of a one and a two has to be the same net amount increase in intensity as a change between level seven and eight. Since the index is ordinal, a step up in one index level means the dispute intensifies and is getting closer to being a war. Within the literature, the MID five-point scale receives more usage than its twenty-two point counterpart, thus it may be useful to overlay the five-categories on the measure of dispute intensity. The horizontal lines of the table signify an attempt to add continuity between the MID five-point Hostility scale and the new index. Where the new index deviates from the order of the MID five-point Hostility level, theoretical rationale will be offered to justify the change.

The first group includes those disputes that do not involve any militarized action. The second group, which assume dispute intensity values of one through two, are levels that can be generally referred to as threats by one state toward another. We perceive threats to use force or threats of initiating a blockade as less escalatory than the threat to occupy territory. Garnering insights from the territorial explanation of war (Vasquez, 1993; Vasquez and Henehan, 2001) the threat or occupation of territory is given special consideration due to the fact that it has been found to be a highly contentious issue. Dyads that participate in territorial disputes have a high probability to go to war relative to non-territorial issues, and have been found to spawn numerous recurrent disputes (Brecher and James, 1988; Vasquez, 1993; Hensel, 1995 and 1996; Huth, 1996; Vasquez and Henehan, 2001.) Unlike the MID categorization, the occurrence of an "Alert" is seen as less intense than other actual displays of force. Jones, Bremer, Singer (1996) define an Alert as a "reported increase in the military readiness of a state's regular armed forces" (p172). For us, on the other hand, an alert is a phenomenon that is internal to the regime and may not have a high probability of being perceived by the other side. More importantly though, an alert is placed in this category because it is less escalatory than a threat to declare war, but more escalatory than a general threat to use force.

A threat to declare war is more hostile than other types of threats. The case for placing war on a higher level is especially clear after WWI, where its image of death and destruction has been seared into the collective memory of the international community (see Mueller, 1989). In the third strata of the index, no attempt was made to distinguish between the show of troops, ships, or planes. They are placed on equal ground as a result of the temporal domain of the cases in the data set. For instance, a show of ships may be highly hostile and escalatory in the late 19th century, but it is unclear such a demonstration would have the same effect in 1990[15]. The mobilization of forces, the fortification of borders and border violations are seen as more hostile than the previous levels, but still can be grouped under the "display of force" heuristic.

The fourth grouping of the index (numbers 5,6,7) includes actions that are categorized by the MID dataset as uses of force. Since these actions involve the actual use of force, they are necessarily more escalatory then previous categories. A blockade or a seizure (capture of material or personnel of another state) are less hostile than the occupation of territory. While

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[15] Likewise, it may be the case that a show of ships is more hostile in the late 20th century, due to the fact of the offensive capabilities of aircraft carriers; or the showing of a submarine carrying nuclear missiles.

blockades and seizures restrict movement, they do not nullify physical claims--and the right to self-determination--of an opposing state as an occupation of territory would. The COW project defines a clash as an "outbreak of military hostilities between regular armed forces… in which the initiator may or may not be clearly identified." A raid is essentially the same as a clash except the initiator can be clearly identified (Jones et al, 1996: 173).   The occupation of territory, clash or raid, are serious uses of force against another state and there may be theoretical value in attempting to make distinctions between them. A raid is set higher in the index because it involves a deliberative attack by one side and in so choosing they have 'ratcheted up' the dispute. On the other hand, a clash might be more of a responsive maneuver since the initiating party is not evident.

The final cluster of hostile actions bring those states involved in the disputes to war. The new measure does not distinguish between the onset of interstate war –code 22—and the joining of an interstate war—code 23. Ideally, the highest level of hostility would not simply be war, as defined as 1,000 battle deaths, but a dichotomy-- those wars that involve the use of chemical, biological, or nuclear weapons and those that do not.[16] Tables 4.4a and 4.4b are a comparison of the distribution of the MID twenty-three highest act codes and the new dispute intensity index, in their non-dyadic format.

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[16] The use of chemical, biological, or nuclear (CBR) weapons in war could be the apex of the scale due to the fact that their use is in opposition to the greatest amount of international norms that dictate state behavior. In a sense, wars may be tolerated by the international community while the use of CBR weapons is still considered taboo within the conduct of state-craft. Therefore the use of CBR weapons in war would be more escalatory than war without these weapon types. It should be noted that the "threat to use nuclear weapons" and "nuclear alert" are not coded in the dispute intensity index. The debate as to how hostile a nuclear threat relative to other categories is not readily resolved.   Since there are no disputes that actually have either coding, the issue is not key to the

Table 5.4a.   Table 5.4b.

MID Highest Act Codes 1816-1992			Dispute Intensity Index 1816-1992		
Value	Frequency	Percentage	Value	Frequency	Percentage
No Mil. Action	0	0%	1	0	0
Threat of Force	85	4.18%	2	88	4.33%
Threat of Blockade	3	.15%	3	48	2.36%
Threat to Occ. Terr	4	.20%	4	260	12.78%
Threat to Declare War	6	.29%	5	148	7.28%
Threat to Use Nukes	0	0%	6	287	14.11%
Show of Troops	107	5.26%	7	414	20.35%
Show of Ships	115	5.65%	8	641	31.51%
Show of Planes	32	1.57%	9	46	2.26%
Alert	44	2.16%	10	102	5.01%
Nuclear Alert	0	0			
Mobilization	19	.93%	Total	2,034	
Fortify Border	24	1.18%			

Table 5.4a continued

Border Violation	105	5.16%
Blockade	19	.93%
Occupation of Terr.	84	4.13%
Seizure	268	13.18%
Clash	330	16.22%
Raid	641	31.51%
Declaration of War	46	2.26%
Use of CBR Weapons	0	0
Interstate War	78	3.83%
Joins Inter. War	24	1.18%
Total	2,034	

Fifty percent of all cases in the intensity index are found in categories seven and eight. There seems to be enough variance in the dispute intensity measure, that the increase or decrease in the level of hostility between disputes will be empirically discernible.

In their dyadic dispute format, the first two endogenous variables appear in the following distribution in Table 5.5.

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development of the index. However, if pushed the author would place any nuclear action short of its actual use, around a six or a seven on the intensity index.

Table 5.5

Change in Hostility Level	Hostility Escalation		Intensity Escalation	
-8	---		3	(.18)
-7	---		4	(.24)
-6	---		34	(2.0)
-5	---		22	(1.3)
-4	---		73	(4.4)
-3	6	(.36)	110	(6.6)
-2	68	(4.1)	175	(10.4)
-1	304	(18)	165	(9.8)
0	924	(55)	505	(30)
+1	295	(18)	163	(9.7)
+2	75	(4.5)	152	(9.1)
+3	8	(0.5)	115	(7.0)
+4	---		94	(5.6)
+5	---		16	(1.0)
+6	---		39	(2.3)
+7	---		3	(.18)
+8	---		7	(.42)

Crosstabulation of First
Two Escalation Indices, 1816-1992

Note: Percentages of total number of observations,
1680, given in parentheses.

Both Table 5.5 and 5.6 demonstrates the need to use a variety of variables to measure escalation across time. Both the 'ordered intensity' and 'real difference' indices have greater variances than their 'hostility' counterpart, and may prove to have a better ability in mapping dispute escalation. While the 'hostility' index may lack a large degree of variability, it should still be analyzed since its construction is less complex and their component, the four-point hostlev scale, is more widely used in the literature. This later fact is importance because of potential criticisms that any findings on the relationship between the type of IGO and escalation would be artifacts of the way in which the dispute intensity variable was constructed.

The third dependent variable, 'real-difference', is an attempt to unite the prominent strengths of the previous two dependent variables: variability and reliability. Table 5.6 lists the contours of the third dependent variable, by showing the number of disputes that represent each change in hostility. The 'real-difference' measure has a significant amount of variance as well as

reliability since it is constructed from the four-point hostlev scale. What becomes very apparent is that a majority, nearly half, of the cases where a dyad experiences a recurrent dispute do not escalate or deescalate, but maintain a use of force.

Table 5.6

Crosstabulation of the Actual Difference in Hostility Levels Between Recurrent Disputes (Real-difference), 1816-1992			
Actual Δ in Hostility $MID_{t-1} \rightarrow MID_t$	# of Observations	Actual Δ in Hostility $MID_{t-1} \rightarrow MID_t$	# of Observations
Threat → Threat	10 (0.6)	Use → Threat	60 (3.6)
Threat → Display	25 (1.5)	Use → Display	233 (14)
Threat → Use	51 (3.0)	Use → Use	775 (46)
Threat → War	6 (0.4)	Use → War	45 (2.7)
Display → Threat	25 (1.5)	War → Threat	8 (0.5)
Display → Display	132 (7.9)	War → Display	15 (1.0)
Display → Use	234 (14)	War → Use	37 (2.2)
Display → War	17 (1.0)	War → War	7 (0.5)

Note: Percentage of total observations,1680 cases,given in parentheses.

While it may not come as much surprise that the use of force is the average level of force, per table 5.2, in the MID data as a whole, but it is somewhat novel to discover that dyads maintain this high level of force in successive encounters. Why is this the case? Does the maintainance of the use of force demonstrate that states do not learn from their past interactions, or is it the very fact that they have used force in the past necessarilly eliminate the implemenation of lesser hostile actions? A full answer to this and other related questions is beyond the scope of the research herein. However, with the independent variables explained below, the distance toward a full answer is greatly shortened.

Exogenous Variables

The variable that is the most important in this research effort that attempts to explain escalation is IGO memberships. I will be testing models that aggregate the total number of shared memberships regardless of the type, and models that implement the IGO typology.

Again, both perspectives on IGO membership are included to address the question of whether it is merely the density of shared memberships or the type of IGO that matters. Additionally, are the number and type of IGO memberships that the dyad shares in the current dispute more important in terms of impacting escalation or is it the change in memberships since the last dispute that has the substantive impact? It could be the case that IGOs constrain the dyads willingness to escalate, since the organizations may have attempted to address the situation that was a factor in the occurrence of the last dispute. That is, since the attention of the IGO was captured when two of its members had a militarized dispute, it may now put forth additional energy to prevent such conflict from recurring or if it does recur there may quicker attempts in employing conflict resolution techniques. On the other hand, it may be fruitful to look at how the IGO membership of the dyad has changed since the last dispute. It could be the case that they joined a particular IGO that curtails the escalation; alternatively, the dyad may have exited shared memberships in IGOs that would have impacted their disputes, thus allowing the current dispute to escalate relative to the previous dispute. Additionally, a variable that indicates the average shared memberships between dyads for the years analyzed places the dispute within a context. The context provides a sense of the strength of international norms. Years where the average membership is low, may be ones in which unilateral behavior is the norm versus years where the membership average is quite high which indicates a high potential obligation to respect international law.

Another important exogenous variable is one that maps the issues that a given dyad has fought over. The question this variable seeks to address is 'what, in the past, is the dominant issue this dyad has fought over (disputes in time t_{-1} , t_{-2} ,etc.), irrespective of the issue in contention in the current dispute (in time t)'. Figure 5.2 illustrates how this issue dominance variable is constructed.
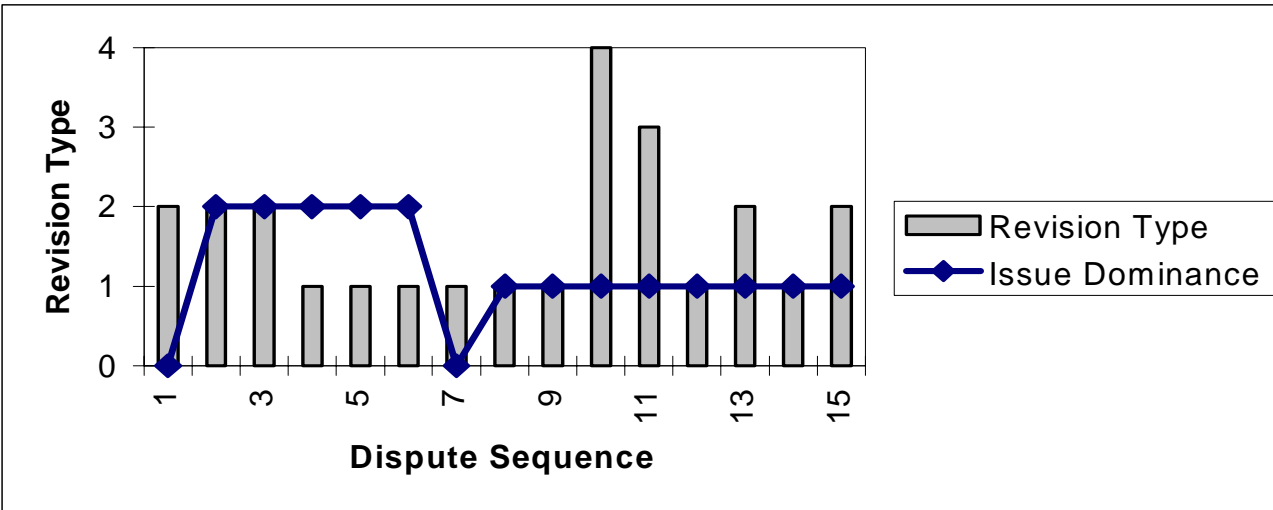
Figure 5.2   Mapping the Dominant Issue

While other related research efforts have produced similar variables[17] that map issue dominance, the indicator constructed here is the most relevant to discern the escalation process across disputes. It is clear from Figure 5.2 that the type of issue that is dominant in a given dyad can change over time, while still reflecting which issue the dyad has most often fought over. In some sense, it may help to think of the dominant issue as a 'moving mode'-- a mode that is updated with each successive dispute. If present, the issues that are fought over are territory, policy or regime (Jones, Bremer, Singer, 1996). In other research, it has been shown that dyads that have been dominated by territory are the most likely to escalate at higher levels of hostility (Leskiw, 2001).

As previously discussed, the outcome of a dispute has a significant impact on the level of hostilities in subsequent disputes. Thus, the outcome of the previous dispute is an important control variable. The following outcomes are possible: victory, yield, stalemate, compromise, release and one where the outcome is not clear (Jones, Bremer, Singer, 1996). Here, I am interested in whether or not the previous dispute can be considered decisive (ie. a clear winner and loser can be identified) or non-decisive. Leng (1983) theorizes that non-decisive outcomes provoke a dyad to in effect try harder the next time they encounter each other in a militarized

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[17] Vasquez (forthcoming) looks at the history of the dyad as a whole and judges which issue the dyad has most often fought over. Vasquez and Leskiw (2001), use three types of rivalry as the threshold to determine prior to a given type of rivalry (isolated, proto, enduring) what issues were dominant in the dyad.

dispute. The variable used here allows for three outcomes: decisive (victory or yield), compromise (a middle ground where both sides are potential winners), and non-decisive (stalemate). Another factor of the dispute context that needs to be accounted for is the change in relative capabilities in the dyad. It could be the case that a dyad that has more capabilities among its members is more likely to increase in hostility since they have more resources to devote to conflictual dispute management techniques. This variable is constructed from the updated Correlates of War (COW) Project's national military capability list (Singer, Bremer, Stuckey ,1972). The number of parties involved in a dispute will substantially affect its hostility level. There is a large body of evidence that explains why large disputes tend to involve higher levels of hostility (major world wars, alliance entanglements, etc.). A more theoretically specific explanation is that with more parties in the dispute, it becomes more difficult to satisfy claims that may have been settled using non-violent conflict management techniques (i.e. states want to gain something -a piece of the pie- for their costs). Therefore, a variable that tracks the changes in the number of parties involved in disputes is included. One would suspect that if there are fewer participants in a dispute in time t relative to the number in a dispute in time t_{-1}, it would have a de-escalating effect on the hostility level.

An additional variable that is introduced into the models as a control variable is the number of peace years (Beck, Katz, and Tucker, 1997). The more time that lapses between the dispute in time t_{-1} and the dispute in time t , there should be a corresponding decrease in hostility level. That is, the longer a given dyad has experienced peace, the less likely that that dyad will escalate the current MID since the weight of the past (past issues and outcomes of previous MIDs) is much reduced. Table 5.7 provides the summative statistics for the exogenous variable explained above.[18]

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[18] The level of dyadic trade is not included in these models since it reduces the number of cases to below 400 due to missing data, and is not statistically significant. Additionally, the wealth variable is not included here, though it produces a significant and negative impact in that as states become more wealthy they are less likely to escalate,

Table 5.7

Descriptive Statistics of the Exogenous Variables				
Variable	Mean	Standard Deviation	Minimum Value	Maximum Value
Shared IGO Memberships	17.64	13.65	0	73
Δ in Shared Memberships	2.60	6.13	-4	61
Average IGO Memberships	10.62	6.38	.009	20.05
Table 5.7 Continued				
Δ Regional Military IGO	.036	.221	-1	2
Δ Regional Economic IGO	.091	.448	-1	6
Δ Regional General IGO	.085	.349	0	4
Δ Regional Social IGO	.358	1.18	-3	13
Δ Universal Economic IGO	.379	1.17	-1	10
Δ Universal General IGO	.327	.912	-3	6
Δ Universal Social IGO	1.19	2.94	-2	27
Issue Dominance	1.57	.695	0	4
Outcome	2.50	.609	1	3
Δ Total Capability	-.002	.028	-.26	.17
Δ # of Parties	-.005	2.28	-32	31
Peace Years	11.92	20.1	0	138

Findings

The models in Table 5.8 illustrate whether shared IGO memberships impact escalation pattern, and they reflect a multivariate approach using ordered probit. First, the two simple dependent variables that track the direction and magnitude of change are used in two models respectively. Two models are included to discern the impact of the control variables on the variables of interest. Ordered probit is used since the endogenous variable can be ordered on an increasing scale of hostility; a decrease in hostility, no change, and increase in hostility.

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since it is unclear theoretically how wealth should impact escalation. Finally, all analysis was undertaken using only politically relevant dyads and it does not have an impact on the results and is consequently not reported.

Table 5.8

<table>
<tr><td colspan="5" align="center">Estimated Ordered Probit Coefficients for the Escalation
in Recurrent Disputes and Shared IGO Memberships, 1816-1992</td></tr>
<tr><td></td><td colspan="2" align="center">Hostility-Escalation
Model</td><td colspan="2" align="center">Intensity-Escalation
Model</td></tr>
<tr><td>Variable</td><td align="center">I</td><td align="center">II</td><td align="center">I</td><td align="center">II</td></tr>
<tr><td>Shared IGO Memberships</td><td>-.001 (.003)</td><td>.002 (.003)</td><td>-.00006(.002)</td><td>.002 (.003)</td></tr>
<tr><td>Average IGO Memberships</td><td>-.001 (.006)</td><td>-.019* (008)</td><td>-.002 (.006)</td><td>-.019** (.008)</td></tr>
<tr><td>Issue Dominance</td><td>----</td><td>.059 (.043)</td><td>----</td><td>.074 (.040)</td></tr>
<tr><td>Peace Years</td><td>----</td><td>-.004 (.003)</td><td>----</td><td>-.003 (.003)</td></tr>
<tr><td>Δ Number of Parties</td><td>----</td><td>.056**(.015)</td><td>----</td><td>.053** (.016)</td></tr>
<tr><td>Δ Total Capability</td><td>----</td><td>1.09 (1.04)</td><td>----</td><td>.91 (.980)</td></tr>
<tr><td>Outcome $_{t-1}$</td><td>----</td><td>.215**(.045)</td><td>----</td><td>.203** (.041)</td></tr>
<tr><td>Major State Status</td><td>----</td><td>.032 (.052)</td><td>----</td><td>.032 (.047)</td></tr>
<tr><td>Contiguity</td><td>----</td><td>-.010 (.042)</td><td>----</td><td>-.021 (.038)</td></tr>
<tr><td>Regime Type</td><td>----</td><td>-.014 (.060)</td><td>----</td><td>-.005 (.052)</td></tr>
<tr><td>Number of Observations</td><td>1662</td><td>1394</td><td>1662</td><td>1394</td></tr>
<tr><td>Pseudo R2</td><td>.0000</td><td>.0176</td><td>.0000</td><td>.01</td></tr>
</table>

Note: *=p<.05, **= p<.01 Robust Standard Errors in Parenthesis. Cutpoints not reported.

In Model I and II for both dependent variables, observations are missing due to censoring. The censoring occurs for two reasons. First, the data starts in 1816 and therefore does not include any militarized contact prior to that date. Subsequently, dyads that had experienced conflict prior to 1816 are left-censored. The second case of censoring is that the first MID that a dyad experiences that falls within the purview of the data. This case is excluded since a change in the level of hostility cannot be determined because of a lack of a point of comparison. One could argue that the entrance of a dyad in the MID data can be deemed an escalation due to the fact that previous interactions between those states did not involve a militarized component. However, this assumption leaves the research prone to an unacceptable level of error.

What can be seen from table 4.8 is that neither of the two independent variables produce statistically significant findings in Model I. Despite the lack of significance, it is important to

run the key explanatory variables by themselves, since when one adds a combination of other variables the relationship of most interest, in this case shared IGO memberships and escalation, may become muddied. Model II does provide results that are substantively and statistically significant. For the hostility-escalation dependent variable, it looks like shared IGO memberships have a positive yet statistically insignificant impact on the probability of a dyad escalating. Likewise, in the intensity-escalation framework, shared IGO memberships have an insignificant positive relationship with escalation. Clearly, both dependent variables tell relatively the same story when it comes to escalation. There is not enough evidence to accept Hypothesis 5.1 that shared memberships decrease escalation in recurrent disputes.

It does seem to be the case that the average IGO shared membership variable is capturing something interesting. As the average number of shared memberships increases, the probability of a dispute escalating actually decreases. This result would suggest that in time periods with high average dyadic IGO memberships, the norm of peaceful interaction of states is empowered.

The types of issues that are dominant in the conflict history of the dyad do not seem to impact escalation tendencies (a p-value of .06 in Model II of the intensity index). The number of years of peace that occur between disputes has a negative relationship, though statistically insignificant, with the dyad experiencing an escalation of hostilities. Intuitively, the more years of peace a dyad experiences, the less likely the chance that a new dispute will escalate. The more time that has elapsed between disputes, the less likely that decision-makers will make much of a connection between the disputes, and any tendency to escalate will be diminished. As more participants are included the potential for escalation of hostilities relative to the previous disputes, increases as well. Additionally, as the dyad gains in military capability it will more readily experience higher levels of hostility. While the magnitude on the relative capability variable is the largest of any in the model, it does not pass the threshold for statistical significance. As theorized, the positive relationship between escalation and ambiguous outcomes conforms with expectations.[19] This means that states will up the ante in their next round of confrontation in ordered to identify a winner.

There are examples in the literature that find that major power states (defined by the COW project) are more war prone than other states of lesser power, and that contiguous states

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[19] The revision type for the current dispute and an indicator of the revision type of the previous dispute were also included in versions of the model, however they are not reported since they did not have any statistical impact on the model.

are also more prone to conflict and war (Bremer, 1992). Therefore, one would expect that major power states are more likely to escalate hostilities across disputes than are states of lesser power, and contiguous states are more likely to escalate. However, the data at this stage do not support such a claim. Without delving deeply in the democratic peace literature, one could reasonably expect that the regime type differences in the dyad has an impact on the escalation or de-escalation of hostilities. The regime type of a dispute is found by comparing the regime type scores (taken from Polity III), and assumes three values: an autocratic vs. an autocratic state; an autocratic vs. a democratic state; a democratic state vs. a democratic state. These additional variables, major states and regime type do not have a substantive impact on the magnitude and direction on the variables in Table 5.8.

Additional testing on the final dependent variable, 'real-difference', was undertaken, but did not substantially deviate from the models presented in Table 5.8. I also looked at the change in IGO membership between disputes, but it did not produce significant results. One can conclude that a simple aggregated measure of shared IGO memberships does not appear to have a relationship with escalation; however, table 5.9 shows that useful insight can be found if the typology of IGOs is employed. Specifically, the change in a given type of IGO is analyzed in comparison to the hostility and intensity escalation indices in the following table (the actual number of the various types of IGO memberships does not produce statistically significant coefficients).

Table 5.9

	Estimated Ordered Probit Coefficients for the Escalation in Recurrent Disputes and IGO Typology, 1816-1992			
	Hostility-Escalation Model		Intensity-Escalation Model	
Variable	I	II	I	II
Δ Regional Military IGO	.235 (.137)	.160 (.147)	.190 (.131)	.108 (.148)
Δ Regional Economic IGO	.060 (.079)	-.002 (.095)	-.004 (.073)	-.066 (.089)
Δ Regional Political IGO	.031 (.092)	-.015 (.103)	.020 (.087)	-.018 (.099)
Δ Regional Social IGO	-.043 (.035)	-.004 (.039)	.005 (.031)	.047 (.036)
Δ Universal Economic IGO	-.0001 (.039)	.022 (.045)	.007 (.036)	.026 (.042)
Δ Universal Political IGO	-.086 (.044)	-.078 (.052)	-.127**(.041)	-.132**(.050)
Δ Universal Social IGO	-.010 (.017)	-.008 (.021)	-.010 (.016)	-.008 (.020)
Average IGO membership	-.003 (.005)	-.072**(.006)	-.002 (.004)	-.016**(.006)
Issue Dominance	----	.062 (.006)	----	.065 (.039)
Peace Years	----	-.002 (.002)	----	-.001 (.003)
Δ Number of Parties	----	.064**(.014)	----	.0632**(.015)
Δ Total Capability	----	1.05 (1.09)	----	.683 (.998)
Outcome $_{t-1}$	----	.229**(.044)	----	.215**(.031)
Major State Status	----	.013 (.051)	----	.018 (.046)
Contiguity	----	-.024 (.040)	----	-.030 (.037)
Regime Type	----	-.005 (.053)	----	.016 (.050)
Number of Observations	1662	1394	1662	1394
Pseudo R2	.004	.023	.004	.014

Note: *=p<.05, **= p<.01 Robust Standard Errors in Parenthesis. Cutpoints not reported.

The relationship between the hostility-escalation measure, derived from the four-point 'hostlev' score, and the typology of IGOs is not significant in Model I. Moreover, the IGO typology variables are not statistically significant in Model II using the hostility-escalation measure. The average number of shared memberships in IGOs does seem to reduce the likelihood of the dispute remaining at the same level of hostility as the previous dispute, as well as reducing the likelihood of escalation of hostilities. Additionally in Model II of the hostility-escalation measure, if the number of states involved in the dispute increases, so do the chances of

the dispute escalation. The final statistically significant variable in this model illustrates the fact that disputes without definitive outcomes, tend to give birth to subsequent disputes that escalate.

With the intensity-escalation index as the dependent variable, the independent variables that were significant in the hostility-escalation models remain so here with the important addition of one of the IGO variables. In both the simple (model I) and full control model (model II), if the number of joint memberships in universal political IGOs increases, the likelihood of a subsequent dispute escalating plummets. In terms of predicted probabilities, a one standard deviation increase in the number of shared universal political IGOs (roughly, an increase of one IGO), decreases the probability of a +3 point escalation in intensity from a probability of .066 to .057. Alternatively, a –3 point de-escalation increases in probability from .055 to .063. Thus, hypothesis 5.2 finds partial support; political organization (though not military organizations) do in fact lower the chances of escalation across recurrent disputes.

Clearly, political IGOs are impacting escalation, but why is this the case? One possible rationale is that universal political IGOs, such as the UN, have the greatest capacity for conflict resolution mechanisms. That is, before a militarized dispute gains too much momentum in the escalation spiral, the participants are encouraged to find a diplomatic solution to their dispute. Moreover, the model may be picking up on UN peace-keeping and peace-making efforts. Another possible explanation comes from the literature on integration, that since political integration- political IGOs- is the most difficult level of integration to obtain, a compromise of this integration comes at a great cost; consequently the dispute is less likely to escalate. The findings in Table 4.9 are consistent with the theory that political IGOs matter a great deal in terms of the likelihood of a dyad experiencing escalation.

Thus far, the escalation cycle has only been dealt with in direction and magnitude. A more appropriate test would be to include the actual levels of hostility that are in question. For example, in previous tests a +1 could mean an escalation from a threat to use of force to a display of force; however, it could also mean an escalation from a use of force to war. Table 5.10 introduces the third endogenous variable which accounts for actual levels of hostility in addition to the direction and magnitude of change.

Table 5.10

Estimated Multinomial Logit Coefficients for Actual Difference in Hostility Levels Between Recurrent Disputes, 1816-1992

Actual Δ in Hostility MID$_{t-1}$ → MID$_t$	Regional Mil. IGO	Regional Eco. IGO	Regional Pol. IGO	Regional Soc. IGO	Universal Eco. IGO	Universal Pol. IGO	Universal Soc. IGO	Average IGO Mem.	Issue Dom.	Peace Years	Δ Parties	Δ Cap.	Outcome$_{t-1}$	Status	Contig.	Regime
Threat → Threat	1.49	-2.39**	-40.4**	-3.61	-3.37	.005	.521	-.296**	.810	-.202*	-.245*	31.67	16.5**	-.837	-.346	1.01
Threat → Display	.839	.044	.667	.027	.184	.597	-.276	-.097	.578	.007	.040	1.95	-.043	.391	-.079	-.122
Threat → Use	-1.74**	.515	-.056	-.020	-.239	.238	.088	-.017	.284	-.006	.102	6.72	-.240	-.270	-.052	.601**
Threat → War	2.42	-14.1*	-59.4**	2.60*	.737	-3.45**	.148	-1.17	2.11**	.032	-1.2	-6.65	-21.1**	.076	2.35*	1.61
Display → Threat	.358	.015	.860	.244	-.098	.298	-.153	-.149**	-.047	-.007	-.071	1.42	1.96	.192	-.053	.661
Display → Display	-.256	-.363	-.210	-.087	.047	.089	.023	-.02*	-.29*	.020*	.021	-4.12	-.057	.692**	.199	.115
Display → Use	-.820	.610*	-.043	-.023	-.011	.148	-.003	-.014	-.01	-.003	.066	-5.15	-.257*	.183	.180	.020
Display → War	-2.8	-1.93*	1.56	.091	-1.1**	.269	.210	-.006	-1.64	.018	-.253*	-4.54	-2.44**	.193	1.11	.414
Use → Threat	-.242	-.178	-.029	.013	-.016	.268	-.016	-.027	.500**	.008	.013	3.22	.041	-.144	-.302	-.025
Use → Display	-.366	.833**	-.464	.029	-.137	-.357	-.022	-.054**	.067	-.004	.121*	-4.86	.072	.200	.23*	.160
Use → War	-4.94**	1.06*	-2.64**	.171	.305	.066	-.163	.055	-.399	.009	-.370**	-10.2	-1.8**	-.075	.731*	.201
War → Threat	-30.5**	-1.72*	-63.7**	-2.42**	-5.35	1.8**	-.080	-.217**	-.162	-.011	.617**	-2.30	16.9**	.567	.790	.548
War → Display	1.05	2.26**	-1.03	.080	.344	.492	-.676**	-.261**	.896	-.053	.538**	4.27	.484	-.452	.278	.365
War → Use	-62.6**	-1.34**	-95.5**	-.339	-1.4**	-.059	.060	-.093**	.247	-.007	.434**	5.133	.022	.009	.77**	-.295
War → War	-33.7**	-1.99	-66.5**	-3.35**	-5.55**	3.58**	-.692	-.350	.849	.002	.339	-17.0	-1.89	.065	1.28	-2.12**

Note: Use → Use is the reference category. *=p<.05, **= p<.01 Robust Standard Errors

Since the indicator of the hostility level of a dispute assume one of four values, the dependent variable that tracks actual differences in hostility levels between successive disputes can assume one of sixteen possible combinations. The variable simply notes the hostility level in the dispute at time t-$_1$ and the level in dispute in time t, therefore, there is no inherent ordering of the data. Additionally, from a substantive perspective a one-unit change in either direction cannot be considered of equal value.

Consequently, a multinomial logit is the most appropriate statistical technique to use. The nature of multinomial logit requires that one arbitrarily choose an outcome of the dependent variable to be used as a reference category for the other variables. In this case, the maintenance of a use of force across disputes is the reference category, since it accounts for nearly 50% of the cases in the data set.

The direction of the signs on the coefficients and their level of statistical significance is in comparison to the effect the independent variables have relative to the reference category. If a different reference category is selected, the coefficients and their significance levels would be different. The convention in the literature is to not dismiss a variable on the grounds that it is not statistically significant in all of the iterations of the test, since it contributes to the model as a whole. A log-likelihood test is typically used to determine if individual variables make a significant contribution to the model; though not reported here, the likelihood test demonstrates that all the independent variables do in fact make a contribution to the model as a whole. Since inference is limited using the raw coefficients from a multinomial logit model, predicted probabilities are offered in Table 5.11.

Table 5.11

Change in Predicted Probabilities for Actual Difference in Hostility Levels Between Recurrent Dispute by Varying the Type and Number of IGO Shared Memberships, 1816-1992								
		IGO Types						
Actual Δ in Hostility $MID_{t-1} \rightarrow MID_t$	Base Prob.	Regional				Universal		
		Military	Econ.	Political	Social	Economic	Political	Social
Threat → Threat	.006	+.002	-.004	-.006	-.006	-.004	-.0004	+.012
Threat → Display	.016	+.004	-.001	-.006	+.0002	+.005	-.009	-.004
Threat → Use	.029	-.007	+.005	+.001	-.001	-.006	+.005	+.016
Threat → War	.004	+.002	-.004	-.004	+.018	+.003	-.003	+.0007
Display → Threat	.013	+.002	-.001	+.006	+.005	-.001	+.003	-.003
Display → Display	.076	+.003	-.015	-.0001	-.007	+.008	0	+.009
Display → Use	.135	-.011	+.029	+.008	-.004	+.004	+.009	+.014
Display → War	.009	-.003	-.005	+.007	-.0003	-.006	+.0004	+.009
Use → Threat	.036	-.008	-.005	+.002	+.001	+.001	+.007	+.006
Use → Display	.139	+.002	-.046	-.011	+.006	-.014	-.044	-.047
Use → War	.021	-.012	-.007	-.011	+.002	+.009	-.001	-.007
War → Threat	.004	+.004	-.002	-.004	-.002	-.004	+.01	+.009
War → Display	.008	+.018	+.012	+.001	-.004	+.007	+.003	-.006
War → Use	.023	-.016	-.011	-.016	-.006	-.017	-.005	+.001
War → War	.005	-.005	+.003	-.005	-.005	-.005	+.031	+.007

Use → Use is the reference category; change in IGO is a one standard deviation increase in membership

The first impression one gets from looking at table 5.11 is that IGO types have different impacts at different changes in hostility. It is precisely the reason for implementing the IGO typology that different types of organizations not only have different effects in terms of magnitude, but what is surprising is that they impact the change in hostility in different directions. What is also interesting is that no change in the number of memberships of any type of IGO has a uniform impact across the change in degree of hostility. It must be also noted that simply looking at the direction of change is insufficient, since an increase in probability can be a

good thing if we are measuring the probability of an de-escalation from a use of force to a display of force.

The escalation from the display of force to its use, and the escalation of a use of force to war are two very important thresholds of hostility. According to Table 5.6, this first threshold, both escalation and de-escalation- a display to a use and use to a display-, accounts for roughly 30 percent of all cases. An increase in the number of shared memberships in regional military and social IGOs decreases the probability that a MID will escalate from a display of force to a use .011 and .004 respectively. Alternatively, these very same two IGO types are the only types that increase the probability that a use of force will de-escalate to a display of force. Therefore, the addition of a regional military or social IGO constrains the ability, or potentially the willingness, of the dyad from crossing the threshold of the use of force. Likewise, once that threshold has been crossed, an increase in the number of memberships in these two types of organizations encourage de-escalation. The effect of military IGO membership was expected, though the impact of social organizations came as a surprise. Up to this point (and what turns up again in subsequent chapters), social organizations have been positively related to MID and war involvement. It was theorized that these types of organizations exact the lowest price in terms of membership in relation to the services it provides. In other words, why not join an IGO that gives medical aid to a states' people despite the fact its membership may contain states with which one is likely to have conflicts? One has to keep in mind that social organizations have different impacts at different levels of escalation. That is, social organizations have the strongest impact, controlling for other types, in the escalation of a threat, display, or use of force to the conduct of interstate war. Thus one can conclude that social organizations (both regional and universal) are not the most effective in establishing and maintaining the peace between two states.

A second important threshold is the escalation from a use of force to war. The majority of the types of IGOs reduce the probability of an escalation across this threshold, relative to the base category. Both regional and universal political IGOs consistently reduce the probability of an escalation from a use of force to interstate war. In the previous Chapter, it was shown that political IGOs were related to dyads becoming involved in MIDs. This finding was somewhat difficult to explain theoretically. Here, however, the opposite is the case. By restraining states from escalating to war, political institutions are fulfilling their purposes of keeping the peace.

These organizations allow the states to be peacefully and meaningfully engaged, and become involved in resolving disputes before they cross the war threshold.

Increasing the number of shared military IGOs in the dyad lessens the probability of escalating at this threshold .012, or in other words a 57% decrease in the likelihood of escalating to war from a previous use of force. This dependent variable, 'real-difference', provides significant evidence to support Hypothesis 5.2, that military and political IGOs are best equipped to reduce escalation. In sum, the findings from Table 5.11 are consistent with the theory that military and political IGOs are likely to constrain escalation, especially at the two crucial thresholds discussed above.

Conclusion

To analyze disputes as isolated events in international politics only gets to a small portion of the 'story' that states develop in their relationships with each other. By not including the context within which a dispute is fought, any conclusions drawn are seriously nearsighted. The richness of detail and the dynamic interactions of states can only properly be perceived with a careful consideration of the conflict history of those states. The rivalry literature points to the fact that states that experience recurrent conflicts are typically those that account for most wars in the system. Why is it the case that repeated conflict is especially deadly? How is the level of hostility in a dispute in time t related to the hostility level in time $t-1$? It is clear that one piece of the puzzle are the types of IGO memberships that two states share. Over the various endogenous variables that map escalation, it was evident that merely accounting for the number of shared memberships regardless of type did not produce statistically or substantively significant findings. On the other hand, the implementation of the IGO typology led to many important findings.

Military and political IGOs have the most impact on keeping disputes from escalating. This impact happens for two primary reasons. First, belonging to these types of IGOs is a substantial commitment. Membership is not a passive activity. These organizations demand that its member states work within the rules of the game it establishes. Conforming to these institutions is reflective of the willingness to give up a degree of state sovereignty in order to share in the workings of the organization. Thus, through the formal engagement provided by military and political organizations, dyads have the chance to work through their problems. The second factor, is the active role these organizations play in the conduct of international relations.

Knowing that a particular dyad has a conflictual past, these organizations will interject themselves (as impartial third parties or even as peace keepers) into the early stages of disputes before they have a chance to get out of control. The average number of shared memberships also reduces the chances of successive disputes becoming more violent. As IGOs become more numerous, they reinforce the norm of peaceful interaction between states. Additionally, it appears that universal organizations, political ones specifically, have a great import on the escalation patterns of dyads. This effect is in part due to efforts by the UN acting as a mediator between the disputing parties, or by deploying peace keeping troops and creating buffer zones.

CHAPTER VI

IGOS AND DISPUTE OUTCOMES

In what specific ways do international organizations impact dyads once they enter militarized disputes? We have seen that the types of IGOs have disparate effects on the probability the dyad experiences war. What about the outcomes of disputes? Are dyads with memberships in certain kinds of IGOs more likely to come to a compromise to settle the dispute? Does the lack of some IGO memberships preclude the possibility of exiting a cycle of recurrent disputes? To address these questions, I will first consider whether the dispute produces a compromise outcome, next the likelihood of having a definitive outcome, and lastly whether there is a negotiated settlement that terminates the dispute.

Disputes that end without a clear winner stand a great chance of repeating (see Hensel, 1996; chapter 4 herein). Recurrent conflicts tend to be self-reinforcing and lead to situations of enduring rivalries and a heightened degree of war proneness (Vasquez, 1993; Diehl and Goertz, 2001; Vasquez and Leskiw, 2001). Disputes that end in a stalemate situation, are not definitive outcomes since neither side can reap the benefits of victory. On the other hand, a compromise can arguably be claimed as a victory by both sides.

Research Design

The MID data codes nine possible outcomes of disputes that range from victors to stalemates to cases where seized property (typically fishing boats) is released. A simple recoding of the outcome variable is offered in Table 6.1 that gauges the definitiveness of the outcome using three possibilities: a clear winner, a compromise, no clear winner.

Table 6.1

Crosstabulation of the Outcome of MIDs and a Scale of Definitiveness			
Outcome	Clear Winner	Compromise	No Clear Winner	Total
Victory Side A	303	0	0	303
Victory Side B	258	0	0	258
Yield by Side A	74	0	0	74
Yield by Side B	196	0	0	196
Stalemate	0	0	1687	1687
Compromise	0	187	0	187
Released	0	0	179	179
Unclear	0	0	126	126
Joins Ongoing War	0	0	35	35
Total	831	187	2027	3045

The most numerous outcome for a MID is that of a stalemate, accounting for over 50% of all outcomes. The next most abundant category that follows at some distance is victory for the initiating side of the MID (Victory Side A) at 10%, and then victory by the target state at 8%. The scale of definitiveness as operationalized here is quite simple, yet useful. Since the primary exogenous variable used throughout this analysis has been shared memberships in IGOs, it makes little sense to use the outcome variable in its raw form. For instance, shared memberships by definition are non-directional, so knowing if Side A or Side B is the victor is extraneous information. It may well be the case that states that have a high number of organizational memberships itself regardless of the IGO profile of its dyadic partner may be more inclined to seek peaceful resolution to disputes than states that are not engaged in the IGO environment. The investigation into this type of scenario is intriguing, but requires too great a leap of faith since the nascent theory and empirical findings on how IGOs impact peace are clearly non-directional.

The hypotheses to be tested are constructed as follows:

> *H6.1: Dyads that have shared memberships in military and political organizations are more likely to experience compromised outcomes to their militarized interstate disputes.*

> *H6.2: Dyads that have shared memberships in military and political organizations are more likely to experience definitive outcomes (on an index to include compromise) to their militarized interstate disputes. Consequently, disturbing the pattern of recurrence and escalation of disputes.*

> *H6.3: Dyads that have shared memberships in military and political organizations are more likely to end their militarized interstate disputes via negotiated settlements.*

Hypothesis H6.1 uses a dyadic-dispute perspective, where each militarized interstate dispute is entered into the data as pairs of states that are in dispute. As was done in previous analysis, concerns of endogeneity are addressed by lagging the IGO shared memberships variable. In addition, all tests were conducted with only one type of organization included (that is, the other types were excluded and not controlled for) and the results in terms of direction and level of significance do not substantially vary from what is presented below. The sample includes all possible states, and is not restricted to those that are considered politically relevant. In Table 6.2 below, the dependent variable is whether or not the outcome of the dispute is a compromise. Universal military memberships are dropped from the analysis since dyads who share memberships in this type of organization do not experience MIDs against each other. The control variables included in Model II are relevant since they affect the probability of a compromise. The average shared IGO membership is used to gauge the degree to which the system is interdependent and reflect the strength of international norms. Eras with a higher average are expected to yield more compromises since compromising would be more consistent with the rules of the game that are embodied in the organizations. A compromise is a function of the willingness and ability of the states involved, and geographic proximity is expected to affect both components. Contiguous states have been shown to be more apt to go to war, thus they may be less likely to reach a compromise (Bremer, 1992;Vasquez,1993). On the other hand "contiguity might actually have a pacifying influence… [which may] arise from shared cultural

norms and a degree of familiarity that serve to increase the prospects of peaceful settlement"(Dixon, 1994:26).

The regime type variable is a dichotomous variable indicating whether the dyad is a dually democratic dyad, based on standard definitions of democracy as it is used in the democratic peace literature (Ray, 1995). Democracies are more likely than other states to resolve their conflicts by compromising, and thus democracy is a vital control variable (Dixon, 1994; 1996a). Since democracies are more likely to join IGOs (Jacobson 1986; Shanks et al. 1996; chp 2 herein), is it democracy or IGO membership that explains the phenomenon of joint democratic dyads compromising? Including both variables in the same model will begin to answer this question.

The level of economic development of the dyad has been shown to impact the likelihood of peaceful resolution of disputes (Dixon, 1984; 1994). More developed states typically have the experience and capability to engage in such undertakings. A measure of military capability, log of the ratio of the stronger to weaker state, using Correlates of War Capability Data is included, as well as major power status since past research has shown that equal powers are more likely to engage in peace settlements (Bercovitch, Anagnoson, and Wille, 1991; Dixon, 1994).

In the first model in Table 6.2, only the types of IGO membership are included to predict the likelihood of having a compromise. The different kinds of universal organizations are statistically significant, whereas their regional counterparts are not. Universal political organizations have the largest positive impact on the probability of experiencing a compromise. The base probability of the model with all exogenous variables at their mean value is .0614 and a one standard deviation increase in the number of universal political IGOs increases the predicted probability of a compromise to .0882.

Table 6.2

	Estimated Logit Coefficients for the Likelihood of a MID Ending in a Compromise, 1816-1992			
	Model			
Variable	I		II	
Regional				
Military Organization	.036	(.231)	.015	(.294)
Economic Organization	.221	(.125)	.291*	(.135)
Political Organization	-.323	(.206)	-.193	(.239)
Social Organization	.039	(.068)	-.038	(.089)
Universal				
Economic Organization	.151**	(.053)	.227***	(.071)
Political Organization	.194**	(.068)	.142	(.081)
Social Organization	-.160***	(.028)	-.120***	(.039)
Average IGO Shared Membership	----		-.089***	(.023)
Status	----		-.049	(.163)
Contiguity	----		.272**	(.108)
Regime Type	----		.945**	(.370)
Wealth	----		.137	(.093)
Capabilities	----		.008	(.050)
_cons	-2.62***	(.132)	-2.67***	(.293)
N	3,045		2,668	

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

An increase in the number of shared memberships of economic organizations also increases the chances of having a compromise. On the other hand, universal social IGOs tend to decrease the probability of experiencing a compromise. At first glance this result seems a little out of place. What is it about this type of IGOs that makes a compromise less likely? Taken in context of previous findings, social organizations consistently seem to be little restraint on conflict in general. Since the social organization variable is comprised of the largest variety of organizations, I ran the same model with the variable disaggregated expecting to find IGOs dealing with contentious issues like water would be fueling this negative relationship with compromising. Contrary to what I expected, I found that IGOs that dealt with Health, Education,

or Culture had the only statistically significant coefficient (which was very strong). From a functionalist perspective, these organizations produce a negative relationship with compromise since they do not deal with controversial issues. That is, joining such an organization has the least amount of cost associated with membership—how does improving the health of the people in the state undermine state sovereignty or cost them political capital? Health and related IGOs do not deal with high politics and may have very little import on the political arena, and may ultimately reflect the first steps toward the integration of two states.

Model II in Table 6.2 introduces the control variables to the equation.[20] Both regional and universal economic organizations contribute to experiencing compromises. Of the international organization variables, these two have the strongest impact on the dependent variable. A one standard deviation increase in the number of regional economic organizations increases the predicted probability of having a compromise to .069 from a base probability of .053. Likewise, a one standard deviation increase in the number of universal economic organization increases the predicted probability even more, to .097. Universal social organizations continue to have a negative influence on the likelihood of a compromise.

Of the control variables that measured dissequality, in terms of military and economic might, none of them were statistically significant- a finding consistent with the literature on peaceful settlements (see Table 4 in Dixon, 1994). The average number of shared memberships in IGOs has the opposite effect than was hypothesized. This finding may be attributed to the fact the majority of compromises experienced in MIDs occur before 1945 and it is in the Cold War Era where IGO flourish. There is evidence in Table 6.2 that contiguous states are more likely to compromise than non-contiguous states. A one standard deviation increase in the level of contiguity (non-contiguous, water contiguity, land contiguity) increases the probability of a compromise to .069 from a base predicted probability of .053.

Having a jointly democratic dyad has the strongest statistically significant impact on the resolution of the dispute through compromise raising the predicted probability of such an outcome to .120. Including this variable in the model posed a potential challenge to the existing literature, and yet the finding on regime type remains robust. IGO membership, in certain types of organizations, as well as having a jointly democratic dyad have independent and positive

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[20] Dyadic trade was used as a control variable, but is not statistically significant. Since it reduces the number of observations to roughly 600 cases, and does not significantly alter the findings, it is not included in the models.

effects on the likelihood of a peaceful resolution of disputes. This is in fact a mutually reinforcing situation. Membership in economic institutions increase the likelihood of a dispute ending in a compromise. Democracies are more likely than non-democracies to join IGOs. Democracies are also more likely to seek a compromise to end their disputes. Thus, the sum of these factors, makes peaceful resolutions to disputes more likely. However, hypothesis 6.1 lacks support here, since neither the military or political organizations increase the chances of the dispute ending in a compromise.

Do IGOs affect the probability of definitive outcomes in a different manner than they influenced compromises? Table 6.3 introduces an endogenous variable that employs the definitiveness scale presented in Table 6.1. Since the dependent variable can assume three values--a definitive outcome(clear winner), a compromise, a non-definitive outcome(no clear winner), multinomial logit is the appropriate statistical estimation technique. The size and statistical significance of the coefficients are relative to the reference category, which is in this case "no clear winner".[21] The same control variables used above are incorporated here as well. Consequently, increasing the number of shared memberships in regional military organizations has the effect of decreasing the probability of having a clear winner. Alternatively, increasing the number of membership in universal political organizations increases the chance of a definitive outcome relative to the reference category. Since the states in the dyad are actively engaged in these forums, it is unlikely stalemates will occur—they cannot readily turn their backs on one another. A higher average number of IGO membership, and dyads that are neither contiguous nor economically advanced tend to make the appearance of a clear winner less likely. The latter two factors suggest the dyads lack the wherewithal to conduct the dispute such that a clear winner can be identified.

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[21] To interpret the size and direction of the coefficients of a multinomial logit, a reference category needs to be chosen since there are multiple values the dependent variable can assume. The coefficients will change if another reference category is selected. However, predicted probabilities are not affected by the choice of reference category.

Table 6.3

	Estimated Multinomial Logit Coefficients for the Definitiveness of the Outcome of a MID, 1816-1992			
	Outcome			
Variable	Clear Winner		Compromise	
Regional				
Military Organization	-.445**	(.162)	-.081	(.294)
Economic Organization	.067	(.090)	.308*	(.139)
Political Organization	-.037	(.108)	-.196	(.240)
Social Organization	.071	(.042)	-.020	(.089)
Universal				
Economic Organization	-.067	(.037)	.214***	(.071)
Political Organization	.117**	(.045)	.163*	(.083)
Social Organization	-.009	(.020)	-.122***	(.039)
Average IGO Shared Membership	-.136***	(.013)	-.129***	(.023)
Status	.073	(.089)	-.026	(.166)
Contiguity	-.280***	(.062)	.173	(.110)
Regime Type	-.278	(.292)	.873**	(.373)
Wealth	-.147**	(.058)	.092	(.095)
Capabilities	-.020	(.029)	-.00002	(.050)
_cons	.611***	(.152)	-1.77***	(.306)
N	2,668		2,668	

Note: "No clear winner" is the reference category. *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

As was the case in Table 6.2, regional and universal economic organizations increase the potential for a compromise. Universal political organizations increase the likelihood for a compromise, while universal social organizations have just the opposite effect. Compromises are less probable in eras with a higher average IGO shared membership. Having a dually democratic dyad has the most substantial positive impact on bringing about a peaceful resolution of disputes. Unlike in other estimation techniques, one does not get a clear picture of the substantive effects of the variables included in the models by only discussing the size and

direction of multinomial logit coefficients relative to a reference category. Therefore, Table 6.4 offers the predicted probabilities of the three outcomes when one varies selected exogenous variables.

Table 6.4

Predicted Probabilities of the Definitiveness of MID Outcomes with Varying Configurations of IGOs, 1816-1992			
	Outcome		
Variable	Clear Winner	Compromise	No Clear Winner
Regional			
Military Organization	.225 (.193)	.055 (.056)	.720 (.751)
Economic Organization	.265 (.269)	.071 (.093)	.664 (.638)
Political Organization	.257 (.254)	.047 (.041)	.700 (.705)
Social Organization	.293 (.328)	.048 (.043)	.659 (.629)
Universal			
Economic Organization	.215 (.170)	.099 (.171)	.686 (.659)
Political Organization	.294 (.330)	.067 (.083)	.639 (.587)
Social Organization	.258 (.252)	.025 (.011)	.717 (.737)
Base Probability	.259	.054	.687

Note: Predicted Probabilities reflect a one standard deviation increase in the variable. Values in parenthesis indicate a two standard deviation increase in the value of the variable.

The base predicted probability for each of the three outcomes of the dependent variable are calculated by setting all variables to their mean value. To have the dispute stalemate is by far the most probable outcome at a predicted probability of .687. Membership in a regional military organization is theorized to provide a mechanism for conflict resolution. The theory finds little validation in Table 6.4, since the probability of a compromise only increases by .1%, whereas the probability of a stalemate increases by 3.3% with a one standard deviation increase in membership.

Both regional and universal economic organizations contribute to a marked increase in the probability of a compromise, relative to the base probability. Is this effect the product of the economic organization aiding in the peaceful resolution of the dispute, or does the presence of

the organization reflect strong economic ties that dampen any temptation to resolve the dispute using military means? Or is it both? Regional political organizations have the opposite effect on dispute outcomes than expected. These organizations increase the likelihood that the MID will end without a clear winner. This finding may support the perspective that military conflict is 'politics by other means', and that political turmoil within these organizations can add fuel to the fire (Boehmer et al., 2000). On the other hand, universal political organizations may be distanced enough from the regional context that it provides a forum for peace, as indicated by an increase in the predicted probability of a compromise and definitive outcomes. Organizations that can be classified into the social realm do not have a uniform impact on the outcome of the dispute, regional and universal types behave differently. Regional social organizations tend to be associated with those disputes that produce clear winners, whereas their universal counterparts weigh in at the opposite end with disputes that do not have clear winners. H6.2 does find some empirical support in the contention that high politics organizations, military and political, aid in experiencing a definitive outcome.

If IGOs influence the substantive outcomes of disputes, do they have a hand in the method in which the dispute terminates? In other words, did the MID terminate with mediation or bargaining or was the end imposed by overwhelming military force? Jones, Bremer and Singer (1996) code four potential methods of settlement: negotiated, imposed, none, or unclear (179). One would expect that outcomes where the parties were engaged in negotiation would produce a more lasting peace than the other methods. On the other hand, even if the losing side was not included in deciding the shape of the ending terms of the dispute, if the victory was overwhelming an enduring peace may be imposed since there is no further ability to retaliate. Table 6.5 displays the frequency of the method of settlement with the substantive outcome.

Table 6.5

Crosstabulation of the Method of Settlement and Substantive Outcome of MIDs, 1816-1992			
	Clear Winner	Compromise	No Clear Winner	Total
Negotiated	149 (28.5%)	183 (35%)	191 (36.5%)	523
Imposed	500 (97%)	0	14 (3%)	514
None	175 (9%)	3 (.16%)	1737 (90.7%)	1915
Unclear	7 (7.5%)	1 (1.1%)	85 (91.4%)	93
Total	831	187	2027	3045

Note: Row percentages in parentheses

At first glance, it may be surprising to learn that the majority of negotiated settlements result in stalemated outcomes. If fighting does not identify a victor, both sides may look to make an agreement to end the dispute. Ninety-seven percent of the imposed outcomes occur when there is a clear winner which is what one would expect. Table 6.6 displays the disparate effects of IGOs on the method of settlement. Here the dependent variable is a dichotomous variable indicating if the method was negotiation. The control variables from the previous tests are included in Model II.

Table 6.6

Estimated Logit Coefficients for the Likelihood of a Negotiated Settlement, 1816-1992				
	Model			
Variable	I		II	
Regional				
Military Organization	.244	(.150)	.238	(.171)
Economic Organization	.040	(.084)	.092	(.089)
Political Organization	-.120	(.117)	-.061	(.124)
Social Organization	-.018	(.043)	-.056	(.050)
Universal				
Economic Organization	.107***	(.032)	.132***	(.043)
Political Organization	.085*	(.044)	.064	(.051)
Social Organization	-.109***	(.019)	-.054**	(.023)
Average IGO Shared Membership	----		-.085***	(.015)
Status	----		.155	(.096)
Contiguity	----		.194**	(.067)
Regime Type	----		.154	(.119)
Wealth	----		-.069	(.067)
Capabilities	----		-.033	(.032)
_cons	-1.33***	(.019)	-1.17***	(.175)
N	3,045		2,668	

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

None of the coefficients for the regional IGO indicators are statistically significant. I would have expected just the opposite, that the universal organizations would have little effect. Since they are immersed in the cultural context, it seems that regional organizations should have the best ability to offer aid in negotiation and to be best able to speak the political and diplomatic language of the disputants. However, universal organizations may have the potential to offer disinterested third parties to aid in the negotiation, that both sides could agree upon, instead of the potential for various regional rivalries to come into play.

Hypothesis H6.3 does not find any support in Table 6.6; military and political organizations do not seem to increase the probability of a negotiated settlement. Universal economic organizations increase the likelihood of a negotiated settlement. A one standard deviation increase in the level of shared memberships in economic organizations increases the predicted probability of a negotiated settlement to .221 from a .165 base probability. Another

consistent finding in this chapter is the negative and statistically significant impact universal social organizations have on the dependent variable.

Conclusion

How a dispute ends is often as important as the why it began. Disputes that do not come to a definitive end are prone to reoccurring. How do international organizations impact this cycle of violence? Moreover, are some types of institutions better at peacefully resolving disputes than other types?

Three different dependent variables were used to gauge the relationship between IGOs and dispute outcomes. It was hypothesized that military and political organizations are best equipped to bring a peaceful resolution to a dispute. In terms of the chances of a compromise ending a dispute, military and political organizations, controlling for other types of memberships, do not have a statistically significant relationship with the dispute ending in a compromise. A second endogenous variable tracked whether the dispute had a clear winner, a compromise (in which case both sides may claim victory), or no clear winner. It was found that universal political organizations, when controlling for other types of memberships, had a positive relationship with producing definitive outcomes and compromises. The theoretical importance of this finding is that non-definitive outcomes tend to make disputes recur in the future, often at more severe hostility levels (as shown in the previous Chapter).

Membership in economic organizations again and again seems to bring with it a penchant to closing disputes using peaceful conflict resolution techniques. The finding of a strong and consistent relationship between economic institutions and peace, may call for a reformulation of some of the underlying theories of IGOs and peace. It seems that a traditional functionalist approach may miss the mark. Economics are indeed no longer 'low politics' and merely a stepping stone for future integration. Though at first one may interpret this finding not so much as it is attributable to the economic organization itself, but to the bonds of interdependence that form between states that enter these organizations in the first place. That is, it is the importance of the economic trade that fuels this finding. This contention, however, is not borne out by empirical testing since indicators of wealth and dyadic trade are not statistically significant by themselves, nor do they affect the coefficients on the relationship between the IGO variables and the dispute outcome. So what is it about economic organizations that produce these findings?

Three factors are likely at play in the relationship between economic IGOs and a peaceful dispute resolution. First, trade and related economic based disputes may be worked out within the confines of the IGO itself. In other words, a military threat is made but the IGO steps in and facilitates a peaceful resolution. The second factor at work here may be the offer of economic incentives for a peaceful resolution. It is plausible that the mention of potential World Bank projects is often enough of a carrot to lead the disputants toward a peaceful resolution. Lastly, shared memberships in economic organizations may be indicators of the fact that states see their economic wellbeing bound to one another. Any militarized dispute between them may disrupt their current economic viability and their vision for a bright economic future. This brings up the question of what does the future hold for economic organizations? Will they become more highly valued for their power than security arrangements? The growth of the European Union and some of the fears it has placed in the minds of US policy makers may be a small example of what is yet to come.

Thus far attention has been paid to how disputes begin and end, yet the duration of peace between disputes has not been directly investigated. In the next chapter, I will investigate the relationship between the length of the dispute and shared membership profile of the dyad. If IGOs cannot preclude conflict, they may be able to make disputes significantly shorter. A second, and arguably more important, duration model is offered that models the spells of peace after disputes and looks at the impact IGOs have on the probability of an enduring peace.

CHAPTER VII

IGOS AND THE DURATION OF PEACE

Thus far, I have looked at whether joint membership in IGOs slow or prohibit a dyad from entering militarized interstate disputes, and if it does enter a dispute I now know what level of hostility that can be expected. Additionally, the impact of IGO memberships on the outcome of disputes was investigated. In Chapter 6, the process of escalation across time was looked at, and it was found that certain types of organizations affected this conflict spiral. Implicit in that analysis was the progress of time- it was controlled for but not modeled. In other words, I hypothesized that disputes between the same dyad that were separated by a significant expanse of time would have much less causal weight than two disputes that happened in consecutive years. In this way, I did not look at the substantive meaning of spells of peace. In this chapter I am concerned with answering the question "how does IGO membership affect the duration of peace experienced in a dyad"? The process of this answer will begin with a research design and hypotheses, follow with a cursory introduction to hazard analysis, and conclude with the presentation and discussion of the findings.

From my general query, I derive some hypotheses that are meant to get at the question of peace. My answer to this question is developed in two distinct ways. First, I will examine the duration of militarized interstate disputes- the number of days that pass from the dyad entering the MID until it exits. Theoretically, the faster the dispute ends, the more peace a dyad can experience. What type of IGO bonds contribute to a swift end to a dispute? It is not passive involvement by IGOs that is theorized. If the IGOs are merely reflective of the 'bondedness' of a dyad, then I would suspect that the type of organization would not matter. If the type does matter, then it may be reflective of the active role the organization plays in the resolution of the dispute. Secondly, I look at the duration of peace between disputes (the number of days that pass from the end of one dispute to the beginning of another) and posit that certain types of organizations are more able to contribute to the maintenance of peace. As we have seen in previous chapters, IGO membership has the potential to reduce the chance of a dyad entering a MID. Furthermore, joint memberships may also have the ability to delay conflict. This delay is an opportunity for peaceful conflict resolution techniques to be applied, potentially initiated and

conducted by IGOs, which may ameliorate the conflict. More formally, my hypotheses are as follows:

>*H7.1 The more IGO memberships shared in the dyad, the shorter the duration of a militarized interstate dispute will be between those states if one indeed occurs.*
>
>*H7.2 IGOs that have a regional military or political purpose will contribute the most to shortening the duration of a MID. The more memberships in these type organizations that are shared in the dyad, the more expeditiously the dispute will end.*
>
>*H7.3 Dyads that share significant amounts of IGO memberships will experience longer periods of peace, than dyads that have little or no such shared memberships*
>
>*H7.4 IGOs that have a regional military or political purpose will contribute the most to lengthening the duration of peace between MIDs. The more memberships in these type organizations that are shared in the dyad, the more enduring the peace.*

Since the hypotheses involve the measurement of the passage of time to the occurrence of an event, the use of a hazard analysis is appropriate.

Hazard Analysis

Originally created in the health sciences, hazard analysis (also known as survival analysis, duration analysis, and time-to-failure analysis) was an attempt to model the impact of time, say how a patients life span was impacted if a certain drug treatment was administered (for a useful introduction to events models see Box-Steffensmeier and Jones, 1997). Duration analysis has slowly become adopted as a viable method of investigation in international relations (Box-Steffensmeier and Zorn, 2001b). This technique has been used primarily to estimate the duration of rivalries (see Bennett, 1997a, 1997b, 1998, 1999; Cioffi-Revilla, 1998; Hewitt, 2000; Cornwell and Colaresi, forthcoming), but has also received extensive use modeling the duration of wars and disputes (Cioffi-Revilla 1985, 1991; Vuchinich and Teachman, 1993; Bennett and Stam 1996; Jones, Bremer, and Singer, 1996; Barbieri and Bremer, 1999). Here, I will employ a hazard analysis approach to model the spells of peace that dyads experience between militarized interstate disputes.

Typical maximum likelihood estimation techniques, such as logistic regression, make the assumption that there is no systematic relationship between time and the object of study. While these methods can be used to estimate duration type data, they can potentially yield extremely biased results (Beck, Katz and Tucker, 1998;Cleves, Gould, and Gutierrez, 2002). Hazard analysis allows one to grasp the underlying process of the duration of peace, as well as the impact of specific variables on that process. The technique produces the hazard rate which "reflects the rate at which a duration or episode ends in the interval, … given that the duration has not terminated prior to the beginning of this interval"(Box-Steffensmeier and Jones, 1997:1419). A useful attribute of hazard analysis is its ability to control for the difficulties of censored cases that plague other approaches (Box-Steffensmeier and Jones, 1997). Observations are considered "right-censored" if there is no event (or failure) before the end of the time period that is observed. In other words, say a dyad had a dispute in 1988 and does not have another MID on or before 1992, this case is right censored due to the fact that the data only goes to 1992 and does not indicate a failure that could have happened in 1993.

As is the case in most empirical modeling, the research question is the decisive factor that determines the statistical technique used for analysis; however, once the general approach is identified a myriad of additional choices need to be made. For instance, is the underlying process of the duration of peace one that becomes stronger over time, or one that decays rather quickly? In other words, is the hazard rate decreasing as a function of time or increasing? Or is the hazard rate time invariant? The first step is to choose the functional form of the hazard analysis. If the hazard is suspected to remain constant throughout the period under review, an exponential function is necessary. If the rate assumes some sort of curvilinear relationship, a Weibull distribution is in order. A form becoming more popular is the Cox proportional hazard estimation, where no functional form is assumed. This technique has the benefit that it does not run into the problem of "overfitting the data by forcing a particular parameterization" though as a consequence it does not produce a "set of parameters or standard errors concerning the shape of the hazard function" (Bennett, 1999:261,262). Much of the costs of using the Cox method are borne in the interpretation stage. The Cox model does not tell the researcher how many months peace should reign between two states, rather it yields risk ratios in terms of the hazard rate (e.g. a one unit increase in a particular exogenous variable increases the risk the spell of peace will end).

With general rules-of-thumb to follow, the choice of a given functional form is informed by theory (Box-Steffensmeier and Zorn, 2001a and 2001b). In this case however, there is no clear choice as to the shape of the hazard function. It may well be the case that the over time a spell of peace may become self-perpetuating and thereby decreasing the hazard rate, or just the opposite with dyads become "due" for a dispute as time progresses. For example, Bennett explains that in a previous work (1997) he chose the Weibull form since he had reason to believe that alliances become institutionalized over time and therefore contributed to their own longevity (1999). In this analysis, I am primarily interested in the impact of shared IGO memberships on the duration of peace, therefore the Cox proportional hazard model may be more appropriate to use here.

The Duration of MIDs

To assess the influence of IGO memberships on the duration of disputes, I construct a data set that contains all MIDs, in dyadic form, that have occurred from 1816-1992. Since I am dealing with dyads that may or may not have had more than one MID during the period under study, I have to allow for multiple failure times. Typically, hazard analysis measures the amount of time the subject under study survives after receiving some sort of treatment. For example, in the health sciences it could be the number of years a patient lives after receiving a heart transplant, or in the engineering sciences the amount of time to failure of a particular cog in a diesel engine. Therefore, the subject generally has only one failure or in other words, the clock starts and eventually stops only once. In the study of conflict of course, states can start and end a war multiple times over a period of years. I use a technique that identifies, or clusters, a series of disputes that belong to a given dyad and still analyzes the underlying hazard rate and the effect of changes in the exogenous variables of interest.

Theoretically, a number of factors may influence the duration of a dispute. As has been the case in previous chapters, indicators of the economic wealth, regime type, military capabilities, the normative context of the system (average IGO membership in the system), the presence of major powers and contiguity are relevant here. Since none of these variables have an extensive history in terms of the number of duration studies that employed them, careful consideration needs to be given to their effects. In the end, a strong case can be made for their inclusion though, a priori, the direction and magnitude of their affect on dispute duration may not

be as clear. States that are both considered economically advanced have the incentive to have short disputes since prolonged conflict may undermine their economic stability. On the other hand, it may in fact be the same economically developed dyad that has the wherewithal to conduct long disputes (Barbieri and Bremer, 1999).

There is strong evidence to suggest that a democratic pair of states will fight shorter disputes than other types of dyads. This fact may be due to the selection criteria of democracies when determining opponents, they choose to fight short and low cost wars (Bennett and Stam, 1996, 1998; Bueno de Mesquita and Siverson, 1995). Additionally, democracies tend to employ non-violent means of conflict resolution, which may significantly shorten the duration of the disputes (Dixon, 1993, 1994; Raymond, 1994, 2001, Russett and Oneal, 2001). Of course, one must also keep in mind that democracies tend to fight more intense disputes when facing other democracies, that have the potential for lengthy durations (Barbieri, 1996; Barbieri and Bremer, 1999)

The military capability profile of a pair of states undoubtedly affects the duration of disputes. A dyad that is power asymmetric may have disputes that are rather short due to the overwhelming force of the more powerful state. Likewise, when two powerful states collide, both are aware of the others' capabilities and the probability of wearing their opponent down, thus they may be likely to quickly end their dispute. On the other hand, a dyad that has both members of equally large military stature, they have the resources to fight long wars and not submit to one another.

Contiguous dyads may also fight longer disputes than their noncontiguous counterparts due to both opportunity and willingness. Sharing a common border allows states to easily engage their opponents, since both sides expose more of their military and populations as potential targets. Contiguous dyads may also have a high degree of willingness to fight long disputes due to the fact that they often fight over important territory (see Vasquez, 1993 for link between territorial issues and contiguity).

The data are taken from the MID 2.1 data set, and due to some missing data, the number of MID occurrences under review are 1,812. Table 7.1 below, investigates whether or not the aggregate number of shared memberships in a dyad affects the duration of the dispute. Two models are presented to illustrate the effects of the control variables. The control variables themselves are measured the same way they have been in previous chapters. A dyadic trade

variable was also included in the models, but since it was not statistically significant and effectively reduced the number of cases in half, it is not reported here. A negative coefficient can be interpreted as lessening the duration of a MID. Positive coefficients of course suggest just the opposite, that the variable may lengthen the duration of the dispute in terms of the number of days that pass from the start of the dyads involvement in the MID to its exit.

Table 7.1

Cox Proportional Hazard Model of the Impact of Shared IGO Memberships on the Duration of MIDs, 1816-1992		
Variables	Model I	Model II
Shared IGO Membership	.019*** (.002)	.023*** (.003)
Wealth	----	.119*** (.032)
Regime Type	----	-.132** (.059)
Military Capability	----	.060** (.019)
Avg. Shared IGO	----	-.025*** (.006)
Major Power Status	----	-.039 (.051)
Contiguity	----	.102*** (.031)
N	2,131	1,812

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

Unlike in previous chapters, where some of independent variables were lagged to address concerns of endogeneity, none of the exogenous variables are lagged here. The hazard model essentially takes a snapshot of the variables at the instant that an event fails, therefore having lagged variables does not make much sense. Instead, the variables of key interest (especially the IGO typology in later tables) are run separately and independently to assess their impact on the dependent variable. None of the separate runs of the variables produce results that are substantially different in terms of the direction or size of the relationship or whether or not the

variables can be considered statistically significant. I also verify the appropriateness of the proportional hazard assumption in all the following tables by conducting tests on the Schoenfeld residuals (Box-Steffensmeier and Zorn, 2001).

In Model I of Table 7.1, the only variable included in the model is the number of shared IGO memberships in the dyad. Since the same dyad may appear many times in the data due to multiple disputes, their error terms are clustered when running the Cox regression. Having more shared memberships in IGOs seems to have exactly the opposite effect than hypothesized. An increase in the number of organizations is associated with an increase in the duration of the dispute. Specifically, a one unit increase in the number of to which a dyad belongs to corresponds to a [(exp(.019)-1)*100=] 2% increase in the rate at which conflict will continue.

Model II indicates that IGOs have the same relationship with the likelihood of a dispute ending even when controlling for other influences. A one-unit increase in the number of shared IGOs leads to a 2.3% increase in the probability of having a dispute at any given time. Therefore hypothesis 7.1 cannot be supported by the findings. The wealth variable has the most substantial impact on increasing the duration of the dispute. It seems that the wealthier the dyad, the greater their ability to endure prolonged conflicts. On the other hand, as the dyad becomes more democratic the duration of the conflict diminishes. This finding is consistent with the prevalent finding in the literature that democracies tend to fight shorter disputes (Bennett and Stam, 1998). The coefficient on the military capability variables suggests that more symmetric dyads tend to fight longer MIDs. Power imbalance typically leads to one side overpowering the other, and having the weaker side concede. Dyads that contain states that are major powers do not influence the length of a dispute in a manner that is significantly different than zero. Lastly, contiguity prolongs disputes; as states approach land contiguity there is 10.7% increase in the hazard ratio. Even with control variables, IGO membership continues to have a positive influence on the duration of militarized interstate disputes.

A finding in Table 7.1 that supports the underlying theory of the IGO and peace relationship is the average number of shared memberships. As the average number of shared memberships increases, the duration of disputes becomes shorter. Why is this consistent with the theory? As IGO membership becomes more ubiquitous in the system, the IGOs form a peace system that discourages violence. As we have seen in previous chapters, a high average IGO

membership is negatively related to dispute involvement and escalation. Thus, it comes as no surprise that this peace system also pressures dyads to find an expeditious end to their disputes.

The result that depicts IGOs as prolonging a dispute is consistent with what Cornwell and Colaresi (Forthcoming) find, when they look at the impact of aggregate IGO memberships on the duration of enduring rivalries. Though their context is different (they look at enduring rivalries whereas here all dyads regardless of whether or not the dyad has a rivalry are reviewed) their rationale for this result may apply here as well:

> This result may not be too surprising given the inability of NATO to end the Greco-Turkish rivalry or the United Nations' lack of efficacy in Africa (Diehl, Reifshneider, and Hensel, 1996). In such cases, common IGO membership may simply have belied on-going tensions between rivals. *Another possible explanation for this result may be some form of measurement error whereby regional and international [universal] IGOs are lumped together.* Disaggregating this measure might reveal substantive differences which confirm the liberal perspective (Cornwell and Colaresi, Forthcoming:28. Emphasis added).

The answer to this puzzle seems to be to employ a typology of IGOs. The effects of the IGO typology on the duration of disputes can be seen in Table 7.2 below. A striking result that is revealed is that some IGO types shorten the duration, while others increase it. This finding is not altogether unexpected since some organizations are more effective at resolving disputes themselves, for instance regional political IGOs, since they are equipped with the requisite mechanisms for peace. The regional institutions are immersed in the context of the dispute and more readily speaks the 'language' of the disputants. Model I presents the IGO typology without any additional control variables included.

Table 7.2

Cox Proportional Hazard Model of the Impact of the Type of Shared IGO Memberships on the **Duration of MIDs**, 1816-1992				
Variables	Model I		Model II	
Regional				
Military Organization	-.029	(.080)	-.048	(.078)
Economic Organization	.174***	(.033)	.199***	(.038)
Political Organization	-.133**	(.052)	-.115*	(.054)
Social Organization	.024	(.017)	.007	(.019)
Universal				
Economic Organization	.010	(.032)	.050	(.037)
Political Organization	.029	(.023)	-.002	(.026)
Social Organization	.009	(.009)	.028**	(.010)
Wealth	----		.118***	(.031)
Regime Type	----		-.076	(.058)
Military Capability	----		.058**	(.019)
Avg. Shared IGO	----		-.029***	(.006)
Major Power Status	----		-.042	(.048)
Contiguity	----		.090**	(.032)
N	2,131		1,812	

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

The only variables that are significant are regional economic and political organizations. It is interesting to note that one IGO type lengthens the dispute whereas one is equally as strong in shortening it. As a whole, the findings from previous chapters have focused around the influence of universal IGOs, since they have been the ones that typically produce statistically significant coefficients. Adding an additional regional economic organization increases the hazard of the dispute continuing by nineteen percent. From a theoretical perspective, one would have expected just the opposite effect. If they had lessened the duration of disputes, it could have been do to economic incentives or conflict resolution techniques that addressed economic disputes.

So why is it the case that economic IGOs lengthen disputes? Previous research on dyadic trade suggests that trade does not lead to significantly shorter disputes (Barbieri and Bremer, 1999) and one could use economic IGOs memberships as an indicator of some degree of a trading relationship. Linking regional economic IGOs to trades does not, however, provide much in the way of theoretical explanation. I think the answer may lie in the institutional maturity and strength of the organization. Notice it is only regional economic IGOs that are statistically significant, not their universal counterparts. Also keep in mind that in previous chapters it was shown that less economically advanced dyads tended to have a higher probability of having memberships in regional economic IGOs than advanced dyads. If it were feasible to geographically map the clustering of regional economic IGOs, I think they would predominantly be found in the 'Zones of Turmoil' (Kacowicz, 1995; Singer and Wildavsky, 1993). These zones are characteristically less democratic, less developed, than areas of the world that experience little conflict. It may be the case that dyads in the Zones of Turmoil enter into more regional economic organizations in hopes of collectively improving their position on the international economic pecking order. Additionally, a pair of states that has a history of conflict may attempt to put their past behind them and mutually enter one of these types of organizations. That is, the benefits from an economic IGO would be enough for states to tolerate one another. The organization, however, may not be strong enough to preclude fighting or shorten disputes.

Regional political IGOs, on the other hand, tend to lessen the duration of the dispute. A one-unit increase in the number of shared memberships in IGOs of this type decreases the likelihood that a dispute will persist by 12.5 percent. These IGOs are immersed in the context of the combatants and can often use various techniques to quell disputes. Thus hypothesis 6.2 can at least be partially accepted, though it was shown that military organizations had no discernable affect on dispute duration.

With the addition of control variables in Model II in Table 7.2, regional economic and political IGOs remain significant and in the same direction as they were previously. Universal social organizations become statistically significant in this model and serve to lengthen disputes. Since this category of organization is quite broad, concerning mundane topics as pest control and the delivery of mail, it comes as no surprise that this type does not reduce the duration of disputes. Arguably, the universal social organizations are the easiest to become a member of considering the political costs and lack of entanglements(Domke, 1988). These IGOs provide

services, and why not take advantage of them even if one of the members happens to be a state that is conflict prone. The control variables in Model II behave as they did in the previous table, save for the regime type variable not being statistically significant. Here again we find the average number of shared memberships to be in a negative relationship with the length of a dispute. This normative context pressures dyads to resolve their disputes quickly.

The Duration of Peace

After investigating the impact IGOs have on the duration of disputes, the next logical place to look is at the peace that occurs once a dispute is settled. While others have looked at the duration of peace settlements and the involvement of IGOs (Diehl, Reifshneider, and Hensel, 1996) and the impact of IGOs and dispute termination (Brecher and Wilkenfeld 1997:Chp. 4.), what about the duration of peace after a dispute in general? There is surprisingly little recent empirical research that specifically investigates the peace that reigns after disputes. What factors promote peace? If as a community of researchers we are serious about having a definition of peace that is something more than the mere absence of war or conflict, then more attention needs to be paid to the ebb and flow of peace after the dust of battle settles. IGOs do have an impact on the duration of disputes, but a crucial test is whether or not they affect the duration of peace once the dispute comes to a close.

I will first look at how shared memberships in IGOs influence the duration of peace between disputes (i.e. the number of peace years), and follow with models that include the IGO typology. I am defining the duration of peace as the amount of time, calculated in days, that passes from the end of a militarized interstate dispute to the onset of a new dispute between the same dyad. A dyad has to have had at least one MID to be included as a case. The starting point for the analysis is January 1, 1816. While the dyad may have predated this artificial time period, I use the 1816 data as the rough starting point of the conduct of modern international politics. Therefore, a dyad is at risk of a MID from the Congress of Vienna until the data ends in 1992. For purposes of exposition, let us consider the conflict history of two dyads. Dyad 1 had a MID in 1905 and with no further dispute before the end of the purview of the data in 1992. Dyad 2, also fights a MID in 1905 but goes on to fight again in 1974. Figure 6.1 illustrates the spells of peace that are under review.
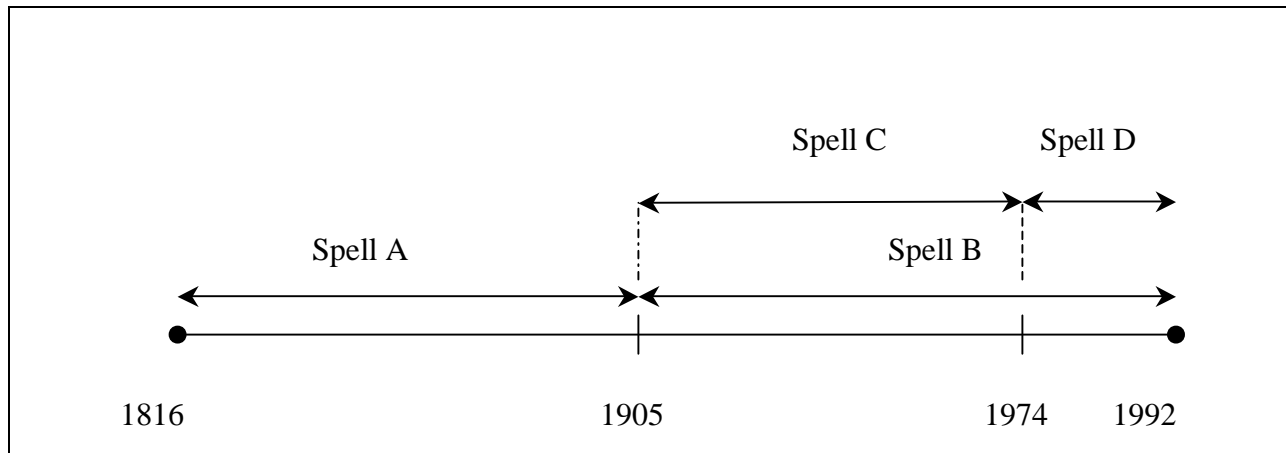
Figure 7.1   Spells of Peace

Dyad 1 has two discernable spells of peace, whereas dyad 2 has three spells of peace. Both Dyad 1 and Dyad 2 share spell A which signifies the fact that they were both at peace from 1815 until 1905. Since the data end in 1992, it does not mean that the spell of peace for the dyads ended; rather, they are censored. Unlike most hazard analysis where time begins when the subject enters the study and is measured continuously until the subject experiences a failure (i.e. dies), here there is the challenge of multiple failures and multiple entry times. I will still be using a Cox Proportional Hazard model, but it is modified to account for these challenges. The result is the conditional risk set model (time from previous event) as constructed by Wei, Lin, and Weissfeld (1989)[22]. Since a dyad cannot have its second dispute until it has its first, this model also is used for events that have a specific order to them. I could treat multiple disputes as unordered, but doing so ,while simpler, would drop relevant information and theoretically could lead to inaccurate estimates. Since states learn from the past (Leng, 1983) one would expect that the fifth encounter, for example, of two states would be quantitatively different than their first, so why would not the same hold for the spells of peace between the disputes?

Model I in Table 7.3 introduces the measurement of the duration of peace. The population consists of 1,944 non-directed dyadic militarized interstate disputes. Similar to the findings in Table 7.1, shared memberships have the opposite effect than hypothesized. A negative coefficient means that the duration of the spell of peace is shortened. In Model II, with the control variables used previously, shared memberships continue to have the same impact

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[22] I use Stata 7.0 commands of stcox with the efron method for ties and the strata(order) and cluster(id) options to control for the sequence of MIDs and the calculation of error estimates respectively, for a given dyad.

where a one unit increase in membership roughly increases the risk of peace ending by four percent. The wealth, regime type, and capability balance do not effect the length of peace experienced by the dyad. It was unclear to me which way wealth would influence the duration, but I did expect regime type to matter significantly. Democratic norms should theoretically, allow for a more lasting peace to prevail even after the dyad experiences a conflict. Depending on which variant of a realist perspective one adopts, the balance of military capabilities (whether it is parity, fast approaching parity, or complete asymmetry) helps to determine when states initiate conflicts, thus it should in some way impact the duration of peace. Here, however, capabilities do not seem to matter.

Table 7.3

Cox Proportional Hazard Model of the Impact of Shared IGO Memberships on the **Duration of Peace between MIDs**, 1816-1992				
Variables	Model I		Model II	
Shared IGO Membership	-.012***	(.002)	-.042***	(.004)
Wealth	----		.023	(.028)
Regime Type	----		.018	(.056)
Military Capability	----		-.021	(.016)
Avg. Shared IGO	----		.057***	(.007)
Major Power Status	----		-.315***	(.053)
Contiguity	----		.150***	(.032)
N	1,944		1,718	

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis.

The normative context of the international scene, as measured by the average number of shared IGO memberships, contributes to lengthening the spell of peace. This may be due to the fact that the norm of peace is strongly institutionalized during these periods, and violation of this norm is significantly hindered. As one would expect, major power status decreases the duration

of peace. Major powers have a proclivity to be involved in more disputes, thus they have little time to be at peace (Bremer 1992; Vasquez, 1993).   Lastly, having a dyad that is contiguous tends to increase the duration of peace between disputes. This finding is at odds to what one would expect given that contiguity is often the single best predictor of conflict involvement. In sum, there is little evidence in either model to validate hypothesis 7.3 that more IGO memberships contribute to an enduring peace.

Is there insight to be gained from viewing the various types of IGOs? The results from Table 7.4 suggests that the IGO types behave differently in terms of lengthening and shortening the spell of peace. In Model I, all but one of the IGO variables, regional social organizations, are statistically significant. Regional military IGOs have the effect opposite of that hypothesized, they actually shorten the peace. The theorized relationship between military IGOs and peace was that the former would lengthen the later through the use of conflict resolution techniques such as mediation. On its face, I would suspect that Greece and Turkey as NATO allies would be the key contributors to the finding that military organizations shorten the peace. A more systematic post hoc explanation of this finding would concentrate on the fact that the majority of these types of organizations can be considered formal military alliances. There some evidence that finds formal allies tend to get entangled in disputes with one another (Bueno de Mesquita 1981, 1985; Ray, 1990; Bremer 1992).   However, many of these findings are spurious once one controls for contiguity. The motivation of joining an alliance with an enemy could possibly be to lull the other side into a false sense of security, or as to symbolize a hand being extended to show the desire for peace. Alliances shared by major states, tend to be associated with "disputes between unequals [that] tend to escalate to war more frequently when a predator major state has a non-aggression pact or entente with another major state than when such alliances are absent" (Vasquez, 1993:163).

Table 7.4

	Cox Proportional Hazard Model of the Impact of the Type of Shared IGO Memberships on the **Duration of Peace Between MIDs**, 1816-1992			
Variables	Model I		Model II	
Regional				
Military Organization	-.399***	(.066)	-.44***	(.071)
Economic Organization	.212***	(.033)	.163***	(.035)
Political Organization	-.136**	(.052)	-.135*	(.053)
Social Organization	-.012	(.017)	-.022	(.017)
Universal				
Economic Organization	.108**	(.031)	.049	(.032)
Political Organization	-.191***	(.022)	-.204***	(.024)
Social Organization	.012***	(.009)	-.019*	(.010)
Wealth	----		.055*	(.029)
Regime Type	----		.096	(.056)
Military Capability	----		-.018	(.017)
Avg. Shared IGO	----		.048***	(.007)
Major Power Status	----		-.356***	(.054)
Contiguity	----		.123**	(.033)
N	1,944		1,718	

Note: *=p<.05, **=p<.01, ***=p<.001 Robust Standard Errors in Parenthesis

Both regional and universal political organizations tend to shorten the duration of peace between disputes. Along with the military IGO findings, the effect of political organizations on peace was quite striking. Here, neither type of organization fits with well with the theory on IGOs and peace. Some realist theories suggested that political IGOs only served as forums for non-violent warfare and may help lead states to conflict (Mearsheimer, 1994). Another influence in this relationship may be the ubiquitous diffusion of political IGOs into all types of dyads.

Economic organizations, both regional and universal in scope, tend to prolong the peace experienced between disputes. These organizations may provide in house conflict resolution techniques that may halt any dyad from running to militarized disputes. According to traditional

functionalist theory, economic relations can be considered 'low politics'; however the findings in Table 7.4 serve to demonstrate the fact that states now place much more weight on the importance of economics (Skålnes, 2000). Universal social organizations ostensibly lengthen the reign of peace. A one-unit increase in the number of these organizations increase the hazard of peace continuing by roughly two percent. While this is certainly a weak impact, it does suggest that peace can be fostered by some unexpected factors.

Model II adds control variables to the mix and reduces the statistical significance of some of the variables, even making universal economic organizations lose significance altogether. In comparison to the Model II of Table 7.3, one change in the control variables is evident. The wealth variable is now statistically significant. Wealthier dyads tend to experience a longer duration of peace than dyads with less economically developed members.

A significant finding in terms of its theoretical import is that the average number of shared IGO memberships in the system continues to be positively related with the peace. The stronger the norm of peace, the higher the average number of shared memberships, the longer the amount of time that passes between dyads entering MIDs. This is evidence that IGOs construct a purposeful peace system.

Conclusion

Clearly, modeling peace in a direct fashion is of utmost importance to the scientific study of war and peace. Typically, the answer to the questions 'what is peace?' and 'how do we create a lasting peace' are derived from findings about what we know about war. Here I directly address these questions when I measure the duration of disputes and the duration of the peace between disputes experienced by dyads.

First, I find, contrary to my expectations, that having a substantial number of shared IGO memberships does not reduce the duration of MIDs. On the other hand, however, a higher average number of IGO membership does make disputes shorter. There is growing evidence that as more memberships pervade the system, IGOs form a context that produces and maintains the norm of peace. Disputes are not tolerated in this context, and if they are not outright prevented (which has been shown to be the case in the previous chapters) they are pressured to find an end. When looking at the type of organization I find that regional economic and universal social organizations promote the lengthening of disputes. The case for social organizations adding to

the length of a conflict is not difficult to explain- these types are not noted for their peace making abilities. The positive relationship between regional economic IGOs and MID duration, on the other hand, is more difficult to explain. It may be the case that these organizations are not strongly institutionalized, and thus (based on the consistent findings of the previous chapters of the strong negative relationship between these IGOs and conflict) are indicative of the potential of a more peaceful future.

I find strong evidence that regional political organizations reduce the duration of conflict. This effect likely occurs through the use of conflict resolution techniques. Regional political IGOs are cognizant of the history and culture of the dyads in the region and can offer more meaningful conflict resolution proposals than can 'outsiders'. Thus the theory that explains this relationship is strengthened. Political institutions take an active role in promoting and maintaining peace.

Next, I looked at the duration of peace between disputes and again find that an aggregate measure of IGO membership suggests that increased memberships serve to reduce the peace. Alternatively, I find some interesting results when I place the IGO typology in the model. Economic organizations have the largest positive impact on the duration of peace. They delay the occurrence of disputes. I did not expect to find economic IGOs to play such a prominent role in promoting peace. They do, however, play an active role in preventing disputes by providing economic incentives to end disputes, dispute mediation, and ultimately reflect the notion that the member state's futures are bound together. Economic issues certainly do not hold the lowly and humble position in a system of peace as prescribed by functionalist theory. These findings, in themselves, do not refute density approach to IGOs and peace (the more the better), but it adds another link in the growing chain of evidence that it is the type of organization that matters the most.

CHAPTER VIII

SUMMARY AND CONCLUSION

War has plagued man from the beginnings of recorded time to the present day. The second millenium has been ushered in with a global 'war on terrorism' and the potential for nuclear conflict brewing in various corners of the world. Much of history is essentially the story of war. After all, how does one record a non-event like peace? Peace, however, is something much more than the mere absence of war. Peace is the active engagement of states with the intended purpose of preventing violence.

So what then is the story of peace? Certainly, history is peppered with some notable and notorious attempts at creating an enduring peace. The Treaty of Westphalia, the Concert of Europe, and the various agreements that closed World War II all are significant events in the progress to peace, but they only tell a partial story. These agreements do however provide us with a theme: a Peace System. These milestones established rules of the game that were intended to prevent war from raging once again. Intergovernmental organizations have increasingly become the method by which to institutionalize these rules. As sentinels that will not allow past lessons to be lost, IGOs infuse the system with effective norms that promote peace.

IGOs play a pivotal role in the unfolding story of peace. Immanuel Kant was one of the earliest theorists to propose that international organizations were key to create an enduring peace. Numerous prominent theorists and practitioners have build upon Kant's idea, but it was not until the groundbreaking work of Wallace and Singer (1970) that an empirical assessment of the role of IGOs and peace would actually took place. Much credit is due to Russett and Oneal (2001) for reinvigorating the study of IGOs and peace in the current literature. Their contribution to the story of peace was to theorize how the number of shared memberships of IGOs created bonds between states that helped to avert the dyad's attention on conflict. With any pioneering effort, there is much that can be done to build upon their work. Russett and Oneal (2001) claim that their findings on the relationship between IGOs and peace is muted due to the ubiquitous nature of the former. Their solution is to focus on politically relevant dyads. I, on the other hand, make a distinction based on the IGOs themselves, not on the states under study. I posit that not all

IGOs are created equal. Certain types of organizations are better suited to lessen a dyad's conflict propensities than are other types. With a typology in mind as to what would indicate an IGO that could positively impact peace, I set off on the current research project.

What I would have liked to have found in my research was the 'magic bullet' for peace. That is, one type of IGO that does it all, regardless of how peace is conceptualized. What I did find were IGOs that consistently made contributions to peace at various junctures in state interactions. In the process, I have made three potential contributions to the international relations field. First, at the heart of this research, is a new data source for research questions involving intergovernmental organizations. Second, I develop a profile of the demographics of IGOs. I find what types of organizations have flourished, as well as the kinds of states that typically join IGOs. Lastly, and most significantly, I have brought us closer to understanding how international organizations contribute to peace between states.

The Data and IGO Profile

Only time and the imaginativeness of future researchers will dictate the utility of the data. It is quite exciting to ponder the potential research questions and investigative techniques that go far beyond the realms of what has been used in the current analysis that may some day be used in conjunction with my data. These data stand above other research efforts in its breadth and depth. The data not only adds nearly thirty years of coverage to the widely used data constructed by Wallace and Singer in 1970, but provides a more detailed picture of the individual organizations through the multifaceted typology operationalized therein. The two main components of the typology classify the IGO according to its function and the distribution of membership. While only the 1815 to 1992 portion of the data, which runs from 1815 to 2000, are employed here due to the temporal confines of the MID data set, it will be interesting to investigate how IGOs affect peace in the Post-Cold War period.

The population of international organizations is quite diverse and robust. From the humble beginnings of fewer than a half-dozen organizations prior to the twentieth century, the IGO headcount now reaches to roughly 250 conventional organizations at the close of the data in 1992. If a broader sense of what constitutes an IGO is adopted, the population blossoms into the tens of thousands. The explosion of organizations occurred at the end of World War II, where IGOs were seen as a fundamental component in the new-world order. Organizations that provide

services, on both the regional and universal level, such as mail delivery, disease control, and resource management (classified as social organizations) are by far the most numerous. The next most populous type of organizations, at a substantial distance in terms of raw numbers from social organizations, are regional economic IGOs.

My research has allowed me to create a profile of the type of states that share memberships in IGOs in general. The strongest indicator of a dyad having a shared memberships in a given IGO is their regime type. The more jointly democratic the dyad, the more likely it will belong to IGOs. Next, if the dyad can be considered a minor power dyad then it is also likely to share memberships. Contiguity and being considered a non-economically advanced state, are the next two strongest indicators of membership. Lastly, the more trade that occurs between two states, the more likely they will join the same IGO.

What factors influence the membership of the different types of organizations? As far as characteristics that influence dyads to have multiple shared memberships in regional organizations, democracy and minor power status play a major role. One would suspect that regional military IGOs would be the most demanding in terms of homogeneity of the membership, since the organization deals with such an important issue to a state's viability. Having too much diversity in such an organization may serve to weaken it in terms of its military and political strength. In the context of the Cold War, for instance, it was clear that military matters were typically of the black and white kind- either with the USA or with the Former USSR. Of course, current conditions are not as clear. Witness the opening of NATO to begin to integrate Russia, though only after it has shown a decade of stability as a nascent democracy. Thus, IGOs that deal with military issues typically draw dyads that are relatively democratic, relatively economically advanced, and contiguous.

Democracy again, fosters dyads to share memberships in regional economic organizations. Relatively economically advanced states and those that have some degree of dyadic trade also increase the likelihood of having a mutual membership. Being a minor power becomes the strongest factor in determining memberships in regional political IGOs. One may expect that a states' power status would supersede democracy in influencing these types of memberships, due to the organization's purpose. Is it not the very purpose of a political organization to unite disparate states? These organizations provide a forum for political dialogue and cooperation using rules and procedures that countries of mismatched regime types must use.

For example, it is often the case that in plenary sessions of regional political IGOs a non-democratic state is forced to conform to democratic norms when voting. It is not surprising that democracy is the next strongest factor in determining membership, followed by dyadic trade. Regional social IGOs follow a similar pattern, except being a major state dyad increases membership.

As far as the universal types of organizations, neither democracy nor contiguity play as strong as a role as they did in regional IGOs. Universal organizations, by definition, involve a broader sweep of the total population of states where it would be expected to have mixed regime type dyads and those from different corners of the world. Its stated mission and scarcity make shared memberships in universal military IGOs only probable for the most powerful of states. Relatively economically advanced states join at least one or two economic, political, and social organization. This pattern occurs because states need to be able to bankroll ventures outside their immediate borders, and need to have their own houses in order, so to speak, before they can think globally.

In sum, by developing a comprehensive data source of IGOs and their memberships, a significant contribution is made. Understanding the dynamics of the global network of IGOs is a worthy pursuit in its own right, additionally, it helps us get the focus on the question at hand- the unfolding story of peace. In the subsequent sections, I will provide a cursory discussion of the insights uncovered in my analysis of IGOs and the conflict propensities of dyads.

In construction of the complete picture of how IGOs impact peace, I proceed in a theoretically informed step-wise fashion. First, I look at the systemic contribution to peace made by IGOs. Next, I look at whether IGOs preclude states from entering militarized interstate disputes. Third, I investigate the escalation dynamic of disputes. Here, I am interested in how IGO membership affects the level of hostility attained in the MID. Additionally, I also examine how hostility levels are related across disputes as time progresses. Fourth, the impact IGOs have on the likelihood of negotiated settlements and compromised outcomes is considered. Lastly, the duration of the dispute and the endurance of the peace that follows is tested to see if IGOs contribute to a lengthening of the duration of peace.

War and the System

The theories that attempt to explain the relationship between IGO and peace can be divided into the systems level and dyadic level. Since the system encompasses the dyad, it was logical to begin analysis on the system. The first empirical test was designed to investigate whether IGOs impact the numbers of wars experienced in the system for a given year. The theoretical rationale for this relationship was that IGOs provide a normative context in which states operate. What we are essentially talking about is a peace system. That is, if the effect of the individual IGO was to institutionalize and promote the norm of peace, then collectively the rules of the game for state conduct would follow. A good example of such a system is the Concert of Europe. The absence of major state warfare was due to the normative context provided by the agreement of the powerful states not to resort to violent means to address disagreements.

To get at this notion of a normative context I first operationalized it as the average number of shared IGO memberships, and look to explain the number of dyads at war in a particular year. I find that the average number of shared memberships is positively related to the occurrence of war. Additionally, I find as the average democracy score for dyads increase, the number of dyads at war also increased. At first glance, I assumed that there was a strong temporal component to this finding, and that it was due to character of the post 1945 era. After controlling for time period, system size, and dyad maturity, the positive finding between the average number of shared memberships and war still remained. Part of the answer was to look at the various types of organizations.

I theorized that regional military and political organizations would have the strongest constraint on war. As it turned out, of these two organizations only the regional military organization reduced the number of dyads at war. In fact, only the average number of regional military organizations reduced the number of dyads at war, as far as regional organizations of any type are concerned. All the other regional types actually increased war.

All of the universal IGO types, save for social organizations, produced statistically insignificant findings. Universal social organizations reduce the amount of dyads at war in the system. The reason for this finding is that I theorize that social organizations are the easiest to join in terms of political costs. Couple this information with the fact that many spurts of IGO membership growth come after wars have ended. Thus, at least part of this finding may be

explained as states putting out the feelers, so to speak, and engage their former opponents on a minimal level.

MID Involvement

I hypothesized that joint memberships in IGOs decrease the probability a dyad will become involved in a militarized interstate dispute. I test this hypothesis by employing Russett and Oneal's (1999) data. Using their data serves two purposes. First, by adding my indicator of shared memberships to their data I test the validity of my new measure. If it were the case that I could not replicate their findings, then that may suggest some problems with my new data on IGOs. The second reason for using their data is to see if my measure is a better predictor of dispute involvement. It turns out that not only can I replicate their finding, but my coefficient on shared memberships is nearly double in size of theirs and is statistically more robust. Thus, when looking at politically relevant dyads, an increase in joint IGO memberships does in fact reduce the likelihood of a dyad entering a MID.

The estimation of MID involvement that implements the typology of IGOs provides some striking results. I find that the various types of IGOs have disparate affects on the probability of a dyad entering a MID. Universal economic organizations have the effect of reducing the probability of MID involvement. Having the mean number of shared memberships of this IGO type, roughly three memberships, reduces the probability of entering a MID by twenty-five percent. Having the dispute resolution potential of these organizations is likely contributing to this result. Additionally, the dyads that join these organizations may see their economic viability tied together with the other members of the organization. This may serve to deter a state from upsetting the balance in fear of hurting its own economy.

Regional political organizations have the opposite effect than what was expected, they increase the probability of MID involvement. Having at least one shared membership (the mean is a scant .25 memberships) increases the chances of entering a dispute by six percent. This finding supports the perspective that military conflict is 'politics by other means', and that turmoil within political organizations has the potential to add fuel to the fire (Boehmer et. al., 2000). Additionally, as previously discussed, regional political organizations tend to have substantial heterogeneous memberships whose sole purpose may be to engage dyads that have

little or no subsequent contact. The example of the Arab League and Iraq and Kuwait comes to mind here.

Universal social organizations also increase the likelihood of dispute involvement. Upon further examination, it is universal IGOs concerned with water resource management that is driving this relationship. Since many conflicts have been fought over this resource, it can be assumed that the IGOs were created to manage the resource and dissuade states from military confrontation over this issue. Obviously, these organizations have mixed results, though on the regional level there is significant evidence that they help keep the peace. None of the other remaining types have statistically significant coefficients. The average number of shared memberships in IGOs does, however, make a substantively and statistically significant contribution in lowering the probability of MID involvement. This finding lends credence to the theory that IGOs create a normative context that pacifies state relations. A strong IGO context requires states to seek alternatives to militarized conflict.

IGOs and War

The relationship between IGO membership and war proved to be quite intriguing. If the raw indication of the number of IGO memberships shared within the dyad is used, regardless of type, one will find that it reduces the probability of war. Therefore, not only do these organizations keep dyads from entering conflicts, but they also serve to lessen the severity of a conflict if one were to break out. Shared memberships as a whole then, seem to be playing the roles they were theorized to play. They may create crosscutting cleavages between two states and function as active (political engagement, mediation, etc.) as well as a passive (interdependence) rolls. However, how can we test this active role that IGOs play? Shared memberships does provide a good sense of their passive role, but the IGO typology is a better test of the active roles IGOs play from a theoretical perspective. Theoretically, military and political IGOs may be the most important since they have the tools to actively wage peace. On the other hand, one would find it difficult to argue that social organizations in general (except those that dealt with water resources), play an active role in creating peace between two nations. These organizations were not designed for this task.

As was the case with involvement in MIDs, the different types of IGOs have disparate effects on the probability of a MID crossing the war threshold. Regional military organizations conform to the expectation of reducing the likelihood of war. Having one shared membership in a regional military IGO, reduces the probability of war by nearly 70%. These types of organizations have the means to prevent disputes from escalating to war through the use of peaceful conflict resolution techniques. To frame this finding in theoretical terms, it does not support a realist perspective nor the 'friends-as-foes' thesis (see Ray, 1990 for explanation of the latter). A realist would contend that military agreements reduce the probability of war with a state outside the alliance and a state not in the same alliance. Additionally, this finding does overturn the 'friends-as-foes' thesis in the literature, since here we are dealing only with specialized alliances, ones that can be considered international organizations. The present research finds military IGOs doing exactly what is often their stated purpose, to sow and preserve the seeds of peace within its membership.

Both regional and universal economic organizations reduce the chance of a dyad experiencing war. Having at least two memberships in regional economic organizations reduces the estimated probability of war from .1469 to .0762. While they have a weaker effect, universal economic IGOs also are in a negative relationship with war.

Political IGOs seem to be positively related to war, though not much can be said about this relationship because the models did not produce statistically significant estimates for this type. Regional social organizations increase the likelihood of war, providing further evidence that these type have little impact on peace propensities of states. A somewhat less than serious characterization of this type of organization would be to call them 'IGO Starter Kits'. They are the easiest to join and not surprisingly are the most numerous in terms of the average number of joint memberships. The average number of IGO shared memberships has a negative and significant impact on the likelihood of war. This finding, in conjunction with those uncovered previously, lends itself to be interpreted as providing evidence of IGOs providing a normative context of peace.

IGOs and Escalation

The term escalation is typically used in the literature to denote a conflict that has escalated to war. This usage, while commonplace, is deceiving. For a process to escalate, there

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needs to be a definitive starting point and an end point that is higher on some measure of severity. Conceptually, escalation is a process, not an outcome. I offer an approach to escalation that has received little attention in the scientific study of war and peace literature.

My approach to escalation is derived from Leng (1983) who looks at the process of escalation across time and recurring disputes. That is, how does the degree of hostility (alternatively, the outcome) of the current dispute affect the hostility level in future disputes. Leng finds that in the process of escalation, dyads typically go to war on their third encounter. This war experience comes after reciprocated conflict that hikes higher and higher along an upward conflict spiral.

Since the current MID data does not contain any variable to properly map the path of the escalation of the dispute, I develop three alternative endogenous variables. The three measures each have their costs and benefits, so a balance is struck by employing all three in the research. The simplest of the measures is derived from the four-point hostility variable, arguably the most used dependent variable in the peace research community. It measures both the direction and magnitude of the change of hostility from a dispute in time t to a dispute in time t+1. Since it is measuring direction and magnitude, it cannot distinguish an escalation of a display of force to a use of force (a +1 unit change) from a use of force to an international war (also a +1 unit change). The second measure is called the Intensity Index and it is constructed from the twenty-three 'hiact' codes offered in the MID data. For instance, this measure records a change from a display of troops in one dispute, to the seizure of territory in the next dispute fought by the same dyad. Lastly, the third measure, Real Difference, is a more elaborate version of the first endogenous variable. Instead of only tracking the magnitude and direction of change, this variable records the start and end points in terms of hostility level. For example, a dyad has its first MID reach a level of a display of force, and the subsequent dispute rises to a use of force. The Real Difference variable records these levels of force, instead of only remembering the direction and magnitude of change.

Aggregate shared memberships reduce the likelihood of escalation when using the intensity and hostility dependent variables, but does not produce a statistically significant result. On the other hand, the average number of shared IGOs per dyad lowers the probability of an escalation in hostility, an effect not due to chance. This finding adds to the growing evidence of a normative context produced by IGOs. It is made stronger still due to the fact that the shared

IGO membership variable itself was not statistically significant, but the average membership was significant.

The models that use the IGO typology produce for the most part insignificant coefficients. Universal political IGOs have the only significant results; an increase in the number of these memberships decreases the likelihood of escalation between disputes. A number of rationales may help to explain this result. One possibility is that universal political IGOs, such as the UN, have the greatest capacity for conflict resolution mechanisms. That is, before a militarized dispute gains too much momentum in the escalation spiral, the participants are encouraged to find a peaceful solution to their dispute. Moreover, the model may be picking up on UN peace-keeping and peace-making efforts. Another possible explanation comes from the literature on integration, that since political integration- political IGOs- is arguably the most difficult level of integration to obtain, a compromise of this integration comes at a great cost; consequently the dispute is less likely to escalate. The system average number of IGO memberships also reduces the probability of escalation. Again, supporting the theory that IGOs for peace systems that are created to discourage the use of military conflict.

A change to the third endogenous variable reveals some very interesting relationships. I establish two crucial thresholds in the degrees of escalation. First, I look at the process of escalation that crosses the display of force threshold to a use of force. Second, I investigate factors that propel a state from a use of force in one dispute, to escalate to war in the next. Relative to the maintenance of a use of force across two succeeding disputes, regional IGOs (save for regional economic IGOs) decrease the likelihood of escalating from a display to a use of force. On the use of force to war threshold, regional military and political IGOs were the most effective in stemming the tide of escalation. Having a regional military IGO decreases the chances of escalating to war from a previous use of force by fifty-seven percent.

IGOs and Dispute Outcomes

IGOs make a substantive contribution in realizing peaceful settlements to militarized interstate disputes. If a dyad does enter a MID and starts down the road to severe conflict, mediation and compromise attempts administered under the auspices of IGOs often provide the only hope of a peaceful ending to the dispute. Here, I find that membership in both regional and universal economic organizations have the strongest influence on the probability of the dispute

ending in a compromise. This effect of the economic organizations was not expected. The question then becomes is it the organization that is at the root of the compromise, or the relationship between the two states that is embodied by the IGO? Certainly, organizations like the WTO have the capabilities to resolve disputes that involve economic issues. Alternatively, does membership in economic organizations reflect strong economic incentives to peacefully resolve conflicts (and from a cynical perspective, resolve them before they seriously injure the 'bottom line'?). Controlling for the presence of dyadic trade, and other relevant variables does not negate this finding. On the other hand, universal social IGOs decrease the likelihood of experiencing a compromise.

Sometimes just as important as a peaceful end to a dispute is a definitive outcome. Disputes that end without a clear winner stand a great chance of repeating (see Hensel, 1996), a process that tends to be self-reinforcing that leads to situations of enduring rivalries and heightened degrees of war proneness (Vasquez, 1993; Diehl and Goertz, 2001; Vasquez and Leskiw, 2001). Universal political organizations increase the chances of having a clear winner in a MID. Here again, regional and universal economic IGOs increase the probability of having a definitive outcome.

An issue related to the outcome of a dispute, is the process by which it ends. What impact do IGOs have on the chances of a peaceful resolution of a dispute coming by way of a negotiated settlement? In line with the strengths and weaknesses of the various types of IGOs in terms of their contribution to peace, universal economic organizations are positively related to negotiated settlements. A one standard deviation increase in the number of these types of memberships doubles the base probability of having a negotiated settlement. Likewise, universal social organizations continue to be negatively related to peace since they lower the chances of a negotiated settlement.

The Duration of Peace

The last piece of the puzzle is to investigate how IGOs impact the duration of peace. My approach is two-fold. First, I examine the duration of MIDs themselves and theorize that international organizations will shorten the duration of the dispute. Second, I look at the duration of the peace that comes at the end of a dispute. As with any puzzle, some times the

pieces just do not look like they are going to fit. In this case, some of the results do not conform to theoretical expectations.

In modeling the duration of MIDs, the aggregate indicator of shared memberships in the dyad increase the duration of the dispute. One would expect that a dyad with more shared memberships would be more interdependent and would tend to fight quick disputes if at all. The primary explanation for this finding is that there is likely a type of organization that is driving this relationship. Looking at the type of organization, one finds that regional political IGOs reduce the duration of MIDs. The political connections and peace-making abilities of these organizations undoubtedly contribute to this reduction in dispute duration. This contention is further enhanced when one recalls that dyads that share three or more of these types of organizations are typically very dissimilar. Thus, it is not the case that dyads that would not have fought long disputes regardless of their bondedness would join regional political organizations, just the opposite. A recurring pattern throughout the analysis is to find universal social organizations on the 'wrong side of the tracks' in terms of peace. These type actually increase the duration of the dispute.

I measure the duration of peace experienced by a dyad in terms of the number of days that occur from the end of one dispute and the beginning of the next. If no other MID is experienced, then peace is measured until the close of the data set in 1992. An aggregate measure of IGOs behaves strangely in relation to the duration of peace. As the number of shared memberships increases, the amount of time that passes before the dyad's next dispute decreases. I expected to find a different result when looking at the various types of IGOs, but I did not. Only regional economic IGOs increase the duration of peace between disputes. Many of the rationale already offered about the economic incentives and conflict resolution techniques of these organizations, apply here as well.

As a whole, the results of the tests of the IGO contribution to the duration of peace have not been encouraging. No clear explanation of these findings is readily available, since a number of alternative specifications of the models (different variables and populations) were tried. These findings, however, are in good company with, to my knowledge, the only other study that looks at IGOs and duration (Cornwell and Colaresi, forthcoming). Granted, they are investigating the duration of rivalries and do not implement an IGO typology, but the overall tone of their results (they expected IGOs to shorten rivalries for a number of reasons) apply here as well.

Rival explanations

Since the aforementioned findings are all probabilistic in nature, one cannot conclude with absolute certainty that the true relationships have been captured. Without this certainty, rival explanations can be formed that attempt to explain the relationships at hand. In this analysis, the potential rival explanations can be boiled down into two related categories, time effects and the similarity of states.

How do I know IGOs reduce conflict? Is it the case that IGO de-escalate dyadic conflicts and make them less likely to occur, or is it the case that only dyads that do not fight wars with each other tend to join these IGOs? Put another way, at what point in a dyad history do the states join the same IGO? Do they mutually join after fighting a war, or do they join after experiencing an enduring peace? Alternatively, do they join IGOs in anticipation of a dispute, in hopes that the organization may sway their path? Furthermore, how could one test to find a definitive answer to this question? Finding the hazard of joining an IGO may begin to address this question. The resulting model would be quite complex. It would involve having a detailed picture of a dyads interactions up to the point they join the IGO. Within this context, the potential risk of conflict faced by the dyad would also have to be estimated.

Sown for Peace: A Conclusion

Perhaps the best way to conclude the project would be to offer the highlights of the contribution of each type of IGO to peace. Without exception, the various types of IGO at times contribute to peace and at different times and contexts they do not.

1. Regional military IGOs substantially reduce the likelihood of a dyad in a militarized dispute crossing the threshold to interstate war. In the context of recurrent conflict, they decrease the chance of an escalation from display to a use of force, and a use of force to war. Finally, they decrease the likelihood of experiencing a definitive outcome, but they serve to lessen the duration of peace between disputes.

2. Regional political IGOs increase the chances of a dyad entering a MID, but they decrease the probability of crossing the use of force and war thresholds in

recurrent conflict. These political IGOs reduce the duration of MIDs, though they also reduce the length of peace between disputes.

3. Regional economic IGOs lessen the chances of MIDs reaching the level of interstate war. They do however, increase the probability of a dyad experiencing increasingly more intense disputes. Specifically, they increase the chance of escalation from a display to a use of force, and a use of force to war in two successive disputes. Regional economic IGOs increase the probability of having a peaceful resolution to the end of a dispute. They are the only type of IGO that contributes to lengthen the duration of peace between disputes.

4. Regional social organizations increase the involvement in MIDs and wars. They are associated with a decrease in likelihood of an escalation from a display of force to a use, though the increase the chances of an increase from a use of force to war.

5. Those states that join universal military organizations do not get involved in any type of militarized conflict with another member.

6. Universal political IGOs tend to be in a positive relationship with the likelihood of crossing the use of force and war thresholds in recurrent conflict. Additionally, they increase the chances of experiencing a compromise to end a dispute. They have the effect of shortening the duration of peace in a dyad.

7. Universal economic organizations tend to lower the probability of a dyad entering a dispute. Moreover, they also have a negative relationship with the probability of the dyad experiencing a war. They increase the chances of compromises, definitive outcomes, and negotiated settlements. Lastly, they decrease the length of peace experienced by dyads after disputes.

8. Universal social IGO increase the likelihood of dispute involvement. They lessen the chances of crossing the use of force and war thresholds in recurrent conflict. These IGOs increase the probability of compromise in a dispute, but reduce the likelihood of a negotiated settlement. Universal social IGOs increase the duration of MIDs and lessen the duration of peace after disputes.

The thought that sparked this research project was that not all IGOs are created equal. The conceptualization of a purposeful peace offered throughout this project posited that some organizations are more effective than others in establishing and upholding peace. The insights garnered from the various chapters have demonstrated the fact that the types of IGOs have disparate effects on peace. Thus, merely counting the sheer number of memberships, the IGO density approach to peace, at best misses out on the relationships of most interest and at worst mischaracterizes the impact of IGOs on peace.

Thus far, the empirical literature has almost exclusively focused on how IGOs impact dispute involvement and their effect on war in the system. What novel facts have been learned about these two areas as a consequence of this research project? First, I have upheld and extended the finding that shared memberships reduce chances of militarized disputes. Second, I have shown that universal economic IGOs are especially well positioned to keep dyads out of conflicts. On the systems level, I have discovered evidence that supports my theory that IGOs construct a normative context of peace. It was sometimes the case (the duration of peace between disputes for instance) that the aggregate shared memberships did not produce results that had a positive relationship with peace, yet the average shared membership for the system did produce a positive relationship. This impact was not a statistical or temporal artifact, since as a whole the average shared membership variable was positively related to peace in all time periods and in the sundry operationalizations of peace. As the rules of the game of international politics become increasingly institutionalized in the form of more shared IGO memberships, the norm of peace becomes stronger.

I explore new depths to the relationship between IGOs and peace. I find that regional military, political and economic IGOs significantly reduce the chances of a dyad already in a MID from escalating to war. Moreover, I find these same organizations reduce the likelihood of dyads having successively more severe conflict as time passes. These IGOs not only have the mechanisms for conflict resolution, but they maintain the norm of peaceful state relations. Regional and universal economic organizations are found to be especially effective in ending a dispute with a compromise. Regional political IGOs shorten the duration of MIDs, while regional economic institutions tend to lengthen the duration of the peace that follows disputes.

The fact that at times, certain types of IGOs were not related to peace only furthers the notion that not all IGOs are the create equal. It did come as a surprise, however, to find some IGOs in a positive relationship with conflict. How does the theory that explains the relationship between IGOs and peace contend with these anomalous findings? The answer is two-fold. First, the various types of institutions exude different norms of varied strength. For instance, the theory suggests that social organizations (health, safety, welfare, etc.) have little to do with the norm of peace. Moreover, it seems to be the case that social IGOs represent the first steps toward integration. States that would not otherwise have formal interactions, join social organizations because of their high benefits and minimal state engagement (i.e. little is asked of the state itself).

The second reason for some of the anomalous findings is the fact that the political atmosphere surrounding the dyad was not included in the sundry models. The atmosphere I am referring to is one of an interstate rivalry. In these contexts, rivals assume the perspective that "issues are approached and ultimately defined not in terms of one's own value satisfaction, but in terms of what the gaining or loss of a stake will mean to one's competitor" (Vasquez, 1993:76). Accounting for which shared memberships are confined to an enduring rivalry context will likely explain much of the positive relationships between IGOs and conflict –especially when it comes to MID involvement and the duration of peace (see Cronwell and Colaresi, (forthcoming) for a similar explanation of the positive relationship).

What can we conclude about the theory of a purposeful peace? The theory stipulates that IGOs provide a formal and institutionalized means of peaceful state interaction. It is through this engagement that peace can be maintained by utilizing peaceful means to settle disputes. The aspect of the theory that states which types of organizations most effectively uphold the norm of peace, needs slight reformulation. A more important role must be given to economic organizations. With the increasing pace of globalization, the fate of a state is often intertwined with the economic viability of its neighbors. Economic concerns have risen to the top of state agendas. Does this mean that economic organizations may ascend to take the position of security IGOs at the pinnacle of importance? While it is unlikely security concerns will be dethroned as the issue atop state relations in the near future (a fact that is strengthened in the current climate of a global war on terror), economic institutions will play an increasingly crucial role.

History tells the story of the well-trodden path to war. On the other hand, the path to peace can sometimes be elusive. It is, however, is a tangible and achievable destination. By actively engaging its membership and striving for this goal, IGOs illuminate one possible route to peace. The start of a new millenium brings with it the chance to change how history is written. The story of peace is ours to write.

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