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INSTITUTIONAL SIMILARITY AND INTERSTATE CONFLICT

MARK SOUVA

Department of Political Science, Florida State University, Tallahassee, Florida

This paper makes two arguments. First, the political and economic institutions of a state affect that state's foreign policy preferences. Second, dyads with similar political and economic institutions are less likely to experience conflict than other types of dyads. After developing the logic of these arguments, I create measures of political and economic institutional similarity and test the hypotheses against the empirical record. The empirical analysis supports the argument that dyadic institutional similarity reduces the likelihood of conflict. The most noteworthy finding is that economic institutional similarity, even when the political institutions in a dyad are dissimilar, reduces the likelihood of militarized conflict.

This study focuses on additional hypotheses stemming from one of the leading explanations of the democratic peace. As is well known, two democracies rarely, if ever, engage in extensive military conflict. Three explanations of this phenomenon dominate the literature. The *normative* explanation of the democratic peace phenomenon is that democracies share common norms of dispute reconciliation so they are better able to resolve severe conflicts.[1] The *informational* explanation of the democratic peace emphasizes the role of democratic institutions in better communicating resolve.[2] The *preferences* explanation suggests that the democratic peace is the result of democracies having nothing to fight over.[3] "It is thus satisfaction with the status quo that accounts for the lack of wars between democracies in the past two centuries (Lemke and Reed, 1996, p. 160)." Democracies are satisfied with the status quo because their institutional similarity leads to similar preferences over the status quo. One way to arbitrate between these explanations is to examine additional implications. In a Lakatosian sense, an explanation that can account for both fact A and fact B is better than one that only accounts for fact A (Lakatos, 1970).

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Address correspondence to Mark Souva, Department of Political Science, Florida State University, 555 Bellamy, Tallahassee, FL 32306, USA. Email: msouva@fsu.edu

The preferences argument holds two additional implications, neither of which is suggested by other democratic peace explanations. First, the preferences argument suggests that similar types of autocratic regimes may share a separate peace. The causal mechanism in the preferences argument is that political institutional similarity leads to similar foreign policy preferences. As such, the explanation may be expanded to similar types of nondemocratic regimes. Second, the preferences argument suggests that other types of domestic institutional similarity may also reduce the likelihood of conflict between states. The key is to identify other types of domestic institutions that affect foreign policy preferences. An analysis of the conflict literature indicates that states with similar economic institutions may be more likely to have similar foreign policy preferences, and in turn, less likely to experience militarized conflict.

The paper proceeds as follows. In the next section, I develop the arguments connecting domestic institutions to foreign policy preferences, and preference similarity to a reduction in conflict. These arguments emphasize that both political and economic institutions are central to explaining the general thrust of a state's foreign policy. The argument leads to hypotheses on the effect of economic institutional similarity, the effect of political institutional similarity, and the effect of both economic and political institutional similarity. Next, I create measures of political and economic institutional similarity, and empirically test the argument that similar domestic institutions reduce the likelihood of interstate conflict. The empirical analysis supports the additional hypotheses of the preferences argument: dyads with similar types of political and economic institutions are less likely to experience conflict than other types of dyads. In the final section, I discuss implications of this research and avenues for future research.

INSTITUTIONAL SIMILARITY AND DYADIC SATISFACTION

A large body of research finds that two democracies are less likely to experience militarized conflict than other types of dyads. Recent research suggests that the effect of political institutional similarity may not be limited to democratic institutions; indeed, political institutional similarity, whether it is democratic or nondemocratic, reduces the likelihood of dyadic militarized conflict (Werner, 2000; Peceny et al., 2002).

Why might political and economic institutional similarity increase dyadic cooperation and reduce the likelihood of militarized conflict? The most general reason is that institutional similarity contributes to similar policy preferences. More specifically, the literature suggests three avenues by which institutional similarity promotes similar preferences and reduces conflict.

First, institutional similarity decreases conflict by moderating the impact of a central issue in interstate conflict: ideological disagreement. Historians of international conflict note that ideological issues have become a growing source of interstate conflict (Holsti, 1991). Differences in ideology contribute to conflict because, at the most basic level, ideological disagreements are about different value rankings or different interpretations of particular values. In turn, actors with different value rankings have more to potentially fight about. Yet, the question is why would dyadic institutional similarity reduce the likelihood of ideological disagreements and inter-

state conflict?

Dyads with institutional similarity will be less likely to experience ideological disagreements because "ideologies and institutions [are] in a co-evolutionary process" (Denzau and North, 1994, p. 20). "Ideologies are the shared framework of mental models that groups of individuals possess that provide both an interpretation of the environment and a prescription as to how that environment should be structured (Denzau and North, 1994, p. 4)." As a shared mental model, ideologies reduce complexity and facilitate coordination. In this manner, ideology is intertwined with institutions. In influencing how a state is organized and how individuals in a state interpret reality, institutions and ideology influence policy preferences. Not surprisingly, ideological differences usually revolve around both the treatment of individuals within a state and the composition of a state's government (Werner, 2000). For example, two key sources of contention between the United States and China are their differences in the protection of civil and human rights, perhaps most clearly seen in the Tiananmen Square demonstrations and subsequent repression in 1989. The United States has pushed for a set of individual rights that includes the right to vote, freedom of speech, and freedom of religion. China, on the other hand, does not recognize these claims as central to an understanding of liberty and human rights. This ideological difference between the United States and China, which manifests itself in different domestic institutions in each state, is a source of conflict. In summary, the nature of another state's government may be a source for interstate conflict, and states with similar domestic institutions should be less likely to engage in military conflict.

Second, "similarity in domestic institutions" reduces the likelihood of interstate conflict by distinguishing "in-groups from out-groups" (Werner and Lemke (1997, p. 532). Insofar as members of an in-group are more likely to share similar worldviews, they are also more likely to desire and craft similar types of domestic institutions. More importantly, the in-group out-group argument posits that members of an in-group are typically viewed as less threatening than members of an out-group. In turn, the less one is perceived as a threat, the more likely one is to cooperate with that actor. In support of this argument, Werner and Lemke (1997, p. 532) find that "similar states, whether similar democracies or similar autocracies, will tend to align with each other against those with different domestic institutions."

Third, institutional similarity reduces the likelihood of conflict by reducing the potential benefits of conquest. Bueno de Mesquita (1981) argues that the benefit of conflict is a function of the differences between states foreign policy preferences. As preference affinity decreases, the benefits of conflict increase relative to the costs. Werner (2000) also notes that one of the primary benefits a state can derive from conflict is the restructuring of another state's domestic institutions and foreign policy preferences.

Restructuring another state's domestic institutions produces benefits by reducing the threat another state poses. Domestic institutions affect "the distribution of resources in society" (Werner and Lemke, 1997, p. 532). Since political leaders maintain power in part through the allocation of resources, they are likely to prefer their scheme of distribution and view alternative institutional structures as a challenge to their ability to hold office. Therefore, "States with different institutions should be

particularly threatening because they can increase the costs of enforcing the state's particular set of institutions" (Werner and Lemke, 1997, p. 532).

Restructuring another state's domestic institutions may also reduce a potential threat by reducing the likelihood of intervention. If different institutional structures contribute to significant disagreements, then states are more likely to intervene and attempt to overthrow another's government when the other state has different institutions. Given this, "a leader might recognize that states with different institutional structures may actively promote the interest of the leader's internal challengers (Werner and Lemke, 1997, p. 532)."

As noted, these arguments about the effects of institutional similarity on international cooperation and conflict are consistent with the finding that democracies share a separate peace. However, the institutional similarity argument leads to other testable hypotheses.

The first additional hypothesis from the institutional similarity argument is that similar political regimes, regardless of whether or not they are democratic, may share a separate peace. Some research offers preliminary support for this political institutional similarity argument. In an analysis of militarized disputes over the period 1816–1985, Werner (2000, p. 344) finds that "politically similar states are less likely to be engaged in conflict with each other than are politically disparate states," even while controlling for the effects of joint democracy. In related research on alliance behavior, Werner and Lemke (1997, p. 532) argue and find that "similar states, whether similar democracies or similar autocracies, will tend to align with each other against those with different domestic institutions." Similarly, Peceny et al. (2002) argue that similar types of autocratic dyads may share a separate peace. "Since socialist states share a common ideology that stresses unity and brotherhood," they argue, "one may expect that pairs of single-party regimes will not go to war because they share similar worldviews" (Peceny et al., 2002, p. 19). Their empirical analysis supports this contention.

Second, states differ not only in their political institutions but also in their economic institutions. Given that many political disagreements, both in domestic and international politics, involve economic issues, dyads with similar economic institutions should also be less likely to experience conflict. Similarly, in the context of power transition theory, Lemke and Reed (1996, p. 146) argue that for two states to be satisfied they "would have to possess similar internal economic composition as well as similar regime types." The relationship between the United States and China again helps to illustrate the point. Over the last decade, many of the most significant disagreements between the United States and China have been over economic issues, especially concerning the protection of intellectual property rights. Given how the economic institutions in these countries differ in the protection they afford private property, it is not surprising to observe significant disagreements related to intellectual property disputes. In short, research that neglects the role of economic institutions and only analyzes the impact of political institutions on foreign policy preferences misses an important component of foreign policy preferences.

Cultural materialism arguments also underscore the importance of economic institutions. "Cultural materialism directs that two indigenous cultures that have never been in contact yet share common economic systems—such as hunters and gatherers

in the rain forests of Brazil and the Congo—will share common social values and worldviews" (Mousseau, 2000, p. 476). Where Mousseau (2000, 2002, 2003) emphasizes the importance of states sharing market norms for peace between nations, this study investigates whether other types of similar economic systems may also contribute to a separate peace.

Unlike previous research, then, this study focuses on the effects of similar economic institutions. As discussed in more depth later, one can distinguish between different types of economic institutions by examining their protection of market institutions, whereas a useful distinction between different types of political systems is to distinguish between democratic and nondemocratic regimes. While there is some relationship between these two dimensions, for instance—democratic states typically permit greater functioning of a free market—the relationship is far from perfect; market institutions vary across regime types. Indeed, one group of researchers has written that "they vary so much within these two types of regimes [democracies and autocracies] that any empirical tests that merely distinguish governments as autocratic or democratic are bound to be misspecified" (Clague et al., 1996, p. 244). In short, it is useful to classify dyads along two dimensions: an economic similarity dimension and a political similarity dimension. Such a classification permits useful distinctions not possible when only the nature of the political system is analyzed. For instance, dyads may share political similarity without economic similarity, economic similarity without political similarity, or both political and economic similarity.

Some examples of each type of dyad may help to clarify the distinctions.[4] Dyads with similar levels of political similarity but dissimilar levels of economic similarity include the United States and Spain, Algeria and Tunisia, Iran and Yemen, and Turkey and most other democracies. Dyads with similar levels of property rights protection but dissimilar levels of executive constraints include Mexico and Costa Rica, Honduras and Nicaragua, Greece and Turkey, and Libya and Sudan. Finally, some dyads with similar political and economic institutions include the United States and Canada, Colombia and Venezuela, Mozambique and Zimbabwe, and the Soviet Union and China. What is perhaps most important about this classification is that it shows that dyads may share similar political institutions but differ in their economic institutions and the reverse, dyads may have dissimilar political institutions yet have relatively similar economic institutions. While the effects of political similarity have received attention in previous research, the effects of economic institutional similarity have not received the same level of attention.

In summary, the institutional similarity arguments of this paper lead to three hypotheses.

Hypothesis 1: Dyads with similar political institutions are less likely to experience militarized conflict than dyads with less similar political institutions.

Hypothesis 2: Dyads with similar economic institutions are less likely to experience militarized conflict than dyads with less similar economic institutions.

Hypothesis 3: Dyads with similar political and economic institutions are less likely to experience militarized conflict than other types of dyads.

RESEARCH DESIGN

Measuring Institutional Similarity

The thesis of this study is that a state's foreign policy preferences are driven, to a large extent, by the nature of its political and economic institutions. For instance, authoritarian political institutions and extensive state control over the economy and property rights characterize communist political systems. On the other hand, democratic political systems and extensive protection of private property and civil rights characterize liberal political systems. The Cold War ideological conflict is a reflection of this difference in political and economic institutions. To assess the degree of institutional similarity between states, it is first necessary to posit criteria by which one can distinguish between different types of political and economic institutions.

Political Institutions

"Political rules [institutions] broadly define the hierarchical structure of the polity, its basic decision structure, and the explicit characteristics of agenda control (North, 1990, p. 47)." Political institutions focus on two basic questions. First, what is the power relationship between the government and the people? What means, short of violence, do the citizens of a state have for removing a political leader? Second, what is the relationship between the different branches of government? Does one branch or person dominate the political process? Are there checks and balances?

I use the Polity IV dataset to measure the nature of the political institutions in a state (Marshall and Jaggers, 2000). The Polity project produces an index of democracy for each state in the international system. This index is largely a function of four different authority dimensions: competitiveness of executive recruitment, openness of executive recruitment, executive constraints, and competitiveness of political participation (Gleditsch and Ward, 1997). To measure *dyadic political similarity*, I first add eleven to each state's polity score, then I take the absolute value of state A's score minus state B's score and divide by the largest possible value, twenty-one. Next, I multiply this value by negative one and add one to it so that the final measure ranges from zero to one with higher values representing greater similarity.

Economic Institutions

Where different political institutions permit different types of participation in the political process and afford different levels of protection of civil rights, different economic institutions distinguish between different levels of protection of private property rights. "Economic rules [institutions] define property rights, that is the bundle of rights over the use and the income to be derived from property and the ability to alienate an asset or a resource (North, 1990, p. 47). To the extent economic institutions embrace the market, they enhance property rights, and in turn, economic activity in two ways. First, market institutions reduce transaction costs, the costs involved in negotiating, implementing, and enforcing a transaction, and which may limit economic activity by making for imperfect property rights. "The costs of transacting arise because information is costly and asymmetrically held by the parties to ex-

change (North, 1990, p. 108)." Market institutions counter transaction costs by providing information to actors, which, in turn, facilitates market activity. Second, market institutions enhance property rights by reducing enforcement problems. All transactions depend on contracts and the enforcement of contracts. When enforcement is uncertain, haphazard, or costly property rights are less secure. Commenting on the importance of contract enforcement, North writes that "the inability of societies to develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World (1990, p. 54)." In short, by disseminating information and enhancing the enforcement of contracts market institutions are protecting property rights necessary for widespread market activity.

The relationship between market activity, transaction costs, and contract enforcement suggests that a useful dimension along which to measure variance in economic institutions is a state's protection of property rights. I use data from the International Country Risk Guide (ICRG) to measure the extent that the economic institutions in a state protect private property rights. The ICRG is produced by Political Risk Services, an international risk services firm, and is designed to provide potential foreign investors information on the protection of private property rights.[5] ICRG data covers about 100 countries over the period 1982 to present (see Appendix A for a list of states in the ICRG dataset).

Following Sobel (1999) and the Keefer and Knack research group (Clague et al., 1996; Knack and Keefer, 1995), I use five ICRG variables to create a measure of private property protection in a state. The variables comprising this "regulatory index" are the risk of expropriation, rule of law, repudiation of contracts, corruption in government, and bureaucratic quality. As this dataset is unfamiliar to most political scientists, I briefly describe each variable in the index.

Expropriation risk measures the probability of "outright confiscation" or "forced nationalization." As the probability that the government will confiscate an investment increases, economic actors are less likely to invest. This measure of private property protection varies from 0 to 10, with lower scores indicating higher risk.

The rule of law variable "reflects the degree to which the citizens of a country are willing to accept the established institutions to make and implement laws and adjudicate disputes" (Knack and Keefer, 1995, p. 225). Higher scores indicate greater confidence in one's government for impartial adjudication of disputes. This variable ranges from 0 to 6.

Assessing the probability that contracts are repudiated by the government taps into the amount of confidence private actors can have in the government. "In the absence of impartial state enforcement, the only impersonal exchanges taking place between private economic actors will be those that are self-enforcing" (Knack and Keefer, 1995, p. 211). This variable ranges from 0 to 10, with lower scores indicating higher risk of contract repudiation.

The corruption in government variable measures the extent to which "high government officials are likely to demand special payments" and "illegal payments are generally expected throughout lower levels of government" (Knack and Keefer, 1995, p. 225). This variable ranges from 0 to 6, with lower scores indicating more corruption in government.

The bureaucratic quality variable measures the bureaucracy's "autonomy from political pressure" (Knack and Keefer, 1995, p. 225). States with low scores on this variable have bureaucracies more concerned with political pressures than efficiency in making decisions. This variable ranges from 0 to 6.

Given that there is not a strong theory to guide the construction of an economic institutional measure, I follow the lead of Knack and Keefer (1995) and Sobel (1999) and create an index of these five variables. This *regulatory index* is the sum of the five variables, where the bureaucratic quality, corruption in government, and rule of law variables are first transformed into 10-point scales to ensure equal weight for each component of the index.[6] With the regulatory indices, I create a measure of the similarity of economic institutions between two states in a dyad. This variable, *dyadic economic similarity*, is the absolute value of the difference between the regulatory score of state "a" and the regulatory score of state "b." I then divide by 50 to make the variable range between 0 and 1, with higher values indicating more similar economic institutions in the dyad.

To examine the possibility of interactive effects between political and economic similarity, it is necessary to create a joint institutional similarity variable. The variable *political and economic similarity* is the product of *political similarity* and *economic similarity*.

EMPIRICAL MODEL AND ANALYSIS OF INSTITUTIONAL SIMILARITY AND CONFLICT

The above arguments lead to the following conceptual model of interstate conflict.

> Conflict = *f* (political similarity, economic similarity, opportunity variables, control variables)

The dependent variable, conflict, is operationalized as whether or not a dyad experienced the onset of a new militarized interstate dispute (MID) in a particular year. Accordingly, the unit of analysis is the dyad year. "The term 'militarized interstate dispute' refers to united historical cases in which the threat, display or use of military force short of war by one member state is explicitly directed towards the government, official representatives, official forces, property, or territory of another state" (Jones et al., 1996, p. 168). To ensure that low levels of force (threat and display of force) do not drive the results, I also ran the analyses with the dependent variable measured only as uses of force (MID hostility levels four and five). I use version three of the militarized interstate dispute data, which goes through the year 2000 (Ghosn and Palmer, 2003).[7]

Data on economic institutions is the limiting factor for the empirical analysis, with data for the ICRG index only available as far back as 1982 and extending through 1997. Similarly, data for some of the control variables is only available through 1997. Thus, after lagging the independent variables, the temporal domain of the multivariate analyses covers the period 1982 to 1996. In cross-sectional terms, the analysis covers over 100 states, including developed and underdeveloped states in all regions

of the world. See Appendix A for a list of countries included in the analysis.

In addition to the institutional similarity variables that tap into a state's willingness to fight another state, conflict is affected by opportunity factors. The opportunity set of variables includes power preponderance, contiguity, distance, and major power dyads. Perhaps the most common measure of a state's power is the Correlates of War composite capabilities (COWCAP) index. However, this measure is only available through 1992. Instead I use gross domestic product, which is highly correlated with the COWCAP index and is available through 2000. The variable *power preponderance* is the ratio of the larger state's gross domestic product over the smaller state's gross domestic product.[8] Higher values on this measure represent less power parity. As the imbalance of power in a dyad increases, the probability of victory in a dispute for the weaker nation decreases. Unless the stakes are very high, the weak state is likely to conclude that military conflict is not an option as it has little probability of winning. Thus conflict should be least likely to occur under conditions of power preponderance.

Two of the most important opportunity variables are geographic contiguity and the distance between states.[9] When states are not contiguous or far apart, they are generally less of a threat and it is more difficult to conduct military operations against the other. *Contiguity* is a dichotomous variable, taking a value of 1 when two states share a land border or are separated by less than 150 miles of water. I measure *distance* as the natural logarithm of the great circle distance between each state's capital.

Since the analysis includes all dyads, as opposed to only including politically relevant dyads, I include a variable for *major power dyads*. Owing to greater logistic capabilities and international commitments, major powers are more likely than other states to become involved in militarized disputes. This variable takes on a value of 1 when at least one state in a dyad is a major power, 0 otherwise. The COW project classifies the following states as major powers for this period: the United States, the Soviet Union/Russia, France, Britain, China, Germany after 1990, and Japan after 1990.

In addition to the institutional similarity and opportunity variables, I include a set of control variables: joint democracy, economic development, a democracy-development interaction term and trade interdependence. Each of these control variables represents an alternative explanation for why institutional similarity may be related to the likelihood of conflict between nations.

To ensure that any statistically significant results on the political similarity measure is not simply due to the overwhelming effect of the democratic peace, it is necessary to include a control variable for joint democracy. To measure joint democracy, I follow the weak link procedure and include the lower of the two states' net democracy score. Data comes from the Polity IV project (Marshall and Jaggers, 2000).

I also control for the effects of economic development. It is reasonable to suggest that economically developed states feel a general satisfaction with the status quo, making them less likely to engage in militarized conflict. Further, states with democratic political institutions and free-market economic institutions may be more developed than other states. Omitting economic development, then, may lead to spurious findings. I use Gross Domestic Product per capita (chain index) from the Penn

World Tables to measure *economic development* (Heston, Summers and Aten, 2002). To measure the level of economic development in the dyad, I use the weak link approach.[10] Further, Mousseau (2000, 2002) argues that the democratic peace is a function of economic development. Accordingly, I include a *democracy-development* interaction term.

Finally, dyadic trade interdependence may account for the possible influence of institutional similarity. Dyads with similar institutions are likely to have higher levels of trade than dyads with dissimilar institutions. In turn, if institutionally similar dyads are less likely to have conflict than other dyads, it may only be dyads of this type with high levels of interdependence. Trade interdependence is measured as each state's dyadic trade divided by its gross domestic product, with data coming from Gleditsch (2002). Again, I adopt the weak link approach and only include the lower of the two states trade interdependence.

To estimate the above model, I employ a general estimating equation (GEE), specifying a logistic link function and a first order autoregressive correlation structure. I use a logistic link function to account for the unique properties of a dichotomous dependent variable. Beck, Katz, and Tucker (1998) argue that it is important to control for temporal dependence in time series, cross-section data. They do so by including temporal dummy variables or a spline function of these variables. Oneal and Russett (1999) and Zorn (2001) note that a better, and more theoretical, way to address issues of temporal dependence is to model them directly. They advocate the use of GEE models. Given the nature of the data generating process, it is likely that values of the independent variables in the preceding period strongly influence values in the current period, so I specify an AR (1) correlation structure.[11] I also lag all of the independent variables by one year to ensure that the independent variables are producing changes in the dependent variable and not the reverse. GEE models are advantageous for another reason. They produce population-averaged results, which is more useful for making comparisons across groups. Since the focus here is on particular types, or groups of states, the GEE estimator is appropriate.

EMPIRICAL RESULTS

First, I analyzed the relationship between types of dyads that vary in political and economic institutional similarity and the frequency of conflict onset. As indicated in Tables 1a and 1b, most militarized conflicts over the period 1982 to 1996 occur between dyads lacking both political and economic institutional similarity. Tables 1a and 1b also indicate that dyads with economic as well as political similarity experience less conflict than dyads that only have political similarity. This offers preliminary support to the argument that there is both a political and an economic component to foreign policy preferences and that economic institutional similarity, even when political institutions are different, reduces the likelihood of conflict between states. Further, over this period, there were 56 militarized disputes between two democracies. However, dyads with similar political *and* economic institutions only experienced 23 militarized disputes. This suggests that a broader measure of institutional similarity can account for more of the variance in international conflict. While Tables 1a and 1b provide a useful description of the data, it is necessary to control for

Table 1a
Institutional Similarity and All Militarized Disputes (Threats, Displays, and Uses of Military Force), 1982–1996

Dyad Type	No MIDs	MIDs
Neither Political Nor Economic Similarity	66123	341
Political Similarity, Economic Dissimilarity	16136	59
Economic Similarity, Political Dissimilarity	12580	37
Political and Economic Similarity	5706	23

Pearson Chi-Square (3) = 15.52, p-value < .01

Table 1b
Institutional Similarity and Use of Force Militarized Disputes, 1982–1996

Dyad Type	No MIDs	MIDs
Neither Political Nor Economic Similarity	66195	269
Political Similarity, Economic Dissimilarity	16153	42
Economic Similarity, Political Dissimilarity	12586	31
Political and Economic Similarity	5711	18

Pearson Chi-Square (3) = 13.30 p-value < .01

a number of other factors that may invalidate the hypothesized relationships.

For the multivariate analysis, I estimated four models. First, I estimated two baseline models, one in which the dependent variable is the onset of a militarized interstate dispute (see Tables 2 and 3, column 2) and the other in which the dependent variable is the onset of militarized dispute involving the use of force. The results of these baseline models are consistent with previous research. As expected, greater opportunity in terms of contiguity, distance, or presence of a major power enhances the likelihood of conflict. I also find that the influence of democracy is conditional on economic development, with economically developed democracies being less likely to experience a militarized dispute. Trade interdependence and power preponderance are not statistically significant. These baseline results help to ensure that the present analysis is not an artifact of using somewhat limited empirical domain or new data sources such as the MID-3 data. Next, I estimated two models, one for each dependent variable, adding the institutional similarity variables to the baseline models. These results are presented in column 3 of Tables 2 and 3, and they support the hypotheses regarding the pacifying effects of both types of institutional similarity.

Political institutional similarity reduces the likelihood of a militarized dispute occurring. Dyads with similar political institutions, even dyads where the institutions are not democratic, are less likely to experience conflict. Werner (2000) and Peceny et al. (2002) also find that the pacifying effects of similar political institutions may not be limited to democratic institutions. Perhaps more importantly, this study finds that economically similar institutions reduce the likelihood of experiencing a militarized dispute. The interactive term—political and economic institutional

Table 2
Dyadic Institutional Similarity and Militarized Interstate Conflict (All MIDs) 1982–1996

Variable	Model A β s.e.	Model B β s.e.
Economic Institutional Similarity		- 4.63 ** 1.67
Political Institutional Similarity		- 5.17 ** 2.02
Economic*Political Institutional Similarity		6.56 ** 2.53
Joint Democracy	.047 * .026	.05 .04
Economic Development	.030 .033	.02 .03
Democracy*Development	-.015 ** .004	-.02 ** .004
Trade Interdependence	-8.08 11.54	-8.81 12.14
Power Preponderance	-.118 .010	-.118 .114
Contiguity	3.410 ** .386	3.27 ** .39
Ln Distance	-.482 ** .131	-.52 ** .14
Major Power Dyad	1.931 ** .368	1.91 ** .39
Constant	-3.343 ** 1.103	.70 1.54
N	91733	61338
Model chi-square	628.34 **	491.96 **

** = p >.01, * = p < .05, one-tail significance test, robust standard errors.

similarity—is also statistically significant, meaning the effect of political similarity is conditional on the level of economic similarity and vice versa (Friedrich, 1982).

One useful way to illustrate the substantive influence of the institutional similarity variables is to employ fitted values and compare ideal-type cases, and given the interactive relationships between the variables this is especially useful. Table 4 shows how the probability of a militarized dispute changes from a baseline value where everything is held at its mean value to four different sets of conditions. First, dyads in which both political and economic similarity are one standard deviation below the

Table 3
Dyadic Institutional Similarity and Militarized Interstate Conflict (Only High Level MIDs), 1982–1996

Variable	Model A β s.e.	Model B β s.e.
Economic Institutional Similarity		-5.68 ** 1.53
Political Institutional Similarity		-5.77 ** 2.00
Economic*Political Institutional Similarity		7.40 ** 2.45
Joint Democracy	.043 * .026	.057 .037
Economic Development	.024 .038	.02 .04
Democracy*Development	-.013 ** .004	-.01 ** .004
Trade Interdependence	-4.72 12.31	-5.00 13.08
Power Preponderance	-.026 .098	-.0212 .106
Contiguity	3.59 ** .460	3.58 ** .470
Ln Distance	-.35 ** .16	-.36 ** .17
Major Power Dyad	1.43 ** .37	1.36 ** .39
Constant	-4.71 ** 1.34	-.221 1.65
N	91733	61338
Model chi-square	495.56 **	402.95 **

** = p >.01, * = p < .05, one-tail significance test, robust standard errors.

mean leads to an increase of about 42% in the likelihood of a militarized dispute. On the other hand, dyads with both political and economic similarity one standard deviation greater than the mean decreases the likelihood of a dispute by about 57%. To better understand the individual influences of economic and political similarity, I identified cases in which economic similarity was greater than one standard deviation above the mean and political similarity less than one standard deviation below its mean, and vice versa. A dyad with high economic similarity, but low political similarity, is 36% less likely to experience a militarized dispute than an average

Table 4
Substantive Impact of Institutional Similarity on Militarized Dispute Onset: Changes in Predicted Probability

	Onset of any MID
High Economic and Political Similarity (economic and political similarity set 1 s.d. above the mean)	-57.45 %
Low Economic and Political Similarity (economic and political similarity set 1 s.d. below the mean)	42.92 %
High Economic Similarity and Low Political Similarity (economic similarity 1 s.d. above the mean and political similarity 1 s.d. below the mean)	-36.55 %
Low Economic Similarity and High Political Similarity (economic similarity 1 s.d. below the mean and political similarity 1 s.d. above the mean)	-37.71%

Note: Changes in predicted probabilities are based on a baseline model (Model B in Tables 3 and 4) where interval variables are set at their mean value and categorical variables are set at the modal category.

dyad. Similarly, a dyad with low economic similarity, but high political similarity, is 37% less likely to have a dispute. In other words, high similarity on one set of institutions more than makes up for low similarity on the other set of institutions.

Importantly, the institutional similarity variables are statistically significant even while controlling for several alternative explanations. The primary alternative explanations focus on the influence of democracy and economic development. Jointly democratic regimes are politically similar—thus they comprise a subset of all politically similar regimes—and it is well established that two democracies are less likely to experience conflict, so the significance of political similarity may be an artifact of the measure including jointly democratic regimes. Similarly, one may conjecture that the effect of the economic institutional similarity variable is driven by economic development. For instance, the United States and Singapore have relatively low political similarity, yet have high economic similarity and both are economically developed. The empirical results show that neither democracy, development, nor the interaction of democracy and development washes out the effect of political and economic institutional similarity.

CONCLUSION

This research draws out the logic of and tests two additional implications of the preferences argument for the democratic peace. The preferences argument posits that similar institutions leads to similar foreign policy preferences, and therefore less conflict. Insofar as this argument is accurate, then dyads with similar nondemocratic institutions may experience less conflict than other mixed dyads. Further, economic

institutions also affect a state's policy preferences; therefore, dyads with similar economic institutions should also experience less conflict. The empirical analysis supports these hypotheses, yielding two important insights. First, the effect of political institutional similarity is not contingent on sharing similar economic institutions. Second, and more importantly, economic institutional similarity exercises an independent, negative effect on the likelihood of interstate conflict.

Although this study finds that nondemocratic states with similar political and economic institutions are less likely to experience militarized conflict, this research does not call into question the democratic peace. Consistent with Mousseau (2000), this study finds that developed democracies are less likely to experience militarized disputes. Thus, the interactive effect of democracy and development is still an important influence on the likelihood of conflict. Instead of supplanting the developed-democracy finding, this study finds additional support for one of the explanations for it. This study suggests that the causal mechanism in the democratic peace is not simply free elections but rather the rule of law and a shared understanding of protecting private property rights.

The present research suggests a number of future research enterprises. First, while robust to a number of alternative explanations, the results of this research should be viewed as preliminary. The empirical domain of the multivariate analysis is limited to about 15 years. While an analysis of the distribution of MIDs over time suggests the results are generalizable, further tests should be done. It may also be the case that nondemocratic and non-free market states are less likely to fight each other in part because of the anarchical nature of the international system which encourages them to band together against revisionist democracies. Second, future research should examine dispute escalation. Once a significant dispute starts, do all types of political and economic institutions have the same impact on the likelihood of a dispute escalating? Third, an additional implication of the present research is that certain types of disputes should be less likely than other types of disputes. For instance, one should expect that dyads with similar domestic institutions are less likely to experience disputes over regime type.

NOTES

1. See Maoz and Russett (1993) for a discussion of the normative explanation. Mousseau (2000, 2002, 2003) also advances a normative explanation. Maoz and Russett and Mousseau differ on the source of the normative values that lead to the peace. For the former, the political process inculcates peaceful norms. For the latter, economic development, and the accompanying practices of market transactions, account for the peaceful norms. For a broader survey of the democratic peace research program, see Russett and Starr (2000).
2. Most game theoretic analyses emphasize the institutional explanation of the democratic peace. See, for example, Bueno de Mesquita et al. (1999) and Schultz (1999). Maoz and Russett (1993) also discuss the institutional explanation.
3. In addition to Lemke and Reed (1996), Gartzke (1998, 2000) advances this argument.
4. All of the examples in this paragraph refer to the period 1982–1989.
5. The ICRG data may be obtained from Political Risk Services at http://www.prsgroup.com/.
6. Knack and Keefer (1995, p. 212, fn. 9) note that using different weights for the variables results in an index correlated at .99 with the additive index.
7. I thank Paul Hensel for the programming code to transform the monadic dispute data into dyadic

dispute data.

8. The correlation between power preponderance measured with the COWCAP index and GDP is .87. I also ran the models using the COWCAP measure, which limits the analysis to 1992, and the results are the same.
9. I use Bennett and Stam's (2000) EUGene program (version 2.4) to generate the contiguity, distance, and major power status data.
10. Using a logged measure of economic development does not affect the results.
11. While estimating an empirical model similar to one here, Oneal and Russett (1999) also specify an AR (1) correlation structure. This model produces similar results to one that uses the Beck et al. (1998) spline technique. Zorn (2001) also specifies an AR (1) correlation structure for a similar empirical model.

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CONTRIBUTOR

Mark Souva is Assistant Professor at the Department of Political Science, Florida State University, Tallahassee. He has recently published articles on economic sanctions and his other area of research is the liberal peace.

Appendix A: States in the ICRG dataset and year for which data is first available

Albania	1984	Guyana	1982	Panama	1982
Algeria	1982	Haiti	1982	Papua New Guinea	1984
Angola	1984	Honduras	1982	Paraguay	1982
Argentina	1982	Hong Kong	1982	Peru	1982
Australia	1982	Hungary	1984	Philippines	1982
Austria	1982	Iceland	1982	Poland	1984
Bahamas	1984	India	1982	Portugal	1982
Bahrain	1984	Indonesia	1982	Romania	1984
Bangladesh	1982	Iran	1982	Saudi Arabia	1982
Belgium	1982	Iraq	1982	Senegal	1982
Bolivia	1982	Ireland	1982	Sierra Leone	1984
Botswana	1984	Israel	1982	Singapore	1982
Brazil	1982	Italy	1982	Somalia	1984
Brunei	1984	Jamaica	1982	South Africa	1982
Bulgaria	1984	Japan	1982	Spain	1982
Burkina Faso	1985	Jordan	1982	Sri Lanka	1982
Cameroon	1982	Kenya	1982	Sudan	1982
Canada	1982	Korea, Republic	1982	Suriname	1985
Chile	1982	Kuwait	1982	Sweden	1982
Colombia	1982	Lebanon	1982	Switzerland	1982
Congo	1985	Liberia	1982	Syria	1982
Costa Rica	1982	Libya	1982	Taiwan	1982
Cote d'Ivoire	1982	Luxembourg	1984	Tanzania	1982
Cuba	1984	Madagascar	1984	Thailand	1982
Cyprus	1984	Malawi	1982	Togo	1982
Czechoslovakia	1984	Malaysia	1982	Trinidad & Tobago	1982
Denmark	1982	Mali	1984	Tunisia	1982
Dominican		Malta	1986	Turkey	1982
Republic	1982	Mexico	1982	UAE	1982
East Germany	1984	Mongolia	1986	Uganda	1982
Ecuador	1982	Morocco	1982	United Kingdom	1982
Egypt	1982	Mozambique	1984	United States	1982
El Salvador	1982	Myanmar	1982	Uruguay	1982
Ethiopia	1984	Namibia	1990	USSR	1984
Finland	1982	Netherlands	1982	Venezuela	1982
France	1982	New Zealand	1982	Vietnam	1984
Gabon	1982	Nicaragua	1982	West Germany	1982
Gambia	1985	Niger	1985	Yemen, Arab Rep.	1984
Germany, FR	1982	Nigeria	1982	Yemen, PDR	1985
Ghana	1982	North Korea	1985	Yugoslavia	1982
Greece	1982	Norway	1982	Zaire	1982
Guatemala	1982	Oman	1984	Zambia	1982
Guinea	1984	Pakistan	1982	Zimbabwe	1982
Guinea-Bissau	1985				