No Professional Soldiers, No Militarized Interstate Disputes?

A NEW QUESTION FOR NEO-KANTIANISM

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In Perpetual Peace, Immanuel Kant presents six preliminary articles for perpetual peace before the three well-known definitive articles about republic constitutions, commercial relations, and international organizations. In his third preliminary article, Kant argues that “Standing Armies (miles perpetuus) Shall in Time be Totally Abolished” because they are themselves “a cause of offensive war.” Empirical results based on state-of-the-art data analysis that refers to both peace-years correction and distributed-lags logistic regression show that the most obvious among the neglected preliminary articles by Kant—military manpower system—is indeed connected to involvement in militarized interstate disputes during the period from 1886 to 1992. For neo-Kantian peace theory and research, this means that a military manpower system with conscripted, not standing (i.e., professional or voluntary), soldiers is associated with disputes.

Keywords: neo-Kantianism; Immanuel Kant; militarized interstate disputes; military manpower system; professional and conscripted soldiers

In Perpetual Peace, Immanuel Kant ([1795] 1957) presents six preliminary articles for perpetual peace among states. These articles, which are not currently part of the extended and primarily data-based program of research that might loosely be called “neo-Kantianism” or “democratic peace,” appear before the three well-known definitive articles about republic constitutions, commercial relations, and international

1. The six preliminary articles are as follows: (1) “No Treaty of Peace Shall be Held Valid in Which There is Tacitly Reserved Matter for a Future War”; (2) “No Independent States, Large or Small, Shall Come under the Dominion of Another State by Inheritance, Exchange, Purchase, or Donation”; (3) “Standing Armies (miles perpetuus) Shall in Time be Totally Abolished”; (4) “National Debts Shall Not be Contracted with a View to the External Friction of States”; (5) “No States Shall by Force Interfere with the Constitution

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organizations. The neo-Kantian triad is based on these latter three factors—but perhaps they tell only a fraction of the story about war and peace. 2

Although the neo-Kantian peace literature fully explores the implications of the three definitive Kantian articles on international conflict in the form of democraticness, economic interdependence, and joint membership in international organizations, the past decade of intensive research has paid little attention to the potential impact of the preliminary articles. The absence of one in particular would seem to deserve special attention: the third preliminary article asserts that “Standing Armies (miles perpetuus) Shall in Time be Totally Abolished” because they are themselves “a cause of offensive war” (Kant [1795] 1957, 5). 3 Kant avows a part of sustained democratic hostility to, or fear of, standing (i.e., professional or voluntary) armies, which are considered both antidemocratic bulwarks internally and war inclined externally.

At a theoretical level, it has been possible to point to an absence of hypotheses about military manpower systems from the neo-Kantian research program until very recently (Choi 2002). In empirical terms, the gap is even more obvious: a lack of data. No cross-sectional, time-series data are available for military manpower systems. Based on a newly collected manpower system data compilation, this study attempts to test systematically the third preliminary claim of Kant. 4 This work is preceded, of course, by a theoretically oriented discussion that establishes the importance of incorporating the military manpower systems of states into any rigorous treatment of neo-Kantian or democratic peace.

Empirical results based on state-of-the-art data analysis, which refers to both peace-years correction and distributed-lags logistic regression, show that the most obvious among the neglected preliminary articles from Kant—military manpower system—is indeed connected significantly to involvement in militarized interstate disputes (MIDs) from 1886 to 1992. 5 The news for neo-Kantian peace theory and research, however, is surprising: states in a dyad with conscripted, not standing (i.e., professional or voluntary) soldiers, are more likely to become involved in disputes. It

2. The recent and prominent volume from Russett and Oneal (2001), Triangulating Peace: Democracy, Interdependence, and International Organizations, sums up the neo-Kantian research findings in the most complete way.

3. It is important to avoid confusion here. In contemporary terms, the word standing would seem to imply conscription, that is, an army that is assumed to exist at all times due to a military draft. Kant, however, theorized that a professional, voluntary, or mercenary army, not one made up of the “common men,” would constitute a greater threat to peace. Furthermore, Kant ([1795] 1957, 5) argued that “to pay men to kill or to be killed seems to entail using them as mere machines and tools in the hand of another (the state).”

4. It is interesting that in an excellent review of civil-military relations, Feaver (1999, 235), without any empirical tests, poses Kant’s idea as a question: “Is a country more prone to use force if it has an all-volunteer army that can be deployed almost as mercenary force, or does the existence of mass-based conscription constrain leaders to follow swings in public opinion rather than the more prudent dictates of raison d’état?”

5. A militarized interstate dispute (MID) is “a set of interactions between or among states involving threats to use military force, displays of military force, or actual uses of military force” (Gochman and Maoz 1984, 587; see also Jones, Bremer, and Singer 1996; Sarkees 2000).
should be recognized, of course, that the potentially negative impact of mass armies of conscripts would have been beyond Kant’s imagination.

This study continues with four additional sections. The second section reviews extant literature on military manpower systems and presents two theoretical linkages between manpower structure and conflict. Hypotheses, measurement, data, and model building appear in the third section. The fourth section reports the empirical results—in effect, an answer to the question of whether, in practice, the neglect of military manpower matters in accounting for MIDs. The fifth and final section summarizes the implications of the empirical findings and suggests directions for future research.

PROFESSIONAL SOLDIERS, CONSCRIPTED SOLDIERS, AND INTERNATIONAL CONFLICT

This section reviews existing literature on military manpower systems and presents two theoretical linkages between manpower structure and conflict: (1) political fairness and (2) military effectiveness.

WHAT DO WE KNOW ABOUT MILITARY MANPOWER SYSTEMS?

Current scholarship on military manpower systems focuses mainly on the impact of domestic factors, such as military preparedness and social opportunity cost, on the choice of professional versus conscripted soldiers. P. R. Anderson (1945), an initial work in this field, deals with military history, military and cultural considerations, and manpower alternatives for Great Britain, the Soviet Union, and France. Various manpower studies began to appear in the middle of the Vietnam War, during which an anti-war mood culminated in open and sometimes violent confrontations over the military draft. In response to such political and social controversies, several prominent economists—interestingly enough, not political scientists6—built a theoretical framework from the perspective of labor economics in the late 1960s and early 1970s (see Altman and Fechter 1967; Hansen and Weisbrod 1967; Oi 1967; Miller 1968; Fisher 1969; Friedman 1972).

Although economic theorizing focused on identifying which manpower system produced more desirable defense outcomes, most discussions appeared to take a normative direction, partly because of political pressure, and favored professional soldiers over conscripted ones. For example, Hansen and Weisbrod (1967), Miller (1968), and Friedman (1972) constructed a formal model in which volunteers are superior to conscripts because of greater economic efficiency (i.e., lower social costs).

6. O’Neal’s (1992) analysis of budgetary savings from conscription among North Atlantic Treaty Organization (NATO) members is an exception. After the United States moved to a volunteer force, European leaders asserted that their defense budgets understated contributions to NATO; however, O’Neal’s data analysis of the number, qualifications, and pay of conscripts revealed that only a marginal 10% change in the European gap with U.S. expenditure would be closed by taking such factors into account.
McKenzie (1992) and Warner and Asch (1995) developed an economic model in which the draft is more efficient than the voluntary system. Numerous empirical studies have tested various economic theories. Altman and Fechter (1967), Oi (1967), and Fisher (1969) found that to maintain a military force of 2.65 million soldiers in the early 1970s, the United States would have to accept significantly higher budgetary payroll costs, estimated from $4 billion to $8.3 billion per annum. A study of Belgium concludes that the mixed manpower system shows allocated inefficiency (i.e., too many able young men are drafted) and that the draft is a second-best policy because of inequality (i.e., the draftees pay implicit taxes much higher than the observed average income tax rates) (Kerstens and Meyermans 1993). An economic analysis of manpower procurement in the Dutch military contends that because the economic cost of conscription outweighs the benefits, eligible men generally are not willing to serve (Duindam 1999). These studies, taken together, would seem to favor a voluntary system, at least in terms of economic criteria.

MILITARY MANPOWER SYSTEMS IN A NEO-KANTIAN WORLD

Studies of “linkage politics” between different kinds of military manpower systems and the propensity to use military force at the international level have been thin. A few military manpower studies argue that a state’s manpower system may affect the likelihood of its involvement in international conflict. Kant ([1795] 1957, 5) had declared that standing armies, referring to professional, voluntary, or mercenary soldiers, should be abolished because they are “a cause of offensive war.” Kant inferred that conscripted soldiers should be more peaceful actors than voluntary ones because “the periodic and [regular] military exercises of citizens who thereby secure themselves and their country against foreign aggression are entirely different” (p. 5). The Gates report (President’s Commission on an All-Volunteer Armed Force 1970) also pointed out some objections to an all-voluntary force that, it is claimed, would stimulate foreign military adventures, foster an irresponsible foreign policy, and lessen civilian concern about the use of military forces (see also Califano 1982, 538, one-time special assistant to Secretary of Defense McNamara, on a similar point). At the very least, President Bill Clinton’s military strikes on sites associated with Osama bin Laden in Afghanistan and Sudan, as well as later in Iran in 1998, seem to fit into this line of reasoning (see Hendrickson 2002). In short, according to at least some analysts of the United States in particular, a military manpower system with volunteers might seem to pose the greater menace to international peace.

However, the idea of a conscripted military force as a potential cause of international conflict is equally present in the literature. For example, Russett and Oneal (2001, 19), perhaps the most prominent advocates of neo-Kantianism, cite the example of how Napoleon Bonaparte’s “nationalist army” emerged as a threat to achieve international peace.

7. Besides the economically oriented studies just noted, several studies present political, historical, sociological, and cultural aspects. Prominent examples include the following: M. Anderson (1982); the Marshall report (Report of the National Advisory Commission on Selective Service 1967) and the Gates report (President’s Commission on an All-Volunteer Armed Force 1970); Bowman, Little, and Sicilia (1986); and Gilroy, Phillips, and Blair (1990).
European hegemony. Thus, conscripted soldiers would seem to run against the logic of the democratic peace in that they appear to lead to international conflict. Although a volunteer army preserves the freedom of individuals to serve or not serve, conscription, as Senator Robert Taft declared six decades ago, “is absolutely opposed to the principles of individual liberty which have always been considered a part of American democracy” (qtd. in Nixon 1982, 604). In sum, current cross-national scholarship on manpower structure seems divided. Here, we present two theoretical linkages between military manpower and conflict: (1) political fairness and (2) military effectiveness.

**MILITARY MANPOWER STRUCTURE AND INTERNATIONAL CONFLICT**

The obligation to serve is consistent with democracy to the extent that it goes against notions of privilege or immune groups (Beukema 1982). During and after World War II, Presidents Franklin D. Roosevelt and Harry S. Truman sought peace-time conscription as a means of backing up extended international commitments (Caplow and Hicks 2002, 137-38; Chambers 1987, 261-76; Marlowe 1983; Walzer 1982). Yet, when compared with a voluntary system, peacetime conscription easily can be transformed into an aggressive measure by national leaders who advocate foreign adventures. Interventionist leaders do not need to mobilize public support or make a public call for conscription. Well-prepared soldiers under peacetime conscription are available for immediate deployment, whereas voluntary soldiers may be either too expensive or too small in number for military assaults. In this case, peacetime conscription appears capable of degenerating into pure militarism (Ross 1994; Beukema 1982, 486).

Internationally, the importance and necessity of manpower varied across states conspicuously over two 20th-century time intervals: (1) throughout the post–World War II period and (2) during the first post–cold war decade. For example, because of continuing external threats under the cold war, bipolar security regime, the United States maintained manpower based largely on conscription until 1973. The end of the cold war’s bipolar security regime, however, would seem to have eroded the justification for maintaining substantial military manpower in anticipation of large-scale conventional warfare. Along the same lines, Anderson, Halcoussis, and Tollison (1996, 189) contend that after the fall of the USSR and the consequent reduction in the risk of a general war, European states can be expected to continue moving toward voluntary forces.

Although some variations occurred as a product of the rapidly changing international environment, geopolitics, shifts of the public mood, and/or development of military technology (Segal 1989), military effectiveness with respect to military preparedness or aggression is the central issue. Conscription is a common response to external threats. A notable example is the Swiss achievement of a sense of social and spiritual unity through sharing common dangers and sacrifices against potential threats from neighboring states (Beukema 1982). Conscription for military preparedness, there-

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8. For more on political fairness, see Janowitz (1982) and Simmons (2001, 43-64), Segal (1989, 1-16), and Cohen (1985, 117-33) on citizen-soldiers in particular.
fore, does not necessarily mean that an initiation of war will follow. As the saying “If you want peace, prepare for war” implies, conscription can be a way of deterring or alleviating external threats rather than creating war.

Once military influence in civil-military relations increases, however, a greater propensity for war is likely to follow (Schofield 2000; Feaver 1999; Allison, Carnesale, and Nye 1985; Benjamin and Edinger 1971). Conventional wisdom about bureaucratic politics holds that “where you stand depends on where you sit” (Gray 1975, 86). Because military leaders are what Lasswell (1941) called “specialists on violence,” they have a lower average level of aversion to interstate war than do civilian leaders. Through an examination of civil-military relations in Germany, France, and Russia before World War I, Van Evera (1984) and Snyder (1984) uncover “the cult of the offensive,” in which military leaders are more inclined than civilian leaders to use force. Because conscripted soldiers are well suited for military missions and represent a less expensive means in the shortest possible time, military advice to civilian leaders will be inclined to make use of them for rapid deployment (Chambers 1987, 268).

Furthermore, mass mobilization under conscription often is used to change the status quo or facilitate the launch of a military attack. In this context, conscription can be considered a driving force behind at least some international conflict. National leaders are likely to become more interventionist because conscripted soldiers reduce the relative cost of pursuing that option (Beukema 1982, 489; Brigance 1945, 198-99). Mussolini’s Fascist Italy, Hitler’s Nazi Germany, and Tojo and the warlords of Japan took conscription to its extreme end of application. In sum, although conscripted soldiers represent political fairness for some states throughout history, others adopt it to enhance military effectiveness. But, regardless of their raison d’être, conscripts appear linked to international conflict because of interventionist leaders.

Voluntary enlistment, by contrast, is based on individual liberty and market forces rather than personal sacrifice, patriotism, or national security. Volunteers may not always be combat ready in a given era; consider some critical observations about even the U.S. military just two decades ago: “tank gunners who don’t know where to aim their battle sights . . . missile firers who can’t tell the difference between a Soviet and a U.S. fighter plane” (excerpted in Taylor, Olson, and Schrader 1981, 7). Volunteers usually come from the lower socioeconomic classes, and that is unlikely to change; the market recruiting system will not encourage recruitment or retention of military personnel with high levels of education in particular (Kennedy 1982; Arlinghaus 1981).

A volunteer system may result from political pressure surrounding an antiwar mood rather than military considerations (Chambers 1987, 262). Furthermore, in postmaterial societies, individual rights and liberties are put before national security. Fewer people are willing to serve or sacrifice themselves for the nation because they do not regard conscription as a legitimate security measure (Rhodes, Heywood, and Wright 1997; Abramson and Inglehart 1995; Mohan 1992; Horeman and Stolwijk 1997).

9. Counterexamples are the wars in Afghanistan (2001) and Iraq (2003) in which the United States did not use conscripted soldiers. Use of a professional military by the United States may result from political more than military inclinations as a by-product of experience with the Vietnam War (Chambers 1987). Moreover, the defense spending of the United States makes it a virtually unique actor in world politics with respect to military readiness.
Thus, political pressure can explain, at least in part, the change from conscription to a voluntary system. In sum, volunteer soldiers appear to provide national leaders with less interventionist opportunities and incentives because of their seemingly lower combat readiness and preparedness.

Cross-national empirical studies on manpower systems have been rare. From data on a sample of 143 countries for 1984, White (1989, 780) finds that “countries that use conscription may be more likely to become involved in wars because they maintain larger armed forces and the cost to the government of getting additional soldiers is reduced by conscription.” In other words, it appears that conscription reduces the relative costs entailed by pursuit of a military option—the most basic means already are available. Other studies concur. For example, based on data for 78 states for the year 1983, Ross (1994) finds that international disputes may be more likely to occur in the presence of conscripted forces because of their quicker and higher military readiness than all-voluntary forces (see also Duindam 1999, 119). On the basis of cross-sectional data for 1980, Anderson, Halcoussis, and Tollison (1996, 199-200) ascertain as well that “warlike” states are more likely to employ conscription. These findings do not support Kant’s intuition about conscripted military forces.

**Hypothesis 1:** Dyads composed of states with (without) a conscription system are more (less) likely to become involved in militarized interstate disputes.

This hypothesis stands in direct contradiction, it should be noted, to the key preliminary article from Kant ([1795] 1957).
MEASUREMENT AND DATA

Military manpower system is coded as 1 if both states in a dyad-year adopt a conscription system for active-duty military personnel; it is coded 0 otherwise. The operationalization reflects our theoretical reasoning based on political fairness and military effectiveness. Maintaining conscripted soldiers does not necessarily lead to international conflict (e.g., peacetime conscription as in Switzerland); when only one state in a dyad employs conscripted soldiers, the likelihood of international conflict may be less due to deterrent effects. When both states employ conscription, however, the opportunity for conflict increases due to mutual suspicion, fear, and higher levels of military preparedness and readiness.

No manpower data exist over an extended spatial and temporal domain, so we have consulted two sources that, to the best of our knowledge, are the most comprehensive and representative with respect to each state’s military manpower system: Horeman and Stolwijk (1998) and Prasad and Smythe (1968).

BUILDING PEACE-YEARS CORRECTION AND DISTRIBUTED-LAGS MODELS

We choose to test the conscription hypothesis by replicating a standard and highly prominent research design from the neo-Kantian or democratic peace literature. Using Oneal and Russett’s (1999) data and model as the foundation for this analysis should reduce bias that might inadvertently appear, not only because their research design provides the frame of reference for comparison but also because it has emerged as one of the most frequently replicated in the field of international relations (Gartzke 1997, 13, 51).

Oneal and Russett’s (1999) overall research design is familiar to students of international conflict, so we briefly summarize only the three neo-Kantian peace factors contained within it: democraticness, economic interdependence, and joint membership in international organizations. Democraticness assumes the “weak link” (Dixon 1993, 1994): the score for the less democratic state in a dyad is taken to be the stronger determinant of how interactions will proceed. Hence, the more democratic that state is, the more constrained it will be from engaging in MIDs and therefore the more peaceful the dyad. Economic interdependence also assumes the “weak link”: the score for the less interdependent state in a dyad is taken to be the stronger determinant of interstate disputes. Hence, the more interdependent that state is, the more constrained it will be from engaging in MIDs and therefore the more peaceful the dyad. The variable corresponding to joint membership in international organizations is measured by the number shared in the dyad. Hence, the more joint memberships in intergovernmental organizations, the more constrained two states will be from engaging in MIDs and therefore the more peaceful the dyad.

The other five variables in the neo-Kantian democratic peace model from Oneal and Russett (1999) are (1) the national capability ratio (i.e., to control for power preponderance), (2) whether the members of each dyad are allied, (3) noncontiguity, (4) geographical distance, and (5) whether each member of the dyad is a minor power. These five variables are expected to decrease the likelihood of MIDs and have generally obtained statistical significance in previous studies.

With a special emphasis on the military manpower system with conscripted soldiers, this study purports to test the nine preceding hypotheses about MIDs at the dyadic level during the period from 1886 to 1992. The peace-years correction and distributed-lags models are implemented, respectively, for all dyads and politically relevant dyads.11 The peace-years correction model is based on Beck, Katz, and Tucker’s (1998) peace-years correction method, which remedies the statistical problem of time dependence. The distributed-lags model relies on Oneal, Russett, and Berbaum’s (2003) distributed-lags method, which effectively addresses the issue of endogeneity among variables. According to Oneal, Russett, and Berbaum, a distributed-lags model should be a methodological improvement over a peace-years model. Whereas the former takes into account possible and important reciprocal relations between the three neo-Kantian peace factors (i.e., democraticness, economic interdependence, and international organizations, along with some realist factors) and the probability of interstate disputes, the latter is not capable of accounting for the issue of endogeneity. Given that, in reality, each neo-Kantian peace factor does not provide its benign effect in isolation (i.e., all of the three factors are integrally related), a distributed-lags model incorporates Kant’s ([1795] 1957) strict sense of perpetual peace into the process of testing.

Because Oneal and Russett (1999) present MID involvement rather than initiation as the dependent variable,12 we choose MID involvement as our dependent variable, not only for purposes of empirical comparison but also on theoretical grounds. We attempt to assess ideas from Kant’s ([1795] 1957) classic work about conscripts versus volunteers in relation to interstate disputes. This occurs in the context of Oneal and Russett’s neo-Kantianism, so it is crucial to make use of their exact model specification for comparison. In addition, as Blainey (1988) points out, “The beginning of wars, the prolonging of wars and the prolonging or shortening of periods of peace all share the same casual framework” (qtd. in Oneal and Russett 1999, 10-11). So we choose to report analyses of MID involvement rather than their onset only.

For the logistic regression model, all independent variables are lagged by 1 year, so they are not affected by a dispute to be explained. The peace-years correction model in equation (1) is a combination of the conscription variable and Oneal and Russett’s (1999, 21) eight variables for their democratic peace model:

11. Stata Statistical Software (version 7.0) is used for the empirical tests.
12. Oneal and Russett (1999) report only the MID involvement results in their article. According to Oneal and Russett, after having tested both MID involvement and initiation, they find that each dependent variable measurement has “produced nearly identical results” (p. 23).
\[ Y_t = \alpha + \beta_1 X_{t-1} + \beta_2 X_{t-2} + \beta_3 X_{t-3} + \beta_4 X_{t-4} + \beta_5 X_{t-5} + \beta_6 X_{t-6} + \beta_7 X_{t-7} + \beta_8 X_{t-8} + \beta_9 X_{t-9} + \beta_{10} X_{t-10} + \epsilon, \]

where

- \( Y_t \) = interstate dispute involvement,
- \( X_{t-1} \) = military manpower system with conscripts,
- \( X_{t-2} \) = democraticness,
- \( X_{t-3} \) = economic interdependence,
- \( X_{t-4} \) = joint membership in international organizations,
- \( X_{t-5} \) = capability ratio,
- \( X_{t-6} \) = allied states,
- \( X_{t-7} \) = noncontiguous states,
- \( X_{t-8} \) = geographic distance,
- \( X_{t-9} \) = only minor powers, and
- \( \epsilon \) = error term.

This research design is distinguished from Oneal and Russett (1999) and many other treatments by the presence of \( X_{t-1} \) (military manpower system with conscripts).

For the distributed-lags logistic regression, a second equation is constructed. Following Oneal, Russett, and Berbaum’s (2003) scheme, we expand the number of lags to be included until additional lags of interstate dispute involvement (\( Y_t \)) no longer are statistically significant, which purports to control for the possible influence of past disputes on the current likelihood of MID involvement. By taking lags of up to 5 years, with Oneal and Russett’s (1999) original data, we have produced an equation analogous to Oneal, Russett, and Berbaum but with lagged entries for the military manpower system:

\[ Y_t = \alpha + \beta_{11} X_{t-1} + \cdots + \beta_{35} X_{t-5} + \epsilon, \]

where

- \( Y_t \) = interstate dispute involvement,
- \( X_{t-1} \) to \( X_{t-5} \) = five distributed-lagged variables for military manpower with conscripts,
- \( X_{t-3} \) to \( X_{t-5} \) = five distributed-lagged variables for democraticness,
- \( X_{t-4} \) to \( X_{t-5} \) = five distributed-lagged variables for economic interdependence,
- \( X_{t-4} \) to \( X_{t-5} \) = five distributed-lagged variables for joint membership in international organizations,
- \( X_{t-5} \) to \( X_{t-5} \) = five distributed-lagged variables for capability ratio,
- \( X_{t-6} \) to \( X_{t-5} \) = five distributed-lagged variables for allied states,
- \( X_{t-7} \) to \( X_{t-5} \) = five distributed-lagged variables for interstate dispute involvement,
$X_{91-1}$ = geographic distance,
$X_{101-1}$ = only minor powers, and
$\varepsilon$ = error term.

**EMPIRICAL RESULTS: DOES A PROFESSIONAL MILITARY HAVE THE EFFECT THAT KANT HAD EXPECTED?**

Data analysis will unfold in two stages. The first is a set of two logistic regression models based on Beck, Katz, and Tucker’s (1998) peace-years correction that preserves continuity with the general approach taken in the study of international conflict processes over the past few years. The second stage of the analysis follows up on the potentially path-breaking approach put forward by Oneal, Russett, and Berbaum (2003) with respect to application of distributed-lags (i.e., based on Granger-causality testing) to the study of international conflict, crisis, and war. Taken together, the empirical results from the two stages of the analysis should provide a good sense of whether conscripted (or professional) soldiers matter in accounting for MID involvement.

Table 1 is composed of nine columns. The shaded columns show the empirical results for equation (1) (i.e., peace-years correction) and equation (2) (i.e., distributed-lags) during the period from 1886 to 1992, and the unshaded columns (except for the first one) are replications of Oneal and Russett’s (1999, 22) neo-Kantian or democratic peace model. The replicated results in the unshaded columns concur with those of Oneal and Russett with respect to direction of signs and statistical significance. As with Oneal and Russett, this study employs a one-tailed test for each variable under both the peace-years correction and distributed-lags logit model. However, it should be noted that the italicized coefficients that appear with the statistically significant levels represent the sum of the five coefficients for each lagged variable in the distributed-lags logit model; the chi-square statistic for each of these sets of coefficients is also provided below each summed coefficient.

The third, shaded column presents the peace-years correction results for all dyads. The coefficient for the military manpower system is statistically significant at the .001 level, indicating that dyads with conscripted soldiers are more likely to become involved in MIDs. As in the democratic peace literature, the coefficient of democraticness is statistically significant at the .001 level, indicating that democracies are less likely to engage in MIDs. (After the conscription variable is brought into the model, the magnitude of democraticness changes just slightly [i.e., $-0.0655$ vs. $-0.0626$].) The economic interdependence variable is statistically significant at the .01 level, indicating that the more economically interdependent the states in a dyad, the less likely is MID involvement. Joint membership in international organizations is sta-

13. It should be noted that the summed values of the coefficients play an advisory role. The key point is to test for the presence of causality, which has been accomplished here.
### TABLE 1
Conscripted Soldiers, Democratic Peace, and Predicting Militarized Interstate Dispute (MID) Involvement, 1886-1992

<table>
<thead>
<tr>
<th>Variable</th>
<th>Peace-Years Correction</th>
<th>Distributed Lags</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Dyads</td>
<td>Politically Relevant Dyads</td>
</tr>
<tr>
<td>Military manpower system (CONSCR)</td>
<td>0.3736***</td>
<td>0.2866**</td>
</tr>
<tr>
<td>Lower democracy (DEM)</td>
<td>-0.0655***</td>
<td>-0.0626***</td>
</tr>
<tr>
<td>International organizations (IGO)</td>
<td>0.0152†††</td>
<td>0.0084†</td>
</tr>
<tr>
<td>Capability ratio (CAPRATIO)</td>
<td>-0.1953***</td>
<td>-0.1852***</td>
</tr>
<tr>
<td>Alliances (ALLIANCES)</td>
<td>-0.3917**</td>
<td>-0.4019**</td>
</tr>
<tr>
<td>Previous dispute (DISPT)</td>
<td>0.1628</td>
<td>0.1649</td>
</tr>
</tbody>
</table>

Chi-square: 1764.82

$|p|$ of chi-square: 0.0000 (continued)
TABLE 1 (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Peace-Years Correction</th>
<th>Distributed Lags</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All Dyads</td>
<td>Politically Relevant Dyads</td>
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<tr>
<td>Log likelihood</td>
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<tr>
<td></td>
<td>-5218.783</td>
<td>-5200.188</td>
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<tr>
<td>n</td>
<td>130,563</td>
<td>29,480</td>
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</table>

NOTE: The chi-square statistic is used for the statistical significance test for the italicized coefficients.

*p < .05, **p < .01, ***p < .001, one-tailed tests. †p < .05, ††p < .01, †††p < .001, one-tailed tests but wrong sign.
tistically significant at the .001 level but is counterintuitive in direction. It seems that when joint membership in international organizations increases, the states in a dyad are more likely to become involved in MIDs.

As in the power preponderance literature (i.e., power transition theory) (Kugler and Lemke 2000), the coefficient of the capability ratio is statistically significant at the .001 level, meaning that, with greater disparity in national capabilities, MID involvement becomes less likely. The alliance variable is statistically significant at the .01 level—allied states are less likely to become involved in MIDs. The coefficient for noncontiguity is statistically significant at the .001 level, indicating that noncontiguous states are less likely to engage in MIDs. Distance between states is statistically significant at the .001 level; as expected, geographic separation would seem to discourage the states in a dyad from engaging in MIDs. The coefficient for the minor powers variable is statistically significant at the .001 level, indicating that dyads without major powers are less likely to become involved in MIDs.

The peace-years correction model in equation (1) reports a pseudo-$R^2$ that tells how well the model performs in an overall sense—29.0% for MID involvement, which is better than the replicated version, at 28.8%, although the difference is trivial.

The fifth, shaded column in Table 1 shows the results for politically relevant dyads—where the states in a dyad are contiguous and there is a major power presence. Politically relevant dyads make up most of the dispute-prone pairs, to which students of security relations denote importance for the stability of the international system (Russett and Oneal 2001). Results for politically relevant dyads, with respect to direction of signs and statistical significance, are similar to those for all dyads in the third, shaded column. As expected, the hypothesis about conscripted soldiers is supported: states in a dyad with conscripted soldiers are more likely to become involved in MIDs. Democraticness turns out to be statistically significant at the .001 level. The economic interdependence hypothesis is supported, indicating that such linkages are more likely to constrain MID involvement between states in a dyad. The international organizations hypothesis is supported but is counterintuitive. The hypotheses about capability ratio, alliance, noncontiguity, geographic distance, and only minor power presence are supported. The realist perspective would appear to gain some aid and comfort from the preceding set of results—put simply, power still matters. The pseudo-$R^2$, 20.7%, shows that the peace-years correction model for the politically relevant dyads has a moderate degree of explanatory power for MID involvement.

The seventh, shaded column presents the distributed-lags results for all dyads. The summed coefficient for military manpower is statistically significant at the .001 level, suggesting that conscripted soldiers facilitate involvement in MIDs. As in Oneal, Russett, and Berbaum (2003), the distributed-lags logit model has produced statistically impressive results for the three neo-Kantian variables. The summed coefficient for democraticness is statistically significant at the .001 level, indicating that democracies are less likely to engage in MIDs. (After the conscription variable is incorporated into the model, the magnitude of democraticness changes just slightly [i.e., –0.0457 vs. –0.0426].) The economic interdependence variable is statistically significant at the .01 level, indicating that these connections inhibit states from engaging in MIDs. Unlike the peace-years correction model (in the third, shaded column), the distributed
lags support the hypothesis about joint membership in international organizations, which is statistically significant at the .05 level. It seems that when joint membership in international organizations increases, the states in a dyad are less likely to become involved in MIDs. As Oneal, Russett, and Berbaum argue, the distributed-lags model may have corrected the problem of endogeneity among the three neo-Kantian peace variables. Thus, the international organizations variable turns out to have the expected sign and statistical significance.

Because the summed coefficient of the capability ratio is statistically significant at the .05 level, it is inferred that the greater the difference the national capabilities, the less likely is MID involvement. The alliance variable is not statistically significant. As expected, the hypothesis about previous dispute involvement is supported. The coefficient for noncontiguity is statistically significant at the .001 level, indicating that these states have a lower chance to become involved in MIDs. Distance is statistically significant at the .001 level; as expected, geographic separation presents a natural obstacle to engagement in MIDs. The coefficient for only minor powers is statistically significant at the .001 level, indicating that these dyads are less likely to become involved in MIDs.

The distributed-lags model reports a pseudo-$R^2$, 37.9% for MID involvement, which is slightly better than the replicated version, 37.5%. Indeed, the distributed-lags model (i.e., 37.9%) has performed approximately 10% better than the peace-years correction one (29.0%) in the third, shaded column.

The ninth, and final, shaded column shows the results for politically relevant dyads. The results for politically relevant dyads, with respect to direction of signs and statistical significance, are similar to those for all dyads in the seventh, shaded column—except for economic interdependence. As expected, the military manpower system hypothesis receives strong empirical support. Dyads with conscripted soldiers are more likely to become involved in MIDs. Democraticness turns out to be statistically significant at the .001 level. The economic interdependence hypothesis produces a surprising result: the summed coefficient is not statistically significant. (Because Oneal, Russett, and Berbaum [2003] do not include data analysis for politically relevant dyads, a direct comparison is not feasible at this moment.) The international organizations hypothesis is supported; joint membership appears to reduce MID involvement. The capability ratio hypothesis is supported. As with the summed coefficient for the alliance variable for all dyads, the one for politically relevant dyads is not statistically significant. As expected, the hypothesis for previous dispute involvement is supported. The noncontiguity, geographic distance, and only minor powers presence hypotheses are supported strongly. It appears that all of the realist variables, except for alliance status, help to account for MID involvement in the expected manner. The pseudo-$R^2$, 30.7%, shows that the distributed-lags model for politically relevant dyads has a moderate degree of explanatory power for MID involvement—once again, an improvement over that of the peace-years correction model (i.e., 20.7%) in the fifth (shaded) column.

It is possible that with large samples, even a small effect can be statistically significant. Thus, it becomes increasingly important to estimate the substantive effects of variables as the sample size increases. Table 2 shows the substantive significance of
the four theoretically interesting variables in the neo-Kantian model: (1) conscription, (2) democracy, (3) economic interdependence, and (4) joint membership in international organizations. It is apparent that although the three neo-Kantian variables reduce the likelihood of conflict, conscripted soldiers dramatically increase that risk, regardless of different statistical methods and samplings. As compared with a typical dyad, the risk that the manpower system with conscripts will become engaged in a dispute is increased by 45% and 32% according to the peace-years correction model and by 90% and 94% according to the distributed-lags model. So the empirical results in Table 2 confirm the importance of the military manpower structure in a neo-Kantian world.

CONCLUSIONS AND POLICY IMPLICATIONS

By addressing the relationship between military manpower structure and militarized disputes, we have sought to take up an understudied area of international conflict. More specifically, based on the two theoretical linkages—political fairness and military effectiveness—this study has introduced an important factor, conscripts versus volunteers, to the data-based study of the neo-Kantian world. For the empirical analysis, we used the peace-years correction method of Beck, Katz, and Tucker (1998) as well as the distributed-lags regression of Oneal, Russett, and Berbaum (2003). Based on our newly collected cross-sectional and time-series data, the empirical results show that dyads with conscripted soldiers are more likely to become involved in MIDs than are those with professional soldiers, regardless of statistical methods or samplings. Our results therefore provide an apparent contradiction to the third preliminary article of Kant’s ([1795] 1957) *Perpetual Peace*, which states that “Standing Armies (miles perpetuus) Shall in Time be Totally Abolished” because they are themselves “a cause of offensive war.”

Of course, Kant’s “standing armies” might have referred exclusively to foreign mercenary soldiers during the medieval period rather than modern professional, voluntary soldiers. Kant’s standing armies, for example, may be closer to the German Hessians hired by the British to fight the rebellious American colonists during the War of Independence. Mercenary soldiers hired for service in an army not of their own country are not the same as a modern, volunteer army—that is, one in which citizens choose to serve in their country’s armed forces (Curtis 1982). If the preceding observations are accurate, we then should be more careful in saying that our statistical findings are at variance with Kant’s ([1795] 1057) centuries-old ideas in *Perpetual Peace*. In sum, however, our empirical results are clear on one point: military manpower systems with conscripted soldiers are a concern when it comes to preserving peace, at least in terms of interstate dyads.

This study has not addressed at least one important question related to the military manpower system: because conscripted soldiers may not need to be deployed during peacetime, peace also can lead to nonconscription. An approach that recognizes the possible presence of dual cause and effect should follow up on the present effort. It should be noted that although our first theoretical reasoning based on political fairness
may be immune from considerations related to mutual casualty, the second one, military effectiveness, implicitly suggests it. At any rate, simultaneous equations could be used to assess potentially mutual causality between conscription and the presence or absence of MIDs. It also would be interesting to include the other five preliminary articles from Kant ([1795] 1957) in an expanded model. Given the importance of the international debt crisis in international political economy, factors such as debt-related dependency (i.e., the fourth article) would seem worthy of attention. Replication based on other data, such as that offered by the International Crisis Behavior (ICB) Project (Brecher and Wilkenfeld 2000), also would be useful, as would a microfocus on rival dyads (Drury 2001a). Because military manpower systems could be better explained and understood in the context of interactions between civilian and military leaders, a complete model (or definition) of civil-military relations should be explored (see Segell 2001, forthcoming). In sum, theoretically or empirically, the work here is not, as Winston Churchill said, “the beginning of the end”—it is more like the “end of the beginning.”

14. To the best of our knowledge, none of the major econometric packages has attempted to solve simultaneous equation bias with two dichotomous endogenous variables. Although we have consulted top-flight methodologists (e.g., Alvarez, personal communication 2003; Alvarez and Butterfield 2000; Alvarez and Glasgow 1999; Achen 1986; Maddala 1983; Amemiya 1978), the response was consistent: “It is beyond the field at this time.” Standard, two-stage simultaneous equations currently are applicable only with two continuous dependent variables or one continuous and one dichotomous endogenous variables. Even the most recent state-of-the-art instrumental variable approach (e.g., Alvarez and Glasgow 1999) does not provide a solution. Future research should include the study of simultaneous cause and effect once this methodological limitation has been removed.

In passing, simultaneous equation models should be more discernible and proper in the case of international war. We do not believe that lower level disputes (i.e., threats, display, and actual use of military force) in MIDs or other forms of interstate conflict without violence, such as the application of sanctions (Drury 2001b), require a dramatic change from voluntary soldiers to conscripts.
REFERENCES


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