

**Feminism, Social Constructions and the Democratic Peace:
Women's Access to Politics and Peaceful States**

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Abstract

The democratic peace literature has provided rather convincing evidence that two democratic countries are very unlikely to go to war against each other. We provide an alternative for thinking about why certain pairs of states do not engage in warfare, drawing largely from feminist scholarship. That is, we explore the extent to which fertility rates and rates of women's employment are associated with the use of force by a state. We draw on literature which shows that women's attitude toward the use of force differs from those of men, to argue that the more women who have access to the political process the more constrained will be the state in its use of force. The results of our analysis demonstrate that pairs of countries with low birth rates tend not to go to war, and that the lower the birth rates the less likely is a country to become engaged in the more violent of militarized disputes.

Introduction

The democratic peace literature has demonstrated a rather convincing relationship between the distribution of political power within a state and the likelihood of interstate war. That is, it appears that under most conditions two democracies are unlikely to escalate their militarized disputes to war (Ray, 1995; Russett, 1993; Rousseau et al., 1997). Contemporary explanations for this empirical relationship focus on institutional constraints and/or norms of behavior within democratic societies (Morgan & Campbell, 1991; Palmer, Regan, & London, 2001). Without contesting the democratic peace as an observed regularity, we propose to reevaluate the causal explanations that generally account for this observed behavior. Specifically, we draw from a conception of power relationships in gender studies and feminist theories¹ to develop an argument about how the internal distribution of political power at a societal level (as opposed to a state level) will influence how we think of the democratic peace.

First we describe briefly the contemporary understanding of the democratic peace. We follow this with a discussion of how traditional scholarship in International Relations might limit our understanding of international interactions. Next we develop an alternative explanation that can account for the empirical regularity we call the democratic peace with its foundation grounded in feminist and gender theory. We then present empirical evidence which points towards access by women to political processes

¹ For the distinction between feminist theory and gender studies see Carpenter (2001). In essence, gender theory is broader than feminist theory as it expands the study of gender to men, sexual minorities, children, and non-feminist women's issues. Neither do gender studies commit themselves to the goal of women empowerment as most of the feminist theory.

as a viable explanation for the militarized behavior of states. Briefly, we show that countries with low birth rates are considerably less likely to escalate their militarized disputes to war, and that this relationship holds even when controlling for the effects of joint democracy. Finally we discuss the impact of our research on future scholarship and point to ways in which foreign policy may be altered as a result of alternative understandings of the constraints on the decision to go to war.

The Democratic Peace Paradigm

Without belaboring yet another discussion of the democratic peace we sketch out the central tenants of the arguments and evidence. In the last two centuries no two fully democratic countries have gone to war against each other. Some evidence suggests that democracies themselves are no less war prone than any other form of political regime, but that two of them pitted together presents a unique combination that nearly precludes war as an observed behavior. The logical reasoning, however, seems more debatable than the empirical regularity. An institutional-based argument points to the role of constraints imposed on a decision-maker by the makeup of the institutions inherent in the democratic process. Divided governments, informed constituencies, and governmental complexity all contribute to a level of constraint that when matched by the opponent makes the choice for war difficult. Alternatively a normative perspective posits that constraints are imposed on state action by democratic norms of compromise and concession.

Democrats' interacting with democrats increases the probability of and incentives for compromise. Domestic costs, in short, constrain choices, particularly from those who

must seek reelection. In effect these constraints make choices by democratic leaders particularly difficult when it comes to issues of war and peace, and when two similarly constrained leaders face off in a militarized dispute the likelihood of escalation drops precipitously close to zero.

These explanations, we feel, settle too quickly on notions regarding the political power structures within society, framed in terms of regime characteristics, without fully exploring alternative societal explanations. Some of this, we argue, can be tied to the mechanisms of the social construction of the knowledge that has been generated about world affairs. To some degree our explanatory models are driven by our state-centric orientation to international politics and the complementary orientation of foreign policy communities. This, however, comes at a cost of a close examination of alternative models and explanations. A feminist perspective, for instance, may conceive of the idea behind the diffusion of political power — and therefore political constraints — differently from many contemporary models with their focus on the state as dominant actor.

Feminist Scholarship and International Relations

The main area of divergence can be thought of in ontological terms: What are the root-causes of events in the international arena? At the core — and admittedly it is only one part of a feminist perspective — is the notion that the mainstream theories, the premises behind much of the policy, and the empirical evidence mustered in support of various arguments are all in large part a function of the social constructions around which they

were developed, namely male social constructions. Feminist scholarship might suggest, for instance, that when men dominate the field of study the general tendency is for the theoretical frameworks used to make sense of the world to be rooted in masculine conceptions of what works and when. Women, who have traditionally been relegated to a more minor role in the power struggles of international politics, do not figure prominently in the models by which our understanding of world politics revolves. In the norm the way we conceptualize, operationalize, and test our hunches, therefore, reflect this traditional masculine view of the discipline. One way to think about our models and evidence in the field of international relations is that they reflect our social construction of our referent world. One can infer from this line of reasoning that if these mainstream, traditional male cadres in the study of international interactions could take into consideration the views of women then the theoretical frameworks, the operational tests, and the policy implications would differ from contemporary standards and would more accurately reflect conditions in that referent world. Essentially, it is the masculine social constructions that are driving not only our research, but, by extension, our results and the policy recommendations and implementation that might derive from them (Unger, 1989).

This type of constructionist argument — that is often adopted in feminist scholarship — presents a theoretical challenge to contemporary models of the democratic peace in that the explanatory models, which are subject to considerable debate, may simply reflect a male dominated sub-discipline. Many of their implicit and explicit assertions, moreover, actually reflect testable hypotheses about the role and influence of women in societies. What the core of international relations scholars sees as the

dominant form of power relationships that drive international interactions is thus a function of the common social orientation of those ‘doing IR’. In a sense, white men have constructed a version of the referent world that is deemed important to understanding outcomes in foreign policy, and they have left out non-white and women’s perspectives (Henderson, 1995; Peterson, 1992). This criticism revolves around the argument that scientific research and writing produces the reality that the scholars wish to present, and that the objects of study are not independent of the researcher (Sismondo, 1996; Peterson, 1992). Empirical research, it follows, cannot help but fall prey to the social constructions at the heart of the questions asked, the understanding of the causal mechanisms, the methods used to test hypotheses, and the inferences that result. The feminist use of the social construction critique is specific and penetrating, focusing not only on the general notion of social constructions in determining research agendas but also pointing to an explanation for the uniformity in mainstream study of international relations.² This, at its core, is a philosophy of science issue that challenges us to think more closely about the creative stages of our theoretical development, and to develop alternative explanations for observable outcomes (McGuire, 1973).

This challenge, it seems, goes well beyond the notion that all things are social constructions and therefore knowledge is subjective, to argue rather persuasively that at most basic level knowledge generated without due attention to the breadth of our social environment is at best incomplete. These two different ways to think about the world — a feminist and a traditional male — moreover, would give different explanations for

² A description of how Eurocentric models have shaped our ‘understanding’ of world politics, and how an Afrocentric approach might alter this understanding, can be found in Henderson (1995).

observable behavior and different prescriptions about alternative forms of policy. Many feminists charge that the power structures in society are dominated by men, that the role of women is marginalized and that it is necessary to direct scholarly attention to explain why this is so (Sylvester, 1994; Tickner, 1997). But absent an explanation of why, there are immediate implications from the effect of this skewed distribution of intellectual influence on the direction of our discipline and the knowledge that it produces. Here the implication is that if the perspectives of feminist and gender theories were more carefully integrated into the discipline we would know different things about the world of international relations, and presumably we would therefore articulate and implement different policies.

An Alternative to the Democratic Peace

In this section we develop an argument that suggests an alternative explanation for the observed regularity that democracies do not wage war against each other. We do not intend to challenge the veracity of the empirical relationship between regime type and war, but rather demonstrate that the contemporary normative and institutional explanations may be limiting, and in fact that the phenomenon of peaceful dyads that result from domestic constraints is considerably broader than the notion of a “democratic peace” might suggest. This has been recently challenged by Caprioli (2000; Caprioli & Boyer, forthcoming); we build on and advance this work in two important ways. First, we test a model incorporating the role of fertility rates against a competing model of the

democratic peace. Second, we ground our arguments in the gendered role of women at the societal level. We see our results, however, as supporting and in many ways confirming Caprioli's evidence that control over reproductive cycles is associated with less violent state behavior.

The underlying concept of the democratic peace suggests that it is the power structures in society that determine the relative peacefulness of the state in the international environment. When one speaks of regime type as an explanatory variable they are implicitly referring to the form of the distribution of power within a society. If power is more diffuse, as in a pluralist society, then the path to war is impeded by that power structure. When two highly constrained states interact, the probability of war becomes rather low. In a very hierarchical power structure — such as an autocratic regime — there are considerably fewer constraints on elites, and the interactive effect is muted, increasing the probability of war between non-democratic dyads. In the broader body of literature focusing on the observed democratic peace, decision constraints are generally conceived in terms of structures or norms. Gender specific formulations of those arguments are not common, even though gender specific attitudes toward the use of force have been demonstrated (see review in Caprioli & Boyer, forthcoming). A key factor, then, is to develop the foundation for thinking about how the particular role of women in politics might impose more or fewer constraints on the foreign policy apparatus of the state. We should point out that there are other ways to think about the distribution of political power and domestic constraints. Some have, for instance, argued that economic models provide a better explanation than regime characteristics for the

observed dyadic peace (e.g. Polachek, 1997). When two states have strong economic linkages the cost of war becomes too high and under these constraints from an economic constituency the leadership is more apt to choose negotiation and concession over war. We, however, see the core of the argument rooted in political relationships and political access, and it is here that we devote our attention.

Political influence is distributed as a function of ability to participate in the political process. This ability, furthermore, might be quite divorced from the type of regime under which it takes place. Women's access to the political sphere of society and the degree to which they have time to participate in politics — even at what might be considered a grassroots level — can have a considerable impact on the ability of the state to mobilize for war. At the anecdotal level organized groups of women have been influential in making demands on governments — even of the autocratic variety — about their internal or external use of force. The Grupo Apoyo Matuo (Mothers of the Disappeared) in Guatemala and the Mothers of the Soviet soldiers in Afghanistan are strong reminders that grassroots movements can exert a strong influence on state policies.

Hierarchical power structures are often found at the heart of feminist critiques of international relations. Some, furthermore, identify the causal mechanism that determines peace or war as the state-based structure of power in society (Steans, 1998; Peterson, 1992). But as women gain greater opportunities to be involved in politics at the community level, less hierarchical power structures provide more avenues for women to influence political process. Men may often still make the decision to go to war, but the extent of the constraints they face due to more diffused power structures and women's

involvement in political process may determine when they do so. The democratic peace identified in international relations literature reflects a gendered bias that does not take into account the role of women in determining the outcome of conflict between states, and therefore mask an underlying role played by women in constraining choices of political elites.

One key to linking women's access to the political process to the likelihood of a state using force is found in different attitudes toward the use of force held by men and women. If men and women were equally likely to hold similar preferences over the use of force as a tool of foreign policy, then the degree of access to the political process would be less important to understanding constrained behavior by political elites. There is a popular conception that women are generally less violent than men, and less likely to condone war, but popular opinion can cloud empirical evidence. However, there is considerable evidence to support the notion that women generally hold less violent attitudes than men. For example, according to public opinion literature, there seems to be no gap in the attitudes of men and women regarding general foreign policy goals, however, men and women differ in their evaluation of the use of force as a foreign policy instrument (Tessler & Warriner, 1997; Fite et al., 1990). In studies of female and male attitudes toward the use of force in the Gulf War, Gallagher (1993), and Hart & Teeter (1991) both found evidence to demonstrate that women were less likely than men to condone the use of force against the Iraqis. Research by Fite et al. (1990) and Wilcox et al. (1996) support these results at a more general level. Even though there is

disagreement (see Tessler & Warriner (1997), there is sufficient empirical support for the idea that women are less supportive of military solutions to international disputes.

Recently, a number of authors tried to explain this gender gap by relying on several theoretical frameworks. First, the gap might originate from the fact that women are less attentive than men to foreign affairs. Second, because in general women are poorer than men they might be less inclined to favor military expenditures due to competing claims with the spending on social welfare. Third, a maternal thesis suggests that the gap might originate from the difference in the value system between men and women as a result of the socialization process and/or biological women's ability to give birth. Thus, women might be more caring, emphatic and cooperative than men. Goldstein (2001) demonstrates that cultural explanations are more compelling than biological ones in terms of developing an understanding of the role of women in war. Finally, larger gender gap might appear in countries with high women's involvement in politics as well as stronger feminist movements (see Caprioli, 2000). Although empirical tests of these theories were inconclusive, in general, their results confirm the notion that women and men differ with regard to the use of force to achieve foreign policy goals (Togeby, 1994, Gartner & Segura, 1997; Wilcox et al., 1996; Conover & Sapiro, 1993, Cook & Wilcox, 1991; Fite et al., 1990; Conover, 1988).

If women are less prone to use force to achieve political objectives, then the greater the access of women in the political arena, the more peaceful should be the state. The key intervening variable is the level of access accorded to women. This is not to suggest that democracy qua democracy is not less war prone than autocracies, but rather

that women's participation in any political system reduces the war proneness of the state. In essence, this is arguing that we can understand the behavior of the state in terms of the unique contribution of women in determining its policies. But since the machinery of government is generally skewed in favor of male participation, the role that women play is more a function of the extent of their influence in grass roots politics than in their physical hold on the reigns of power. Access, as we use it here is a function of freedom from time constraints in other areas of a women's life. In traditional societies this most often involves freedom from the work associated with child bearing and raising, and the tasks of homemaking associated with them. Therefore, as the average fertility rate declines the women of that society will have greater opportunities to participate in local political processes. When a large proportion of women in a society are involved in the political process, even at a very local level, their influence can act as a strong constraint of the behavior of the government. We might therefore best understand peaceful dyadic relationships in terms of the interactive effect of two societies with a considerable influence by women over the political process of the state. In effect, when women are powerful in society, the state is increasingly constrained in favor of the policies advocated by women. Empirical evidence about the attitudes of women would suggest that if two states that find themselves in a militarized dispute have large numbers of women with access to the political process, then the leaders of the states would be increasingly disposed to find a solution that reflects a less violent compromise. This argument leads us to our first, and most general hypothesis:

H1: Militarized interstate disputes between countries will be less likely to escalate to war when women in both countries have high participation rates in the political affairs of society.

Operational Indicators and an Alternative Test of the Democratic Peace Proposition

In order to measure the access of women to the political sphere of society we need to construct an operational indicator that will be valid and reliable across both time and space. The specific indicator we seek would have to account for the degree of access of women at a general level of involvement, and not necessarily the participation of women in the upper echelons of government. The reason for this is reasonably straightforward. When women constitute only a small part of those holding the reigns of power, distinct women's attitudes might not be reflected in policy recommendations and implementation, because women might have to conform to the traditional male perspectives. That is, the fact that Margaret Thatcher was Prime Minister of Britain does not in and of itself reflect any sense of changed attitudes about women in British politics (Tickner, 1997). Because we want to focus our efforts on a more general role of women in society, any operational indicator must transcend a simple count of the number of women who are the heads of state or who hold high political office.

Participation in the political arena requires time, or freedom from the daily tasks of providing the means of subsistence and caring for children. One of the mechanisms for liberating women from the tasks of bearing and rearing children, and bringing them into the paid work force, is control over their reproductive processes. Access to birth control

has been a critical element in this ‘liberation’ process. The more women are freed from the duties associated with household work, the more time and energy — and possibly the more interest — they might have in participating in the political arena. The degree to which women make up the paid labor force is also reflective of how women participate in society. In general our indicators present a credible picture of the role of women in society outside of the traditional role of homemaker. Furthermore, we would expect that as more women move from childbearing to the paid workforce we would expect to see an increase in the number of women holding political office.

We use three operational indicators to reflect the access that women have to the political process in their country.

- 1) Birth Control Usage as a percent of the women of childbearing age (UN, 1994);
- 2) Birth Rates per woman of childbearing age (UN, 1994);
- 3) Women’s participation in paid labor force (UN, 1994).

Our first operational hypothesis can be framed in terms of birth control usage.

H2: Higher percentages of the population using active means to control reproduction in countries involved in a militarized interstate dispute will be associated with lower level of military hostilities.

Studies have shown that economic development is a strong predictor of birth rates, regardless of how reproductive cycles are controlled. A sole reliance on artificial means to impede the birthing cycle, therefore, may skew the results of the analysis toward countries where survey work is more accessible and reporting acceptable. As an

alternative — and in many ways a check on our formulation of the operative argument — we also employ a measure of birth rates within countries. We hypothesize that

H3: Lower birth rates in countries involved in a militarized interstate dispute will be associated with a lower probability of escalation of the dispute to war.

Furthermore, as women's employment outside the home increases we would expect them to not only participate more fully, but to also become more motivated to get involved in politics. In addition, professional experience could make women more attractive as political candidates to the gatekeepers of political parties (Andersen, 1975). Thus, we hypothesize that

H4: Higher women's participation in paid labor force in countries involved in a militarized interstate dispute will be associated with a lower probability of escalation of the dispute to war.

Data Sources and Empirical Results

To test the hypotheses outlined above we hold closely to the central variables used in some of the recent formulations of the democratic peace arguments (Russett, 1993; Rousseau et al., 1996). If the conceptual disagreements only involve the way that we think about the power relationships, then issues like being the target rather than the initiator, having vastly different military capabilities, and participating in a formal alliance should all have a consistent contribution to the propensity to go to war. The formulation of our models based on previously accepted and well regarded studies is not simply arbitrary, but instead reflects our intention to replicate these accepted studies but

using different primary explanatory variables. In effect, if women's access is a strong predictor of the foreign policy of the state, then our indicators should stand up in a test against previously vetted models. The Rousseau et al. (1996) and Russett (1993) serve this purpose quite effectively. Initially we engaged in bivariate analyses between the level of hostility and both birth rates and reported usage of birth control measures. Our objective was to identify the extent to which the patterns of the relationships mirror those between regime type and hostility levels. We followed this analysis with multivariate models using birth rates as a predictor of hostility levels and war onset, controlling for shared alliances, capabilities, and initiation.

Data for birth control use were obtained from the United Nations survey of the status of women. These data are the result of surveys conducted under the auspices of the UN, and given the logistical difficulties involved in carrying out the necessary surveys, the data are not collected in annual observations. Nor are the observations for any pair of countries necessarily taken in the same year.³ Obviously there is a general difficulty in using annual observations on this critical variable of interest, but this problem is mitigated somewhat by the fact that birth control accessibility and usage generally do not go through abrupt changes. In order to expand the indicator to annual observations we grouped the data into five-year intervals and assume that each year in that period has the same value as the observation that falls within that five-year grouping.⁴ We used the same source for data on birth rates — annual observations, recorded as the averaged number of

³ For example, data on birth control usage for Bangladesh might be generated in 1970, 1974, 1979, 1982, and 1985, while similar data for Cameroon might have been collected for 1972, 1976, 1980, 1982, and 1985.

live births per women — though these data are considerably more accessible during the period from about 1960 onwards (UN, 1994). Women’s participation in the paid labor force was also recorded by the United Nations; our indicator is recorded in terms of the percentage of the total labor force.

Data on war involvement, the initiation of disputes and the relative capabilities of states were taken from the Correlates of War MID and Capabilities data sets; shared alliance ties were also coded based on the Correlates of War Alliance data. Democracy scores were derived from the Polity III data (Jagers & Gurr, 1995), using the procedure outlined by Rousseau et al. (1996), whereby democracy and autocracy scores are differenced and then converted from a scale ranging from -10 to 10 into one with a range of zero to 20. We also created an interactive variable that reflects the condition where the opponent in a dispute is ‘democratic’ — but instead of democracy as the variable we used birth rates. This procedure, again, followed Rousseau et al. A dummy variable was created that was coded 1 if the opponents birth rate score was 2.5 children/woman or less, we then multiplied this by the Actor’s birth rate score such that if the opponent also had low birth rates, the value would take on the value of the birth rate score of the country in question; if the opponent had high birth rates the value would be zero (see Rousseau et al., 1996: 519). Due to data limitations the temporal span of the study encompasses the years 1965 — 1992. In all, we have 462 militarized dispute dyads, for which we have data on all variables, including birth rates.⁵

⁴ If there are two or more data points within one five year interval, the average of those annual values is used as the indicator for the five year interval.

⁵ In contrast, we have only 187 cases (of the 462 militarized dispute dyads) of both countries reporting on birth control figures.

Results

We report our results by first comparing bivariate cross-tabulations of our indicators of the access of women to the political aspects of society (birth control, birth rates) to those that result from a simple cross-tabulation of joint democracy and the level of militarized disputes. As can be seen from Table I, Table II, and Table III, disputes during the latter third of this century never escalated to war if both participants were democracies, or if both had low birth rates, or high levels of birth control usage.

Table I. Democracy and the Levels of Military Hostilities, 1965-1992

<i>Democracy Score</i>	<i>Threaten</i>	<i>Use of Force</i>	<i>War</i>	<i>Total</i>
Both Democratic Countries	8	16	0	24
Both Semi-Democracies	100	106	10	216
One Democratic; One Autocratic	18	28	1	47
Both Autocratic Countries	64	96	15	175
Total	190	246	26	462

Pearson chi square = 10.140

Coding for Democracy Score: High = Above 17
 Medium = Between 10 and 17
 Low = Below 10

Table II. Birth Rates and the Levels of Military Hostilities, 1965-1992

<i>Birth Rate Score</i>	<i>Threaten</i>	<i>Use of Force</i>	<i>War</i>	<i>Total</i>
Low in Both Countries	22	25	0	47
Medium in Both Countries	64	103	8	175
High in One Country, Low in One Country	51	49	8	108
High in Both Countries	53	69	10	132
Total	190	246	26	462

Pearson chi square = 9.065

Coding for Birth Rate Score: Low = Below 2.5 children/woman
 Medium = Between 2.5 and 5.0 children/woman
 High = Above 5.0 children/woman

Table III. Birth Control Usage and the Levels of Military Hostilities, 1965-1992

<i>Birth Control Usage Score</i>	<i>Threaten</i>	<i>Use of Force</i>	<i>War</i>	<i>Total</i>
High in Both Countries	10	10	0	20
High in One Country, Low in One Country	26	41	5	72
Medium in Both Countries	23	17	7	47
Low in Both Countries	17	28	3	48
Total	76	96	15	187

Pearson chi square = 9.588

Coding for Birth Control Usage Score: High = Above 6.0

Medium = Between 3.5 and 6.0

Low = Below 3.5

Initially this simply confirms that joint democracies have not waged war against each other, and that the greater control over reproductive mechanisms by women, the less likely are dyads to escalate their disputes to war. One inference, of course, may be that birth control and birth rates are highly correlated with democracy, which to some degree is correct. But the level of correlation should give us pause. As we would anticipate, the correlation between democracy and our two indicators of women's control of reproductive rights is in the expected direction, but within a range from $-.73$ to $.58$ the relationships are far from perfect. For example, Cuba, China, the Soviet Union, and Bulgaria have rather low birth rates, and yet clearly do not rank highly on the democracy scale.

We now go beyond the bivariate descriptive statistics to develop multivariate statistical models that allow us to compare the contributions of political regime types to fertility rates. The range of multivariate model specifications that account for the democratic explanation is rather diverse, posing the problem of 'which one is the right one to choose' (e.g. Maoz & Russett, 1993; Bremer, 1992; Rousseau et al., 1996; Mousseau, 2000). There are, however, a number of explanatory variables common to

most models of the democratic peace, such as joint alliances, difference in military capabilities, and the level of democracy in each of the countries. The list of outcome variables used in these models is also not entirely consistent, with various studies using the onset of disputes, the initiator-target distinction, the onset of war, or the highest level of hostilities. The remarkable thing is that given the range of specifications, the results generally converge on the notion that democratic dyads are less violent than other dyads. We develop our own hybrid specification, though one that follows most closely to Rousseau et al. (1996).

Table IV presents the results of a multivariate model using the highest level of hostility obtained by a country in a militarized dispute. We first test the monadic explanation that democracy itself is associated with lower levels of force (Model I). The only significant variable in this model that accounts for the level of force by actor A is the fact that actor B initiated the dispute. Democracy scores are unrelated to the level of hostility by actor A.⁶

⁶. Our results are reasonably close to those of Rousseau et al (1996) in that the sign of the coefficients are all in the same direction, even though levels of significance differ. Differences in data sources and time period may account for variation in levels of statistical significance.

Table IV. OLS Regression Results Predicting Actor's A Highest Level of Force, 1965-1992

<i>Independent Variable</i>	<i>Model I</i>	<i>Model II</i>	<i>Model III</i>
Democracy Country A	-.001 (.025)	-	-
Democracy Country B	.012 (.015)	-	-
Democracy Dummy Country B	-.125 (.070)	-	-
Capability Differential	.003 (.004)	.011* (.055)	.016** (.005)
Initiator Country B	-2.903*** (.610)	-2.794*** (.565)	-2.835*** (.587)
Shared Alliance Ties	.003 (.659)	-.339 (.610)	.167 (.634)
Birth Rate Country A	-	.928*** (.150)	1.001*** (.181)
Birth Rate Country B	-	-.505*** (.176)	-.433* (.185)
Opponent's Birth Rate Country A	-	-.438*** (.155)	-.425** (.157)
Female Labor Force Country B	-	-	.039 (.025)
Female Labor Force Country A	-	-	.034 (.027)
Intercept	18.081*** (.721)	15.066*** (1.466)	11.741*** (2.103)
Number of cases	395	395	373
R squared	.061	.127	.134
Standard error	5.126	4.943	4.94
F statistic	5.4	11.71	9.02

All significance tests are one-tailed. Numbers in parentheses represent standard errors.

*p<.05, **p<.01, ***p<.005.

Next we specify the model using data on birth rates in the countries involved in the dispute (Model II). Here we see that a country with a low birth rate is less likely to escalate a dispute to a high level of violence ($\beta = .928$; the interpretation is inverted because as birth rates go down more women have access to participation in the political affairs of the country. In effect, low birth rates would reflect the equivalent of high democracy). But when the opponent's birth rate is high, the level of hostility reached by the Actor declines ($\beta = -.505$). The interactive term suggests that when faced by an

opponent with a low birth rate the level of hostility increases ($\beta = -.438$). In general this model is consistent with the results presented by Rousseau et al., even though the primary explanatory variables focus on fertility rates rather than regime types. When controlling for the percent of the labor force made up by women, the coefficients associated with fertility rates remains strong while labor force data is not significant. The results of our analysis clearly demonstrate a strong substantive relationship between birth rates and the escalation of militarized disputes, even at the monadic level.

We next test the dyadic relationship between fertility rates on the onset of interstate war. The results confirm that for dyads are in a dispute, the more women having access to politics (as evidenced by birth rates) the less likely that dispute is to escalate to war (Table V; Model I).

Table V. Logistic Regression of Democracy, Fertility Rates, and Labor Force Participation on War, 1965-1992

<i>Independent Variable</i>	<i>Model I</i>	<i>Model II</i>	<i>Model III</i>	<i>Model IV</i>
Joint Birth Rate	1.280***	1.293***	1.355***	2.203***
1=both low	(.349)	(.367)	(.382)	(.613)
3=both high				
Capability Differential	.006*	.006*	.008*	.009***
	(.003)	(.003)	(.003)	(.003)
Shared Alliance Ties	.466	.465	.575	.720
	(.366)	(.369)	(.384)	(.386)
Joint Democracy	-	-.015	-.014	.136
		(.192)	(.193)	(.236)
Joint Female Labor Force	-	-	.456	.529
1=both low			(.403)	(.404)
3=both high				
Economic performance	-	-	-	1.931**
				(.771)
Intercept	-6.220***	-6.205***	-7.475***	-10.850***
	(1.243)	(1.275)	(1.803)	(2.407)
Number of cases	420	420	397	397
-2 Log likelihood	-122.8	-122.8	-117.8	-113.5
ChiSq	3 d.f.=14.02	4 d.f.=14.73	5 d.f.=13.48	6 d.f.=16.19
	p<.003	p<.005	p<.02	p<.01

All significance tests are one-tailed. Numbers in parentheses represent standard errors.

*p<.05, **p<.01, ***p<.005.

We use a logit model on a dichotomous coding for war/no-war as the outcome and correct for hetero-scedastic errors by calculating robust standard errors.⁷ The results demonstrate that a dyad in which both countries have birth rates below 2.5 births per women are significantly less likely to escalate to war. Furthermore, this result holds when we control for other factors like a shared alliance and the difference in capabilities. Since it is possible that the effect of joint democracy would wash out the effect of fertility rates, we include in our model a control for democratic dyads (Model II). In this model joint democracy is not significant though joint fertility rates remain a strong predictor of the probability that we observe war between a pair of countries. We further control the model for the percentage of women participation in the paid labor force, with no substantive change in the results (Model III), and a somewhat crude control for economic performance (Model IV). The indicator for economic performance is a dichotomous variable marking whether one of the participants was from an OECD country or the Soviet Union. When controlling for economic performance low fertility rates is still a strong predictor of the likelihood of observing a war between a pair of countries.

Discussion

In this article we test an alternative explanation for the democratic peace. Our argument is largely rooted in feminist and gender scholarship and posits that a key determinant of violent state behavior is the extent of the participation by women in the political arena.

Caprioli (2000; Caprioli & Boyer, forthcoming) have already demonstrated that gender equality can influence the amount of state led violence. We extend their research in important new directions. If, as a considerable body of literature has demonstrated, women's attitudes toward the use of force are more restrictive than men's, then we would expect that the greater the ability of women to engage politically, the less likely will be the state to use force. Our objective here has not been to challenge the democratic peace literature by suggesting that democracy is unimportant in the relations among states in the global environment, nor that regime types do not account for some of our understanding of the war-proneness of states. In general this body of literature stands on its own.

Our results lend strong support for the arguments that we advance and should lead to a more thorough examination of why certain pairs of states avoid the scourge of war.⁸ Furthermore, the impact of our results has policy implications that should not be ignored. Although we readily admit to the tentativeness of any policy inferences, we offer an example to show how a different empirically supported theoretical research may lead directly to policy directions somewhat counter to those currently undertaken. One of the elements of a feminist critique is that our understanding of the world is largely a result of male dominance in the production of knowledge, and that subsequently, policy derived from that knowledge reflects this male dominance. When combining our evidence with that of Caprioli (2000; Caprioli & Boyer, forthcoming) there is reason to think that policymakers might have an alternative to promoting democracy in pursuit of

⁷. All analysis was done in STATA 6.0

⁸. Luttwak, for example, argues that lower birth rates should lead to less war because mothers will be less willing to send their child off to war if it were an only child, than they would if they had multiple children.

international peace. The question becomes how to get more women involved in the political life of the society, and to do so may require the lowering of birth rates. Instead of overt or covert money to support political parties and/or opposition groups in pursuit of democratic transitions, the world community might be better served by providing family planning facilities. Such a policy prescription provides one example of how a different theoretical focus may lead to an emphasis on an alternative range of foreign policies. This emphasis on promoting family planning, moreover, appears to run in a somewhat different direction than the policy adopted by the incoming Bush administration. If the recent evidence relating fertility rates to war proneness is robust, then the one could infer that the recent changes in USA policy regarding family practice has significant drawbacks.

Clearly this is not a feminist argument, but he does relate birth rates to the propensity of states to engage in conflict (1997).

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