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# The Suffragist Peace

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**Abstract** Preferences for conflict and cooperation are systematically different for men and women: across a variety of contexts, women generally prefer more peaceful options and are less supportive of making threats and initiating conflict. But how do these preferences affect states' decisions for war and patterns of conflict at the international level, such as the democratic peace? Women have increasingly participated in political decision making over the last century because of suffragist movements. But although there is a large body of research on the democratic peace, the role of women's suffrage has gone unexplored. Drawing on theory, a meta-analysis of survey experiments in international relations, and analysis of crossnational conflict data, we show how features of women's preferences about the use of force translate into specific patterns of international conflict. When empowered by democratic institutions and suffrage, women's more pacific preferences generate a dyadic democratic peace (i.e., between democracies), as well as a monadic peace. Our analysis supports the view that the enfranchisement of women is essential for the democratic peace.

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In Aristophanes' play *Lysistrata*, the women of Greece famously decide to withhold sexual privileges from their husbands and lovers to force the men to negotiate peace in the Peloponnesian War. Although the women in the play are not unreservedly pacifist, the play has come to be associated with women's greater preferences for peace.<sup>1</sup> This preference accords with public opinion research, particularly though not exclusively in the contemporary United States: women, while not completely dovish, are generally less supportive of war than men.<sup>2</sup> Indeed, Brooks and Valentino assert that “the divergence between men and women in support for the use of force represents the largest and most consistent gender gap measured since the advent of systematic public opinion polling.”<sup>3</sup> Yet, as with other studies of public opinion, a significant question is whether and how differences in public opinion actually influence foreign policy decisions and international outcomes.<sup>4</sup>

In this article, we use theory and evidence from both the individual and international levels to assess whether there is a *suffragist peace*: a peace that arises, monadically or dyadically, from democracies with female suffrage. We first review the literature on gender and violence, theorizing the character of the gender gap in

1. Aristophanes 1925; Klein 2014.

2. Eichenberg 2019.

3. Brooks and Valentino 2011, 270–86.

4. Hafner-Burton et al. 2017, S18–21.

opinion toward the use of force in foreign affairs. We then develop theory for how extending suffrage to women changes the electorate's preferences, and how these changes interact with domestic political institutions and strategic contexts to influence state decisions to make threats and engage in war. We argue that such shifts in state preferences can be understood as influencing the political costs of conflict in models of international crises, producing monadic shifts in the likelihood of conflict initiation and dyadic shifts in the likelihood of disputes.<sup>5</sup>

To improve our understanding of the gender gap in opinion toward the use of force, we conduct a meta-analysis of thirteen recent survey experiments and four original experiments related to international conflict, finding a robust difference in view from women respondents. Across a range of crisis scenarios presented to respondents in six countries, women are less supportive of uses of force. These survey experiments involving international crises allow more precise inferences about the counterfactual policies respondents have in mind, and the reasons behind their views. For example, we find that in situations in which audience costs arise, relative to men, women disapprove more because of leader belligerence, rather than inconsistency.

Finally, we examine cross-national conflict data to assess the impact of the enfranchisement of women. We find that female suffrage, when coupled with democratic institutions, is not only an important and powerful cause of peace, but that it may even be necessary for the democratic peace. Without female suffrage, democracies (whether examined dyadically or monadically) do not show clear evidence of being more pacific than nondemocracies. These findings hold across time periods and do not appear to result from other confounding factors, or from the expansion of the political franchise more generally.<sup>6</sup> By bridging the individual and international levels to show how the gender gap on the use of force matters, we contribute to the growing positivist study of gender and international relations.<sup>7</sup>

## Theory: From the Gender Gap to the Suffragist Peace

How might the extension of suffrage to women affect theoretical arguments about the democratic peace, that is, the probability of war between democracies? As Sjoberg argues, theories of the democratic peace, like many other theories of war, have

5. Rousseau et al. 1996.

6. Bueno de Mesquita et al. 1999.

7. See Reiter 2015 for a review. Recent scholarship has brought nuance to the conventional distinction between "gender" as related to the social construction of sexual differences and "sex" as related to biological differences (e.g., Goldstein 2003, 2; Hatemi et al. 2012; McDermott and Hatemi 2011). We recognize the complexity of these concepts. The available survey data, however, do not enable nuanced distinctions because the available indicator is binary. As pragmatic choices, we refer to the "gender gap" following much of the literature on public opinion, but when describing survey results, we use the term *sex*, recognizing the causal factor may be related to identity, cultural expectations, life experiences, or other correlates of reported sex.

been largely “genderless.”<sup>8</sup> Addressing the effect of women’s suffrage on the democratic peace requires not only theorizing how women’s preferences influence a democratic state’s willingness to fight once women get the vote, but also how that state interacts with other states strategically in the international system. Our theory thus engages aspects of women’s preferences at the individual level, how those preferences gain political voice in democratic government, and how those governments’ increased political costs for war affect interstate bargaining and the likelihood of conflict. These arguments lead to predictions about the likelihood that *suffrage democracies* (democracies with female suffrage) will initiate conflict or end up in wars with different types of states (such as other suffrage democracies). We first consider theories of the democratic peace and how women’s preferences for war might affect these arguments before building our own theoretical argument for how these gender differences lead to a suffragist peace at the international level.

Although there is broad empirical acceptance of the proposition that democracies do not fight each other, there remains theoretical and empirical disagreement over the nature and source of this empirical regularity.<sup>9</sup> The “democratic peace” is often formulated in explicitly dyadic terms: democracies do not fight each other but are still prone to fight with autocracies.<sup>10</sup> Alternatively, the peaceful nature of democracies might lead to a monadic effect, where democracies are less prone to conflict with other states, regardless of regime type.<sup>11</sup> As Debs and Goemans point out, scholars still do not agree on whether this is a “cats-and-dogs” effect where democracies, and perhaps also autocracies, tend not to fight their own kind but mixed dyads are more war prone.<sup>12</sup>

There is also a lengthy debate over the source of the democratic peace—one which has recently seen a renewed focus on public opinion.<sup>13</sup> Of course, scholarship on public opinion and foreign policy in democracies suggests that elite cues are important for activating issue preferences.<sup>14</sup> But public opinion serves as an important constraint on democratic leaders.<sup>15</sup> It remains unclear, however, whether the public constrains democratic leaders to be more peaceful overall, as suggested by Kant’s argument that citizens will be more hesitant to go to war (i.e., monadic democratic peace); or whether the public specifically prefers to avoid war with other democracies (i.e., dyadic democratic peace), as Tomz and Weeks contend;<sup>16</sup> or both.

If public opinion is an important driver of the democratic peace, then changes in the composition of the electorate, such as the extension of suffrage to women, matter to the extent that newly enfranchised groups have systematically different preferences.

8. Sjöberg 2013, 21–26.

9. Rousseau et al. 1996, but compare Gibler 2012 and others who argue that factors like stable territorial settlements result in both democracy and peace.

10. See, for example, Risse-Kappen 1995.

11. Oneal and Russett 2001.

12. Debs and Goemans 2010, 441.

13. Tomz and Weeks 2013.

14. Aldrich et al. 2006; Saunders 2015.

15. Russett 1990.

16. Tomz and Weeks 2013, 851–52.

We argue that adding a large pool of voters with structurally different preferences is likely to change the calculus of political leaders as they contemplate the use of force. As Caprioli and Boyer put it, “by gaining political influence through voting, women’s values should influence leaders’ decisions.”<sup>17</sup> Indeed, Oneal and Russett note that differences in the franchise, especially for women, are a complicating factor in measuring democracy and that

the consequences of these restrictions on political participation may not be trivial. In the contemporary United States, for example, women are significantly more averse to the use of military force than are men and vote in part on this basis. Thus the exclusion of women from the franchise in earlier periods could have profoundly reduced the tendency of even the most “democratic” states to avoid conflict.<sup>18</sup>

The extension of suffrage to women may thus restrain states from using force. This connection is made even more plausible by the growing number of studies arguing that women’s suffrage had significant effects on government in other areas. Lott and Kenny show that the size of the government increased dramatically in US states that granted women suffrage because the inclusion of women shifted voting populations’ preferences to the left.<sup>19</sup> Significantly, the estimated effects of suffrage are similar in states that extended the vote voluntarily and those that were forced to do so even though they did not ratify the nineteenth amendment, suggesting that if a confounding variable causes both suffrage and the size of government, its effects are small.<sup>20</sup> Abrams and Settle find remarkably similar effects in a different time and place—when Switzerland finally extended voting rights to women in 1971.<sup>21</sup>

Thus far, however, few studies have investigated the link between suffrage and peace. The effect of women’s representation in legislatures on international affairs has received more attention.<sup>22</sup> In a study of female leaders and conflict intensity, Caprioli and Boyer include suffrage in their study of crisis severity, but explicitly treat it as a control, focusing instead on female representation in the legislature as a measure of gender equality.<sup>23</sup> In a study of militarism, Caprioli examines suffrage more directly as a measure of political equality, but again in tandem with parliamentary representation, and for a more limited time period (1960–1992) than we examine here.<sup>24</sup> Hudson and colleagues find that suffrage is one of many factors connecting gender and peace.<sup>25</sup>

17. Caprioli and Boyer 2001, 511.

18. Oneal and Russett 1999, 12.

19. Lott and Kenny 1999.

20. See also McConaughy 2013.

21. Abrams and Settle 1999.

22. Caprioli and Boyer 2001; Regan and Paskeviciute 2003.

23. Caprioli and Boyer 2001.

24. Caprioli 2000.

25. Hudson et al. 2012.

To theorize the effect of extending the franchise to women on the democratic peace we need to understand both the specific contours of women's preferences as well as the group's ability to express those preferences. We first consider individual-level preferences, and then turn to their expression in democratic politics and, in turn, how these preferences affect interstate bargaining and the consequences for understanding the democratic peace.

## The Nature of the Gender Gap in Public Opinion on the Use of Force

We turn first to the individual level. There are strong theoretical reasons to believe that women have more peaceful preferences than men, although there are important nuances relevant to the politics of war and peace. In terms of possible influences on the democratic peace, three aspects of the gender gap are relevant.

First, theory and evidence suggest that differences between men's and women's preferences about the use of force are general and persistent across space and time, but also subject to context-specific factors. The gender gap in public opinion on the use of force is well-established in the United States, where much research has focused. As Conover and Sapiro note, "although American women as a group can hardly be classified as pacifist, they certainly appear less militaristic than American men."<sup>26</sup> In an analysis of gender differences in public attitudes toward the US use of military force in twenty-four cases from 1982 to 2013, Eichenberg finds that women are less supportive of using force across time, the size of interventions, and the partisanship of the president, although the magnitude of the gender gap varies.<sup>27</sup> Berinsky notes that the gender gap in preferences on various questions surrounding US involvement in World War II persisted even after Pearl Harbor, although the preferences of both genders generally moved together.<sup>28</sup>

These findings comport with the few studies that explore the gender gap in attitudes toward war outside the United States.<sup>29</sup> Eichenberg finds that the gender gap appears to hold crossnationally, though its size and nature varies by country and context.<sup>30</sup> Country-specific evidence is also supportive. In 2014, 47 percent of male versus 39 percent of female Kenyans preferred that the Kenyan Defense Forces should continue their activities in neighboring Somalia.<sup>31</sup> In Japan in 2016,

26. Conover and Sapiro 1993, 1079.

27. Eichenberg 2016.

28. Berinsky 2009, 53.

29. E.g., Cohen and Jung 2018; Tessler and Warriner 1997.

30. Eichenberg 2019, chapters 6 and 7.

31. Afro Barometer, "Kenyans Register Mixed Feelings About Devolution and KDF's Withdrawal from Somalia," available at <<https://afrobarometer.org/press/kenyans-register-mixed-feelings-about-devolution-and-kdfs-withdrawal-somalia>>.

49 percent of men versus 35 percent of women were in favor of changing the constitution to permit Japan to have a military.<sup>32</sup>

While explaining the gap is beyond the scope of this article, we note that scholars have pointed to a mix of biological and social factors. The gap is both persistent and varying in size by context. Beginning at early ages and spanning cultural contexts, males are more aggressive than females, across a range of measures.<sup>33</sup> In a wide-ranging study of the “war system,” Goldstein notes the puzzle that “despite the diversity of gender and of war separately, gender roles in war are very consistent across all known human societies.”<sup>34</sup> He concludes that “the gendering of war appears to result from a combination of factors,” including average biological differences between men and women, and “culturally constructed gender roles.”<sup>35</sup> In the context of the first Gulf War, Conover and Sapiro categorize explanations for the gender gap into those that focus on biological difference or early childhood socialization (“sex and gender”), those that focus on the experience of motherhood (“maternalism”), and those that emphasize political activation of gendered views of war (“civic feminism”).<sup>36</sup> As they note, many studies moved away from biological determinism and emphasized instead “early differential socialization and experience.”<sup>37</sup> Whether biological or social, these explanations “share an important implication,” namely that “differences between women’s and men’s orientations to war are founded in childhood or earlier and cannot be explained away by any other aspects of their lives.”<sup>38</sup> The gender gap has persisted in polling data across decades, and therefore it cannot be entirely explained by characteristics that have varied substantially over time.<sup>39</sup>

A second individual-level consideration concerns whether the gender gap interacts with the regime type of the target. Tomz and Weeks found that democratic citizens perceive other democracies as less threatening than autocracies.<sup>40</sup> If the reasons driving Tomz and Weeks’s result are more important for women than men, then we should see the gender gap (among democratic citizens) amplified for considerations of using force against democratic targets. To date, few studies have investigated this at the individual level. One partial exception is Brooks and Valentino, who draw on research showing that “women are more likely to favor cooperation and compromise within groups over aggression as a means for settling disagreements,” and theorize that this “consensus orientation” leads women to be more likely to approve military interventions with multilateral and especially UN approval.<sup>41</sup> But

32. Asahi Shimbun, The University of Tokyo Taniguchi Laboratory, 2014/2016 Joint Public Opinion Survey.

33. Hyde 1984; Tapper and Boulton 2004; Whiting and Whiting 1975.

34. Goldstein 2003, 3.

35. *Ibid.*, chapters 3 and 7.

36. Conover and Sapiro 1993, 1080–81.

37. Eichenberg 2019 likewise rejects an “essentialist” explanation.

38. Conover and Sapiro 1993, 1080; see also Goldstein 2003, 228–50 on childhood gender segregation.

39. Eichenberg 2016, 139–40.

40. Tomz and Weeks 2013.

41. Brooks and Valentino 2011, 273.

they find only modest support for this hypothesis. In a national-level argument more specifically focused on regime type, Risse-Kappen argues that the dyadic logic of democracies fighting autocracies but not other democracies draws on in-group/out-group dynamics.<sup>42</sup> But as Goldstein describes, there is little evidence that out-group psychology is gendered.<sup>43</sup> The gender gap appears to stem from views of violence rather than views of regime type. Although women are in general more likely to perceive many types of threats, they are less likely to favor violent responses; this may be due in part to women being more likely to feel anxiety, which increases risk aversion.<sup>44</sup> Eichenberg finds that the data “point to the centrality of military force, violence, and war as the most important variables affecting gender difference,” at both the individual and aggregate levels.<sup>45</sup>

A third individual-level feature worth noting is that, despite the persistence of the gap across country and context, women are not automatic pacifists; scholars have shown that the gender gap can be moderated by politics or context, such as whether the war stakes are humanitarian rather than strategic.<sup>46</sup> On important security issues such as defense spending, women and men seem to respond similarly to changing conditions or information.<sup>47</sup> While women seem to have a more baseline dovish preference, they appear to respond to information and context in a similar way as men.<sup>48</sup>

Importantly, as McDermott argues, men and women have different tolerance and motivations for fighting, but share “a similar desire to protect and defend their territory, their material resources, or the health and welfare of their children.”<sup>49</sup> That women may not want to pick or get involved in fights overseas, but are willing to defend territory when attacked, has implications for both monadic democratic peace and audience cost arguments.

Most of the individual-level opinion findings to date—with the notable exception of Brooks and Valentino—are based on observational surveys with relatively simple “for-or-against” questions.<sup>50</sup> These data admit to multiple interpretations because the counterfactual policies, then and earlier in the crisis, are not always clear. At a particular stage of a crisis, a respondent may support escalating to war, instead of backing down or staying out, even while they might have more strongly preferred other pacific policies. For example, respondents may support the use of force, given that their president has publicly threatened it,<sup>51</sup> while disapproving of their

42. Risse-Kappen 1995.

43. Goldstein 2003, 217–18.

44. Eichenberg 2019, chapter 1; see also Huddy et al. 2005, 599.

45. Eichenberg 2019, 6.

46. Brooks and Valentino 2011. See also Eichenberg 2016.

47. Eichenberg and Stoll 2012. See Berinsky 2009, 53–54 for evidence of co-moving preferences in World War II.

48. In the extreme, women can also be perpetrators of violence, as Cohen 2013 shows. See also Thomas and Bond 2015.

49. McDermott 2015, 767.

50. Brooks and Valentino 2011.

51. Fearon 1994; Tomz 2007; Trager and Vavreck 2011.

president's making the threat in the first place.<sup>52</sup> Our meta-analysis of survey experiments in part addresses this shortcoming.

## How Women's Preferences Matter

The impact of a group's preferences on state behavior depends on the group's electoral power and political voice, as channeled through democratic institutions. To a first approximation, the level of democracy determines the extent of public influence, and the extension of suffrage determines whether the voting public includes women; thus it is the two together that jointly determine whether mass-level female preferences influence state behavior. Democratic constraint on the use of force is not automatic and depends on features such as political parties and access to free media that provide citizens with sufficient information to exercise their ability to hold democratic leaders accountable.<sup>53</sup>

We argue that institutions enable two pathways through which women's suffrage influences elite decision makers. The first operates by changing the incentives of elected politicians, making them more responsive to issues that they perceive women care about. Thus, Morgan demonstrates that existing politicians became more open to policies designed to help working women, such as parental leave laws.<sup>54</sup> Following the extension of suffrage in Britain, many conservatives, who feared and did not welcome women's suffrage, acknowledged that their party would, "of necessity, be compelled to attract them."<sup>55</sup> The further extension of women's suffrage in the United Kingdom was a striking example of male elite deference to the views of the electorate. Following partial suffrage in 1918, most conservative elites did not welcome full suffrage, but they understood that obstructing it would alienate a large portion of the new electorate.<sup>56</sup> Following suffrage in the United States, women become more politically engaged over time, on average, though their political mobilization varied over time and space.<sup>57</sup>

The second route to influence is through choosing elites who better represent public preferences. Observation of gender differences in voting behavior along the lines predicted would be supporting evidence of this mechanism. However, such an observation is not a necessary consequence of female voters influencing policy: along the lines of the median voter theorem, female suffrage could counterfactually change multiple candidates in the direction of female voters' preferences, without opening up this policy dimension as a basis for choice between candidates.

52. Kertzer and Brutger 2016.

53. Baum and Potter 2015; Reiter and Stam 2002.

54. Morgan 2013.

55. McCrillis 1998, 19.

56. *Ibid.*, chapters 2 and 6.

57. Corder and Wolbrecht 2016.



## Women's Suffrage and Peace: Hypotheses

We are now in a position to theorize how women's suffrage might affect international conflict and, in particular, the democratic peace. We have argued that the level of democracy and the existence of suffrage jointly determine whether mass-level female preferences shape policymakers' preferences over foreign policy. But whether and how policymaker preferences affect interstate conflict behavior depends on strategic context. Does a shift toward pacific preferences get absorbed by a compensating increase in aggression by others? Do these more pacific suffrage democracies find ways to avoid conflicts with all other countries (a monadic suffragist peace)? Or, does it take two to avoid conflict, thus leading only to a dyadic suffragist peace?

To reiterate: the public opinion evidence suggests that women are more likely than men to oppose the use of force overall, not just against other democracies. Women will not oppose defending against an attack, and are responsive to context and justification—women and men respond to many of the same contextual factors. Thus, electorates that include women have a lower baseline level of support for conflict but are otherwise largely similar to other electorates. We discuss the implications of this conceptualization here, and formalize these ideas in two models in the appendix. To be clear, this is not the only path through which gender might affect the democratic peace, but it is the most direct route for the large shift in public preferences associated with the advent of women's suffrage.<sup>58</sup>

The bargaining model framework associated with Fearon's work provides a starting point for understanding the effects of such changes in the political costs of conflict.<sup>59</sup> In general, increases in these costs decrease the likelihood of both conflict initiation and war. One reason is that increases in costs increase the size of bargaining ranges. This implies a reduction in the set of status quos which, in the first place, require renegotiation to avoid war; all else equal, this reduces the likelihood of war. A wider bargaining range can also reduce the need for war as a result of commitment problems. To see this, consider the commitment problem that occurs because power is shifting in favor of one side. War occurs if the side that is losing in power prefers war today to the best bargain it could strike later, once power has shifted. Increases in war costs to the side that is losing in power make it less willing to fight today; increases in war costs to the side that is gaining in power improve the quality of the bargain that the declining state will be able to strike later. Thus, both factors undermine the commitment problem such that the declining state may prefer negotiated settlements to war.

The case of conflicts that result from incomplete information is similar, but with a wrinkle. On the one hand, increasing costs of conflict make states less willing to fight. On the other, rising costs may entice opponents to make greater demands. Which of

58. See the discussion of gendered state interactions in Sjöberg 2013, chapter 4.

59. Fearon 1995.

these two factors has the greater effect on the probability of conflict depends on the specific model under consideration and in particular on the ways that rising costs influence actors' domains of uncertainty. In many models of international conflict, increases in the costs of war—or in the benefits of peace, which are modeled as mathematically equivalent—decrease the likelihood of conflict initiation for that actor and the probability of war overall.<sup>60</sup> In a few others, however, increasing costs can increase the probability of war for some parameter values.<sup>61</sup>

In spite of this complexity, all of these models imply that states are less likely to force a change in the status quo by initiating a crisis when their own costs of conflict increase relative to the benefits of peace.<sup>62</sup> Thus, we expect suffrage democracies to be less likely to initiate crises—a monadic democratic peace with respect to crisis initiation. As Rousseau and colleagues argue, “in comparing the monadic and dyadic propositions, it is crucial to distinguish between the use of force in response to force (such as defending against an invasion) and the initiation of force (such as launching an invasion) ... public opinion may be averse to using force but recognizes the necessity of it when faced with an attack.”<sup>63</sup> Although a suffrage democracy will issue fewer threats, if attacked it would still have good reason to defend itself, as we discussed earlier. Thus, our monadic hypothesis refers to the likelihood of crisis initiation.

*H1: Monadic Initiation Hypothesis: The adoption of women's suffrage alongside other democratic institutions makes states less likely to initiate crises than democracies without women's suffrage or autocracies.*

The analysis of suffrage democracy's effect on the overall probability of conflict is more complicated because of the possibility that other states will increase their demands on states who are less willing to fight. A state with more pacifist preferences as a result of the adoption of suffrage may not be able to avoid conflicts with partners who do not feel the same. After all, as McDermott notes, women are likely to support defending against aggression.<sup>64</sup> If war is a strategic imperative because of foreign aggressors, marginal shifts in preferences will not influence the overall likelihood of conflict. Thus, it may be that some long-running rivalries, such as the one between France and Germany, may have required both sides to adopt democratic institutions and women's suffrage before the rivalry could be ended. Additionally, if suffrage reduces the probability of initiation but suffrage democracies still fight back if attacked, states of all regime types should have less concern that democracies with suffrage will fear exploitation and thus take aggressive action against them.<sup>65</sup>

60. Polachek and Xiang 2010.

61. Morrow 1999; Spaniel 2019.

62. See Part E.1 in the appendix for a formalization of this point in an incomplete information model.

63. Rousseau et al. 1996, 514.

64. McDermott 2015.

65. For an analogous discussion, see Rousseau et al. 1996, 514–15.

When both sides are more pacific, neither need fear exploitation, trust will increase, and we expect the overall likelihood of conflict to decrease.

In the context of traditional bargaining models where the sides have incomplete information about each other's resolve, mutual increases in conflict costs—as opposed to cost increases on only one side—generally decrease the likelihood of conflict. When costs to the two sides increase in tandem, the scope of the demand from the challenging state on the other tends to remain unchanged, as we show formally in Appendix E, but the probability that the other state is willing to fight for any given bargaining outcome declines with the result that the overall likelihood of conflict declines. Thus, whether we conceive of international conflicts as resulting from deficits of trust that cooperation will be reciprocated or uncertainty about actors' resolve, dyadic increases in the costs of conflict lead to a reduction in the likelihood of conflict. We state this as the *Dyadic Suffragist Peace Hypothesis*. Appendix E formalizes these arguments in two models, one of trust and one of incomplete information about resolve. Notably, this argument does not mean that women are more likely to perceive democracies as less threatening more generally, as in traditional dyadic democratic peace logic. Rather, it is specifically that the extension of suffrage to women, with their generally more peaceful preferences, alters the preferences and aggressive tendencies of both countries, and likely how each perceives the other.

*H2: Dyadic Suffragist Peace Hypothesis: The adoption of women's suffrage alongside other democratic institutions in dyads makes these dyads less likely to engage in conflicts than democratic dyads without women's suffrage or autocratic dyads.*

## Research Design

Our arguments move from the individual level to the international outcome level, and so our research design accordingly uses data from both levels. First, at the individual level, we conduct a meta-analysis of recent survey experiments in the field, breaking respondents down by sex. Here, our primary aim is to show that women are, on average, less supportive of using force across a variety of controlled comparisons in different scenarios and varying national and international contexts. Although we are limited in the scope of our discussion of the individual-level data here, we report further results in the appendix. We also briefly note results from experiments on audience costs and the democratic peace that bear on our theoretical discussion. These experiments provide a unique source for drawing inferences about the effect of sex (again, using this term pragmatically because available data do not allow for more nuanced exploration of gender differences). They are designed to isolate factors that researchers in the field consider to be important determinants of conflict. To the extent that women are less supportive of using force (and more supportive of peaceful solutions) across these different contexts, we will have individual-level evidence that women represent a pool of voters with more pacific preferences.

We then use interstate conflict data to assess the nature of the suffragist peace, and specifically to evaluate the monadic and dyadic hypotheses. Our dyadic hypothesis and tests correspond closely to the dyadic analyses of the democratic peace that are prevalent in the literature. Our analysis therefore serves as a direct test of the suffragist peace against the most prominent alternatives.

### **Meta-Analysis of Differences Between Male and Female Preferences on the Use of Force**

For the meta-analysis, we use what we believe to be the universe of experiments for which data were available through 2016 conducted by international relations scholars on representative samples of national populations that describe a potential or actual international conflict and ask respondents about their preferences over crisis bargaining outcomes.<sup>66</sup> We also conducted four original experiments in four different countries. In total, we analyze seventeen studies comprising more than 20,000 respondents from six countries and four continents.

The survey vignettes of these studies offer diverse reasons for the use of force across a range of contexts, including the response of British and US populations to using force to prevent nuclear weapons acquisition;<sup>67</sup> protecting an ally, humanitarian intervention, and regime change;<sup>68</sup> Japanese support for the use of force alongside the US in the service of democratic regime change in the Middle East;<sup>69</sup> military action in East Timor;<sup>70</sup> conflict between the United States and with Russia in the Arctic;<sup>71</sup> and an attack on an Al Qaeda nuclear weapons lab in Syria.<sup>72</sup> The original data we collect come from experiments in Egypt, Israel, Turkey, and the United States. Each of these experiments ask similar questions about a resource conflict in the Mediterranean or, in the case of the US, in the Arctic.<sup>73</sup>

To perform the meta-analysis, we restrict attention to vignettes that describe either a use of force in the future or a successful use of force in the past. Some of these experiments included a description of a conflict as a treatment alongside other treatments describing peaceful outcomes while others included only a question about a choice to engage in conflict following a description of an international context. We exclude vignettes describing unsuccessful uses of force because reactions to these may conflate reactions about the use of force itself and about the defeat. When participants were asked if force should be used or should be used only under a more

66. For details see Part F.4 of the online appendix.

67. Tomz and Weeks 2013.

68. Flores-Macías and Kreps 2017.

69. Tago and Ikeda 2015.

70. Grieco et al. 2011.

71. Gottfried and Trager 2016.

72. Press, Sagan, and Valentino 2013.

73. For details, see Part F.5 of the appendix.

restrictive set of conditions, we coded only the unrestricted-use-of-force option as advocating the use of force.

The main result of this meta-analysis is unequivocal. *In every study, support for the use of force is higher among men than among women.* The average level of support among men is just over 50 percent while the average support among women is only 38 percent, a thirteen-percentage-point difference which is highly significant ( $p < 10^{-68}$ ). These effects span the globe to a remarkable degree.<sup>74</sup> The difference between the sexes in approval of the use of force over Mediterranean resources is 14 percent in Egypt, for instance, and 12 percent in Turkey ( $p < .01$ ). Each of the US and UK studies are individually significant at conventional levels, and the pooled difference of 12 percent has  $p < 10^{-24}$ . In the two studies from Japan, the difference in approval levels by sex is a remarkable twenty-three percentage points ( $p < 10^{-27}$ ). In fact, the difference between male and female support is highly significant in each study of at least 500 respondents with the sole exceptions of our original study conducted in Israel ( $p = .1$ ), which is consistent with Tessler and Warriner's findings, and the Press, Sagan, and Valentino study in which approval of an attack on an al Qaeda nuclear weapons lab is high for both sexes ( $p = .15$ ).<sup>75</sup> These results are presented in [Table 1](#).

In every region we examined—North America, Europe, the Middle East, and Asia—the difference in preferences is statistically significant, often at extreme levels. The results of the meta-analysis also suggest differences across regions. The effect appears largest in Japan and smallest in Israel, for instance. But, across cultural contexts and regions, women are less approving of the use of force vis-à-vis a peaceful alternative.

The results also emphasize, however, that women are neither uniformly nor unalterably opposed to the use of force. Indeed, the weighted average of approval for force in all fifteen studies is 38 percent among women, with many studies showing support in the 30 to 40 percent range. Furthermore, prior experiments that explicitly explore the gender gap on war (e.g., Brooks and Valentino) as well as observational data (e.g., Eichenberg) suggest that women support the use of force in particular contexts.<sup>76</sup>

Although a full exploration of results at different stages of conflict processes is beyond the scope of this paper, we note two other relevant sets of results here (and in Part F of the online appendix, we present results from other points on the escalatory ladder). First, and related to the initiation of crises, several studies allow us to examine how men and women evaluate leaders who back down from a threat

74. See Appendix F.1 on crosscultural and crossregional similarities.

75. Tessler and Warriner 1997; Press, Sagan, and Valentino 2013.

76. Brooks and Valentino 2011; Eichenberg 2016. The data do not include Sagan and Valentino 2017, which examines support for escalation to nuclear or conventional bombing in an ongoing war. This study finds little difference between men and women on this question and even some evidence that women may be more willing than men to escalate to nuclear weapons use to protect US soldiers' lives.

**TABLE 1.** Conflict preferences by sex in seventeen experiments

Study	Country	Approval of Force		Sex Difference	Study N <sup>†</sup>	Reason for Use of Force
		Male	Female			
<b>Previous Experiments</b>						
Kertzer and Brutger (2016)	US	46%	38%	7%	489	Protecting foreign state
Flores-Macías and Kreps (2017)	US	47%	36%	12%***	2,500	Protecting ally, humanitarian, or regime change
Flores-Macías and Kreps (2017)	UK	46%	33%	13%***	2,122	Protecting ally, humanitarian, or regime change
Gottfried and Trager (2016)	US	44%	33%	11%	177	Resource conflict with Russia
Grieco et al. (2011)	US	53%	38%	14%***	1,036	Protecting East Timor
Ikeda and Tago (2014)	Japan	49%	28%	21%***	1,001	Stopping autocratic repression
Johns and Davies (2012)	US	53%	41%	11%***	2,048	Threatening nuclear weapons program
Johns and Davies (2012)	UK	46%	36%	10%***	4,679	Threatening nuclear weapons program
Press, Sagan, and Valentino (2013)	US	72%	67%	5%	766	Al Qaeda nuclear weapons lab in Syria
Tago and Ikeda (2015)	Japan	53%	26%	26%***	1,001	Democratic regime change in Middle East
Tomz and Weeks (2013)	US	54%	42%	12%***	1,273	Nuclear weapons acquisition
Tomz and Weeks (2013)	UK	34%	20%	13%***	762	Nuclear weapons acquisition
Trager and Vavreck (2011)	US	70%	40%	30%***	173	Protecting strategic country
<b>Original Data</b>						
Egypt (2016)		54%	41%	14%**	513	Mediterranean resource conflict
Israel (2016)		41%	37%	4%	687	Mediterranean resource conflict
Turkey (2016)		68%	55%	12%**	554	Mediterranean resource conflict
United States (2016)		51%	33%	18%***	1,017	Arctic resource conflict
<b>Overall Average (Weighted by Study Size)</b>		<b>50%</b>	<b>38%</b>	<b>13%***</b>	<b>20,798</b>	

Egypt, Israel, and Turkey original data indicate percent of respondents marking above 5 on a 10-point scale. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

† Indicates number of respondents asked about the use of force or administered a use-of-force treatment, which is often less than the total respondents in the study.

TABLE 2. Sex differences in staying out versus backing down

Study	Male Approval		Female Approval		Audience Cost (SO-BD)		Audience Cost Dif.	Study N <sup>†</sup>
	Stay Out	Back Down	Stay Out	Back Down	Men	Women		
Kertzer and Brutger (2016)	51%	30%	61%	26%	21%	35%	13%	453
Levendusky and Horowitz (2012) <sup>‡</sup>	30%	13%	36%	15%	17%	21%	4%	1,108
Tomz (2007) <sup>§</sup>	29%	21%	30%	17%	8%	13%	5%	3,123
Trager and Vavreck (2011) <sup>§§</sup>	37%	19%	45%	22%	18%	24%	6%	2,336
<b>Weighted Average</b>	<b>33%</b>	<b>20%</b>	<b>38%</b>	<b>19%</b>	<b>14%</b>	<b>19%</b>	<b>6%***</b>	<b>7,020</b>

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

† Indicates the number of respondents given the Stay Out or Back Down treatments. ‡ Includes all audience cost conditions that do not involve new information arising during the crisis. § Includes Back Down conditions that do not involve the use of force since those that do could be categorized as Unsuccessful War. §§ Pools data for studies 1 and 2 from this article.

versus those who remain out of a conflict entirely, which is known as the audience cost.<sup>77</sup> We examine four studies conducted on representative samples of the US population and comprising over 7,000 respondents in total. Table 2 presents the results. It is apparent that both men and women impose audience costs: approval for both is much higher for leaders who remain out of a conflict and do not threaten force than for leaders who make a threat on which they do not follow through. In each of the studies, the audience cost imposed by the women is higher than that imposed by the male population, but in no study considered in isolation is the difference between the sexes statistically significant. When we pool the data from all four studies, however, we see that the sex difference in audience costs is highly significant at the  $p < .001$  level.

But these results mask an important difference: women tend to impose these audience costs for a different reason than men. Following the procedure used by Kertzer and Brutger, we used the data from this study to decompose audience costs into a cost for saying one thing and doing another (inconsistency) and a cost for making a threat in the first place (belligerency).<sup>78</sup> The results are striking: while most men impose audience costs because of inconsistency and the threat to reputation that this implies, most women impose audience costs for belligerency. The results support the theoretical expectation that women are less supportive of initiating threats and crises that might lead to using force. Part F.3 of the online appendix presents this analysis.

Second, and more directly related to the democratic peace, men and women appear to perceive regime types similarly even as women's lower baseline preference for force affects their willingness to strike both democratic and autocratic targets.

77. Fearon 1994; Tomz 2007.

78. Kertzer and Brutger 2016.

TABLE 3. *Analysis of democratic peace experiments by sex*

<i>US Experiments</i>	<i>Full Sample</i>	<i>Men</i>	<i>Women</i>	<i>Sex Diff</i>
<i>Johns and Davies (2012)</i>				
Not a democracy	50%	55%	44%	-11%***
Democracy	44%	50%	38%	-12%***
Effect of democracy	-6%**	-5% †	-6% †	
<i>Tomz and Weeks (2013)</i>				
Not a democracy	53%	61%	46%	-15%***
Democracy	42%	46%	39%	-7% †
Effect of democracy	-11%***	-15%***	-7% †	
<i>UK Experiments</i>	<i>Full Sample</i>	<i>Men</i>	<i>Women</i>	<i>Sex Diff</i>
<i>Johns and Davies (2012)</i>				
Not a democracy	44%	49%	39%	-10%***
Democracy	38%	43%	34%	-9%***
Effect of democracy	-6%***	-6%**	-5%*	
<i>Tomz and Weeks (2013)</i>				
Not a democracy	34%	41%	24%	-17%***
Democracy	21%	25%	17%	-8% †
Effect of democracy	-13%***	-16%***	-8% †	
<b>Overall</b>				
Not a democracy	46%	51%	40%	-11%***
Democracy	39%	43%	34%	-9%***
Effect of democracy	-7%***	-8%***	-6%***	
N	8,762	4,343	4,419	

Note that the numbers for the Johns and Davies UK experiments are slightly different from those reported in the article because we use their whole sample rather than the subset on which the article focuses. †  $p < .1$ . \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Here, it is particularly useful to consider the Johns and Davies and the Tomz and Weeks experiments on public opinion and the democratic peace, which examine public support for military strikes against a democracy or an otherwise identical autocracy and are thus the individual-level studies of most direct relevance to this paper (see Table 3).<sup>79</sup>

Both experiments include US and UK samples. In the US, more than half of respondents support a strike against an autocracy while fewer than half support a strike if the target is a democracy. Breaking this result down by sex, however, reveals a striking pattern. Among men, 57 percent support a strike against an autocracy, versus 48 percent against a democracy. But among women, 45 percent support

79. Johns and Davies 2012; Tomz and Weeks 2013.



using force against an autocracy, versus 38 percent against a democracy. Thus, more than half of men are either in favor of a strike or nearly so, whatever the target's regime type, whereas a majority of women never are. The differences between men and women are highly significant whether the target is a democracy or an autocracy. Although results for the United Kingdom show treatment effects of very similar magnitude in terms of regime type across sex, in the UK both sexes have lower baseline support for war across regime types, with minorities of both sexes favoring a strike. In both countries, expanding suffrage to women would thus decrease support for using force against both democracies and autocracies ( $p < .00000001$  for both regime types).

Overall, the meta-analysis supports our theoretical discussion: women have a lower baseline preference for using force across many contexts and regions; women do not perceive democratic regimes differently than men; and women are less supportive of initiating crises, but are overall far from pure pacifists. These findings point to not only a dyadic suffragist peace, but also a monadic suffragist peace with respect to initiation. We now turn to the analysis of international conflict behavior.

### Statistical Analysis of Suffrage-Democracy and Conflict

We first examine crossnational evidence for the monadic initiation hypothesis over the period 1816 to 2010 using directed-dyad initiation models, where the unit of observation is the directed dyad and the outcome variable is the initiation of a militarized dispute. This enables us to account for well-established correlates of conflict including relative capabilities, contiguity, distance, and alliances. Models assessing the likelihood of initiation using country-year data are in Part B.3 of the appendix. We then assess the evidence for the dyadic suffragist peace using the standard non-directed dyad framework generally employed for assessments of the democratic peace. In keeping with prior approaches, we omit all but the first years of World War I and World War II and all but the first year of ongoing, multi-year disputes. All data on dispute involvement are taken from the Dyadic Militarized Interstate Dispute data set version 3.1. To ensure consistency across measures of the democratic peace, data on regime type are taken from the Polity IV data set.<sup>80</sup> Models using alternative measures of democracy and alternative measures of interstate disputes coded by Gibler, Miller, and Little are reported in the appendix, Part B.<sup>81</sup> Those models do not differ significantly from the results we report. Unless noted, variables are coded as described by Oneal and Russett.<sup>82</sup>

80. Marshall, Jaggers, and Gurr 2011.

81. Gibler, Miller, and Little 2016.

82. Oneal and Russett 1999.

*Dependent Variables: Involvement in Militarized Disputes*

Our analyses employ two primary dependent variables. The monadic analysis utilizes the variable INITIATION, coded 1 when a state first threatens, displays, or uses force against its opponent, and otherwise coded 0. The dependent variable DISPUTE, used within the dyadic analysis, is coded 1 in the first year of a dyadic dispute in which one or both states threatened, demonstrated, or used military force against the other, and 0 in all other years, as is traditional in the democratic peace literature. In the appendix, we present models estimating the likelihood of the use of force alone, the results of which are similar to those we report.<sup>83</sup>

*Independent Variable: Women's Suffrage*

Data on women's suffrage were collected primarily using the United Nations report on the *Progress of the World's Women* which lists the voting status of women by year in all 196 countries. In 160 countries, women's suffrage was granted to all women within the country at the same time. In thirteen other countries, the right to vote was granted to women in stages according to different sets of conditions. Some constraints were unique. In Belgium, for instance, war widows, mothers of those killed in war, and female political prisoners were granted the right to vote in 1919 while all other Belgian women of an equivalent voting age of men were granted the vote in 1948. Other states—such as Australia and Canada—first granted women suffrage on the basis of race, while some states—such as Bolivia, Ireland, Romania, and the United Kingdom—first granted women suffrage on the basis of literacy, property rights, or education level, and only later adopted legislation allowing full women's suffrage at an equivalent age as men. Of course, the right to vote did not always translate into actual votes—for example, Black women in the Jim Crow South waited decades before they could exercise their voting rights. Nevertheless, we estimate that within all but six of these thirteen countries that adopted suffrage in a piecemeal fashion, the first wave of women's suffrage created voting populations in which women constituted at least 40 percent of all eligible voters.<sup>84</sup> The first wave of women's suffrage therefore represents the largest overall shift in the gender balance of the electorate within all but six of the 196 states included within the analysis. Although the effect of this substantial shift is our primary interest for this study, we also assess the effect of other measures of suffrage, including universal women's suffrage and whether a national election has been held in which women were eligible to vote, within Part B.10 of the appendix.

Figure 1 illustrates the number of democracies that did and did not allow women's suffrage within each year between 1815 and 1975.<sup>85</sup> The figure shows that while the

83. See Parts B.5 and B.9 of the appendix.

84. Information about the waves of women's suffrage is in Part A, 1–5 of the appendix.

85. Democracies here are those states that receive a score from the Polity IV data set of 7 or higher within a given year.

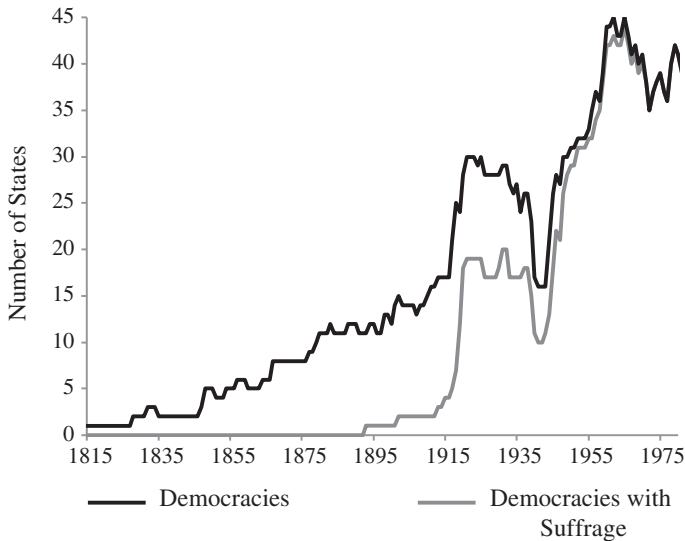


FIGURE 1. *Democracies with and without women's suffrage*

number of democracies grew slowly but gradually over the nineteenth century, no woman held the right to vote in national elections until 1893 when New Zealand became the first state to grant universal women's suffrage, followed by Australia in 1902, Finland in 1906, and Norway in 1913. The graph shows a sharp increase in the number of democracies both with and without women's suffrage in the period 1915 to 1922. Denmark, Canada, Austria, Germany, Ireland, the United Kingdom, and the United States, among others, adopted women's suffrage during this period. By 1955, all but two democracies, Sudan and Switzerland, had granted women the vote.<sup>86</sup> Because of the relative lack of variation prior to 1893 and after 1955, the analysis focuses in detail on the intervening years.

Perhaps surprisingly, women have been officially granted the right to vote in the vast majority of countries, including those that do not actively hold national elections. Only five states—Brunei, Saudi Arabia, Oman, Qatar, and the UAE—had not granted women's suffrage by 1999. Given our hypothesis that the interaction between women's suffrage and a state's level of democracy will determine the degree to which female preferences on the use of force constrain state behavior, we do not expect states that have legally granted suffrage but are not sufficiently democratic to behave more peacefully than other states. The coding of our primary variable WOMEN'S SUFFRAGE therefore depends upon two components. First, it considers whether any women in the state are able to vote in national elections. Second, it

86. Sudan granted women suffrage in 1958 and Switzerland in 1971.

incorporates a baseline measure of democratic institutions below which we would not expect suffrage to affect a state's behavior. Because we have no theoretical reason to believe that women's votes should affect the conflict propensity of autocratic states, the variable is coded 1 if suffrage for national elections has been extended to women in a state and the state's Polity score is 1 or higher. The variable is otherwise coded as 0. To ensure that our results are not dependent on this specific operationalization, in robustness analyses we also operationalize democratic institutions either (1) using a polity threshold of 6, or (2) using the specific polity indicators for open and competitive elections (i.e., if the state's democracy, not polity, score is 6 or higher. See Part B.12 of the appendix for further discussion of these robustness analyses). We then created the dyadic variable *JOINT WOMEN'S SUFFRAGE DEMOCRACY*, coded 1 if *WOMEN'S SUFFRAGE* equals 1 for both states in the dyad.

To assess the potential monadic effects of women's suffrage on the likelihood that a democratic state initiates conflict, we created two dichotomous variables. The first variable, *DEMOCRACY WITHOUT WOMEN'S SUFFRAGE*, is constructed using our suffrage variable and the standard coding of democracy and is coded 1 if the state has a Polity score of 6 or above and if women are not allowed to vote in national elections, and is otherwise coded 0. The second binary variable, *AUTOCRACY*, utilizes the standard coding of autocracy and is coded 1 if the state's Polity score is 5 or below and otherwise coded as 0. Inclusion of these two variables within our core monadic analyses enables us to directly compare the probabilities of initiation for autocracies and democracies without women's suffrage to the baseline probability of initiation for democracies with women's suffrage. To investigate whether the pacifying monadic effects of women's suffrage increase as the state becomes more democratic, we also created a continuous measure of democracy and women's suffrage. This variable, *POLITY \* WOMEN'S SUFFRAGE*, interacts the state's democracy score with the variable *WOMEN'S SUFFRAGE*.<sup>87</sup>

To assess the effect of women's suffrage within a dyadic setting, we employed two very similar approaches. The first approach utilizes binary variables similar to those described for the monadic analysis. First, we created the variables *JOINT AUTOCRACY*, coded 1 if both states within the dyad have polity scores of 5 or less and otherwise as 0, and *JOINT DEMOCRACY WITHOUT WOMEN'S SUFFRAGE*, coded 1 if both states have polity scores of 6 or higher and if neither state allows women to vote and is otherwise coded 0. If our monadic hypothesis is correct, we should expect significant differences in the conflict propensity of mixed dyads. For instance, a mixed dyad containing one democracy with women's suffrage and one democracy without women's suffrage may be significantly less conflict prone than a dyad containing one democracy without women's suffrage and one autocracy. To account for these potential differences,

87. As Oneal and Russett 1999 note, increases in the voting population often do not correspond with increases in Polity scores. See Part A.2 of the appendix. Further analysis in Part B.12 shows that the relationships we report hold when omitting the "regulation of participation" component of the Polity score which captures the extent of political participation within the state. See Paxton 2000 on issues of democracy measures and women's suffrage.

we include three additional variables to account for types of mixed dyads. The first, DEMOCRACY WITHOUT WOMEN'S SUFFRAGE / AUTOCRACY, is coded 1 if one state in the dyad has a polity score of 6 or greater and does not allow women the vote and the other state has a polity score less than 6. The second, DEMOCRACY WITHOUT WOMEN'S SUFFRAGE / DEMOCRACY WITH WOMEN'S SUFFRAGE is coded 1 if one state in the dyad has a polity score of 6 or greater and does not allow women the vote and the other state has a polity score greater than 6 and allows women to vote. The final variable, DEMOCRACY WITH WOMEN'S SUFFRAGE / AUTOCRACY, is coded 1 if one state in the dyad has a polity score of 6 or higher and allows women the vote and the other state has a polity score of 5 or less. The inclusion of these variables ensures that the baseline for comparison within the dichotomous dyadic models is the likelihood of dispute involvement between joint women's suffrage democracies.

The second dyadic approach for analyzing suffrage's dyadic effects employs continuous variables for democracy. We utilize the standard  $DEM_L$  variable which is obtained by first calculating the Polity score of each state, a value which ranges from -10 for extreme autocracies to 10 for the most democratic states, and then taking the lower of these two calculations within each dyad. For our primary variable of interest, we interact our variable assessing joint women's suffrage with the lowest democracy score to create  $DEM_L * JOINT WOMEN'S SUFFRAGE$ .

In keeping with the standard empirical approach, we also include the variable  $DEM_H$ , which lists the highest Polity score within the dyad. Prior analysis of the democratic peace has shown that increasing the highest democracy score while holding the lowest democracy score constant correlates with an increase in conflict propensity. This finding is credited to the idea that states with greater differences in regime type are more likely to fight each other.<sup>88</sup> We also include the variable AT LEAST 1 WOMEN'S SUFFRAGE, coded 1 if one or both states within the dyad allow women's suffrage and have a polity score higher than 5 and 0 otherwise. Finally, we include the analogous variable  $SUFFRAGE-DEMOCRACY_H = \max((WOMEN'S SUFFRAGE_{StateA} * POLITY_{StateA}), (WOMEN'S SUFFRAGE_{StateB} * POLITY_{StateB}))$ .

### *Measure of Gender Equality*

We include the variable WOMEN'S CIVIL LIBERTIES within some models to account for the possibility that broader cultural shifts are driving both attitudes toward the adoption of women's suffrage and the use of force abroad. The variable, collected as part of the Varieties of Democracy project and covering the period from 1789 to 2017 for many countries, provides a measure of the extent that women within the state have the ability to "make meaningful decisions" in their lives, lagged by one year.<sup>89</sup> The factors that influence this variable include freedom of domestic movement, freedom from forced labor, the right to hold private property, and equality of access to justice.

88. Oneal and Russett 1999, 12.

89. See Coppedge et al. 2016, 268 for more information.

### *Additional Variables*

In keeping with the standard empirical approach to the study of the democratic peace theory, we include the following control variables: NONCONTIGUITY, CAPABILITY RATIO, ALLIANCE, INTEREST SIMILARITY, LOG DISTANCE,  $DEPEND_L$  and PEACE YEARS, PEACE YEARS  $\times$  2 and PEACE YEARS  $\times$  3, among others, which are all described, for the sake of space, in Part D of the appendix.<sup>90</sup>

## Results

### *Monadic Findings*

The results of seven models estimating the relationship between suffrage and conflict initiation using logistic regression on directed dyad data from 1816 to 2010 are presented in Table 4. Models 1 to 4 utilize the dichotomous independent variables. The likelihood of initiation among women's suffrage democracies serves as the baseline for comparison within these four models. The coefficients for AUTOCRACY and DEMOCRACY WITHOUT WOMEN'S SUFFRAGE in model 1 therefore reflect that both types of states are significantly more likely to initiate conflict than women's suffrage democracies, in keeping with our monadic hypothesis. Models 2 to 4 illustrate that the significant difference between democracies with and without women's suffrage holds when including the measure for women's civil liberties, within the more constrained period between 1893 and 1955 when variation in democratic type existed, and when including dyad fixed effects. Model 2 suggests that the relationship between autocracies and women's suffrage democracies is not robust to the inclusion of women's civil liberties over the full time period, but models 3 and 4 indicate that it is robust within the more constrained period between 1893 and 1955 and to the inclusion of dyad fixed effects.<sup>91</sup>

Figure 2 presents differences in the predicted probability of conflict initiation by regime type calculated using model 3 of Table 4. The figure shows that democracies without women's suffrage are 192 percent and autocracies 163 percent more likely to initiate disputes than democracies in which women are able to vote. The initiation behavior of democracies without women's suffrage is similar (Z-score of 0.3) to that of autocracies. These dichotomous monadic results are strongly supported by similar analysis using country-year data presented in the appendix (Part B.3) which finds the probability of initiation among women's suffrage democracies to be significantly lower than that of autocracies and democracies without women's suffrage across a range of models, including those truncated to the 1890 to 1935 period and within models that include country and country twenty-year fixed effects.

90. The findings are robust to the exclusion of temporal dependence terms. See Dafoe 2018.

91. Measures for trade and interest similarity are excluded because the limited availability of these data significantly increases bias.

**TABLE 4.** *Monadic models of conflict initiation, 1816–2010*

<i>Variables</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i> <i>1893–1955</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>
POLITY					.008 (.02)	.029 (.02)	.010 (.01)
WOMEN'S SUFFRAGE					.564 (.30)	.379 (.30)	.296 (.18)
POLITY × WOMEN'S SUFFRAGE					-.151*** (.04)	-.110** (.04)	-.123*** (.02)
DEM W/O WOMEN'S SUFFRAGE (0/1)	.977** (.33)	.831** (.32)	.946*** (.19)	.847*** (.13)			
AUTOCRACY (0/1)	.623** (.18)	.149 (.23)	.884*** (.22)	.574*** (.10)			
CIVIL-LIBERTIES		-1.19*** (.33)	-.870** (.29)	-.985*** (.21)		-1.192** (.34)	-.990*** (.23)
CONTIGUITY	3.24*** (.27)	3.176*** (.29)	1.502*** (.17)		3.19*** (.27)	3.141*** (.29)	
CAPABILITY RATIO	.031 (.03)	.027 (.03)	.051*** (.01)	.029 (.04)	.034 (.03)	.027 (.03)	.015 (.04)
ALLIANCE	.345 (.19)	.329 (.21)	-.327* (.17)	-.328*** (.08)	.364 (.19)	.348 (.21)	-.323*** (.08)
MINOR POWERS	-.541* (.21)	-.451* (.22)	-2.208*** (.14)	-.609*** (.14)	-.578** (.21)	-.504* (.22)	-.597*** (.14)
AT LEAST ONE NUCLEAR POWER	.858*** (.22)	.810*** (.23)		-.198 (.11)	.844*** (.22)	.786*** (.23)	-.211 (.11)
JOINT NUCLEAR	.758 (.63)	.737 (.68)		.120 (.21)	.778 (.65)	.745 (.69)	.102 (.21)
TRADE	-28.73 (18.43)	-18.52 (15.84)			-24.422 (16.87)	-16.621 (14.66)	
INTEREST SIMILARITY	-1.054*** (.28)	-1.21*** (.27)			-1.147*** (.28)	-1.279*** (.27)	
YEAR	-.003 (.00)	-.004 (.00)	.009* (.00)	.007*** (.00)	-.004 (.00)	-.004 (.00)	.008*** (.00)
DISTANCE	-2.417*** (.70)	-2.487*** (.71)	-.333 (.49)		-2.48*** (.70)	-2.542*** (.70)	
PEACE YEARS	-.121*** (.01)	-.116*** (.01)	-.065*** (.01)	-.041*** (.00)	-.120*** (.01)	-.114*** (.01)	-.041*** (.00)
<i>Fixed Effects</i>				Dyad			Dyad
N =	347,235	325,701	178,967	69,792	347,235	325,701	69,792

*Notes:* Coefficients for binary variables estimate difference with democracies with women's suffrage.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . Robust standard errors clustered by dyad in parentheses.

<i>Monadic Comparisons</i>	<i>Percentage Change</i>
Dem. with Women's Suffrage → Dem. without Women's Suffrage	+192%***
Dem. with Women's Suffrage → Autocracy	+163%***
Autocracy → Dem. without Women's Suffrage	+11%

*Notes:* Results generated using model 3 in Table 4, holding all other dichotomous variables at 0 and all continuous variables at their means. The baseline probability of dispute for suffrage democracies is .0015972, for male suffrage democracies .0046622, and for autocracies .004202. \* = Coefficients at the  $p < .05$  level.

**FIGURE 2.** *Differences in predicted probability of initiation, 1816–2010*

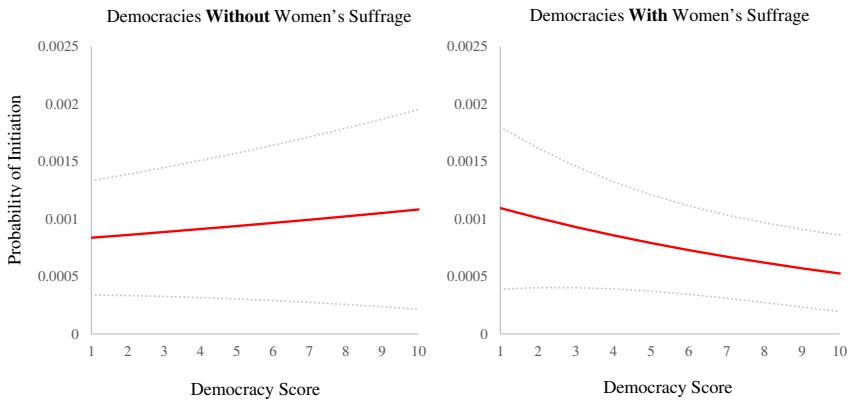
Models 5 to 7 in Table 4 employ the continuous approach to examining the effects of democracy and suffrage.<sup>92</sup> While the degree of suffrage's effect is difficult to glean from the coefficient table, the coefficient for the interaction between democracy score and suffrage is negative and significant. This finding is robust to the inclusion of the measure for women's suffrage and to the inclusion of dyad fixed effects. Figure 3 presents the predicted probability of initiation generated using model 6 in Table 4. The graph on the left illustrates that increasing the democracy score in states without women's suffrage is associated with a potential increase in the likelihood of conflict initiation. The graph on the right indicates that the potential pacifying effects of women's suffrage increase as the state becomes increasingly democratic.

The results reported in Table 4 are highly robust across a range of time periods. Model 3 in the table provides evidence that the existence of contemporary institutions and norms and unprecedented levels of economic interdependence in the postwar era is unlikely to explain the findings. Further analysis within Parts B.2 and B.3 in the appendix provide evidence that these findings are robust, for instance, within the interwar period, the period between 1816 to 1930, and over the whole period when excluding the Cold War years or the years between the two world wars.

The results are also highly robust to alternative model specifications. Analysis presented in Part B.5 in the appendix indicates that the findings are not limited to acts of initiation involving threats and displays of force but also extend to acts of initiation that include the use of force. Further analysis within Part B.1 of the appendix incorporates fixed effects accounting for dyad and for constrained temporal periods. That is, a fixed effect not only for every dyad and for a particular length of time, but for every combination of these. Such a specification relies on variation over twenty-year periods within a dyad, rather than crosscountry confounding. This analysis

92. Page 7 of the appendix shows the distribution of Polity scores for states with and without suffrage. See Hainmueller, Mummolo, and Xu 2019 on the need for common support within interaction models.





Notes: Predicted probabilities generated using results from model 6 in Table 4. All continuous variables held at their means and all non-primary dichotomous variables held at 0.

**FIGURE 3.** Differences in predicted probability of initiation, 1816–2010

shows that the pacifying effects of suffrage may occur within a ten-year window when a state is transitioning from a democracy without women's suffrage to one where women can also vote and a twenty-year window when a state is transitioning from an autocracy to a democracy in which women can vote.

## Dyadic Findings

We now assess our dyadic hypothesis that dyads in which both states are democracies with women's suffrage are less likely to fight than joint autocratic dyads and joint democratic dyads without women's suffrage. We estimated seven models of the relationship between suffrage and dispute involvement using logistic regression on non-directed dyad data from 1816 to 2010, presented in Table 5.<sup>93</sup> Model 1 assesses the relationship between dispute propensity and the five dichotomous measures accounting for dyadic regime type over the period from 1816 to 2010 and column 2 presents analysis of this model between the years 1893 and 1955. The coefficients in both models indicate that all dyadic types, except mixed democratic dyads in which one state has women's suffrage, are significantly more likely to engage in conflict than joint democratic dyads with women's suffrage. The predicted probabilities of conflict propensity by dyad type, generated using model 1, are presented in Figure 4.<sup>94</sup> The

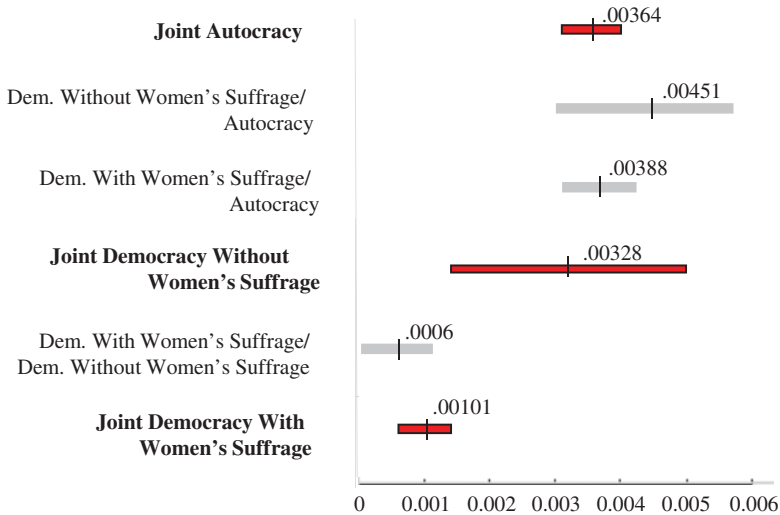
93. For the sake of space, coefficients for the temporal controls and for the squared and cubed measures of distance are omitted.

94. The variable accounting for women's civil liberties is not included because it is highly correlated with joint women's suffrage democracy dyads, the baseline group for comparison.

**TABLE 5.** *Dyadic models of dispute involvement, 1816–2010*

<i>Variables</i>	<i>Model 1</i>	<i>Model 2</i> <i>1893–1955</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i> <i>1893–1955</i>	<i>Model 7</i>
DEM <sub>i</sub>			-.079*** (.01)	-.056*** (.01)	-.035** (.01)	-.043** (.01)	-.008 (.01)
JOINT WOMEN'S SUFFRAGE				.791** (.26)	.762** (.27)	.749 (.62)	.795*** (.23)
DEM <sub>i</sub> * JOINT WOMEN'S SUFFRAGE				-.182*** (.04)	-.168*** (.04)	-.222* (.09)	-.192*** (.03)
DEM <sub>it</sub>			.023*** (.01)	.037*** (.01)	.022 (.01)	.032* (.01)	-.011 (.01)
AT LEAST 1 WOMEN'S SUFFRAGE DEMOCRACY				-.358 (.21)	-.444* (.21)	-.177 (.40)	-.328 (.21)
SUFFRAGE-DEMOCRACY <sub>it</sub>				.007 (.03)	.059 (.03)	.017 (.05)	.053 (.03)
JOINT AUTOCRACY (0/1)	1.379*** (.19)	2.162*** (.33)					
JOINT DEMOCRACY W/O WOMEN'S SUFF (0/1)	1.264** (.39)	1.343** (.48)					
DEM W/O WOMEN'S SUFF / AUTOCRACY (0/1)	1.619*** (.23)	2.250*** (.34)					
DEM W/O WOMEN'S SUFF / DEM W. WOMEN'S SUFF	-.561 (.52)	-.086 (.58)					
DEM W. WOMEN'S SUFF / AUTOCRACY (0/1)	1.449*** (.19)	2.160*** (.33)					
CIVIL-LIBERTIES <sub>i</sub>							
CONTIGUITY	2.030*** (.18)	1.739*** (.20)	2.054*** (.18)	2.042*** (.18)	2.004*** (.20)	1.667*** (.22)	
CAPABILITY RATIO	-.002 (.01)	.015 (.02)	.000 (.01)	.001 (.01)	-.017 (.01)	.001 (.02)	-.077 (.06)
ALLIANCE	.257** (.09)	-.361* (.17)	.259** (.09)	.278** (.09)	.308** (.10)	-.392* (.18)	-.274* (.11)
MINOR POWERS	-1.406*** (.12)	-2.026*** (.11)	-1.398*** (.11)	-1.399*** (.12)	-1.34*** (.12)	-1.979*** (.12)	-1.328*** (.26)
AT LEAST ONE NUCLEAR POWER	.678*** (.13)		.633*** (.12)	.682*** (.13)	.633*** (.13)		-.217 (.13)
JOINT NUCLEAR	-.302 (.53)		-.343 (.53)	-.301 (.54)	-.454 (.54)		-.707** (.26)
TRADE	-20.777 (10.92)		-20.124* (10.26)	-15.085 (10.32)	.708 (10.86)		
INTEREST SIMILARITY	-1.003*** (.22)		-.824*** (.22)	-.852*** (.23)	-1.187*** (.23)		
YEAR	-.001 (.00)	.000 (.00)	-.003 (.00)	-.000 (.00)	.002 (.00)	.004 (.00)	.009*** (.00)
DISTANCE	-.000*** (.00)	-.000* (.00)	-.001*** (.00)	-.000*** (.00)	-.000** (.00)	-.000** (.00)	
<i>Fixed Effects</i>							Dyad
N	302,889	70,125	302,889	294,482	277,213	59,218	28,922

*Notes:* Robust standard errors clustered by dyad in parentheses beside. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .



Notes: Results generated using model 1 in Table 5. Bolded rows highlight joint dyadic results, holding all other dichotomous variables at 0 and all continuous variables at their mean.

FIGURE 4. Predicted probability of conflict by dyad type, 1816–2010

figure illustrates that the predicted probability of disputes within joint women's suffrage dyads is significantly lower than the probability within joint democratic dyads without women's suffrage.<sup>95</sup>

The same is true of the relationship with joint autocracies, as the dyadic hypothesis predicts. The probability of dispute involvement within joint democracies without women's suffrage cannot, however, be distinguished from the conflict propensity of joint autocracies. The dispute propensity of joint democratic dyads in which one state grants women the vote and the other state does not is significantly lower than the likelihood of dispute between two democracies without women's suffrage.<sup>96</sup> The likelihood of dispute involvement between one autocracy and one women's suffrage democracy cannot, however, be distinguished from the likelihood within joint autocratic or joint democratic dyads without women's suffrage.<sup>97</sup>

95. These regime types differ at the .05 level despite the relatively small sample size of joint male-only voting democratic dyads ( $n = 1,090$ ). Joint male-only voting democratic dyads include Norway, Spain, Portugal, Switzerland, Colombia, Belgium, the US, Britain, France, and Greece in the years prior to suffrage. Disputes occurred between the US and Britain in the early 1900s and between Britain and Greece and Britain and France in the 1880s and 1890s, reflecting the particularly conflict-prone nature of great-power democracies during the imperialist era. See Rosato 2003.

96. These probabilities can be distinguished at  $p = .001$  level.

97. Our hypotheses do not address the propensity of mixed dyads to have a dispute, but the monadic hypothesis addresses the lower likelihood of conflict initiation by democracies with women's suffrage. Among the 624 disputes between democracies with women's suffrage and autocracies, over 60 percent

Models 3 through 7 in Table 5 analyze the relationship between the continuous measures of suffrage and dispute propensity. Model 3 replicates the standard model of the democratic peace from Oneal and Russett, with the inclusion of variables accounting for nuclear capabilities.<sup>98</sup> In keeping with prior results, the model shows that dispute involvement and the lowest democracy score are negatively and significantly correlated while high democracy score is positively and significantly correlated with dispute activity. Model 4 includes within this standard model the interaction variable  $DEM_L * JOINT\ WOMEN'S\ SUFFRAGE$  as well as its component variables, the monadic measure of women's suffrage and our continuous variable  $SUFFRAGE-DEMOCRACY_H$ . Because our primary variable is an interaction, the size of the coefficient cannot be interpreted directly. We do see, however, that it is negative and significant within this model, which also includes the variable accounting for women's civil liberties, and within model 7 which includes dyad fixed effects.<sup>99</sup>

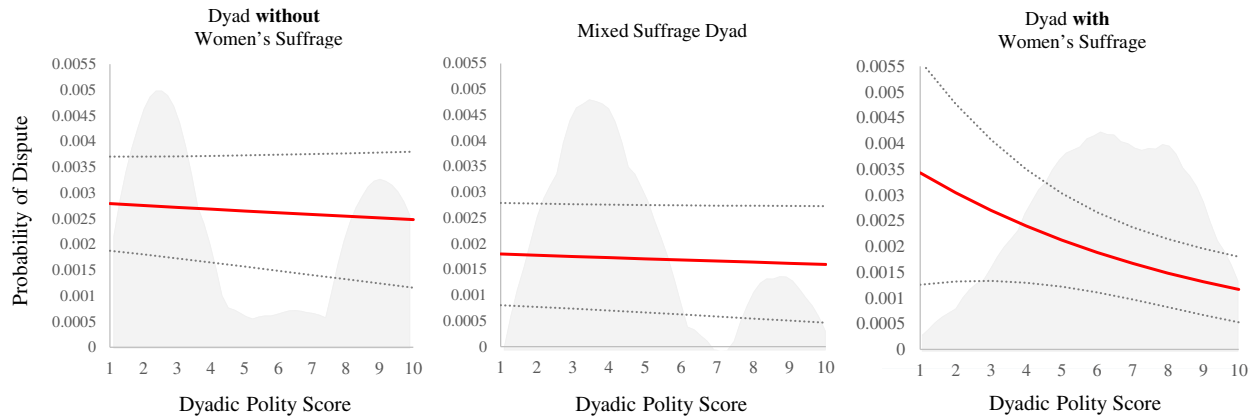
Figures 5 and 6 present the substantive interpretation of the relationship between dyadic suffrage and conflict propensity as estimated using model 5. The three graphs in Figure 5 each depict the probability of disputes in dyads in which both states share the same Polity score. As the graphs show, the effect of increasing dyadic levels of democracy on dispute propensity appears to depend significantly on the gender of eligible voters within the two states. An increase in dyadic democracy within male-only voting populations is associated with a potential very slight decrease in the likelihood of conflict. An increase of dyadic democracy within joint women's suffrage dyads is, by contrast, associated with a significant decline in conflict propensity.

Figure 6 presents the percentage difference in the predicted probability of conflict between joint women's suffrage dyads and democratic dyads in which neither state grants women the vote. The figure illustrates the significant decline in dispute involvement that correlates with the joint adoption of women's suffrage within increasingly democratic societies. The probability of disputes within dyads in which both states possess Polity scores of 7 and in which neither state has granted women the right to vote is, for instance, 39 percent higher than in otherwise-identical dyads with joint women's suffrage. The pacifying effects corresponding within dyadic women's suffrage become even more prominent as dyads become more democratic. Substantively, a one-standard-deviation increase in women's civil liberties similarly correlates with a 28.7 percent decline in dispute propensity ( $p < .001$ ).

were initiated by the autocratic state and over 30 percent involved Israel and its autocratic neighbors or the United States and Iraq, Libya, Iran, Cuba, and North Korea.

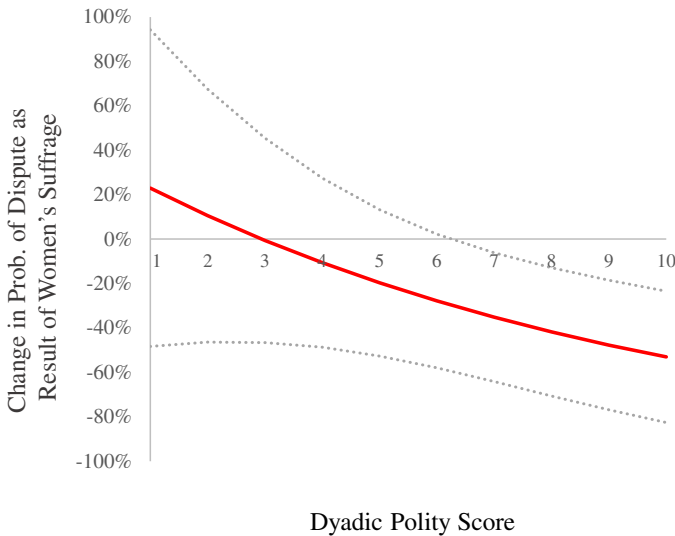
98. Oneal and Russett 1999.

99. The positive coefficient for the  $JOINT\ SUFFRAGE$  variable reflects, in part, a spike in conflict propensity among states with suffrage and a Polity score of around 4, including Greece in 1963, Russia in the mid oughts, South Africa in the 1980s, Zimbabwe in the 1970s, and Papua New Guinea in the 1990s. Omission of these cases cuts the coefficient by almost two-thirds to .294 ( $p = .351$ ). We speculate that this spike may reflect the Mansfield and Snyder 1995 hypothesis that democratizing states are particularly conflict prone and suggest this as grounds for future research.



*Notes:* The left graph shows the effect of increasing the shared dyadic Polity score when neither state has adopted women's suffrage. The center graph in the center shows the effect of increasing democracy within dyads in which one state has adopted suffrage. The right graph shows the effects of increasing democracy within dyads with joint female suffrage. The gray areas are density plots of  $Dem_L$  for each type of dyad. The predicted probabilities in these graphs have been estimated for non-allied, non-nuclear, and non-contiguous dyads, holding all continuous variables at their means.

**FIGURE 5.** *The probability of dispute as a function of dyadic suffrage, 1816–2010*



**FIGURE 6.** *Change in dispute propensity as a result of joint women's suffrage*

To further probe the dyadic effects of gender on democratization, we also analyzed the standard model of the democratic peace (model 3) over the period 1816 to 1892 when all democratic states prohibited women from voting. We find that an increase in the low dyadic democracy score from 0 to 10 during that period was associated with a 38.8 percent *increase* in dispute propensity ( $p < .05$ ).<sup>100</sup> The aggressive behavior of the United States, France, and Great Britain, each of which had a democracy score of 6 or higher during this period, likely explains a significant proportion of this increase. Omission of those three powerful states from this analysis does not, however, reduce the size or direction of the coefficient ( $p = .11$ ).

We also analyzed the effects of democracy and women's suffrage during the specific period of 1890 to 1930, a period in which roughly two-thirds of democracies granted women the vote, and thus half of the number of democratic dyads had joint women's suffrage and half of democratic dyads did not. While the relative paucity of data during this period renders it difficult to draw confident inferences, the estimated conflict trends during this period roughly mimic those presented in Figure 5, as shown in Part B.8 of the appendix. A one-tailed t-test of dispute propensity during this period also indicates the following. While jointly democratic dyads during this time were 38.9 percent less likely to experience a dispute than jointly non-democratic dyads ( $p = .0448$ ), democratic dyads in which neither state allowed women's suffrage were 189 percent more likely to experience a dispute than a joint-autocratic dyad ( $p = .0005$ ). Democratic dyads with joint suffrage were, by

100. See Part B.10 of the appendix for this and related analysis.

contrast, 93.2 percent less likely to experience a dispute than democratic dyads in which neither or only one state allowed women's suffrage ( $p = .0003$ ).

Additional analyses in Parts B.7 to B.9 of the appendix indicate that the dyadic results presented here are robust to alternative specifications. First, we evaluated the possibility that results were driven by dyad-period-specific effects. Given the bias-variance trade-offs of each specification, and the principle of avoiding arbitrary specification choices, we analyzed five specifications, systematically varying the width of the time window. We included fixed effects for every dyad-fifty, dyad-forty, dyad-thirty, dyad-twenty, and dyad-ten years within model 5 in Table 5. The coefficient is negative in all models, and significant in the dyad-forty, dyad-thirty, and dyad-twenty models. Second, to evaluate the possibility that our result is driven by a particular historical period, we reran our analysis truncating the data (1) to the period prior to 1930, (2) the interwar period, and (3) to the periods before and after the interwar period, and (4) to the period before and after the Cold War. Third, we examined whether dyadic women's suffrage predicts a decline in the use of force; it does.

### Alternative Hypotheses

We examined the validity of a number of alternative hypotheses that might explain the negative correlation between dyadic women's suffrage and dispute involvement. It is possible, for instance, that the timeline of women's suffrage serves as a proxy for the advent and institutionalization of more cooperative international norms during the interwar period and after World War II. As we suggested, however, analysis of the relationship between time and women's suffrage indicates that women's suffrage is not an artifact of historical time period.<sup>101</sup> First, all models here include a control for YEAR—a simple calendar year variable—which would pick up some temporal trends (particularly those that most closely correspond to a linear change in log-odds over time). Second, the inclusion of twenty-year-dyad fixed effects, for instance, does not alter the relationship between suffrage and lower dispute propensity. Third, as stated, both the monadic and dyadic results are robust, for instance, to analysis from 1893 up through the second World War and within the periods from 1893 to 2010 excluding the Cold War, and from 1930 to 2010, among many others. The dyadic results are robust to analysis within the time periods 1893 to 1930 and during the interwar period, as well as additional periods reported in the appendix.<sup>102</sup>

101. Tickner and True 2018 note that in World War I, many suffragists supported the war, suggesting that activism surrounding suffrage and feminism in a particular period is separate from the political processes we describe here.

102. Prior to 1914, only five states had adopted women's suffrage. We were therefore unable to independently assess the period from 1816 to 1914. Similarly, all but two democracies had allowed suffrage by 1950, preventing analysis of the postwar period.

We also considered the possibility that women's suffrage is conflated in one of two ways with the strategic context of a state.<sup>103</sup> On the one hand, states may be, for various reasons, more likely to adopt suffrage following periods of conflict.<sup>104</sup> The results we described, in such a case, might simply be capturing war weariness on the part of recent adopters. Numerous pieces of evidence speak against this hypothesis. First, analysis of the interwar period indicates that significant differences in the dispute propensity of suffragist and nonsuffragist democracies existed during this period, suggesting that the results are not explained by differences between pre- and post-World War behavior. McConaughy also notes that many US states had already extended suffrage (some as early as the 1890s) by the time federal ratification occurred in 1920.<sup>105</sup> Similarly, Teele argues that World War I did not cause British suffrage.<sup>106</sup> Also, we find that the results presented in Figure 6 hold when omitting those states that adopted suffrage within three years following major war.<sup>107</sup> Moreover, in the within-country analysis described in Part B.5 of the appendix, a state's average rate of dispute involvement in years  $t-20$  to  $t-10$  before the adoption of women's suffrage is 17.8 percent higher than in years  $t+10$  to  $t+20$  after women's suffrage ( $p = .03$ ).

TABLE 6. Comparison of disputes before and after granting suffrage

Time Span	Female		Male
	First Wave	Universal	Second Wave
+ / - 10 Years	-11.5% ( $p = .11$ )	-19.7% ( $p = .01$ )	+10.1% ( $p = .28$ )
+ / - 10-20 Years	-17.5% ( $p = .04$ )	-14% ( $p = .07$ )	+22.6% ( $p = .16$ )
+ / - 20 Years	-15.9% ( $p = .01$ ) N = 49, 40	-20% ( $p = .002$ ) N = 50, 41	+27.1% ( $p = .047$ ) N = 16, 12

Within-country evidence also calls into question the converse hypothesis—that states with fewer strategic threats may be more likely to adopt women's suffrage than states facing heightened security threats. In such a case, peace, rather than arising as a product of women's suffrage, would instead facilitate the extension of suffrage. However, as we pointed out, states typically experience significantly higher rates of conflict in the decades immediately before the adoption of suffrage than they do after suffrage.

103. For more, see Parts C.2 and C.3 of the appendix.

104. Ticchi and Vindigni 2006 argue that suffrage has often been extended as elites prepare for war. Their argument, however, focused on the principal of "one man, one vote, one gun."

105. McConaughy 2013, 22.

106. Teele 2014, 552-53.

107. See Part C.3 of the appendix.



Finally, it is possible that what affects conflict propensity is not the extension of suffrage *by gender* but rather the extension of suffrage more generally by class. Such extensions by class have typically involved the elimination of literacy, property, or wealth requirements, or the removal of racial barriers to voting. To assess the validity of this hypothesis, we performed a within-country analysis on the effects of extending suffrage by class among male voters using data on suffrage extensions presented by Przeworski.<sup>108</sup> As Table 6 shows, these other extensions of suffrage are not associated with greater peace. In fact, they are associated with more conflict, with effect estimates of +10/+23/+27 percent for various temporal windows. While these within-country results are based on a relatively small sample size, they provide little reason to think that our results are being driven by extension of suffrage in general or by class, rather than by gender.

## Conclusion

Our results provide evidence that the divergent preferences of men and women translate into a substantial pacifying effect when women gain greater influence over national politics through voting. While we cannot rule out theoretically that democratic institutions have other effects that contribute to the democratic peace, we do not find empirical support for numerous competing explanations, including the effects of democratic institutions alone. The critiques of some scholars about the democratic peace, as well as concerns about these critiques, may apply to the argument we make here.<sup>109</sup> To address these concerns, we have shown that our findings are robust to a variety of specifications, each of which was selected to distinguish potential alternative explanations.

Numerous implications of our findings merit further study. For instance, understanding the responses of states that are challenged by suffrage democracies may be helpful in further refining our understanding of the mechanisms at work.<sup>110</sup> The links between the individual level, national policy, and international interactions are also ripe for further exploration. There are potentially many paths from women's suffrage to women's preferences influencing national policy and international outcomes. Process tracing might illuminate whether leaders in one state actively consider the extension of suffrage in adversary states when engaged in a crisis. More fine-grained analysis of how leaders seek to accommodate women's preferences in the wars they do fight could also follow, including an examination of other dependent variables such as war duration, casualties, or military strategy.

Future research should also continue to examine the potentially differing effects of female enfranchisement and female political leadership. While this study focuses on

108. Przeworski 2009.

109. On the former see Gibler 2012; on the latter see Dafoe 2011; Dafoe, Oneal, and Russett 2013.

110. Schultz 1999.

the former, others have examined the latter: Dube and Harish found that female leaders are *more* likely to participate in international conflicts; Schwarz and Blair found that women leaders, because they have incentives to act against the stereotype of women as dovish, pay lower “belligerence costs” but higher “inconsistency costs,” thus having cheaper and more credible threats.<sup>111</sup> Future research should probe the characteristics of female leaders<sup>112</sup> and the extent to which female leaders, who have often been a gender minority among their peers and may face distinct political pressures, have been influenced to mimic or even exceed the aggressive norms of male peers.<sup>113</sup>

At the individual level, the evidence of a gender gap in so many existing survey experiments suggests that scholars should systematically explore how men and women respond to different frames or primes. Such evidence would help illuminate how politicians might frame arguments for war or even choose to use force in different contexts depending on the constraint of women’s more pacific preferences, or the necessity of expending political capital to overcome those constraints. The exploration of heterogeneous treatment effects by gender is beyond the scope of this paper but is a logical avenue for future research.

As the field of international relations has returned to studying individuals and their preferences, it has largely glossed over the long-understood gender gap. Yet this persistent feature of individual preferences over war and peace changes the aggregate preferences of the electorate in states that give women the vote. This article is a step in establishing the link, across space and time, between the gender gap at the individual level and peace at the international level. Democracy gives the public a voice, but the public is not homogeneous. We find that women’s preferences exert a significant effect on state behavior in war, conditional on the existence of political institutions that allow women’s voices to be heard.

### Data Availability Statement

Replication files for this article may be found at <<https://doi.org/10.7910/DVN/U6ZBWT>>.

### Supplementary Material

Supplementary material for this article is available at <<https://doi.org/10.1017/S0020818320000508>>.

111. Dube and Harish 2017; Schwartz and Blair 2020. See also Schramm and Stark 2020.

112. Horowitz, Stam, and Ellis 2015, 158–77.

113. Goldstein 2003, 124–25, but see Croco and Gartner 2014. For discussions of incentives to “hide type” in foreign affairs, see Schultz 2005; Trager and Vavreck 2011.

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