An Experimental Investigation of the Democratic Peace

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Abstract:
One of the most prominent debates in the international relations literature concerns the relationship between democracy and peace. Some researchers argue that shared democracy causes peace, whereas others maintain that the apparent correlation between democracy and peace is spurious. Moreover, even among those who believe the democratic peace is causal, strong disagreement remains over the mechanisms driving it. Three problems have prevented previous researchers from resolving the controversy satisfactorily: endogeneity, multicollinearity, and aggregation. In this paper, we use experiments to overcome these three obstacles. Our experiments, administered to nationally representative samples of adults in the U.S. and U.K., reveal that voters are substantially less supportive of military strikes against democracies than against otherwise identical autocracies. The effect exists across a wide range of situations and demographic groups, and is most pronounced among the politically active segments of the electorate. Moreover, we investigate three broad categories of causal mechanisms—threat perception, deterrence, and morality—and find stronger support for the threat perception and morality mechanisms than for the deterrence mechanism. These findings help advance a debate of central importance to scholars and policymakers.
1. Introduction

Few findings from the political science literature have received as much attention as the “democratic peace,” the discovery that democracies almost never fight against other democracies. To some, the absence of military conflict among democracies is so consistent that it approaches the status of an “empirical law” (Levy 1988).

Nonetheless, scholars continue to debate two fundamental aspects of the democratic peace. First, skeptics argue that the apparent correlation between democracy and peace is spurious. They maintain that peace among democracies is not a consequence of democracy itself, but is instead a product of other factors that happen to coincide with democracy, such as military alliances (Farber and Gowa 1995, 1997; Gowa 1999), economic interdependence (Gartzke 2007), American hegemony (Rosato 2003), or the absence of territorial disputes (Gibler 2007). The inter-democratic peace may, therefore, be a happy historical accident, rather than the result of a causal relationship between political institutions and international relations.

Second, even among those who believe that democracy causes peace, disagreement remains over the mechanisms driving this relationship. Some, for example, attribute the democratic peace to institutional features of democracy, including elections through which voters can punish leaders for taking their country to war, or checks and balances that slow the pace of mobilization. Others emphasize democratic norms, such as the tendency to compromise with political opponents (Russett 1993), or the willingness of soldiers to fight harder because they view their democratically elected leaders as legitimate (Reiter and Stam 2002). But despite volumes of research about the democratic peace, little consensus has emerged about which causal mechanisms are most important (Lektzian and Souva 2009).

Three obstacles have prevented previous researchers from resolving these controversies satisfactorily. The first obstacle, endogeneity, has vexed both proponents and opponents of the democratic peace. Although proponents contend that democracy causes peace, the relationship may (also) run in reverse: peace may contribute to the creation and maintenance of democratic regimes. And although critics attribute peace to shared interests, the alignment of economic and political interests among democracies is itself endogenous, and could well be the result of democracy. These and other problems of endogeneity have made it difficult to separate cause from effect and, therefore, to answer fundamental questions about the democratic peace.

The second obstacle is collinearity. To test hypotheses about the democratic peace, we need datasets in which democracy is not strongly correlated with other potentially pacifying factors. At least in recent decades, though, democracy has coincided with many other prospective sources of peace. Recognizing this problem, researchers have probed deeper into the past for evidence. Farber and Gowa, for example, turn to the nineteenth century because democracies at that time did not have a shared interest in containing communism. Critics respond that the nineteenth century, when democracies were unstable and rare, tells us little about how the world works today. Researchers need what nature has not delivered: modern-day data in which democracy is not strongly correlated with potentially confounding variables.

The third obstacle concerns aggregation. Existing data about the democratic peace are highly aggregated: the unit of observation is typically the country or the dyad, measured over time. But to investigate some of the most common hypotheses, we need complementary data about the individuals who shape policy. Other factors equal, are voters and democratically elected leaders less likely to approve of using military force against a democracy than against an autocracy? Under
what conditions would voters support military action against a democracy, and for what reasons? Existing datasets are not well suited to answering these micro-foundational questions.

In this paper, we use experiments to shed new light on the existence of the democratic peace and the mechanisms explaining it. As we argue below, many theories about the democratic peace have testable implications about the preferences and beliefs of ordinary citizens. With survey-based experiments, we can measure these preferences and beliefs directly, while avoiding problems of endogeneity, collinearity and over-aggregation that have impeded previous research. Our experiments, administered to nationally representative samples of British and American voters, involve a foreign policy situation in which a country is developing nuclear weapons. When describing the situation, we randomly and independently varied four potential sources of peace: the political regime, alliance status, economic ties, and military power of the potential adversary. After describing the situation, we asked individuals whether they would support or oppose a preventive military strike against the country’s nuclear facilities.

Consistent with the democratic peace hypothesis, voters in our experiments were substantially less supportive of military strikes against democracies than against otherwise identical autocracies. The effect exists across a wide range of situations and is most pronounced among the politically active segments of the electorate. Moreover, because we randomly and independently manipulated the regime type of the adversary, our experiment shows that the observed preference for peace with other democracies is almost certainly causal, rather than spurious.

In addition to estimating the overall effect of democracy, we found support for three broad categories of causal mechanisms: threat perception, deterrence, and morality. Individuals who faced democratic rather than autocratic countries were less fearful of the country’s nuclear program, were less optimistic that a preventive strike would succeed, and harbored greater moral reservations about attacking. These perceptions, in turn, were strongly correlated with preferences about the use of force. Surprisingly, though, participants did not think that attacking a democracy would entail higher costs than attacking an autocracy. Thus, our data support some theories of the democratic peace while casting doubt on others.

The rest of the paper proceeds as follows. We first highlight three obstacles to studying the democratic peace using historical data—collinearity, endogeneity, and aggregation. We then distill the large existing literature on the democratic peace, and derive its implications for public opinion in democracies. We next describe how experiments at the micro-level can overcome common obstacles to testing alternative arguments. The subsequent sections present our findings, focusing first on the main effect of shared democracy, and then on potential causal mechanisms. We conclude by discussing the implications of our findings for future research and policymaking.

2. Obstacles to Studying the Democratic Peace

Numerous studies have documented what is commonly referred to as the “democratic peace,” the empirical finding that democracies are peaceful in their relations with other democracies, but frequently fight autocracies (Maoz and Russett 1993, Ray 1995, Oneal, Russett, and Berbaum 2003). Despite the many studies that have confirmed a correlation between shared democracy and peace, however, many skeptics remain unconvinced that the relationship is causal. Three obstacles have prevented previous researchers from resolving the controversy satisfactorily: collinearity, endogeneity, and aggregation.
Collinearity

The first obstacle is collinearity. Scholars have pointed to a number of factors that are highly correlated with both democracy and peace, and could therefore explain the apparent relationship between shared democracy and peace. Distinguishing the effects of democracy therefore requires datasets in which democracy is not strongly correlated with other potentially pacifying factors. For much of history, however, other sources of peace have overlapped closely with democratic institutions and norms.

In one of the most prominent critiques of the democratic peace, Henry Farber and Joanne Gowa (1995, 1997) and Gowa (1999) argue that the observed peace between democracies is a byproduct of shared political interests. The Cold War, in particular, “induced strong common interests among democratic states” in their struggle against the communist bloc (Farber and Gowa 1997, p. 393). Consistent with the view that peace stemmed from a geopolitical convergence of interests during the Cold War, rather than democratic institutions and norms, Farber and Gowa find no statistically significant relationship between shared democracy and peace before 1945, and no association between shared democracy and the absence of lower-level military disputes before 1914. They conclude, therefore, that the peace among democracies is explained by common interests, which were highly correlated with regime type in much of the 20th century.

Collinearity also exists between democracy and a second potential source of peace: shared economic interests in continued trade, financial interdependence, and economic development. Building on the economic tradition of liberal theory, Gartzke (2007) argues that joint capitalism produces peace through a number of mechanisms: by reducing the desire for territorial expansion and other potential motives for conflict; by increasing the costs of fighting, including the opportunity cost of foregone trade; and by allowing states to signal their intentions more credibly. After accounting for economic interdependence and development, Gartze finds that democracies are no longer statistically less likely to fight each other. Absent data in which shared democracy and joint capitalism are not highly correlated, it is difficult to say who is right with a high degree of confidence.

Finally, others have argued that the correlation between democracy and peace is due not to shared interests, but to the post-World War II distribution of material power. Rosato (2003) maintains that the absence of conflict among democracies is primarily a consequence of American hegemony. He points out that 90% of double-democratic dyads are located in the Americas and Western Europe, two special spheres of influence for the United States (p. 600). Citing Gowa’s finding that the democratic peace is only robust after 1945, Rosato then suggests that “the United States has been the dominant power in both these regions since World War II and has placed an overriding emphasis on regional peace” (p. 599). Thus, it is not shared democracy that explains the peaceful behavior of European and Latin American states; rather, it is the watchful gaze of the American superpower, which has extended primarily to regions of the world where democratic dyads are common.

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1 Earlier empirical critiques also noted that the low incidence of democracy in earlier time periods makes it difficult to say whether the absence of war is significant for all time periods (Mearsheimer 1990, Spiro 1994).
2 See also Gartzke 1998 for evidence that common interests account for much of the relationship between shared democracy and peace.
3 For a counterpoint, see Dafoe, forthcoming. See also the special issue of International Interactions, 2010, on the capitalist peace.
**Endogeneity**

In addition to collinearity, a second obstacle to studying the democratic peace is *endogeneity*. Although critics attribute peace to shared interests, the alignment of economic and political interests among democracies could itself be a product of democracy. Moreover, while proponents contend that democracy causes peace, a number of studies claim that the relationship runs in reverse: peace contributes to the emergence and maintenance of democracies. According to Christopher Layne (1994), for example, “states that are, or believe they are, in high-threat environments are less likely to be democracies because such states are more likely to be involved in wars, and states that are likely to be involved in wars tend to adopt autocratic governmental structures that enhance their strategic posture” (p. 45). Scholars such as Thompson (1996), Chan (1997), Gleditsch (2002), and Gibler (2010) have similarly hypothesized that peace may foster democracy. Similarly, Gibler (2007) argues that states rarely democratize unless they have solved their territorial disputes. In this view, democratic dyads do not fight because they lack one of the central grounds for conflict – disagreements over borders. These and other problems of endogeneity have made it difficult to separate cause from effect.

**Aggregation**

Finally, a third obstacle concerns *aggregation*. Existing datasets are highly aggregated: the unit of observation is the country or the dyad, measured over time, and the dependent variable reflects only the extreme cases where a state has used military force. This approach, however, entails a number of limitations. As we show below, many theories of the democratic peace suggest that leaders respond primarily to the preferences of voters. This forces us to ask whether, all else equal, voters are less likely to favor using military force against a democracy than against an autocracy. If not, many existing theories of the democratic peace would need to be revised. Moreover, different theories make different assumptions about why voters respond as they do. Unfortunately, existing datasets are not well suited to answering these micro-level questions. To understand whether and how shared democracy changes the preferences and beliefs of democracies, we need complementary data about the individuals who shape policy.

### 3. An Experimental Approach

Having identified several obstacles to studying the democratic peace with aggregate historical data, we propose a complementary approach that involves micro-level experiments. For each experiment, we identify the individuals (voters and policymakers) that are most relevant to theories of the democratic peace; present them with a foreign policy situation that might warrant military action; randomize information about the adversary’s political regime and other characteristics; and observe how democracy affects preferences and beliefs about the use of force.

This approach overcomes many problems associated with observational data. By randomizing each background feature independently of the others, we guarantee that democracy is orthogonal to confounding variables (such as alliances, power, and trade), thereby avoiding problems of

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collinearity that are pervasive in historical data. By manipulating information about the adversary’s level of democracy, instead of taking its values as given, we gain experimental control over a variable that might otherwise be endogenous. And by administering the experiments to voters, we gain micro-level data about people who—either directly or indirectly—influence decisions about war and peace.

As we argue below, the leading theories of the democratic peace make important but largely untested assumptions about the preferences and beliefs of voters. In particular, the theories presume that voters are less willing to use force against democracies than against autocracies. They further assume, to varying degrees, that these differences exist because democracy affects perceptions about threat, cost, and morality. By highlighting these micro-level assumptions or implications of existing theories of the democratic peace, we lay the theoretical foundation for the experiments that we administered to voters in the U.K. and the U.S.5

Threat perception
The first set of causal mechanisms involves threat perception. In this family of arguments, countries use regime type to draw conclusions about how threatening other countries are. According to this mechanism, democracies tend not to view each other as threatening, whereas pairs of states in which at least one is an autocracy tend to view each other with suspicion. The basic argument comes in two flavors.

The first variant suggests that the opponent’s domestic norms provide clues about how that country will behave internationally. In this view, democracies view autocracies as threatening because autocracies lack domestic norms of peaceful dispute resolution. Democracies however trust that countries with liberal democratic norms will not attack them (Doyle 1986, Maoz and Russett 1993, Dixon 1994, Owen 1994). As Doyle (1986) puts it, “Because non-liberal governments are in a state of aggression with their own people, their foreign relations become for liberal governments deeply suspect. In short, fellow liberals benefit from a presumption of amity; nonliberals suffer from a presumption of enmity.” (p. 1161). Viewing other democracies as amicable, democracies do not feel they need to use military force to keep themselves safe.6

According to this logic, autocracies nonetheless have reason to fear democracies, despite the peaceful domestic norms of the latter. As we just saw, autocracies’ lack of peaceful domestic norms induces fear in democracies. Democracies therefore feel “forced” to adopt violent norms in their

5 While some scholars have distinguished between “normative” and “structural/institutional” theories of the democratic peace, we find that these distinctions do not neatly capture the differences between different arguments. In fact, even scholars who have employed these distinctions have noted that it is difficult to separate normative from institutional explanations given the many ways in which they overlap (Russett 1993, p. 40; see also Owen 1994). For example, while the deterrence argument is primarily “institutional,” and the moralistic argument is primarily “normative,” the threat perception argument has both a “normative” and an “institutional” variant. Moreover, the various “normative” arguments also require the presence of institutions to enforce and encourage norms.

interactions with autocracies. \(^7\) Knowing that democracies are willing to attack them, autocracies in turn fear democracies. In other words, violent norms in one state can set off a spiral of mutual distrust. Relations between autocracies also tend to be characterized by high threat perception, according to this logic.

What are the implications of this argument for public opinion? According to the logic just presented, the conclusion of democratic amity only follows if at least two conditions hold: (a) citizens in democracies tend to oppose using force against fellow democracies, and (b) they are more willing to use force against autocracies than democracies. Imagine instead that, contra (a), we found that citizens in democracies often support using force against other democracies. This would directly contradict the argument that democracies tend to externalize their domestic norms in their relations with other democracies (Russett, p. 35). Even if for some reason we thought that democratic leaders have a greater commitment to externalizing democratic practices than ordinary citizens, the finding that citizens in democracies support using force against other democracies would imply that democratic leaders can reap electoral rewards for attacking democracies. This would sharply undermine mutual democratic trust. Imagine on the other hand that, contra (b), we found that democratic citizens were equally supportive of using force against autocracies as against democracies. In that case, we would need to revise the theory to explain, first, why leaders discriminate between democracies and autocracies but citizens do not, and second, why democratic leaders are more likely to attack autocracies even if doing so is just as unpopular as attacking a democracy. In sum, this version of the threat perception argument has implicit micro-foundations that should be evident in democratic public opinion. \(^8\)

A second variant of the threat perception argument focuses on how democratic institutions slow the process of mobilization and reduce the likelihood of surprise attack (Russett 1993). In this view, it is not so much the perception of democratic norms that matters; rather, democracies expect ample warning if another democracy harbors ill intent because democratic institutions slow the mobilization process. Absent clear signs of mobilization, democracies feel no need to attack each other. Autocracies are not, however, similarly assured by democracies, because they anticipate that democracies will circumvent the unwieldy democratic process if faced with a country that can mobilize more quickly.

As with the first version of the threat perception argument, the “mobilization” variant implies that the public is more supportive of attacking autocracies than democracies. In this argument, democratic leaders are constrained by checks and balances and public debate except when they can circumvent those constraints in order to confront an imminent threat. If the public were no more likely to view autocracies as posing “imminent threats” than democracies, then leaders would find it difficult to justify the pre-emptive attacks against autocracies that Russett says follow from the theory. Absent some other explanation for how democratic leaders circumvent this hurdle to attacking autocracies, we would expect a monadic, rather than dyadic, relationship between regime type and conflict. In other words, this variant of the threat perception argument is also built on public opinion micro-foundations.

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\(^8\) In fact, Owen’s (1994) version of this argument focuses quite explicitly on public opinion. See also Rousseau 2005,
Deterrence

A second family of arguments focuses not on threat perception, but rather on how the costs of fighting can deter military attacks. In this argument, whether or not democracies see other democracies as threatening, they view each other as particularly formidable opponents. Democracies anticipate high costs of attacking other democracies, since they expect that a democratic opponent will expend great effort in order to win (Bueno de Mesquita et al. 1999) and that democratic soldiers will be effective on the battlefield (Reiter and Stam 2002). Because democratic leaders who squander resources will be punished domestically, and wars between democracies are costly, democracies avoid fighting wars against other democracies. Wars against autocracies, on the other hand, can be fought more cheaply, because autocratic opponents can back down without severe domestic punishment, and therefore expend less effort. Finally, autocrats are not as strongly deterred by the fighting prowess of democracies because autocrats face lower domestic costs for using force (Bueno de Mesquita et al. 1999).

This argument, as above, has several implications for public opinion in democracies. If citizens did not perceive higher costs and a lower probability of success of attacking fellow democracies, then the theory would need to explain why democratic leaders have different perceptions than democratic citizens. Moreover, Bueno de Mesquita et al argue that aversion to attacking a democracy should lessen when the target is very weak, since the effect of democracy is only transmitted through an anticipation of higher costs (p. 802). Finally, since the theory assumes that the target’s regime type only affects domestic preferences by influencing expectations about the costs and outcome, any effect of democracy should disappear once we control for costs, outcome, and threat (the latter since, according to selectorate theory, voters might reasonably anticipate that another democracy is unlikely to attack them for the same reasons they are reluctant to attack other democracies). As Bueno de Mesquita et al (1999) put it, “near certainty of victory, not normative commitment to peaceful resolution of disputes, describes when democracies go to war” (p. 801). If we found evidence that other considerations affected domestic opinion, this would indicate that selectorate theory is, at best, missing an important part of the picture.

Morality

Finally, a third line of argument focuses on the moral costs of using military force. In this view, democracies may avoid attacking other democracies because they view it as morally wrong or illegitimate to interfere in the affairs of another democracy (Walzer 2006), even when holding constant the perception of threat.

This is different from the “normative” variant of the threat perception argument described earlier, where the target’s norms affected the behavior of fellow democracies primarily by reducing threat perception. In this different “moralistic” argument, however, moral beliefs should be discernable regardless of the perceived level of threat. For example, imagine a dispute between a democracy and another country regarding a far-away piece of territory. Even if the democracy perceived no threat from the other state, it might hold greater moral doubts about seizing the territory from a liberal democracy than from a despot. Alternatively, even if a democracy thought a fellow democracy was just as threatening as an autocracy, it might still think it illegitimate to preemptively attack a fellow democracy.

As before, this argument has clear implications for the micro-level. We would expect to find lower support for, and evidence of a moral aversion to, attacking fellow democracies, even when controlling for perceived threat. If we did not find such a pattern, we would need to explain why
leaders hold different moral beliefs than citizens, and why they ignore the preferences of citizens when making policy.

In sum, the most prominent theories of the democratic peace imply that all else equal, citizens in democracies would be less supportive of using force against a democracy than against an autocracy. If not, many existing theories of the democratic peace would need to be revised. Moreover, different theories make different assumptions about why voters respond as they do. Unfortunately, existing datasets are not well suited to answering these micro-level questions. To understand whether and how shared democracy changes the preferences and beliefs of democracies, we need complementary data about the individuals who shape policy.

4. Previous Experimental Analyses of the Democratic Peace

Before describing our own experiments, we briefly discuss the strengths and weaknesses of previous experimental work about the democratic peace.

Past experimental studies

To our knowledge, only two published studies have used survey experiments to investigate the democratic peace. Mintz and Geva (1993) carried out a survey experiment on three small samples: a group of American college students, a group of American adults, and a group of Israeli college students, with a total of 117 respondents across the three groups. The investigators described a crisis in which one hypothetical country has invaded another hypothetical country, and randomly varied the regime type of the invader, which was either a stable democracy with a newly elected parliament or a “military dictatorship” with a puppet parliament, a supportive military, and fierce police. Respondents were then asked to express their level of approval for various policy options, including whether to use military force to stop the invader. In each of the three samples, subjects were more likely to favor using force when the invader was a military dictatorship than when it was a democracy.

Rousseau (2005) ran a similar experiment on 141 American college students. He asked each student to play the role of chief political advisor to the president of a fictional, democratic country, which was involved in a territorial dispute with a southern neighbor. Rousseau randomly varied three features: the southern neighbor’s political regime (“democratically elected government” versus “single-party dictatorship”); the balance of military forces (strong versus weak); and the domestic political position of the president whom the student was advising (strong versus weak). The students were then asked whether they would advise the president to use military force to settle

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9 Mintz and Geva (1993) and Rousseau (2005). In related work, Lacina and Lee (2009) investigate whether actions are viewed as more threatening when taken by autocracies than by democracies. Others (Geva and Hanson 1999, Rousseau and Garcia-Retamero 2007) have probed how shared “identity” or cultural similarity might affect support for the use of force. Still other experiments vary regime type, but not in ways that permit testing whether voters approve less of military actions against democracies than against nondemocracies (for example, Herrmann, Tetlock, and Visser (1999) and Herrmann and Shannon (2001)).

10 The experimental text from Mintz and Geva (1993) is published in Geva, DeRouen, and Mintz 1993, pp. 227-228.
the dispute. Participants were less likely to recommend using military force against a democracy than against a single-party dictatorship.

In addition to these published papers, an unpublished manuscript by Johns and Davies (2010) analyzes experiments they conducted in spring 2010 on nationally representative samples in Britain and the U.S. In their scenario, presented in the form of a newspaper article, the British/American government had uncovered evidence that a country was secretly developing nuclear weapons, which it intended to use against its neighbors in the region. The scenario included three randomized features: how the foreign leader came to power (“democratically elected president vs. unelected dictator”), whether the foreign country was predominately Christian or Islamic, and how many civilian casualties would result if the British or the U.S. government launched air strikes against the nuclear production facilities. The investigators found somewhat higher public support for air strikes against the unelected dictator than against the democratically elected president.

Limitations of existing studies

Each of these studies suggests that the democratic peace exists at the micro-level: residents of democracies appear less supportive of using force against democracies than against autocracies. However, while these experiments are path-breaking, each has certain limitations. The first is that the experimental treatments may inadvertently “leak” information about factors other than regime type that, according to critics, explain the correlation between shared democracy and peace. Information leakage occurs when a respondent infers additional information from an experimental condition that may affect the dependent variable (Sher and McKenzie 2006). In these experiments, information leakage occurs if respondents infer from the regime type treatments that the countries differ not only in political regime, but also in other respects that affect the respondent’s support for attacking them.

One possible form of information leakage in these experiments relates directly to Gowa’s argument that common interests, rather than shared democracy, explain peace between democracies. Problematic leakage could occur, for example, if respondents made assumptions about alliance status based on the regime type treatment. In the modern world, dyadic regime type and alliance status are correlated. Respondents might reasonably presume, therefore, that the democratic target was an ally, whereas the autocratic target was not. One could reduce such concerns by explicitly stating whether the target country was an ally.

A similar problem concerns economic interests. Having read that the foreign country was either democratic or autocratic, respondents might jump to conclusions about the country’s pattern of economic relations. Again, one could mitigate this concern by mentioning or controlling for economic interdependence in the scenario. None of the existing experiments, however, provided information about alliance status or economic interdependence.

Another potentially problematic form of information leakage involves the opponent’s military strength. Recent scholarship suggests that people are more supportive of using military force when they expect that it will be successful (Gelpi, Feaver, and Reifler 2006). Military operations are more likely to succeed, one might think, when the target is militarily weak. While the Rousseau experiment varied the military strength of the opponent, the others did not vary or mention military strength. Given that democracies tend to be wealthier than autocracies, the respondent might have inferred information about military strength from the opponent’s regime type.

Some existing studies also leak information by indicating which policy the government currently favors. Johns and Davies (2010), for example, tell British and American respondents that their government has presented incriminating evidence to the United Nations, is already planning to
attack, and is now “making the case for air strikes” publicly. By implying that leaders have deemed it wise to attack, even though the adversary is democratic, these phrases may reduce the estimated effect of democracy. To avoid this kind of contamination, one would want to present respondents with background information about the situation, without indicating whether leaders who were privy to information had already decided for or against attacks.

Finally, existing studies typically do not investigate which mechanisms are driving the democratic peace. The one exception is Rousseau, whose experiments attempt to find evidence of moral reservations about attacking democracies. Rousseau asks whether respondents would support the use of force if it could be kept secret, and asserts that only moral qualms could explain reluctance to use covert force against democracies. One could argue, though, other mechanisms—such as a reduction in threat perception when the target is a democracy—would predict an identical response. Further investigation into the mechanisms behind the micro-level democratic peace is clearly warranted.

In sum, while these previous experiments break new ground, we can build on them in several important ways. First, we can reduce information leakage by explicitly stating whether the country is an ally, has a strong military, or shares economic interests. In fact, we can vary these factors randomly to assess to what extent they themselves are independent sources of peace. Moreover, by carrying out surveys on larger, more representative samples, we can assess the extent to which the treatment effects hold across different subsets of the population, such as the politically-active individuals who are most likely to affect government policy. And finally, we can design experiments to shed light on perhaps the most intriguing question: why shared democracy might produce peace.

5. Estimating the Main Effect of Democracy

Experimental design and procedures

To study the main effect of democracy, we carried out two studies: one in the United Kingdom, and one in the United States. YouGov, an internet-based polling firm, fielded the U.K. study to 762 adults in April-May 2010, just before the British national election; and it administered the U.S. study to 1,412 adults in October-November 2010, on the eve of the U.S. Congressional elections.

Participants in both studies were told: “There is much concern these days about the spread of nuclear weapons. We are going to describe a situation the [U.K./U.S] could face in the future. For scientific validity the situation is general, and is not about a specific country in the news today. Some parts of the description may strike you as important; other parts may seem unimportant. After describing the situation, we will ask your opinion about a policy option.” Respondents then received a series of bullet points with details about the situation. The first bullet point explained, “A country is developing nuclear weapons and will have its first nuclear bomb within six months. The country could then use its missiles to launch nuclear attacks against any country in the world.”

U.K. respondents received information about three factors: the country’s military alliances, political regime, and military power. We randomly and independently varied these factors, each of which had two levels. Thus, in roughly half the interviews, the country had signed a military alliance with the U.K., but in the other half, the country had not signed a military alliance with the U.K. Likewise, half the respondents read that the country “is a democracy and shows every sign that it will remain a democracy,” while the other half read that the country “is not a democracy and
shows no sign of becoming a democracy.” In describing the country’s political regime, we avoided using terms such as “military dictatorship” or “single party dictatorship,” since this might have leaked additional information about shared interests. Instead, we simply indicated that the country was either “a democracy” or “not a democracy.” Finally, we told some participants that the country’s nonnuclear forces were “as strong” as Britain’s nonnuclear forces, but told others that the country’s nonnuclear forces were “half as strong” as Britain’s.

The U.S. survey was nearly identical but also included background information about international trade. Half the respondents learned that the country had high levels of trade with the U.S.; the other half learned that the country did not have high trade with the U.S. As in Britain, we also varied whether the country had military alliances with the U.S. and whether the country was or was not a democracy. Unlike in Britain, we held the country’s conventional military strength constant at half the level of U.S. forces. Thus, each study involved three random factors, each with two levels, resulting in fully-crossed 2x2x2 experimental designs.

Having randomized the details about the country’s alliance relations, political regime, and either military power (U.K.) or trade ties (U.S.), we concluded with several bullet points that were identical for everyone. Respondents were told that “the country’s motives remain unclear, but if it builds nuclear weapons, it will have the power to blackmail or destroy other countries.” An additional bullet point indicated that the country had “refused all requests to stop its nuclear weapons program.” Finally, we explained that “[b]y attacking the country’s nuclear development sites now,” they could “prevent the country from making any nuclear weapons.”

After presenting this information, we asked whether respondents would favor or oppose using their country’s armed forces to attack the nuclear development sites. Figure 1 shows a screen shot of the U.K. experiment and lists the options we presented to respondents; the U.S. experiment was similar, except that we varied trade ties and held military power constant.

![Figure 1 about here](image1.png)

**The effect of democracy and other contextual variables**

Our experimental design allowed us to distinguish the effects of democracy, alliances, power, and economic ties on the preferences of citizens. Before analyzing the data, we confirmed that in both countries, the treatment groups were balanced on baseline covariates that could affect support for the use of force. In particular, we assessed balance with respect to demographic variables such as gender, age, and education. We also judged whether groups were politically balanced by exhibiting similar patterns of ideology, party identification, and interest in politics. Given that the experiment asked about a preventive military strike, we also checked for equality in attitudes toward internationalism and the use of force. Due to randomization, the groups were quite similar, on average. Consequently, there is little need for elaborate statistical models with control variables. We can obtain unbiased estimates of the treatment effect via cross-tabulation.11

As expected, citizens were much less willing to attack another democracy than to attack an autocracy. In the U.K., for example, roughly 34% of respondents wanted to attack a nondemocratic target, whereas only 21% supported strikes against a democratic target (see Table 1). The difference, which we regard as the estimated effect of democracy, was around 13 percentage points, with a 95% confidence interval that stretched from -19.6 to -7.0. We conclude, therefore, that

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11 Though, see Horiuchi, Imai, and Taniguchi 2007.
democracy exerted substantively large and statistically significant effects on public preferences in the U.K.

As Table 1 shows, U.S. respondents were considerably more enthusiastic about military action than their British counterparts. Nonetheless, democracy proved almost as potent in the U.S. as in the U.K. Around 51% of U.S. respondents called for deploying their armed forces against a nondemocratic target. When the target was democratic, though, support for military action fell by more than 10 percentage points. The confidence interval around this treatment effect ran from -15.3 to -5.0. Overall, democracy had comparably large effects on policy preferences in the U.K. and the U.S., despite substantial differences in the militancy of citizens in those two countries.

[Table 1 about here]

Our experiments also revealed the effect of military alliances, which Farber and Gowa regarded as markers of shared interests. Among British respondents, support for military action was 5.7 percentage points lower when the target had signed an alliance with the United Kingdom. Alliances had a similar effect in the U.S., where they caused pro-military opinion to decline by 5.6 percentage points. Though noteworthy, these effects were only half as substantial as the ones we observed for democracy, and were only of marginal statistical significance.

Respondents also took the military power of the adversary into account, but as with alliances, they gave power much less weight than democracy. In our U.K. study, where we varied military power, around 29% of respondents preferred to strike a country that was half as strong as the U.K. Support fell by around 3 percentage points when Britain and the target were at conventional military parity. Thus, as predicted by theories of deterrence, public enthusiasm for an attack was lower against a strong adversary than against a weak one, but the difference was relatively small and not statistically significant at conventional confidence levels.

Finally, our experiments provided micro-level evidence for a commercial peace. In the U.S., where our vignette included information about trade, only 43% of respondents endorsed preemptive strikes against major trading partners. In contrast, around 49% were willing to attack targets that did not trade extensively with the U.S. The 6% swing in opinion was substantively and statistically significant, albeit smaller than the effect of democracy. In short, our studies provided micro-empirical support for the democratic peace, while also documenting the influence of alliances, power, and trade on attitudes toward military intervention.

Having found a genuine aversion to using force against democracies, we next examined whether the effects of democracy depended on the context. Table 2a summarizes the impact of democracy for each of the four possible combinations of military power and alliances. The table, based on the U.K. sample, indicates that the effect of democracy was strongest when the target was a weak non-ally. In that case, respondents were only half as likely to support military strikes in the democratic condition (20.7%) as in the nondemocratic condition (42.6%). The effects of democracy were smaller in the other conditions, and in some cases not statistically distinguishable from zero at conventional levels of confidence. Nevertheless, in all scenarios, the estimated effect of democracy was negative and substantively large. Thus, it seems likely that democracy reduces support for the use of force, not only on average but also in a variety of specific circumstances.

[Table 2 about here]
Table 2b is similar, but shows the effect of democracy for each of four arrangements of trade and alliances, using the U.S. sample. The effect was highest (13.1 percentage points) when the country had high levels of trade with the U.S. and was not an ally. As in the U.K. sample, the effect of democracy was always negative, though not always statistically different from zero at conventional confidence levels. Again, however, the consistently negative effects indicate that democracy reduces support for military action across a range of conditions. The effects of the other factors—alliances, power, and trade—were generally less consistent across contexts, smaller in magnitude, and less statistically significant than the effects of democracy.

Effects by demographic group

Democracy not only sways public opinion, but does so to a particularly large degree among politically interested and active adults, i.e., those who might campaign, vote, or lobby the government. In the U.K. survey, we classified respondents’ interest in politics as high if they said they were “very interested” or “somewhat interested” in politics (71% of respondents), and coded their interest as low if they were “not that much” or “not at all” interested in politics (29% of respondents). Table 3 shows that democracy was a crucial variable for politically-interested British respondents, whose preference for military action fell by more than 17 percentage points when the target was a democracy. Among respondents who expressed little interest in politics, though, democracy affected opinion by only about 3 percentage points.

A similar pattern appeared in the U.S. There, respondents were asked: “Some people seem to follow what’s going on in government and public affairs, whether there's an election going on or not. Others aren’t that interested. Would you say you follow what’s going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?” We classified respondents as highly interested if they followed politics most of the time (63% of the sample). As Table 3 shows, democracy had a powerful 14-point effect on the preferences of highly interested respondents, but induced only a 2.5-point swing in the preferences of citizens with less interest in politics. In both countries, therefore, democracy exerted its largest effect on politically interested citizens—those who would be mostly likely to follow events and participate in politics.

[Table 3 about here]

The effect of democracy was even more striking among political activists. Using the U.K. data, which were collected in the run-up to the British general elections, we classified political activism as high if respondents reported that they did one of the following the previous day: wore a badge or sticker for a candidate, discussed a candidate with someone, went to hear a candidate speak, visited a political party or candidate web site, or watched video of a candidate on the Internet. This is a stringent definition of political activism, since it only refers to activity that occurred on the previous day. Approximately 24% of respondents qualified as highly active according to our measure. However, among this subset of the population, the effect of democracy was overwhelming. Support for military action against an autocracy was three times higher than support for military action against a democracy (bottom rows of Table 3). The absolute effect was -26.7 points, meaning that democracy alone was sufficient to convince more than a quarter of the most politically active citizens in Britain to withhold support for a military strike.12

12 We did not have data to make comparable calculations about political activism in the U.S.
Our experiments further showed that democracy affects attitudes across many demographic and political strata. According to Table 4, for example, democracy shapes the preferences of conservatives and liberals, men and women, young and old, and those with and without college degrees. Moreover, the effects vary in interesting ways that suggest the need for further research. For example, in both the U.K. and the U.S., democracy was at least twice as consequential for conservatives as for liberals. In the U.K. sample, democracy swayed the opinion of conservatives by 21 points, while reducing the support of liberals by only 10.7 points. The difference between conservatives and liberals was even more pronounced in the U.S. sample, where democracy reduced support by 21.3 points for conservatives but only 2.9 points for liberals (for whom the effect of democracy was not statistically significant). Later in the paper, we investigate the reasons for this sizable difference in response to democracy.

Similarly, in both samples democracy proved more consequential for males than for females. To some extent, this apparent gender gap reflects ideological differences between men and women. In both the U.K. and the U.S., males in our sample were notably more conservative than females. Even after controlling for this ideological imbalance, however, the average effect of democracy remained stronger among men than among women, especially among the conservative segments of society. In both the U.K. and the U.S., for example, democracy caused a 24-point shift in opinion among conservative males, while triggering a 16-point change in opinion among conservative females.

Finally, we broke down the sample by age and education. In both the U.K. and the U.S., the effect of democracy was somewhat larger for people over the age of 55 compared to those under the age of 55. Finally, we investigated whether the effect of democracy varied by level of education. Here, there was no clear pattern across the two samples. In the U.K., the democracy effect was larger among people who had not graduated from college (16.6 points) than among people who held a college degree (10 points). In the U.S. sample, though, the effect among the college-educated citizens (10.3 points) was about the same as the effect for less-educated citizens (10.1 points). For each of these age groups and levels of education, however, the effect of democracy was negative and statistically significant. In sum, our analyses suggest that the penchant for peace with democracies is evident across society, but may be an especially male and conservative phenomenon.

Overall, we find strong micro-level evidence of a democratic peace, while overcoming several problems that arise with historical data. As noted earlier, both sides of the democratic peace debate worry about endogeneity. We overcame this problem by assigning the key explanatory variables randomly. Previous researchers have also worried about high levels of collinearity between democracy and potential confounders. Our experiments, in contrast, each had full 2x2x2 factorial designs, in which the correlations among democracy, alliances, and power (or trade) were approximately zero. This allowed us to identify the average effect of each variable without fear of cross-contamination. Finally, previous research about the democratic peace has proceeded at a high level of aggregation, in which the units of observation are entire countries or dyads. Our experiments supplement the existing body of knowledge by providing micro-level data about the preferences of adult citizens.
6. Evidence about Mechanisms

Above, we used experiments to estimate the causal effect of democracy on attitudes about military intervention. But a second debate has preoccupied the literature as well: why shared democracy causes peace. Previous researchers have used three approaches to ferret out the causal mechanisms. The first has involved mechanism-specific explanatory variables. Scholars have measured specific features of democracy, such as democratic norms or institutions, that allegedly contribute to the democratic peace, and then tested the explanatory power of these particular features.13 A second approach is to identify foreign policy patterns that would be consistent with some mechanisms but inconsistent with others, as Schultz (1999) did in his research about whether democratic institutions constrain or inform leaders.14 A third approach has been to carry out qualitative case studies and scour the historical record for clues about mechanisms.15

All three approaches have advanced our understanding of the democratic peace, but each has well-known limitations. The studies involving aggregate historical data raise the specters of endogeneity, collinearity, and omitted variable bias. And qualitative approaches, though illuminating, can only carry us so far: it is inherently difficult to generalize from a small number of cases, especially when researchers must rely on incomplete and strategically-censored diplomatic records. Experiments, we believe, can shed additional light on causal mechanisms.16

With this in mind, we designed an experiment to study causal mechanisms. Our experiment is based on the insight that, although researchers have proposed many possible mechanisms that differ in many respects, they share certain core testable elements. For example, many mechanisms rely on the idea that democracy affects people’s perceptions of threats, their expectations about the costs of war, or their moral aversion to using force.

To examine these three mechanisms, or mediating variables, we appended a series of questions to our 2010 study of U.S. reactions to nuclear proliferation. After asking people whether they supported or opposed the use of military force against the country’s nuclear development sites, we redisplayed the entire vignette so all the details would be fresh in respondents’ minds. We then listed a set of events that we selected to quantify perceptions of threats and costs, and asked respondents to check all events that, in their opinion, would have more than a 50% chance of happening if the U.S. attacked (or did not attack) the country’s nuclear sites. We also asked whether respondents thought it would be “morally wrong for the U.S. military to attack the country’s nuclear development sites.” This allowed us to estimate to what extent our randomized treatments (democracy, alliances, and trade) affected each mediating variable, and to what degree those mediators were correlated with support for the use of force.

This approach to studying causal mediation has certain advantages. In particular, it gives unbiased estimates of the effects of democracy, not only on support for the use of force, but also on potential mediators. At the same time, the approach has certain limitations. As many scholars have noted, it is difficult to prove that one has identified all potential mediators and accurately estimated the effect of each on the outcome of interest (see, e.g., Imai, Keele, Tingley, and Yamamoto 2010; Imai, Keele, and Yamamoto 2010; and Bullock, Green, and Ha 2010). The results we present below

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13 See for example Maoz and Russett 1993.
14 See also Lektzian and Souva 2009.
15 See for example George and Bennett 2005, Bennett and Elman 2006, Owen 1994, Weart 2000.
16 For discussion of the challenges and pitfalls of identifying causal mechanisms, see Imai, Tingley, and Yamamoto 2010, Imai et al. n.d., and Bullock, Green, and Ha 2010.
are consistent with some hypotheses about the mechanisms behind the democratic peace. Nevertheless, to establish the mechanisms more conclusively, one could conduct additional studies, including “double experiments” in which the researcher manipulates not only democracy but also the hypothesized mediators (Imai, Tingley, and Yamamoto 2010).

**Threat perception**

A first set of causal mechanisms says that shared democracy reduces threat perception, which in turn reduces the security dilemma (Russett 1993, Farnham 2003). In the context of our study of U.S. responses to nuclear proliferation, the threat perception mechanism implies that respondents should be less fearful of the consequences when a democracy develops nuclear weapons than when an autocracy takes an identical action. We therefore presented respondents with a series of possible consequences should the U.S. decide not to attack: would the country build nuclear weapons; would it threaten to use nuclear weapons against another country; would it threaten to use nuclear weapons against the U.S. or a U.S. ally; would it launch a nuclear attack against another country; and would it launch a nuclear attack against the U.S. or a U.S. ally?

Table 5 summarizes our findings about how democracy, alliances, and trade affected these perceptions of threat. The column labeled “baseline belief” gives the percentage of respondents who thought that the threatening event was likely (had more than 50% chance of occurring) when the country was neither a democracy, nor an ally, nor a major trading partner. The remaining columns show to what extent beliefs differed, on average, when the country was a democracy, a military ally, or a major trading partner. Stars appear next to effects that were statistically distinguishable from zero at the .10 level.

[Table 5 about here]

Perhaps surprisingly, our three experimental factors did not change expectations about the first issue, nuclear proliferation. Nearly 60% of respondents who were randomly assigned to the baseline condition (neither a democracy, nor an ally, nor a trading partner) predicted that, if the U.S. did not carry out a preventive strike, the country had more than a 50% chance of building nuclear weapons. Respondents in the other experimental groups gave approximately the same forecasts, even when told that the country was democratic, allied with the U.S., or trading heavily with the U.S. At most, military alliances reassured only 2.7% of respondents, an effect not statistically distinguishable from zero. Thus, our study does not support the hypothesis that peace prevails among democracies (and among allies and trading partners) because they do not expect each other to acquire powerful weapons.

The three experimental factors did, however, affect beliefs about how the country would use its nuclear weapons. Around 56% of respondents anticipated that, absent an American preventive strike, a country with “baseline” attributes would not only build nuclear weapons but also threaten to use them against another country. Nearly 54% went further, by predicting that the country would threaten the U.S. or a U.S. ally. Democracy, alliances, and trade did much to allay these fears. The percentage of respondents who expected nuclear threats fell by about 9-10 percentage points when the country was a democracy, by about 8-11 percentage points when it was a military ally, and by about 6-8 percentage points when it traded extensively with the U.S.

We also asked whether respondents thought the country would go so far as to launch a nuclear attack. Among respondents who received the baseline condition, 37.4% felt that that a nuclear attack against another country was likely. Expectations about nuclear war were noticeably lower
when the country was a democracy (5.6 points), an ally (6.5 points), or a trading partner (4.1 points). Finally, we asked whether respondents feared a nuclear attack against the U.S or a U.S ally. Approximately 34% saw more than a fifty-fifty chance that the country would launch a nuclear attack against the U.S given the baseline condition. Here, democracy had a negative but not statistically significant effect (3.2 points); the negative effects of alliance and trade were larger and statistically significant.

These perceptions of threat, in turn, were highly correlated with support for a preventive strike. Around one-fifth of respondents predicted that, if the U.S. did not strike, the country would not only build nuclear weapons, but also threaten to use them against the U.S. and other countries, and would ultimately fire the weapons against other countries, including the U.S. or its allies. Nearly 86% of those respondents wanted U.S. military action against the country’s nuclear sites. In contrast, just under one-third of respondents deemed it unlikely that the country would take any of these steps. Perceiving a lower threat, only 24% of these respondents endorsed a U.S. strike. Thus, across the entire range of threat perception, willingness to attack varied by 62 percentage points.

What can we conclude from these patterns? First, consistent with the threat perception mechanism, respondents perceive democracies to be less threatening than autocracies. Moreover, threat perception is highly correlated with support for using force. We therefore found evidence consistent with the idea that threat perception is one mechanism through which shared democracy leads to peace. However, as Imai, Keele, Tingley, and Yamamoto (2010) and Bullock, Green, and Ha (2010) emphasize, unmeasured factors might drive both perceptions of threat and support for the use of force. For example, perhaps some unmeasured animus toward autocracy causes respondents who receive the autocracy treatment to perceive a greater threat, and to support military strikes. Future research will explore this possibility in greater detail by measuring such factors and controlling for them in the analysis.

Finally, while the effects of democracy were significant, alliances and trade exerted powerful effects, as well. Moreover, although democracy had a calming effect, it alone was insufficient to eliminate fear among citizens. In fact, almost 45% of respondents felt that a democratic, non-allied, low-trade proliferator would probably use its nuclear weapons to threaten the U.S. or U.S. allies. Thus, our experiments suggest that while shared democracy dampens the security dilemma and thus increases the likelihood of peace, it is no magic bullet.

**Deterrence**

According to a second set of mechanisms, democracies refrain from attacking each other because they are deterred by the greater military capabilities of other democracies. People may, for example, think that democracies “try harder” (Bueno de Mesquita et al. 1999), are more skilled at war-fighting (Reiter and Stam 2002), or tend to be more technologically advanced than nondemocracies. If the democratic peace is due to deterrence, we would expect respondents to fear worse consequences from attacking a democracy than from attacking a nondemocracy.

We began our investigation of the deterrence mechanism by asking questions about the anticipated costs of military action. As before, we asked respondents to rate whether various costly events were likely or not. Table 6 gives the percentage of respondents who thought the event had more than a 50% chance of occurring when the country had baseline characteristics (neither a democracy, nor an ally, nor a major trading partner), and shows how beliefs changed when the country had different characteristics. Stars indicate that the effects were statistically significant at the .10 level.
We did not find strong evidence for the deterrence mechanism, at least as portrayed in the literature. Many respondents predicted that, if the U.S. attacked, the target would retaliate against the U.S. or a U.S. ally; that the U.S. military would suffer many casualties; and that the U.S. economy would decline; and that U.S. relations with other countries would deteriorate. Contrary to the democratic deterrence hypothesis, however, the prevalence of such beliefs did not depend on whether the country was a democracy. Other background characteristics of the country had no effect, either, with one exception: more respondents anticipated that attacking would hurt the U.S. economy when the target was a major trading partner than when it was not. Overall, the estimates in Table 6 contradict the hypothesis that democratic countries have peaceful relations because they think fighting each other would involve more military, economic, and diplomatic costs than fighting autocracies.

Perceptions of costs, while not driven by democracy, were nonetheless highly correlated with willingness to use force. Among respondents who thought a strike would cause retaliation, significant U.S. casualties, damage to the U.S. economy, and deteriorating relations with other countries, the rate of support for military action was only 22%. Among people who expected none of these consequences, though, support was 55%. Thus, support for military strikes was 33 percentage points higher among people who anticipated high costs than among people who did not.

Although the data in Table 6 do not fit the deterrence hypothesis as traditionally conceived, the bottom two rows suggest an alternative, in which citizens of democracies are optimistic, not about the costs of fighting autocracies, but about their likelihood of success against autocracies. When given the baseline scenario, 58% of respondents thought a U.S. strike would prevent the autocratic country from making nuclear weapons in the near future, and 34% concluded that a U.S. attack would stop the autocratic country’s nuclear program over the long run. Citizens were less sanguine about the prospects of success against democracies and trading partners. The 5-6% shifts in expectations are both substantially and statistically significant.

These perceptions of success and failure, in turn, help explain variation in support for military strikes. Citizens who thought a strike would prevent the country from developing nuclear weapons over the short and long run were 40 percentage points more enthusiastic about attacking than citizens who deemed it unlikely that the strikes would halt the country’s nuclear program. In sum, we found little evidence that the democratic peace arises from perceptions about the differential costs of striking democracies. At the same time, we uncovered some evidence connecting the democratic peace to the perception that strikes would be less effective against democracies than against autocracies.

Morality

The third set of mechanisms involves morality. Perhaps democracies eschew using force against fellow democracies not because of the consequences, but because of a moral aversion to attacking other democratic states (Walzer 2006). If so, respondents should deem it less morally appropriate to strike a democracy than to strike an autocracy.

Our study included a question to test the relevance of morality. After presenting the scenario, we not only asked whether respondents would favor or oppose a military strike, but separately inquired whether respondents thought it would be “morally wrong for the U.S. military to attack the country’s nuclear development sites?” In theory, the answers to these two questions could diverge. Respondents might favor a strike even while deeming it morally wrong, or they might regard
striking as morally acceptable and yet oppose it on other grounds. In our data, policy preferences and moral inclinations matched for 73% of respondents, but differed for the remaining 27%.

To what extent did democracy affect these perceptions of morality? Approximately 26% of respondents felt that it was morally wrong to attack a country with the baseline set of attributes (nondemocratic, nonallied, low trade). As expected, moral opposition was higher when the country was democratic, but only by around 7 percentage points. Alliances and trade also contributed; each increased moral opposition by about 5 percentage points. All these estimates were not only substantively large but statistically significant at conventional levels.

Moral perceptions, in turn, correlated strongly with willingness to use force. Among respondents who felt the attack was morally wrong, only 11% nonetheless wanted the U.S. military to strike the country’s nuclear facilities. Support for military action was nearly six times higher (65%) among respondents who did not think an attack would violate moral standards. Thus, moral beliefs are strongly (but not perfectly) related to support for force.

**Mechanisms among conservatives**

Above, we found evidence consistent with three mechanisms: perceptions of threat, expectations of success, and feelings about morality. To what extent do these mechanisms operate on conservatives, the demographic group for whom democracy exerted the strongest effect on willingness to use force? Moreover, can we find traces of these mechanisms among moderates and liberals, for whom democracy proved much less important in shaping preferences about a military strike?

Earlier, we also found remarkably little support for deterrence-based theories, which attribute the democratic peace to the belief that attacking democracies would be more costly than attacking autocracies. Was this mechanism entirely absent, or did it operate for some ideological groups, such as conservatives, even while proving unimportant on average for the population as a whole?

To answer these questions we constructed four summary measures of perception, each on a 0-1 scale. For “threat,” we computed the proportion of potentially threatening events (of the five events in Table 5) the respondent regarded as likely if the U.S. did not attack. For “cost,” we made a similar calculation using the four costly outcomes—retaliation, military casualties, economic damage, and diplomatic damage—in the first four rows in Table 6. For “success,” we assigned a 1 to respondents who thought a U.S. attack would stop the country from developing nuclear weapons in both the short and the long run, and gave proportionally lower scores to respondents who anticipated failure in one or both of these time frames. Finally, our “immorality” variable took a value of 1 if the respondent thought it would be morally wrong for the U.S. to attack, and took a value of 0 otherwise.

We regressed each summary measure on three explanatory variables—democracy, alliances, and trade—and a constant term. By running separate regressions for conservatives, moderates, and liberals, we were able to infer which mechanisms our treatments were activating, and for which segments of the population. (Other statistical procedures, including logit or count-based models, produced similar results. For ease of interpretation we focus on the regression results.)

Our findings appear in Table 7. The baseline perception, equivalent to the intercept of the regression, is the average perception of a country that was neither a democracy, nor an ally, nor a major trading partner. The effect of democracy, measured by the coefficient on democracy in the regression model, indicates the extent to which perceptions changed when the country was a democracy, rather than an autocracy.
The table shows that our three most important mechanisms operate strongly among conservatives. Conservatives regard democracies as significantly less threatening; believe the U.S. would be less likely to succeed in stopping the nuclear aspirations of a democratic opponent; and have more moral qualms about attacking a democracy than about attacking an otherwise equivalent autocracy. In contrast, we find no strong evidence of these mechanisms among liberals and moderates, for whom the marginal effect of democracy on each summary measure was substantively small and statistically indistinguishable from zero at conventional levels of confidence.

Table 7 also confirms our null finding about the deterrence mechanism. As expected, liberals were far more likely than conservatives to think that military action would entail significant costs. The baseline perception of cost for liberals was 0.48, nearly twice as large as the baseline perception for conservatives. In concrete terms, this means that the average liberal expected two of the four adverse consequences at the top of Table 6, whereas the average conservative expected only one adverse consequence. Importantly, though, these perceptions did not vary by regime type. The estimated effect of democracy was nearly zero for both liberals and conservatives, and was actually negative for moderates. None of these estimates were statistically different from zero at conventional levels of confidence, however.

Table 7 helps reconcile several major findings in the paper. At the aggregate level, we found strong evidence for the threat, success, and morality mechanisms, but uncovered little support for the deterrence mechanism. We also found that democracy had considerably larger effects on conservatives than on moderates and liberals. We now have a better understanding of these patterns. The threat, success, and morality mechanisms are all evident among conservatives, for whom democracy clearly influenced the willingness to use force. In contrast, none of these mechanisms appear important for moderates and liberals, for whom democracy caused little change in support for a military strike. In addition, our studies find no support for the deterrence mechanism, not only in the sample as a whole, but also among the conservative segment for whom democracy otherwise proved to be such a potent consideration.

The residual effect of democracy

Our analyses to this point have suggested the potential importance of three mechanisms: perceptions of threat, perceptions about the probability of success, and beliefs about morality. How much of the democratic peace do these mechanisms explain? One approach is to model willingness to use force, not only as a function of democracy, but also as a function of these consequences of democracy. We can then observe whether democracy continues to have an independent causal effect, after netting out the three pathways we identified.

While powerful, these three mechanisms do not fully explain the aversion to using force against democracies. Even after netting-out the effects of threat, success, and morality (by using regression analysis to control for those particular causal pathways), respondents were still significantly less likely to endorse preventive strikes against democracies than against autocracies. The residual effect of democracy was about 5 percentage points, and was statistically significant at conventional levels.

There are at least three possible ways to interpret this finding. The first is that the democratic peace stems entirely from threat perception, costs, and morality, but we have not measured these three mechanisms adequately. A second possibility is that while we have identified the correct
mechanisms and measured them accurately, the relationship between democracy, these factors, and peace is not linear. If we could identify the correct functional form of the relationships, the residual effect of democracy might disappear. A third possibility is that while threat, expectations of success, and morality drive some of the democratic peace, other unmeasured mechanisms are also at work. All of these possibilities are promising areas for future research.

7. Conclusion

The experiments in this paper offer strong evidence for a democratic peace, at least as manifested in public opinion. We argued that most existing arguments about the democratic peace have clear implications for the micro-level. Nonetheless, few researchers have examined whether shared democracy affects public opinion about the use of force, or why such a relationship might exist.

We found that British and American adults were far less willing to use force against democracies than against otherwise equivalent autocracies. The effect of democracy was evident across most demographic categories, but was especially large among the politically interested and active members of society. Three other factors—alliances, trade, and military power—also affected public opinion, though to a lesser degree than democracy.

We also found evidence about why these effects exist. We designed the U.S. survey to explore three plausible mechanisms behind the democratic peace: threat perception, deterrence, and morality. Indeed, respondents who faced a democracy thought that its nuclear program was less threatening; were less confident that a preventive strike would succeed; and were more likely to feel that attacking would be immoral. Moreover, each of these perceptions was strongly correlated with attitudes toward the use of force. Finally, while respondents were clearly sensitive to the anticipated costs of military action, the target’s regime type did not significantly alter these perceptions of cost.

Our findings also revealed a number of interesting patterns about how the effect of democracy varies across the population. For example, we found that democracy exerted especially powerful effects on conservatives and on men. These groups were particularly likely to support strikes against autocracies, but much more reluctant when the potential target was democratic. Further analysis confirmed that conservatives, more than other groups, saw democracy as a major indicator of threats, an important predictor of success, and a significant input into their moral judgments.

While survey-based experiments about the democratic peace are enlightening, we view them as complements to, rather than substitutes for, historical analysis. After all, each type of data offers its own advantages and disadvantages. Historical data offer high levels of external validity, but they also present researchers with difficult challenges, including endogeneity and the possibility of spurious correlations. Experiments have the opposite attributes: they score lower on external validity, but are especially powerful tools for causal inference because, by design, they avoid problems of endogeneity and spurious correlation.

Using experiments, this paper has shed new light on a debate of longstanding importance for scholars and policymakers. At the same time, it has provided a template for future research about the democratic peace. Future experiments could, for example, manipulate other potential sources of peace. One could also design experiments that discriminate between various hypotheses about the institutional and normative sources of the democratic peace. Finally, by running experiments in a wide range of countries, one could gain a better understanding of the empirical scope of the democratic peace.
Works Cited


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Figure 1: Measuring preferences about a military strike

Here is the situation:

- A country is developing nuclear weapons and will have its first nuclear bomb within six months. The country could then use its missiles to launch nuclear attacks against any country in the world.
- The country has not signed a military alliance with the U.K.
- The country is a democracy, and shows every sign that it will remain a democracy.
- The country’s nonnuclear military forces are half as strong as Britain’s nonnuclear forces.
- The country’s motives remain unclear, but if it builds nuclear weapons, it will have the power to blackmail or destroy other countries.
- The country has refused all requests to stop its nuclear weapons program.

By attacking the country’s nuclear development sites now, Britain could prevent the country from making any nuclear weapons. Would you favour or oppose using the British Armed Forces to attack the country’s nuclear development sites?

- Favour strongly
- Favour somewhat
- Neither favour nor oppose
- Oppose somewhat
- Oppose strongly
### Table 1: Effects of Democracy, Alliances, Power, and Trade

<table>
<thead>
<tr>
<th></th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not a democracy</td>
<td>34.2</td>
<td>51.2</td>
</tr>
<tr>
<td>Democracy</td>
<td>20.9</td>
<td>41.1</td>
</tr>
<tr>
<td><strong>Effect of democracy</strong></td>
<td>-13.3</td>
<td>-10.1</td>
</tr>
<tr>
<td>95% C.I.</td>
<td>(-19.6 to -7.0)</td>
<td>(-15.3 to -5.0)</td>
</tr>
<tr>
<td>No military alliance</td>
<td>30.7</td>
<td>48.9</td>
</tr>
<tr>
<td>Military alliance</td>
<td>25.0</td>
<td>43.3</td>
</tr>
<tr>
<td><strong>Effect of alliance</strong></td>
<td>-5.7</td>
<td>-5.6</td>
</tr>
<tr>
<td>95% C.I.</td>
<td>(-12.0 to 0.7)</td>
<td>(-10.8 to -0.4)</td>
</tr>
<tr>
<td>Half as strong</td>
<td>29.3</td>
<td>---</td>
</tr>
<tr>
<td>As strong</td>
<td>26.3</td>
<td>---</td>
</tr>
<tr>
<td><strong>Effect of &quot;as strong&quot;</strong></td>
<td>-3.0</td>
<td>---</td>
</tr>
<tr>
<td>95% C.I.</td>
<td>(-9.4 to 3.4)</td>
<td>(-11.3 to -0.9)</td>
</tr>
<tr>
<td>No high trade</td>
<td>---</td>
<td>49.3</td>
</tr>
<tr>
<td>High trade</td>
<td>---</td>
<td>43.2</td>
</tr>
<tr>
<td><strong>Effect of high trade</strong></td>
<td>---</td>
<td>-6.1</td>
</tr>
<tr>
<td>95% C.I.</td>
<td>(-11.3 to -0.9)</td>
<td>(-11.3 to -0.9)</td>
</tr>
</tbody>
</table>

*Note: The table gives the estimated effects (with 95% confidence intervals) of democracy, alliances, power, and trade on support for a military strike. In the U.K., the sample sizes were 398 for not a democracy, 364 for democracy, 371 for no alliance, 391 for alliance, 382 for half as strong, and 380 for as strong. In the U.S., the sample sizes were 701 for not a democracy, 711 for democracy, 710 for no alliance,” 702 for alliance, 667 for no high trade, and 745 for high trade.*
Table 2: The Effect of Democracy, By Context

(a) Effect of democracy, conditional on power and alliances

<table>
<thead>
<tr>
<th>Context</th>
<th>Country is a democracy</th>
<th>County is not a democracy</th>
<th>Effect of democracy</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak non-ally</td>
<td>20.7</td>
<td>42.6</td>
<td>-21.9</td>
<td>(-35.1 to -8.7)</td>
</tr>
<tr>
<td>Weak ally</td>
<td>20.9</td>
<td>31.8</td>
<td>-10.9</td>
<td>(-23.5 to 1.7)</td>
</tr>
<tr>
<td>Strong non-ally</td>
<td>25.6</td>
<td>33.7</td>
<td>-8.1</td>
<td>(-21.4 to 5.2)</td>
</tr>
<tr>
<td>Strong ally</td>
<td>16.7</td>
<td>29.3</td>
<td>-12.6</td>
<td>(-24.5 to -0.8)</td>
</tr>
</tbody>
</table>

(b) Effect of democracy, conditional on trade and alliances

<table>
<thead>
<tr>
<th>Context</th>
<th>Country is a democracy</th>
<th>County is not a democracy</th>
<th>Effect of democracy</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low trade, non-ally</td>
<td>50.6</td>
<td>56.4</td>
<td>-5.9</td>
<td>(-16.6 to 4.9)</td>
</tr>
<tr>
<td>Low trade, ally</td>
<td>40.2</td>
<td>50.6</td>
<td>-10.4</td>
<td>(-21.1 to 0.3)</td>
</tr>
<tr>
<td>High trade, non-ally</td>
<td>38.6</td>
<td>51.7</td>
<td>-13.1</td>
<td>(-23.1 to -3.1)</td>
</tr>
<tr>
<td>High trade, ally</td>
<td>35.3</td>
<td>47.0</td>
<td>-11.7</td>
<td>(-21.8 to -1.6)</td>
</tr>
</tbody>
</table>

*Note:* The table gives % of respondents who supported a military strike. Panel (a) is based on the U.K. sample, where the sizes of the eight experimental cells ranged from 86 to 110. Panel (b) is based on the U.S. sample, where the eight cells ranged in size from 160 to 198.
Table 3: The Effect of Democracy, by Level of Political Interest and Activism

<table>
<thead>
<tr>
<th></th>
<th>Country is a democracy</th>
<th>County is not a democracy</th>
<th>Effect of democracy</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High interest (U.K.)</td>
<td>20.1</td>
<td>37.5</td>
<td>-17.4</td>
<td>(-25.0 to -9.8)</td>
</tr>
<tr>
<td>Low interest (U.K.)</td>
<td>22.7</td>
<td>26.1</td>
<td>-3.4</td>
<td>(-14.7 to 8.0)</td>
</tr>
<tr>
<td>High interest (U.S.)</td>
<td>43.0</td>
<td>56.9</td>
<td>-14.0</td>
<td>(-20.5 to -7.4)</td>
</tr>
<tr>
<td>Low interest (U.S.)</td>
<td>38.1</td>
<td>40.7</td>
<td>-2.5</td>
<td>(-10.9 to 5.9)</td>
</tr>
<tr>
<td>High activism (U.K.)</td>
<td>13.0</td>
<td>39.8</td>
<td>-26.7</td>
<td>(-39.0 to -14.5)</td>
</tr>
<tr>
<td>Low activism (U.K.)</td>
<td>23.5</td>
<td>32.5</td>
<td>-8.9</td>
<td>(-16.3 to -1.6)</td>
</tr>
</tbody>
</table>

*Note:* The table gives the % of respondents who supported a military strike. The sample sizes for “is a democracy” and “is not a democracy” were 254 and 283 for high-interest U.K. respondents, 110 and 115 for low-interest U.K. respondents, 433 and 455 for high-interest U.S. respondents, 278 and 246 for low-interest U.S. respondents, 92 and 93 for high-activism U.K. respondents, and 272 and 305 for low-activism U.K. respondents.
Table 4: The Effect of Democracy, by Demographic Group

(a) U.K. Sample

<table>
<thead>
<tr>
<th></th>
<th>Country is a democracy</th>
<th>Country is not a democracy</th>
<th>Effect of democracy</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative</td>
<td>24.4</td>
<td>45.3</td>
<td>-21.0</td>
<td>(-31.2 to -10.7)</td>
</tr>
<tr>
<td>Liberal</td>
<td>16.5</td>
<td>27.2</td>
<td>-10.7</td>
<td>(-19.5 to -2.0)</td>
</tr>
<tr>
<td>Male</td>
<td>24.7</td>
<td>41.0</td>
<td>-16.3</td>
<td>(-25.3 to -7.3)</td>
</tr>
<tr>
<td>Female</td>
<td>16.7</td>
<td>24.4</td>
<td>-7.7</td>
<td>(-16.3 to 0.9)</td>
</tr>
<tr>
<td>At least 55 ys</td>
<td>20.0</td>
<td>36.5</td>
<td>-16.5</td>
<td>(-25.5 to -7.6)</td>
</tr>
<tr>
<td>Less than 55 ys</td>
<td>21.8</td>
<td>31.8</td>
<td>-10.1</td>
<td>(-19.0 to -1.1)</td>
</tr>
<tr>
<td>College degree</td>
<td>21.2</td>
<td>31.3</td>
<td>-10.0</td>
<td>(-19.9 to -0.1)</td>
</tr>
<tr>
<td>No college degree</td>
<td>19.0</td>
<td>35.4</td>
<td>-16.4</td>
<td>(-24.8 to -8.0)</td>
</tr>
</tbody>
</table>

(b) U.S. Sample

<table>
<thead>
<tr>
<th></th>
<th>Country is a democracy</th>
<th>Country is not a democracy</th>
<th>Effect of democracy</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative</td>
<td>53.4</td>
<td>74.7</td>
<td>-21.3</td>
<td>(-28.9 to -13.7)</td>
</tr>
<tr>
<td>Moderate</td>
<td>37.3</td>
<td>38.9</td>
<td>-1.7</td>
<td>(-11.5 to 8.2)</td>
</tr>
<tr>
<td>Liberal</td>
<td>25.4</td>
<td>28.3</td>
<td>-2.9</td>
<td>(-12.3 to 6.5)</td>
</tr>
<tr>
<td>Male</td>
<td>45.2</td>
<td>57.1</td>
<td>-11.9</td>
<td>(-19.4 to -4.4)</td>
</tr>
<tr>
<td>Female</td>
<td>37.5</td>
<td>45.2</td>
<td>-7.7</td>
<td>(-14.9 to -0.6)</td>
</tr>
<tr>
<td>At least 55 ys</td>
<td>43.0</td>
<td>55.0</td>
<td>-11.9</td>
<td>(-19.4 to -4.5)</td>
</tr>
<tr>
<td>Less than 55 ys</td>
<td>39.2</td>
<td>47.8</td>
<td>-8.7</td>
<td>(-15.9 to -1.5)</td>
</tr>
<tr>
<td>College degree</td>
<td>34.3</td>
<td>44.6</td>
<td>-10.3</td>
<td>(-18.5 to -2.0)</td>
</tr>
<tr>
<td>No college degree</td>
<td>45.2</td>
<td>55.3</td>
<td>-10.1</td>
<td>(-16.7 to -3.5)</td>
</tr>
</tbody>
</table>

Note: The table gives the % of respondents who supported a military strike. In the U.K. there were 321 conservatives, 353 liberals, 424 males, 338 females, 382 people age 55 or older, 380 people under 55 years, 306 with a college degree, and 428 without a college degree. In the U.S. sample, there were 589 conservatives, 375 moderates, 347 liberals, 684 males, 728 females, 684 people age 55 or older, 728 people under 55 years, 538 with a college degree, and 874 without a college degree.
Table 5: Testing the Threat Perception Mechanism

<table>
<thead>
<tr>
<th>If the U.S. did not attack, the country would …</th>
<th>Baseline Belief</th>
<th>Effect of Democracy</th>
<th>Effect of Alliance</th>
<th>Effect of Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>build nuclear weapons</td>
<td>59.9</td>
<td>0.7</td>
<td>-2.7</td>
<td>-1.1</td>
</tr>
<tr>
<td>threaten to use nukes vs. another country</td>
<td>55.5</td>
<td>-9.7 *</td>
<td>-7.7 *</td>
<td>-5.8 *</td>
</tr>
<tr>
<td>threaten to use nukes vs. U.S. or U.S. ally</td>
<td>53.5</td>
<td>-9.0 *</td>
<td>-10.9 *</td>
<td>-8.4 *</td>
</tr>
<tr>
<td>launch a nuclear attack vs. another country</td>
<td>37.4</td>
<td>-5.6 *</td>
<td>-6.5 *</td>
<td>-4.1 *</td>
</tr>
<tr>
<td>launch a nuclear attack vs. U.S. or U.S. ally</td>
<td>34.6</td>
<td>-3.7</td>
<td>-8.2 *</td>
<td>-5.6 *</td>
</tr>
</tbody>
</table>

*Note:* Each line in Table 5 was generated by regressing support for a military strike on dummy variables for the three treatments: the country is a democracy, the country is a military ally, and the country has high levels of trade with the U.S. The column labeled “baseline belief” gives the percentage of respondents who thought the event was more than 50% likely when the country was neither a democracy, nor an ally, nor a trading partner. The columns labeled democracy, alliance, and trade give the main effects of those three variables, when entered simultaneously but without interactions. Each regression had 1,424 observations.
Table 6: Testing the Deterrence Mechanism

<table>
<thead>
<tr>
<th>If the U.S. did attack …</th>
<th>Baseline Belief</th>
<th>Effect of Democracy</th>
<th>Effect of Alliance</th>
<th>Effect of Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>the country would attack U.S. or U.S. ally</td>
<td>36.9</td>
<td>-1.4</td>
<td>0.8</td>
<td>2.5</td>
</tr>
<tr>
<td>the U.S. military would suffer many casualties</td>
<td>32.2</td>
<td>-0.6</td>
<td>1.2</td>
<td>2.5</td>
</tr>
<tr>
<td>the U.S. economy would suffer</td>
<td>26.1</td>
<td>0.3</td>
<td>3.8</td>
<td>6.9 *</td>
</tr>
<tr>
<td>U.S. relations with other countries would suffer</td>
<td>44.2</td>
<td>2.2</td>
<td>3.3</td>
<td>3.2</td>
</tr>
<tr>
<td>it would prevent nukes in the near future</td>
<td>58.3</td>
<td>-5.1 *</td>
<td>1.8</td>
<td>-5.3 *</td>
</tr>
<tr>
<td>it would prevent nukes in the long run</td>
<td>34.2</td>
<td>-4.5 *</td>
<td>-0.7</td>
<td>-5.8 *</td>
</tr>
</tbody>
</table>

*Note: Each line in Table 6 was generated by regressing support for a military strike on dummy variables for the three treatments: the country is a democracy, the country is a military ally, and the country has high levels of trade with the U.S. The column labeled “baseline belief” gives the percentage of respondents who thought the event was more than 50% likely when the country was neither a democracy, nor an ally, nor a trading partner. The columns labeled democracy, alliance, and trade give the main effects of those three variables, when entered simultaneously but without interactions. Each regression had 1,424 observations.*
Table 7: Testing Mechanisms, by Political Ideology

<table>
<thead>
<tr>
<th>Perceptions</th>
<th>Baseline Perception</th>
<th>Effect of Democracy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liberal</td>
<td>Moderate</td>
</tr>
<tr>
<td>Threat</td>
<td>0.28</td>
<td>0.36</td>
</tr>
<tr>
<td>Cost</td>
<td>0.48</td>
<td>0.39</td>
</tr>
<tr>
<td>Success</td>
<td>0.36</td>
<td>0.40</td>
</tr>
<tr>
<td>Immorality</td>
<td>0.50</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Note: For each ideological group, the table gives the baseline perception of threat, cost, success, and immorality (each on a 0-1 scale) when the target is neither a democracy nor an ally nor a major trading partner, and it shows to what extent perceptions change when the country is identified as a democracy. Stars indicate that the estimated effect of democracy is statistically significant at the .05 level. Estimates are based on regression analyses, as described in the text. There were 591 conservatives, 376 moderates, and 349 liberals.