How Prior Military Experience Influences The Future Militarized Behavior Of Leaders

Michael Horowitz, University of Pennsylvania
Allan C. Stam, University of Michigan

August 2012

Abstract: Policy makers and the electorate assume political executives' life experiences affect their policy choices once in office. Recent international relations work on leaders, however, focuses almost entirely on how political institutions shape leaders' choices rather than on leaders' personal attributes and how they influence policy choices. We theorize that differences in early life experiences affect leaders' attitudes and beliefs. In particular, the prior military background of a leader is an important life experience with direct relevance for how leaders evaluate the utility of using military force. Drawing on literature from psychology and political science, we test several propositions employing a new data set, building on Archigos, that encompasses the military background characteristics of over 2500 heads of state from 1875-2004. The results show that the leaders most likely to initiate militarized disputes and wars are those with prior military service but no combat experience, as well as former rebels. Those with prior combat experience, in contrast, are not more likely to engage in militarized behavior, except in regimes that feature weak civilian control of the military.

"I have participated in two wars and know that war ends when it has rolled through cities and villages, everywhere sowing death and destruction. For such is the logic of war. If people do not display wisdom, they will clash like blind moles and then mutual annihilation will commence"[1]

I. Introduction

In the 2004 US presidential election, American voters faced a stark choice at the top of the ballot. The sitting president, George W. Bush, had served in the National Guard but never saw combat. His opponent, John Kerry, was a decorated veteran who served in combat zones during the Vietnam War. With the United States in the midst of fighting wars in Afghanistan and Iraq, many pundits argued that the respective military service backgrounds of the candidates represented an important window into their overall qualifications to be commander in chief. In a series of interviews, speeches, and columns, Kerry and his staff explicitly suggested that his combat experiences in Vietnam provided him with wisdom that would make him a more effective wartime president than George W. Bush. During his speech in Boston accepting the Democratic Party's nomination to be their presidential candidate, Kerry even stated "As President, I will wage this war with the lessons I learned in war".[2]

The way different types of prior military service may affect the future decisions of leaders is not an issue of concern solely for the American electorate. In 2003, some commentators discussing French opposition to the American-led invasion of Iraq argued that French President Jacques Chirac's military service in Algeria powerfully influenced the way he weighed the costs and benefits of armed conflict. Chirac himself stated that his experiences in Algeria made him especially aware of the risks involved in a conflict such as the Iraq war.[3]

The general observation that early life experiences shape an individual's future behavior constitutes a central proposition of psychology and sociology. This paper focuses on variation in

[1] (Nikita Khrushchev, 1963).
[2] (Kerry 2004).
[3] (Starobin 2003).

a particularly salient early life experience: the military backgrounds of heads of state. We build on existing research on leaders in two ways. First, despite enormous growth in research on leaders over the last several years,[4] nearly all current research on leaders and international conflict focuses on how domestic political institutions shape and constrain the choices of leaders rather than demonstrating how variation in leaders' individual attributes affects state behavior. Leaders as independent principles are absent. Second, most existing research on leaders themselves, though useful, focuses on particular individuals as an existence proof to demonstrate they matter, rather than systematically testing propositions about leaders across space and time.[5]

Accounting for the relative impact of leaders, however, is a logical step towards building more effective models of international behavior. Incorporating the relevance of variation among individual leaders could play a role in influencing the credibility of threats, the policy choices of domestic institutions, reputational concerns, and the use of force. In this paper, we develop a novel line of argument and present evidence that allows us to systematically evaluate the effect of particular leaders' military experiences on their state's future militarized behavior, while accounting for the important interaction between leaders and the domestic political institutions that both screen them through the leader selection process and constrain the range of policy options available to them in times of crisis.

There is an ongoing debate about the effect of military experience on individuals' propensity to engage in and support violent conflict. Does military service increase familiarity and knowledge about the use of force, making those who serve more likely to support military action, or does the exposure to danger in the military make those who serve more hesitant to use

[4] For recent examples see (Weeks 2012; Debs and Goemans 2010; Croco 2011)
[5] (Saunders 2011). Exceptions exist in research focused on leader selection and the link between leaders and economic growth (Besley and Reynal-Querol 2011; Besley et al. n.d.; Jones and Olken 2005). Also see Colgan's work on revolutionary leaders (Colgan 2010).

force in the future?[6] Existing research on how military backgrounds shape the future behavior of leaders often fails to differentiate military service itself from actual participation in combat. We theorize that the most force-prone leaders should be those with military experience but no combat experience. These leaders, such as Kaiser Wilhelm II and George W. Bush, have the familiarity with military service that makes them more likely to make use of the military when they reach office, but they lack the combat experience that might them more knowledgeable about the risks and consequences.

Additionally, rather than just thinking about uniformed military service, we develop and test hypotheses concerning the effect of military service outside the confines of the nation-state, rebel group participation. Rebel group participation is a particularly dangerous endeavor – challenging the state with military force is an activity much more likely to end in failure than success, and those on the losing side often suffer severe personal consequences. Individuals who self-select into leadership positions in rebel groups should thus be especially risk acceptant, a trait likely to carry over if and when they enter office later in life.[7]

Our results support our argument and show that leaders with prior military service, but not combat experience, are significantly more likely to initiate militarized disputes and wars than those with combat experience. Prior rebel participants are even more likely to initiate militarized disputes. Domestic political institutions clearly matter, however. In extremely autocratic regimes or regimes that lack strong civilian control of the military, even controlling for other characteristics of those regimes, leaders with combat experience appear significantly more likely to engage in militarized behavior. We argue that this results from both socialization and a

[6] (Weeks 2012; Huntington 1957; Janowitz 1960)
[7] There might be some differences for foot soldiers pressured into service due to rebel control or coercion (Kalyvas and Kocher 2007)

selection process that, in autocratic regimes such as pre-Hussein Iraq, rewards individuals with unusually high willingness to engage in violence and aggression.

We also explicitly deal with questions of endogeneity concerning leader selection and the propensity for leaders to have prior military service or rebel experience. In particular, it is tempting to think that any effect of military experience might be due to a screening process whereby countries in dangerous neighborhoods are more likely to select leaders with prior military experience. We control for this possibility throughout our analyses. We also show that our results hold even when looking at leaders' entrance into office though the most "random" possible process and by controlling statistically for whether or not a leader is likely to have prior military experience.

II. Bringing Leader Experiences Back In

A. Reviewing the study of leaders

Examining the formative experiences of leaders and how they shape leader behavior when those leaders take office is fundamentally different from most of the existing international relations literature on leaders. Most of the current literature, while purportedly investigating the effects of varying leader types, is not actually about leaders. Instead, this literature focuses on how variations in domestic institutional constraints affect leadership tenure[8], the institutionally-induced relationship between leadership tenure and conflict,[9] the responsibility and punishment of leaders,[10] and the decisions of leaders in the military arena.[11] This research convincingly shows that domestic political institutions profoundly shape the incentives leaders face for various types of policy choices.

[8] (Bueno de Mesquita et al. 2003; Chiozza and Goemans 2003, 2004)
[9] (Goemans 2008; Debs and Goemans 2010)
[10] (Goemans 2000; Croco 2011)
[11] (Weeks 2012)

In these models, the leaders themselves, however, are "dispensable" black boxes, to paraphrase Fred Greenstein.[12] Rather than assuming that leaders residing in the same institutional contexts will behave similarly, we unpack a leader's propensity to engage in militarized behavior by focusing on formative military experiences and evaluating how leaders facing the same institutionally-induced incentives will behave differently.

Focusing on the leaders themselves and their independent influence on how nations behave, not just the institutional context in which leaders operate, does not, however, signal a return to the "great man" approach of history or psychohistory.[13] Related studies include research on the efficacy beliefs of leaders, the impact of leader age on international conflict, the significance of individual leaders for national growth rates and economic policy, the link between leader beliefs and intervention decisions, the impact of regional backgrounds on reputation, and the importance of leaders in general.[14]

Rather, we can draw on insights from previous research in political psychology to understand better the role of leaders. Hermann argues that international relations theory generally understates the importance of executives' individual leadership style in determining foreign policy goals and strategies.[15] While international relations theorists' dismissiveness was originally a reaction to psychoanalytic arguments that lacked systematic support grounded in observable data, it has led many to ignore the numerous studies of individual leaders' policy preferences and the psychological foundations of those beliefs.[16]

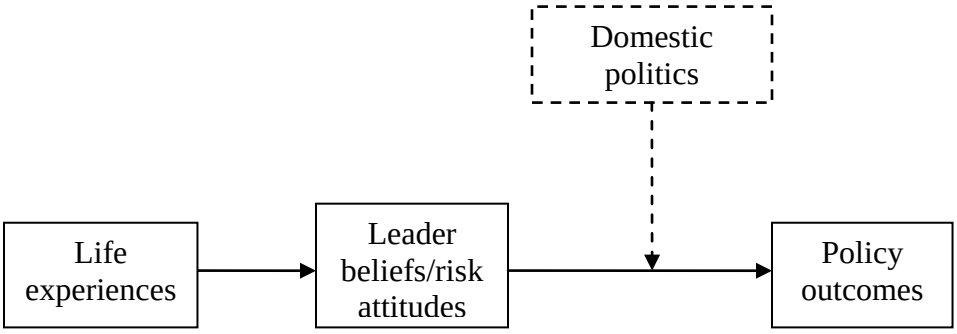
As previous work demonstrates, leaders operate within the constraints of a political system, rarely having the capacity to rule by fiat. Even Mao and Stalin worked within the

[12] (Greenstein 1969, 51-55)
[13] (Cohen 2002, xii-xiii; Goldgeier 1994)
[14] For example, see (Box-Steffensmeier and Jones 2004; Bunce 1981; Horowitz et al. 2005; Saunders 2011; Dafoe and Caughey 2011; Byman and Pollack 2001)
[15] (Hermann 1980)
[16] Including but not limited to (Greenstein 1992; Hermann 1980, 2003, 2001; Dyson and Preston 2006; Post 2003; Bar-Joseph and McDermott 2008; Barber 1992).

constraints of a communist party central committee, though they are properly considered personalist leaders.[17] Many authoritarian leaders face institutional checks and balances, albeit typically weaker ones than those in democratic systems, that make it difficult to enact policies exactly when and how they wish.[18] Therefore, examining the effect of leaders' personality attributes on policy requires outlining at the outset how the beliefs that follow from those attributes might translate into policy. Figure 1 demonstrates, conceptually, how leader beliefs operate through domestic political institutions to influence the policy process.

[17] (Weeks 2012)
[18] (Cheibub et al. 2010)

Figure 1: Theoretical relationship between leader experiences and policy outcomes



The causal sequence shown in Figure 1, illustrating the link between leader experiences, domestic politics, and national policy, shows the potential importance of capturing leader experiences in explaining state behavior.

B. Why Do Leader Experiences Matter?

A well-established literature in political psychology suggests that variations in individual leaders' personalities influence their propensity to engage in risk-taking. Kowert and Hermann find that variation in individual leaders' personalities lead to different levels of risk-acceptance, which we then observe as variation in state behavior.[19] Other scholarship focuses on executives' leadership styles or their normative beliefs, both of which can affect state foreign policy behavior.[20]

People and their personalities result from more than a simple aggregation of their experiences; but our individual and collective experiences matter a great deal in shaping our attitudes during subsequent periods.[21] The experiences people have in late adolescence and early adulthood, particularly as they leave home, have large and persistent effects on personality and risk propensity later in life.[22] Research by Jervis and Goldgeier, among others, demonstrates that prior experience functions as a heuristic that drives how people access the potential costs and benefits of their choices and the types of strategies they view as likely to succeed.[23] As David Matthews writes, "Human beings perceive what goes on about them within a *frame of reference* determined by their total previous experience."[24] This is true for political leaders as well as the

[19] (Kowert and Hermann 1997)
[20] (Hermann 2001; George 1980; Boettcher 2005; Foyle 1999). Using the five factor model of personality traits, Gallagher (2010) finds that those who are more open to new experiences and who seek excitement engage in more risky behavior as leaders.
[21] (Matthews 1954, 2)
[22] (Roberts et al. 2003; Caspi and Roberts 2005)
[23] (Jervis 1976; Goldgeier 1994)
[24] (Matthews 1954, 3)

general population. Alexander George argues that the prior experiences of leaders inform their "sense of personal efficacy",[25] the view they have of their capabilities. The higher the level of knowledge a leader believes he or she has about a given situation, something drawn in part from prior experience, the lower the level of uncertainty about the appropriate policy response.[26] Andrew Kennedy similarly finds that efficacy beliefs drawn from past experiences shape the future foreign policy behavior of leaders.[27]

It is important to be clear and recognize that our argument only captures some of the variation in the way that individual leaders behave. Other leader-specific variables beyond early life backgrounds clearly matter as well. In particular, the beliefs and psychologies of leaders may play a critical role in filtering how experiences are translated into policies. Background experiences, however, "heavily influence"[28] where the beliefs and behavior of leaders come from. Thus, understanding leader behavior and the choices that guide state behavior requires studying leaders' background experiences.

C. The Role of Military Experience

There are many reasons to suspect that military experience might have a particularly powerful and systematic impact on leaders' behavior once they reach office. First, military service offers a potentially direct connection between a behavior someone would engage in prior to entering officer – fighting a war – and something they might do while in office – initiating a militarized dispute or war. Second, military experiences can be particularly acute or traumatic and often occur during late adolescence, an important developmental stage.[29] It is also not simply the case that those with riskier personalities select into the military. Those who enter militaries

[25] (George 1980, 5)
[26] (George 1980, 27)
[27] (Kennedy 2011)
[28] (Matthews 1954, 4)
[29] (Caspi and Roberts 2005; Cutchin et al. 2008)

do so for many reasons (see the Online Appendix) and experimental research as well as twin-studies suggest that those experiences then have an independent impact on personality and risk propensity.[30] This makes it a fruitful area for study. Third, frequent conflicts between military and civilian leaders over the use of force in the United States since the Cold War lend credence to the idea that military and civilian elites may think differently about the use of force.[31]

Those with military service may be more prone to militaristic behavior. Military service, after all, generates expertise in the use of violence and socializes participants to think about the use of force as a potentially effective solution to political problems. This can crowd out other potential solutions for dealing with military challenges, in turn leading to a perceptual bias in favor of using military force.[32] Sechser argues that ties to the military also create parochial interests in favor of using force and decision-making biases favoring rapid escalation.[33]

More generally, military experience serves to educate participants about the military in a way that makes them more emotionally comfortable with using force. Concern with the militaristic attitudes of those in the armed forces in the United States goes back to the founding of the nation. Several decades after the founding of the American republic, Alexis De Tocqueville wrote that "a great army in the heart of a democratic people will always be a great peril."[34]

Exposure to combat represents a foundational and potentially traumatic experience that can influence future beliefs about violence. Some micro-level data suggests that exposure to combat makes people more risk acceptant. Survey research by Brunk et al. focusing on retired military officers in the United States found that those who had participated in combat were

[30] (Roberts et al. 2003)
[31] (Feaver and Gelpi 2004)
[32] (Posen 1984; Snyder 1984; Walt 1987, 162). Some argue this leads to biases in favor of offensive doctrines, but that does not necessarily imply biases towards using force in the first place, just biases towards using force in a particular way if the situation occurs (Snyder 1984; Feaver and Gelpi 2004, 26).
[33] (Sechser 2004, 750-751)
[34] (De Tocqueville 2000, 622)

significantly less sensitive to risk.[35] In Burundi, Voors et al. used variation in exposure to combat at the village level as a way to measure risk attitudes among villagers. They showed that people in villages exposed to combat have higher levels of risk-seeking and discount the future more.[36]

While much of this literature is focused on the United States, Weeks and Brecher find that military regimes are more likely to initiate military conflicts than other types of regimes.[37] Weeks specifically argues that the normalization of violence for leaders in military regimes, especially given that they often come to power through violence, makes them more likely to use force once in office.

An alternative perspective originated with Huntington, who found that military experience actually leads to conservatism around the use of force. Though military leaders are more likely to view the world through a lens focused on potential threats[38], they are risk-averse in the actual use of force, because they view other states based on their capabilities, rather than their intentions.[39] Huntington wrote that "(t)he military man normally opposes reckless, aggressive, belligerent action. . . war should not be resorted to except as a final recourse. . . the military man rarely favors war."[40] Essentially, military experience leads to a desire for greater armaments and preparedness, not a greater desire to use force.

Similarly, Morris Janowitz argues that a lack of civilian knowledge about the military leads to the flawed perception of professional militaries as militaristic. In fact, military officers are often more realistic and conservative about the use of force than their civilian counterparts.[41] Statements by then-General Eisenhower after World War II reflected a military operational code

[35] (Brunk et al. 1990, 101)
[36] (Voors et al. 2010, 1-2)
[37] (Weeks 2012; Brecher 1996)
[38] See, for example, TISS data showing that those with military experience tend to view China as a greater threat than those without military experience (Feaver and Gelpi 2004).
[39] (Huntington 1957, 69-70)
[40] (Huntington 1957, 69)
[41] (Janowitz 1960, 4, 230-231)

that viewed war not as inevitable but as a last resort in extreme instances.[42] Conservatism results for several reasons: military forces are the ones who will actually die in conflicts; in some organizations setbacks can be career ending or worse for senior military officers; and military leaders often perceive civilians as naïve, perpetually underestimating the costs and risks of armed conflict. Civilian leaders, lacking knowledge about how force is used or an accurate understandings of the costs, are more prone to risky adventurism, or "chicken-hawk" aggressiveness.[43] This military conservatism argument extends beyond the United States. Prior to World War I, German generals "generally viewed" war "as the last resort of policy."[44] Even in the early Nazi period, German generals favored a slow buildup of German military forces to deter foreign influence over Germany and discouraged Hitler's rapid adventurism at times.[45]

Most existing work, however, tends to assume that all military service is essentially equivalent.[46] Alternatively, we theorize that different experiences within the military might individuals' attitudes in different ways. We focus here on three elements of prior service that might have a unique impact on behavior: exposure to combat, rebel group participation, and success in military campaigns.

Differentiating between those with combat experience and those without may provide a way to resolve the perennial dispute between the military conservatism and militarism schools of thought. The militarism argument is predicated on the idea that exposure to the military leads to socialization that makes support for the use of force more likely. The causal logic of the military conservatism argument, however, is not just about military experience as a whole, but about the

[42] (Janowitz 1960, 274)
[43] (Janowitz 1960, 259; Sirota 2011). Betts found that, excluding commanders actively deployed in the field, high-level military officers in the early Cold War were not more supportive of deployments or warfare than their civilian counterparts, though they were more supportive of escalation once war began. Author's re-analysis of Betts' Appendix Table A on page 216 (Betts 1977, 4-5, 216).
[44] (Huntington 1957, 101, 105)
[45] Hitler eventually replaced those generals (Huntington 1957, 117-121).
[46] Feaver and Gelpi's (2004) work is an exception. See the Online Appendix.

exposure to risk experienced by those in the military. Direct exposure to combat is a logical trigger for the type of conservatism that would accentuate planning and armaments but not the use of force.

For example, while also making people less sensitive to risk, the Voors et al. study showed that those exposed to combat also become more altruistic – potentially similar to the way veterans in the Feaver and Gelpi survey become more hesitant about the initial use of force in many scenarios. Brunk et al. also find that, while combat veterans are more risk acceptant, they are also more restrictive about the situations in which they think the use of force is appropriate.[47] These findings are supported by experimental psychological research on risk propensity, which shows that exposure to fear-triggering events generally has a restraining influence on future risk-seeking behavior.[48] As a risky experience likely to trigger fear in most individuals, direct exposure to combat should therefore generate more sensitivity to risk in the future.

Charles De Gaulle recognized that, for soldiers "war is, first and last, the purpose of their lives". Yet he also stated that that military men do not necessarily "approve of the principle of war. It would not be difficult to show that they, of all men, are only too well aware of its horrors."[49] In Janowitz's survey of military personnel, one respondent cited "recent combat experience", which led to "intimate knowledge of the horrors of modern warfare", as the force behind military conservatism.[50]

Some micro-level survey evidence also demonstrates a potential causal link between combat participation and lower levels of support for some types of military action. In 1975, the second wave of the Jennings and Niemi panel study included several questions about military

[47] (Brunk et al. 1990)
[48] (Lemer and Keltner 2001)
[49] (de Gaulle 1960, 102)
[50] (Janowitz 1960, 230)

service, including a question that allows us to differentiate those who deployed to Vietnam from those who just had some form of military service.[51] The population surveyed had all been high school seniors in 1965, making Vietnam the first war where they could have deployed. The third wave of the Jennings-Niemi panel study, in 1982, then included a question about respondent attitudes concerning American foreign policy. While the question was not specifically focused on the use of force, foreign policy attitudes are a reasonable proxy – especially given the lack of other data on the topic. The results, available in the Online Appendix, showed that those who deployed to Vietnam were significantly more skeptical of an active American foreign policy than those who had served in the military but had not deployed to Vietnam.[52] We therefore theorize the following:

Hypothesis 1: Leaders with military experience but no combat experience should be more likely to initiate militarized disputes.

What about the popular argument that "chicken hawks", or those without any military experience at all, are actually the most dangerous leaders? Their lack of knowledge could lead them to be more likely to use military force since they do not understand the costs. Some leaders popularity considered chicken hawks, such as George W. Bush, actually had some military experience. They are more appropriately categorized as having military service but not combat experience – fitting hypothesis 1. Our theory is also specific to heads of state. Those below the level of head of state could certainly fit the chicken hawk argument, but that is not variation that

[51] While not all who deployed to Vietnam would have had direct exposure to combat, all would have been in a combat zone, to some extent. Even this imperfect measure allows us to differentiate in some way within the "veteran" population.

[52] (Jennings et al. 1991). Also, see an assessment of Feaver, Gelpi, and Reifler's survey data in the Online Appendix. Average survey respondents might differ from leaders in some systematic way. Thus, while research on personality and risk attitudes suggest that intense experiences such as military service should powerfully affect a leader's behavior, and the survey data cited above demonstrates a plausible causal link between combat experience and attitudes towards conflict, we need to look at the actual behavior of leaders to determine the relationship.

other theories can explain either, though it is a promising avenue for future research. There are certainly exceptions within the universe of heads of state as well, but our theory focuses on what is more likely on average. We also test this argument more directly below in section V.

D. Effects of Civilian Control of the Military

The literature on military professionalism also provides a way to differentiate between the socialization of military personnel in different types of political regimes, as well as the relationship between prior military service and the selection of leaders into office. Accepting the view of war as an inherently political process, with military aims and interests subservient to political ones, a view often attributed to Clausewitz, professional militaries should be those where the conservative values of military professionalism, as outlined by Huntington and Janowitz, should shine through most clearly.

In political regimes run by the military, classical military professionalism is by definition, impossible. Those militaries that lack classical professionalism will naturally tend to select for leaders who lack those values as well. Consistent with Weeks' findings about military regimes,[53] non-professional militaries, by not embedding deference to political authority, are more likely to promote and to select for leaders who interpret their own military experiences in ways that lead to militarized behavior. The leaders who rise through those militaries to assume power will be more inherently aggressive and less likely to be deferential. Thus, the micro-level data suggesting a positive relationship between combat exposure and future militarized behavior should be especially plausible in non-professionalized militaries. This is particularly true given

[53] (Weeks 2012)

that the path to power is more likely to be through coups or other irregular means, which are dangerous endeavors.[54]

This relationship demonstrates the interaction between how countries select their leaders and the backgrounds of those leaders. In non-military regimes, the military personnel that become civilian political leaders tend to be the least militaristic.[55] For example, following World War II, it was Eisenhower, not his more aggressive counterparts LeMay and MacArthur, who subsequently rose to the American presidency. The domestic political institutions in non-military regimes are more likely to select out those more aggressive military leaders from successfully pursuing higher office. This is not the case in military regimes and extreme autocracies, a path to leadership through irregular activities, including coups, is more likely.

Hypothesis 2: Leaders with combat experience in autocracies and military regimes should be more likely to initiate militarized disputes

E. Participation in Rebel Movements

Military service as part of a national military is not the only type of military service a future leader might have. Many national leaders have prior experience in rebel groups and some come to power directly as part of rebel movements. Participation in a rebel group is another type of experience that predicts more conflict-acceptant behavior once a leader takes office. Simply participating in rebel movement signals that an individual is likely to be more risk acceptant than usual. Even though some might select into rebel groups due to coercion or other factors that make it a less risky choice,[56] those with the experience who then become national leaders tend to

[54] (Goemans et al. 2009)
[55] (Janowitz 1960, 4)
[56] (Kalyvas and Kocher 2007)

have had at least some position of leadership in rebel organizations.[57] Regardless of how a leader's selection occurred, success as a militarized rebel would also serve to reinforce the utility of military force as a strategy.[58] For example, consider Mao Zedong's transition from a rebel leader to the national leader of China. In its early years, Mao's China experienced high levels of violence, both internal and external. Research by Andrew Kennedy suggests that, among other factors, Mao's prior successes as a rebel leader made him predisposed to think, once he entered office, that similarly martial behavior would be successful.[59]

The potential link between rebel experience and future military behavior follows from this perspective. The grievances of rebels with the existing nation-state apparatus are so large that they decide the optimal strategy is to take up arms and secede or conquer the state. Engaging in rebellious or seditious activity is an extremely risk-acceptant choice in that failure will likely result in the rebel's imprisonment or death. Rebel groups, unlike national militaries, are constantly threatened by state authorities and are much more likely to be eliminated than to achieve their goals. Rebellion participants' risk propensity therefore will potentially translate into more revisionist behavior if the rebellion succeeds and its leader achieves his goal of taking control of the state. After all, revisionist behavior on an international scale is likely to involve the threat or use of military force. This argument is consistent with Colgan, who finds that revolutionary regimes are more likely to engage in militarized behavior.[60] Those with prior rebel experience might also be more risk acceptant in general, however, even if they do not immediately rise to power following a successful rebellion. Essentially, selection into a rebel group, followed by experiences that lead someone into the position of head of state, is likely to

[57] (Colgan 2010). No analogue to the military conservatism hypothesis exists for former rebel leaders. Former rebel leaders might be less aggressive internationally, however, because they are generally still engaged in some degree of conflict at home.
[58] (Corr 2004)
[59] (Kennedy 2011). On reinforcement, see (Pickering et al. 1997)
[60] (Colgan 2010, n.d.)

reinforce the utility of using military force in a way that makes these leaders more prone to militarized behavior than the average leader.

Hypothesis 3: Leaders with rebel military experience should be more likely to initiate militarized disputes than those without rebel military experience.

F. Effects of Military Success and Failure

Finally, while service in a uniformed military or rebel group is one way to think about military experience, another input, especially for those that see combat, is how those militaries actually do on the battlefield. For example, while he did not become head of state, Colin Powell's skepticism about limited interventions after the Vietnam War arguably flowed from his first-hand experiences in the US military during America's struggles in the Vietnam War.[61] Perhaps a different outcome would have led to a different set of beliefs on the part of Powell with regard to the use of military force. More generally, drawing on George and Kennedy, success or failure on the battlefield should influence the efficacy beliefs of leaders. Kennedy shows how Nehru's success with particular strategies earlier in life, for example, predisposed him to use those strategies again once he became a national leader.[62] Success or failure in war may be a particularly important experience – exactly the type of analogy that a leader might draw on when considering whether a use of force is likely to succeed.[63] Using experimental neurological data, Xue notes that the higher the level of risk and success in previous events, the higher the likelihood of an individual engaging in subsequent high-risk behavior. Thus, those

[61] (Powell and Persico 1995)
[62] (George 1980; Kennedy 2011)
[63] (Khong 1992). We control for the generational effects of analogical reasoning below.

with prior military success should be more likely to consider militarized behavior when in office.[64]

Hypothesis 4: Leaders with prior military success before entering office should be more likely to initiate militarized disputes when in office.

One objection to these arguments might be that the same national-level factors that lead individuals to have military or rebel experiences also make countries more likely to engage in militarized behavior, meaning any results are endogenous. While possible, the time gaps between when individuals begin military service and when they become heads of states are generally quite long and the international security environment often changes rapidly. We also address this issue explicitly below in section V with two statistical models that deal with selection into the military and focus on countries that are extremely unlikely to experience militarized disputes.

Another potential challenge to our theory is that countries may select their leaders, at least in part, based on the collective beliefs among the country's selectorate about the international security environment and the military challenges the country is likely to face. This concern would be most prominent in a democracy, where leader selection is more competitive, but might also exist in some autocracies as well. The belief that past military experience will help a president make good decisions in a dangerous international security environment is part, though not all, of the reason why military experience is generally regarded as a plus for US presidential candidates. Thus, any findings below might reflect the fact that countries select leaders with military experience when they believe they will experience militarized disputes.

In fact, this selection on the basis of perceived competence does not actually contradict our theory, since in most regimes it would make it more likely that candidates we predict are less

[64] (Xue et al. 2010, 709). This prediction is not in contrast to prospect theory, because the conflicts that leaders fight in office are rarely the same conflicts that they fought when they were in the military.

conflict-prone, those with prior combat service, are selected, rather than the "riskier" types. Thus, it would lead to the opposite of our hypothesized effect. This is also already part of our theoretical claim. Our argument in hypothesis 3 is that heavily autocratic regimes should have leader selection processes that favor leaders who react to military service in a more extreme and risk-taking fashion. Moreover, to the extent that international factors such as expectations of conflict matter, leaders would be selected on the basis of perceived competence, rather than perceived conflict propensity, the question under consideration here.

Moreover, if the selection argument is true, it actually reinforces the argument in this paper. If voters and/or elites in the average country firmly believe that prior military experience makes leaders more qualified to take office during risky times, it suggests leader backgrounds really are important. That is to say, the leader would therefore be selected because of his or her background, proving that background matters as a variable for examination.

More generally, the selection effects argument presumes that the selectorate can replace a leader at will and is choosing on the basis of what we are studying, leaders' and their states' conflict propensity. While possible in the abstract, during the regular political process in a democracy and even in most autocracies, there are regularized mechanisms for leader replacement. This means that, even if expectations of a conflict increase, a country cannot necessarily replace its leader at the time of heightened threat. Prior research[65] also demonstrates that there is essentially no relationship between length of time a leader spends in office and the probability of MID initiation or escalation, a finding our results below replicate. Additionally, in the typical case, leaders are not placed into office because their country is about to face conflict.

[65] (Horowitz, McDermott, Stam, 2005)

Economic and other domestic political issues tend to dominate debate and selection in electoral cycles, as George H.W. Bush found to his chagrin following the US defeat of Iraq in 1991.[66]

Finally, our argument does not, of course, cover the full range of ways that military experiences could vary and influence future behavior. For example, whether someone participates in combat, given selection into the military, is arguably not random. That being said, the only existing evidence on the topic, from the India-Pakistan war of 1948, suggests that, conditional on selection into the military, exposure to combat is random.[67] The ability to select a particular specialty or unit to escape combat is a very particular and recent development in a small set of Western militaries. Additional factors might include whether riskier individuals select into the military, the position in which someone served (officer v. enlisted), and their branch of service (i.e. Army vs. Navy). We lack the space to address these questions in detail here, but we discuss each of them in the Online Appendix and return to this issue in section V below.

III. Research Design

We used the Archigos dataset developed by Goemans, Gleditsch, and Chiozza to obtain the universe of heads of state from 1875-2004, along with when they entered and exited office.[68] We then built a new dataset on top of Archigos that includes the background life experiences of every leader in the Archigos universe. We operationalize national military experience with two variables. *Military Experience, No Combat* is a 1 if the leader had prior military service but no combat experience, and a 0 otherwise. *Combat* is a 1 if the leader had combat experience and a 0

[66] (Kelly 1992)
[67] (Wilkinson and Jha Forthcoming). It is a relevant limitation, however, that some people might serve at times where exposure to combat is not possible.
[68] (Goemans et al. 2009)

otherwise.[69] *Rebel* is a 1 if the leader had prior rebel experience and a 0 otherwise. *Prior War Win/Loss* and *Prior Rebel Win/Loss* are all a 1 if the relevant condition is met and a 0 otherwise.[70]

Broken down by decade and combat participation, Figure 2 displays the variation over time in the regular military service backgrounds of heads of state from 1875-2004. Note the jump in leaders with military experience in the 1950s, as many who fought in World War II entered office, as well as the decline over the last few decades. The data series ends in 2004. The supplementary table available in the Online Appendix illustrates that these results are representative in most regions. Prior research on the military backgrounds of leaders only coded whether or not military service was the primary prior occupation of a future leader.[71] Our results are robust to the inclusion or exclusion of a *Military Career* control variable, but more relevant for testing our theory is breaking down the overall category of military service into the theoretical pieces described above.

Figure 2 also shows the distribution of rebel military experience over time. As with the national military service variables, the results show that most leaders do not have rebel experience. There is variation over time, though the percentage of leaders with prior rebel experience, with the exception of the incomplete present decade, tends to vary between 20% and 30%. The increase in the percentage of leaders with rebel experience in the 1940s and 1950s is due to two groups – European leaders who served in resistance movements in World War II and leaders of newly decolonized countries.

---

[69] We code leaders as being exposed to combat if they deployed to a combat zone where they faced the risk of death from enemy activity. For more on this issue, see the Online Appendix.

[70] Data sources included Lentz (1994, 1999), encyclopedia of heads of states and governments, individual leader biographies, and other sources. Upon publication, we will release the data and citation information. We also cross-checked our data, when available, with other sources, including Cheibub et al. (2010), Besley and Reynol-Querol (2011), and Ludwig (2002). We conducted additional research to resolve all disparities. See the Online Appendix for more on the specific coding of each of these variables.

[71] (Cheibub et al. 2010; Besley and Reynal-Querol 2011)

Figure 2: Military Service And Rebel Breakdown By Decade: One Observation Per Leader

Military experience might influence the way leaders behave once they get into office in several ways; for the purposes of this paper we focus on the initiation and escalation of international armed conflict. We conduct monadic tests below that use the leader year as the basic unit of analysis, meaning there is one observation per leader, per year, with a few exceptions. First, in years where a leader year includes more than one militarized dispute, we included each dispute observation. Thus, the resulting dataset slightly over-samples those leader years with MIDs.[72] Second, for leader years that did not experience MIDs, we reduce those observations down to one observation per country per year, keeping the information for the leader who served in office for the most days that year. Neither choice changes the results.

Our main dependent variable of interest is the initiation of militarized disputes, drawn from the Militarized Interstate Disputes (MID) dataset. The decision to use the MID data restricts our analysis end date to 2001, the last year where MID data is available. The initiation of a dispute occurs when a state engages in a militarized challenge. Initiation is a dichotomous variable coded as 1 if a state initiated a conflict in a given leader year and a 0 otherwise.

Given many of the known shortcomings of the MID dataset[73], we also want to determine whether leader military backgrounds influence the propensity for a state to initiate a war. The unit of analysis is the leader year and is set up identically to the MID setup described above. We extended the COW 4.0 dataset[74] by separating wars with multiple fronts to allow for separate initiations and conducting additional research on borderline cases. We identified which leader was in power at the outset of the war and created a *War Initiation* variable coded a 1 if a leader initiated a war in a given leader year, and a 0 otherwise.[75]

[72] We utilize this design due to the relative rarity of MIDs in the international system; including only the highest-hostility MID for a leader year does not change the results.
[73] (Downes and Sechser 2012)
[74] (Sarkees and Wayman 2010)
[75] For leaders who initiated more than one war in a given year, we added observations as we did with the MIDs setup. Restricting the sample so that any leader can only initiate one war in a given year does not change the results.

Given the theoretically non-monotonic effect of the independent variables, our analysis begins with separate logit models measuring dispute initiation and war, though as explained below we utilize several other models as well. While our results are consistent without control variables,[76] we also want to show that our findings are robust to including potentially confounding variables.

We therefore control for a small number of variables identified by existing international relations theories which we do not think would be post-treatment to our military service variables of interest.[77] We include the material power of the state by incorporating the Correlates of War CINC score for each state (*CINC*), the overall satisfaction of a state with the system leader (*Tau B)*, and the *Age* of the leader.[78] The results below are also consistent when we add additional variables including major power status, trade openness, the number of contiguous states, and the system concentration of power, among others.[79]

As described above, leaders act within an institutional environment and this shapes the extent to which they can implement chosen policies once they are in office. Military experience may endow leaders in democratic states with more credibility in institutional competition against other bureaucratic actors. Autocratic leaders in general may have more freedom of action. Therefore, we control for the effect that different institutions may have on the probability that leaders engage in militarized behavior. We include an autocracy variable (*Autocracy*) if a state scored at or below a -7 on the Polity IV scale and a zero if it did not.[80] To further test hypothesis 2 concerning military regimes, we used the Cheibub et al. data on authoritarian regime type and added a *Civilian Dictator* variable coded 1 if a country is a civilian dictatorship and a 0

[76] (Achen 2005; Ray 2003)
[77] (Achen 2005; Ray 2003). (Singer 1987). Data generated using EUGene (Bennett and Stam 2000).
[78] We include age specifically given previous work suggesting its importance (Horowitz et al. 2005).
[79] See the Online Appendix.
[80] (Marshall and Jaggers 2002). We also tried using the -10 to 10 range of polity scores, shifting the dummy variable marker to 6, -6 or 5, -5, and substituting the executive constraints scale from Polity IV, for our regime type variables. None affected the results.

otherwise, as well as a *Military Dictator* variable coded a 1 if a country is a military regime and a 0 otherwise.[81]

As described above in the theory section, we also account for the potential that countries select dispute-prone former military personnel as leaders when they expect to face a conflict in the near future. In addition to the models discussed in section V, where we test our theory on leaders "randomly" selected into office,[82] among other robustness tests, all of the regressions below also include two variables designed to control for the way leader selection on the basis of prior military service could affect the probability of a militarized dispute. *Length of Time in Office* measures the number of days a leader has spent in office from the beginning of their term to the beginning of the year in question.[83] If this variable is negative and significant, it would suggest countries are switching leaders shortly before MIDs occur, indicating a potentially confounding selection process. *Five Year Challenge Lag* measures whether or not a country has been challenged in a MID in the last five years, a good indication of the interest a country might have in selecting a leader based on the ex-ante risk of a dispute.[84] This controls for the possibility that a country in a more dangerous neighborhood may be more likely to select a leader with a certain set of ex ante characteristics in a way that would bias our results.

Finally, while we do not include them below due to space limitations, the models we present in the Online Appendix also include additional leader experience variables (primarily education level and prior occupation) along with controls for generational effects – whether or not a given country won or lost its last war (if there was a last war). Including these in the

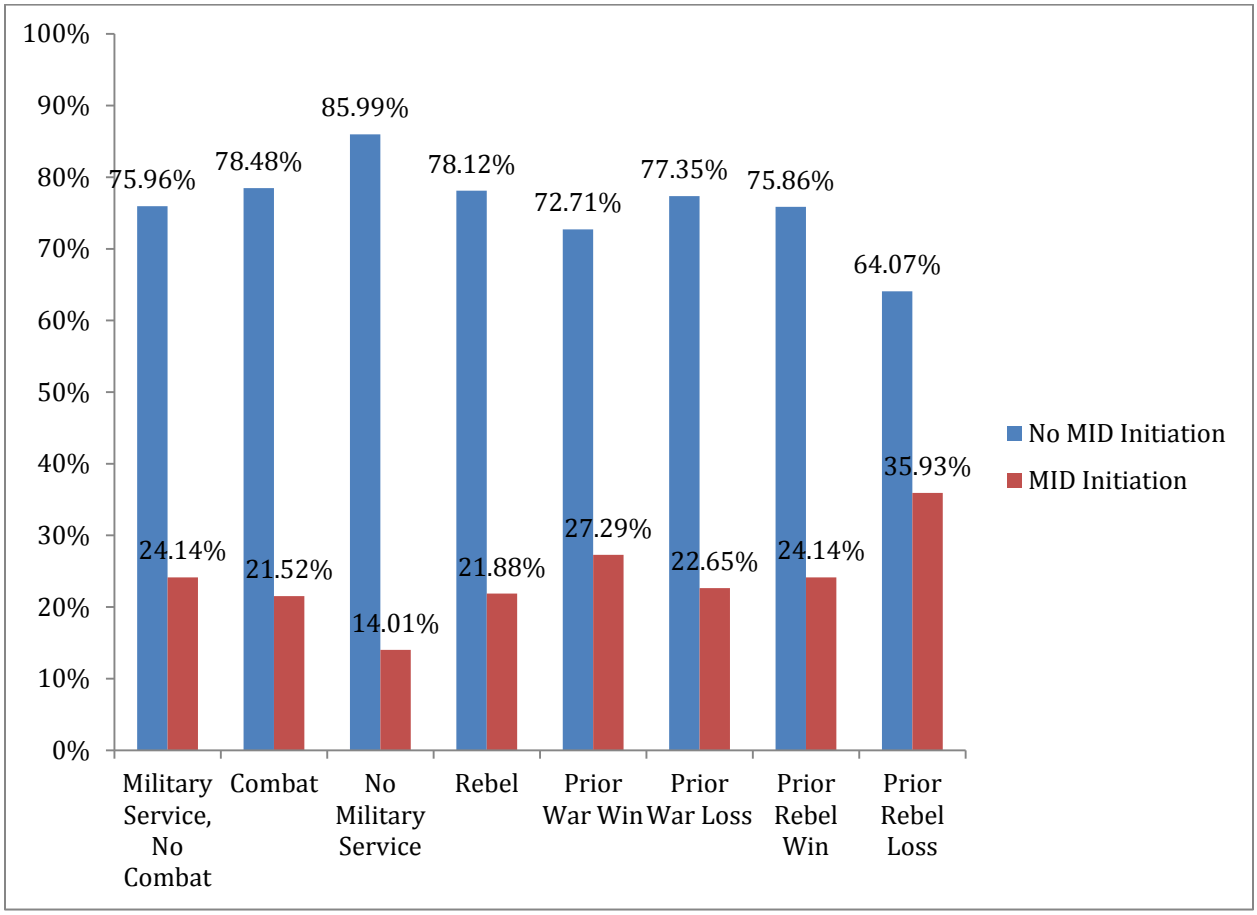
[81] These results are also robust to Geddes' alternative authoritarian regime type specifications (Cheibub et al. 2010; Geddes 1999).
[82] (Jones and Olken 2005)
[83] For leaders that experienced MIDs, we correct the length of time in office variable to be the number of days a leader spent in office up until the first day of the MID.
[84] We use MIDs where a country was the defender since it is fear of a militarized challenge that could drive a selection process which would bias the results. Making the lag variable about participation in any MIDs, not just defensive MIDs, does not change the results. Setting the lag length to 1, 2, or 5 years also does not affect the results.

models in the Online Appendix ensures that our results are not simply artifacts of only incorporating a small slice of leader background variables or effects driven by generational reactions to conflict.

IV. Statistical Results

Figure 3 below shows simple correlations between different types of military service, prior success and failure if that service included combat in a war, and MID initiation.

Figure 3: Correlation Between Military Service and MID Initiation



All relationships significant with chi2 tests at the $p < 0.01$ level

The differences are all statistically different with chi2 tests at the .01 level, demonstrating that different types of military experiences on the part of leaders do correlate with the propensity of those leaders to get involved in militarized disputes. Additionally, the differences between the "military service, no combat" category and the "combat" category are statistically significant as well. This provides strong initial evidence in support of our claim that variations in the military backgrounds of leaders have significant effects. However, one potential issue is that smaller categories might be skewed by the presence of especially dispute-prone leaders, such as Mao. This accentuates the need to control for additional factors to ensure that we are isolating the relative effect of leaders.

We now turn to regression analysis to see the substantive effects associated with the indicators of prior experiences and if they are robust to other factors.[85] All of the statistical models presented below use Huber-White robust standard errors. We also control for leaders who spend a long time in office, such as Kim Il Sung of North Korea, by clustering standard errors on the leader. This helps ensure that no individual leader skews the results. To control for time dependence in our data, we include variables measuring the time since the country was last in a MID (or a war, depending on the model), as well as the square and cube of that number.[86] For presentation reasons, we suppress the lower-order interaction terms in models 2 and 3, as well as the time dependence controls. They are available in the Online Appendix for interested readers.

[85] The results are robust to substituting a simple military service dummy for the "military service, no combat" dummy. In this setup, the combat variable becomes negative and significant, as predicted.
[86] (Signorino and Carter 2010). The results are consistent using Beck, Katz, Tucker (1998) splines as well.

Table 1: The Monadic Impact of Military Service on the Initiation of Militarized Disputes, 1875-2001

	Model 1: Simple Model	Model 2: Interaction with Autocracy	Model 3: Interaction With Military Regime	Model 4: War Initiation
	B/SE	B/SE	B/SE	B/SE
Military Service, No Combat	0.378***	0.012	0.075**	0.656***
	(0.141)	(0.026)	(0.030)	(0.241)
Combat	0.011	-0.009	-0.049	-0.446
	(0.148)	(0.026)	(0.039)	(0.339)
Rebel	0.481***	0.087**	0.077**	0.293
	(0.148)	(0.042)	(0.039)	(0.264)
Prior War Win	0.025	-0.004	0.049	0.943**
	(0.169)	(0.028)	(0.037)	(0.400)
Prior War Loss	0.229	0.027	0.009	0.671
	(0.168)	(0.025)	(0.029)	(0.453)
Prior Rebel Win	-0.256	-0.028	-0.040	0.752**
	(0.170)	(0.028)	(0.036)	(0.333)
Prior Rebel Loss	0.278	0.066	0.076	-0.207
	(0.266)	(0.059)	(0.063)	(0.402)
Military Service, No Combat * Autocracy		0.139***		
		(0.043)		
Combat * Autocracy		0.091**		
		(0.042)		
Rebel * Autocracy		-0.031		
		(0.039)		
Military Service, No Combat * Military Regime			-0.119	
			(0.084)	
Combat * Military Regime			0.117**	
			(0.058)	
Rebel * Military Regime			-0.080	
			(0.055)	
Leader Age	0.011*	0.001*	0.002**	-0.005
	(0.006)	(0.001)	(0.001)	(0.009)
Autocracy	0.101	-0.018		0.142
	(0.113)	(0.018)		(0.276)
Civilian Dictator			0.052	
			(0.047)	
Military Dictator			0.027	
			(0.018)	
Material Capabilities	9.611***	2.082***	2.758***	13.238***
	(1.497)	(0.321)	(0.451)	(2.023)
Tau B With System Leaders	0.108	0.012	-0.030*	-0.516

	(0.132)	(0.018)	(0.017)	(0.350)
Time in Office	0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Five Year MID Challenge Lag (Five Year War Lag For Model 4)	0.506***	0.087***	0.090***	0.437
	(0.104)	(0.015)	(0.018)	(0.330)
Constant	-2.108***	0.101**	0.054	-4.134***
	(0.306)	(0.041)	(0.061)	(0.542)

* p<0.10, ** p<0.05, *** p<0.01. Suppressed but available in the Online Appendix: Peace year variables (years without war used for Model 4) and implied interactions between military and rebel service variables (models 2-3). Model 1: N: 10683, Pseudo R-squared: 0.195, Log Pseudo Likelihood: -4079.5. Adjusted for 2124 clusters. Model 2: N: 10683, R-squared: 0.1891, Log Likelihood: -3864.4. Adjusted for 2124 clusters. Model 3: N: 7393, R-squared: 0.2277, Log Likelihood: -2649.9. Adjusted for 1283 clusters. Model 4: N: 10090, Pseudo R-squared: 0.144, Log Pseudo Likelihood: -538.5. Adjusted for 2102 clusters.

Table 1 shows the importance of military service across several different specifications. A likelihood ratio test between a version of model 1 that does not include any leader variables and model 1 shows that the improved specification from adding the leader background variables is also statistically significant. This demonstrates the value-added from endogenizing the military experiences of leaders into models of international conflict.

As hypothesis 1 predicts, the *Military Service, No Combat* variable is consistently positive and statistically significant for MID initiation, while combat is not significant. The binary relationship between combat and MID initiation presented in Table 1 above washes out with the inclusion of control variables that account for material capabilities and political institutions. The significance of the *Military Service, No Combat* variable despite adding these controls demonstrates the initial robustness of hypothesis 1. These findings are also robust for war initiation, as model 4 demonstrates. Leaders with prior military experience but not combat experience are not just more likely to initiate low-level disputes, but wars. Leaders that fit this description, in addition to those referenced elsewhere, include Kaiser Wilhelm II, Justo Barrios of Guatemala, and Jean-Baptiste de Villele of France.

This result is substantively important as well. Figure 4 below shows the substantive variation in the probability of MID initiation across different types of military experience. A shift from no military experience to having military experience but no combat experience increases the probability of a militarized dispute by 55%.[87] While fewer leaders fit into this category, as Figure 2 above shows, it does include many of the more dispute-prone leaders over the time period, including Francisco Lopez of Paraguay, for example. Additionally, since the MIDs data ends in 2001, it understates the significance of our results since it only incorporates one year of the George W. Bush presidency in the United States.

[87] (King et al. 2000)

Supporting hypothesis 3, prior participation in a rebel group is nearly always positive and significant across model specifications, suggesting that those leaders who come to power with prior rebel experience – an inherently dangerous behavioral background – are likely to be more dispute prone when they enter office as well. This finding appears more relevant for initiating militarized disputes than wars, however. The rebel variable fails to achieve conventional statistical significance in model 4, though it does become significant if you exclude the prior success/failure variables.

Turning to substantive importance, Figure 4 shows that a shift from a leader not having a rebel background to having a rebel background increases the probability of a militarized dispute by 58%. Two former rebels that fit these results are Fidel Castro and Mobutu Sese Seko, both of whom took power in autocracies and had extensive rebel experience. Both also engaged in international militarized behavior while in office.

While we deal with selection issues concerning military service in section V below, there might be concerns about endogeneity for former rebels as well. After all, the results might reflect the fact that former rebels are likely to enter office during periods where countries are more likely to experience militarized disputes. Former rebels might be more likely to enter office during times of domestic turmoil or engage in radical domestic change, both of which could make militarized disputes more likely.

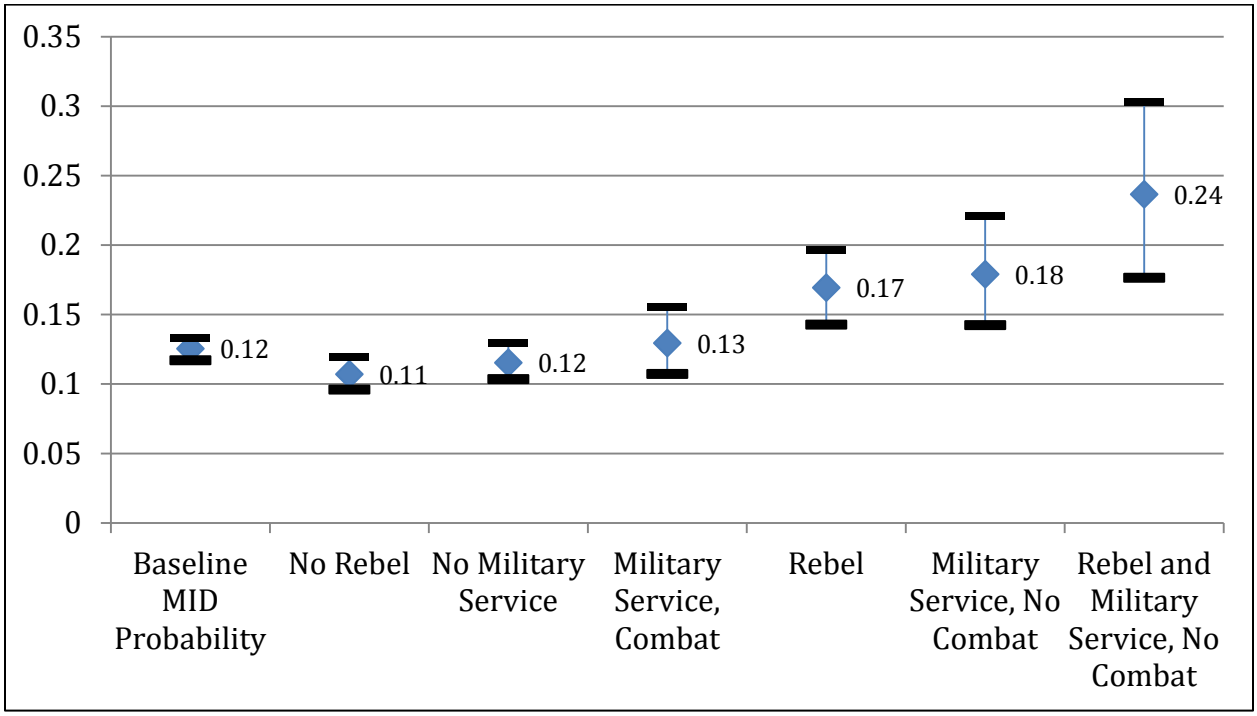
This seems unlikely given that the breadth of the former rebel category, which includes leaders such as Charles de Gaulle. However, to account for this possibility, we ran an additional model that controlled for this in three ways. First, to ensure prior domestic turmoil was not driving the result, we added a variable measuring whether or not the country had been involved in a civil war over the last five years.[88] Second, we controlled for whether the leader was a

[88] (Gleditsch et al. 2002)

revolutionary leader according to Colgan.[89] Third, we controlled for whether the leader entered office through irregular means such as a coup.[90] The results, available in the Online Appendix, show that our findings for rebel leaders are not just artifacts of the situations in which rebels enter office or the institutional effect of revolutionary regimes. Our results are consistent even when we control for all three factors simultaneously, demonstrating the robustness of hypothesis 3.

[89] (Colgan 2010)
[90] (Goemans et al. 2009)

Figure 4: Probability of MID Initiation Across Different Military Experience Conditions



The interactions with different regime type specifications (hypothesis 2) also demonstrate the importance of accounting for domestic institutions, consistent with our theory. We shift to linear regression for models 2 and 3 in Table 1, despite the binary nature of our dependent variable, due to the difficulties in interpreting interaction terms in binary models, especially when there are multiple interactions and implied interaction terms.[91] Models 2 and 3 provide strong evidence in favor of hypothesis 3; leaders with any combat experience in non-professional militaries should be more dispute-prone. In model 3, due to limitations in the dates for which we have evidence about military regimes, we are restricted to the 1945-1999 timeframe. In both models, there is a strong and positive interactive relationship between combat experience, regime type, and the probability that a leader initiates a militarized dispute in a given year.[92]

The set of extremely autocratic leaders with prior combat experience includes infamous leaders such as Germany's Adolf Hitler (though he was prior to 1945). The leaders with prior combat experience who rule explicitly military regimes include South Korean leaders such as Hee Park and Chun Doo Hwan and Sarit Thanaret of Thailand. The results show a striking contrast with the general insignificance of the combat specification across the other models. One limitation on these results, however, is that the military regimes data, specifically, is only available beginning in 1945. That limits the scope of the findings in model 3.

Interestingly, the interaction between *Military Service, No Combat* and *Military Regimes* is not significant. It is hard to draw inferences as to why because this category of leaders is exceedingly small – only 60 leader years and 15 leaders out of the total set of 2500 leaders. This could suggest something else about selection – perhaps when military regimes seek to install a head of state, they are more likely to choose someone with combat experience, even if that does not hold in general.

[91] (Norton et al. 2004; Brambor et al. 2006). The results are also consistent with logit and probit specifications.
[92] Given the small number of wars, we did not generate interactive results for war initiation.

These results support our theory in two ways. First, it shows the way that civilian control of the military tends to dampen the selection of leaders who feature the aggressive tendencies that potentially result from combat experience. Second, these findings are consistent with our theorized leader selection process for these regimes. In non-autocratic and non-military regimes, the path to power is less likely to be through violence by the armed forces or those who react to combat experience by becoming more aggressive. Severely autocratic regimes, in contrast, impart the lesson that the use of force makes success more likely and makes more militaristic personalities more likely to successfully take office. Alternatively, both democratic as well as non-military authoritarian institutions may screen out potential leaders who are extremely militaristic because of their combat experience.

Additionally, the models show that it is not just prior military experience that matters, but also the success or failure of those experiences (hypothesis 4), though the overall findings are less clear than the findings for hypotheses 1-3. While the prior experience variables were quite significant in the cross-tabs presented in Table 1 focused in MID initiation, the results only show up in the regression for war initiation. Consistent with hypothesis 4, heads of states that had combat experience in larger wars where their side emerged victorious are significantly more likely to initiate wars once in office than their counterparts. For example, leaders with success in rebel wars prior to entering office are over 50% more likely than their counterparts, all other things being equal, to initiate wars. Our military experience and rebel results are also robust to dropping all of our prior success/failure variables and testing variations in their coding, meaning including these variables does not skew the results.

What does this mean for considering the relative importance of prior military experience? Our claim is not that prior military experience is all that matters. Far from it. However, simply comparing first differences for military background variables and material power is not that

illustrative since nearly all of the variation in the effect of material power comes from the most powerful countries in the world. We need a way to show the relative impact of our military experience variables across different levels of material power. Therefore, we looked at the first differences for leaders with military experience but no combat experience or rebel experience as countries moved from the 10% percentile of relative power to the 90% percentile. The results demonstrate that the prior importance of prior military experience without combat and of rebel backgrounds holds across massive variations in relative power. This demonstrates that leader attributes are not just relevant in powerful or weak states, but across relative power conditions.[93]

V. Endogeneity, strategic leader selection, and robustness

We now return to the questions of selection and endogeneity that we referenced in the theory section. One potential challenge to our results is that countries may select their leaders, at least in part, based on the collective beliefs among the country's selectorate[94] about the international security environment and the military challenges the country is likely to face. As described above, there are several reasons to think this should not influence our results. First, most leader selection occurs on the basis of economic and development issues, not concerns about potential militarized disputes. Second, this is already part of our theoretical argument in hypothesis three. Third, this argument would lead to the opposite of the prediction of hypothesis 1, since dispute-prone leaders with *combat* experience would be selected into office immediately prior to a militarized dispute, meaning we should find a positive relationship between combat and MIDs.

Additionally, several of the variables built into our statistical models above already control for this possibility. We account for the length of time leaders are in office, since if this

[93] Contact the authors for details.
[94] (Bueno de Mesquita et al. 2003)

endogeneity claim is true, leaders with risky characteristics would be selected into office right before a militarized dispute. We also account for the general dispute propensity of a country.

There is always the possibility that placing a leader with military experience in office deters a militarized challenge from happening in the first place. While we cannot directly address this issue, our military service and rebel experience variables are significant despite incorporating national MID participation in prior years into the models presented above.

In the directed dyadic model available in the Online Appendix, we also show that leaders with military service but not combat experience are actually more likely to be on the receiving end of militarized challenges. This suggests that a selection process would, if anything, select away from these risk acceptant types of leaders. Countries would be unlikely to select a leader they thought would be a target for militarized challenges by other states.

To better control for the possibility that leaders are selected during times of turmoil due to their military experiences, we estimate a model designed to explicitly test for how this could bias our results. The unit of analysis is once again the leader year, as with Table 1. In model 1 in table 2 below, we isolate those leaders who left office randomly, operationalizing it as economists have by looking at the 183 leaders who died in office of natural causes according to Archigos.[95] The leaders who replace them through a "regular" entry process, e.g. a vice president of the United States who replaces a president that dies of natural causes in office, are subject to different selection criteria than a head of state. It is the top of the ticket, in democratic regimes, for example, whose experiences generally matter most for selection purposes. Thus, we can isolate just those leaders who entered office through a regular (as opposed to irregular or foreign-imposed) process after the prior leader died of natural causes and test our theory on that set of leaders. This significantly reduces any remaining concern that leaders are being selected because

[95] (Goemans et al. 2009; Jones and Olken 2005; Besley et al. n.d.)

of our key variables of interest. The results provide strong support for our argument, since there is still a strong, positive relationship between those with prior military service but no combat experience and MID initiation. The rebel experience variable is insignificant, but this is to be expected since this setup excludes nearly all former rebels.

We then estimated two similar models not shown here designed to similarly isolate the relative impact of "switching" from a leader without military experience to military experience but no combat experience. First, we estimated a difference-in-difference specification. Second, we used coarsened exact matching to reduce imbalance in our data across our leader and/or national-level variables (see the Online Appendix). Both models reinforced the findings of this paper.

What about the possibility that national-level characteristics predict whether leaders are likely to have the sorts of military experiences we predict? In addition to the discussion above, we estimate two additional models to control for this possibility (models 2 and 3 in Table 2). First, we focus only on the set of countries that have not experienced a militarized dispute in the last 5 years. These are countries not prone to becoming involved in disputes. Leaders in these regimes, like Sweden, are less likely to have prior military experience and their countries are less likely to select leaders based on those attributes. As model 2 in Table 2 shows, testing our model only on these "non-risky" countries produces very similar results to Table 1 above. This reinforces our confidence that the effect of military experience is not simply endogenous to opportunities to serve.[96]

Second, we estimated a modified instrumental probit model where both stages are probit. We model whether a leader is likely to have prior military service with three instruments that are unrelated to our dependent variable of interest. Our three instruments are whether a country had

[96] The combat variable does become significant, likely because switching to any leader with prior military service for countries with little history of militarized behavior makes some disputes more likely.

conscription when a leader joined the military, which is a period far enough in the past it is statistically unrelated to whether a country faces a conflict today. We also instrument based on whether a leader took over as a result of an irregular transition (positively correlated to prior military service) or foreign-imposed regime change (negatively correlated).

The second stage inserts the predicted values into the dispute initiation model instead of the actual military service variable.[97] For simplicity's sake, we reduce our military service variables down to a simple binary that is 0 if a leader did not have any military service, and 1 otherwise. Both model 2 and model 3 below show that, even when we explicitly endogenize military service as a function of relevant instruments, it still has a significant impact on militarized behavior. We are therefore confident that our results are not simply artifacts of a selection process that lands risk-acceptant leaders (based on prior military service) in office during times when countries are especially likely to experience militarized disputes. Moreover, a Wald test of exogeneity for the instrumented probit model demonstrates that we do not gain significant leverage from endogenizing military service.

[97] We use the CMP program in Stata 11.0 so that both stages of the model are probit.

Table 2: Controlling For The Selection Of Leaders

	Model 1: Leaders Randomly Selected Into Office	Model 2: Countries At Low Risk Of MIDs	Model 3: Instrumenting Selection Into The Military
	B/SE	B/SE	B/SE
Military Service			0.195***
			(0.063)
Military Service, No Combat	1.060***	0.750***	
	(0.337)	(0.235)	
Combat	0.655*	0.666***	
	(0.388)	(0.244)	
Rebel	-0.167	0.380*	0.220***
	(0.345)	(0.210)	(0.065)
Prior War Win	-1.797**	-0.923**	
	(0.854)	(0.370)	
Prior War Loss	-0.262	0.090	
	(0.550)	(0.289)	
Prior Rebel Win	-0.763	0.379	
	(0.569)	(0.281)	
Prior Rebel Loss	0.531	0.014	
	(0.477)	(0.636)	
Age	0.011	0.007	0.005*
	(0.011)	(0.008)	(0.003)
Material Capabilities	2.328	13.002***	5.847***
	(2.607)	(2.674)	(0.905)
Autocracy	-0.017	0.149	0.054
	(0.334)	(0.185)	(0.067)
Tau B Between Country and System Leader	0.112	0.511*	0.050
	(0.555)	(0.265)	(0.072)
Time In Office	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)
5 Year MID Challenge Lag	0.946		0.300***
	(0.590)		(0.058)
Constant	-1.917**	-3.036***	-1.229***
	(0.809)	(0.428)	(0.160)

* p<0.10, ** p<0.05, *** p<0.01. Peace year variables included but suppressed. Model 1: N: 761, Pseudo R-squared: 0.279, Log Pseudo-Likelihood: -257.7 adjusted based on 102 clusters. Model 2: N: 4063, Pseudo R-squared: 0.050, Log Pseudo-Likelihood: -776.9, adjusted based on 1110 clusters. Model 3: Instrumented: national conscription at age 18, irregular entry, entry via foreign power. N: 11418, Log Pseudo-Likelihood: -8146.3, adjusted based on 2256 clusters. /atanhrho_12: -0.094 (0.069), rho 12: -0.094 (0.068).

Another potential concern is that our results are biased because, in countries with conscription or other regulated means of entering military service, the whole leader pool would have a certain set of experiences. While theoretically true, even in countries such as Israel with universal service there is variation in the military backgrounds of leaders. Ben Gurion, for example, never served in the regular Israeli military; nor did Golda Meir. More important, this does not bias our key variables because, even in a conscript army, there is variation in which soldiers see combat and which do not. Finally, we control for whether a country has conscription in Table 2 above and our results are still consistent.

We also want to address the "chicken hawk" argument described above about the risk propensity of civilians. One possibility is that the same selection issue that makes countries that experience militarized disputes more likely to select leaders with military experience means the set of leaders without military experience disproportionately includes countries that are extremely pacific, biasing the results. To test this argument, we estimated model 1 from table 1 only on the set of countries that *had* experienced a militarized dispute in the last five years (the inverse of model 2 from table 2. The results were identical to the broader pool, demonstrating that the average case does not support the chicken hawk argument despite its location in popular discourse.

In addition to the robustness checks already described, we conducted the following, and the results were robust in all cases:

- We varied the dependent variable to be a count of the number of MIDs in a given year and estimated Poisson and negative binomial models.
- We changed the dependent variable to be MIDs that produced fatalities.
- We ran our models with country and year fixed effects to ensure that unobserved unit-level variables are not biasing our results.

VI. Conclusion

In this paper we develop a novel argument about the background experiences of leaders and test it on a new dataset covering the background experiences of over 2500 heads of state from 1875-2004. Our data allows us to move beyond looking at the effect of domestic institutions on leaders to see how leaders may have an independent role in shaping national policy, especially militarized policy.

Describing how leaders affect states' foreign policies in systematic and predictable ways does not imply that structural and unit-level variables do not matter. Our results show they matter a great deal. However, this paper demonstrates an important linkage between the background military experiences of leaders and their propensity to initiate militarized disputes and wars once in office. Put another way, while the American media's screening of every detail of the backgrounds of American presidential candidates probably overstates the relevant information for voters in terms of the likely behavior of their candidates, leader backgrounds do communicate important information about basic behavioral tendencies and *ceterus paribus* beliefs. Prior military experience and prior combat experience condition the way leaders view the use of force, making it crucial to understand how that experience explains the initiation and escalation of military force in general. It is the George W. Bushes of the world, rather than the John F. Kennedys, who are statistically more likely to engage in militarized behavior in office.

There are several potential extensions for this research agenda. We focus in this paper on the link between background experiences and risk experience, rather than actual leader competence, but that is one promising way forward for the future.[98] The results we present in this paper simply access leaders' and their states' willingness to take greater or lesser risks. In part,

[98] (Smith 2004; Jones and Olken 2005)

this reflects the links between the types of experiences we addressed here – experience that shapes behavior through personality and risk attitude versus experience that shapes competence and skill through training. In future research, we plan to examine the success and failure of the risks our evidence shows that some leaders are more likely to take. If the leaders more likely to initiate militarized disputes were also likely to emerge triumphant in those disputes, it would suggest that that behavior is not quite as "risky" as we imagine here. We can also build on recent work on leader selection[99] to examine this more completely and the types of background experiences that make leader selection more likely across different types of regimes. Finally, there are several other potential relationships between leaders backgrounds and policy choices, such as occupational backgrounds and economic policy choices, as well as upbringing and social welfare choices.

Bibliography

Achen, Christopher H. 2005. "Let's put garbage-can regressions and garbage-can probits where they belong." *Conflict Management and Peace Science* 22 (4):327-39.

Bar-Joseph, Uri, and Rose McDermott. 2008. "Personal Functioning Under Stress." *Journal of Conflict Resolution* 52 (1):144-70.

Barber, James D. 1992. *The presidential character*. Englewood Cliffs, NJ: Prentice-Hall.

Beck, Nathaniel, Jonathan N. Katz, and Richard Tucker. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42 (4):1260-88.

Besley, Timothy, Jose G. Montalvo, and Marta Reynal-Querol. n.d. "Do Educated Leaders Matter for Growth." *Economic Journal*:Forthcoming.

Besley, Timothy, and Marta Reynal-Querol. 2011. "Do Democracies Select More Educated Leaders." *American Political Science Review* 105 (3).

Betts, Richard K. 1977. *Soldiers, statesmen, and cold war crises*. Cambridge, MA: Harvard University Press.

Boettcher, William A. 2005. *President risk behavior in foreign policy: Prudence or peril*. New York: Palgrave Macmillan.

Box-Steffensmeier, Janet M., and Bradford S. Jones. 2004. *Event history modeling: a guide for social scientists*. New York: Cambridge University Press.

Brambor, Thomas, WIlliam R. Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14 (3):63-82.

Brecher, Michael. 1996. "Crisis escalation: Model and findings." *International Political Science Review* 17 (2):215-30.

Brunk, Gregory G., Donald Secrest, and Howard Tamashiro. 1990. "Military Views of Morality and War: An Empirical Study of the Attitudes of Retired American Officers." *International Studies Quarterly* 34 (1):83-109.

Bueno de Mesquita, Bruce, et al. 2003. *The logic of political survival*. Cambridge, Mass.: MIT Press.

[99] (Besley and Reynal-Querol 2011)

Bunce, Valerie J. 1981. *Do new leaders make a difference?: executive succession and public policy under capitalism and socialism*. Princeton, NJ: Princeton University Press.
Byman, Daniel L., and Kenneth M. Pollack. 2001. "Let us now praise great men: bringing the statesman back in." *International Security* 25 (4):107-46.
Caspi, Avshalmon, and Brent W. Roberts. 2005. "Personality Development: Stability and Change." *Annual review of Psychology* 56:454-84.
Cheibub, Jose A., Jennifer Gandhi, and James R. Vreeland. 2010. "Democracy and dictatorship revisted." *Public Choice* 143 (1-2):67-101.
Chiozza, Giacomo, and Hein E. Goemans. 2003. "Peace through insecurity - Tenure and international conflict." *Journal of Conflict Resolution* 47 (4):443-67.
———. 2004. "International conflict and the tenure of leaders: Is war still ex post inefficient?" *American Journal of Political Science* 48 (3):604-19.
Cohen, Eliot A. 2002. *Supreme command: soldiers, statesmen, and leadership in wartime*. New York: Free Press.
Colgan, Jeff. 2010. "Oil and Revolutionary Governments: Fuel for International Conflict." *International Organization* 64 (4):661-94.
———. n.d. "Domestic Revolutionary Leaders and International Conflict." Washington, DC: American University.
Corr, Philip J. 2004. "Reinforcement sensitivity theory and personality." *Neuroscience & Biobehavioral Reviews* 28 (3):317-32.
Croco, Sarah E. 2011. "The Decider's Dilemma: Leader Culpability, War Outcomes, and Domestic Punishment." *American Political Science Review* 105 (03):Forthcoming.
Cutchin, M.P., et al. 2008. "Concern about petrochemical health risk before and after a refinery explosion." *Risk Analysis* 28 (3):589-601.
Dafoe, Allan, and Devin M. Caughey. 2011. "Honor and War: Using Southern Presidents to Identify Reputational Effects in International Conflict." Berkeley, CA: University of California, Berkeley.
de Gaulle, Charles. 1960. *The Edge of the Sword*. Translated by G. Hopkins. London: Faber & Faber Limited.
De Tocqueville, Alexis 2000. *Democracy in America*. Translated by H. C. M. a. D. Winthrop. Chicago, IL: University of Chicago Press.
Debs, Alexandre, and Hein E. Goemans. 2010. "Regime Type, the Fate of Leaders, and War." *American Political Science Review* 104 (03):430-45.
Downes, Alexander B., and Todd S. Sechser. 2012. "The Illusion of Democratic Credibility." *International Organization* 66 (3):457-89.
Dyson, Stephen B., and Thomas Preston. 2006. "Individual characteristics of political leaders and the use of analogy in foreign policy decision making." *Political psychology* 27 (2):265-88.
Feaver, Peter, and Christopher Gelpi. 2004. *Choosing your battles : American civil-military relations and the use of force*. Princeton, N.J.: Princeton University Press.
Foyle, Douglas C. 1999. *Counting the public in: Presidents, public opinion, and foreign policy*. New York: Columbia University Press.
Gallagher, Maryann E. 2010. Who Ups the Ante? Personality Traints and Risky Foreign Policy. Ph.D., Political Science, Emory University, United States -- Atlanta.
Geddes, Barbara. 1999. Authoritarian Breakdown: Empirical Test of a Game Theoretic Argument. Paper read at American Political Science Association Annual Meeting, at Atlanta, GA.
George, Alexander L. 1980. *Presidential Decisionmaking in Foreign Policy: The Effective Use of Information and Advice*. Boulder, CO: Westview Press.
Gleditsch, Nils P., et al. 2002. "Armed Conflict 1946:2001: A New Dataset." *Journal of Peace Research* 39 (5):615-37.
Goemans, Hein E. 2000. *War and punishment : the causes of war termination and the First World War*. Princeton, N.J.: Princeton University Press.
———. 2008. "Which Way Out?" *Journal of Conflict Resolution* 52 (6):771.
Goemans, Henk E., Kristian S. Gleditsch, and Giacomo Chiozza. 2009. "Introducing Archigos: A dataset of political leaders." *Journal of Peace Research* 46 (2):269-83.
Goldgeier, James M. 1994. *Leadership Style and Soviet Foreign Policy: Stalin, Khrushchev, Brezhnev, Gorbachev*. Baltimore, MD: The Johns Hopkins University Press.
Greenstein, Fred I. 1969. *Personality and politics, problems of evidence, inference, and conceptualization*. Chicago, IL: Markham Publishing Co.
———. 1992. "Can personality and politics be studied systematically?" *Political psychology* 13 (1):105-28.
Hermann, Margaret G. 1980. "Explaining foreign policy behavior using the personal characteristics of political leaders." *International Studies Quarterly* 24 (1):7-46.

———. 2001. "How decision units shape foreign policy: A theoretical framework." *International Studies Review* 3 (2):47-81.
———. 2003. "Assessing Leadership Style: Trait Analysis." In *Psychological Assessment of Political Leaders*, ed. P. Jerald. Ann Arbor, MI: University of Michigan Press.
Horowitz, Michael, Rose McDermott, and Allan C. Stam. 2005. "Leader Age, Regime Type, and Violence International Conflict." *Journal of Conflict Resolution* 49 (5):661-85.
Huntington, Samuel P. 1957. *The soldier and the state; the theory and politics of civil-military relations*. Cambridge, MA: Belknap Press of Harvard University Press.
Janowitz, Morris. 1960. "The Professional Soldier." New York: The Free Press.
Jennings, M. Kent, Gregory B. Markus, and Richard G. Niemi. 1991. "Youth-Parent Socialization Panel Study, 1965-1982: Three Waves Combined." Ann Arbor, MI: Inter-university Consortium for Political and Social Research.
Jervis, Robert. 1976. *Perception and misperception in international politics*. Princeton, N.J.: Princeton University Press.
Jones, Benjamin F., and Benjamin A. Olken. 2005. "Do Leaders Matter? National Leadership and Growth Since World War II." *Quarterly Journal of Economics* 120 (3):835-64.
Kalyvas, Stathis, and Matthew Kocher. 2007. "How Free is "Free Riding" in Civil Wars? Violence, Insurgency, and the Collective Action Problem." *World Politics* 59 (2):117-216.
Kelly, Michael. 1992. "THE 1992 CAMPAIGN: The Democrats -- Clinton and Bush Compete to Be Champion of Change; Democrat Fights Perceptions of Bush Gain." *New York Times*, October 31.
Kennedy, Andrew B. 2011. *The International Ambitions of Mao and Nehru: National Efficacy Beliefs and the Making of Foreign Policy*. New York: Cambridge University Press.
Kerry, John F. 2004. "Test of John Kerry's Acceptance Speech at the Democratic National Convention." *Washington Post*, http://www.washingtonpost.com/wp-dyn/articles/A25678-2004Jul29.html.
Khong, Yuen Foong. 1992. *Analogies at war*. Princeton, NJ: Princeton University Press.
King, Gary, Michael Tomz, and Jason Wittenberg. 2000. "Making the most of statistical analyses: Improving interpretation and presentation." *American Journal of Political Science* 44 (2):347-61.
Kowert, Pau; A., and Margaret G. Hermann. 1997. "Who Takes Risks?" *Journal of Conflict Resolution* 41 (5):611-37.
Lemer, Jennifer S., and Dacher Keltner. 2001. "Fear, anger, and risk." *Journal of Personality and Social Psychology* 81 (1):146-59.
Lentz, Harris M. 1994. *Heads of States and Governments: A Worldwide Encyclopedia of Over 2,300 Leaders, 1945 through 1992*. Jefferson, NC: McFarland.
———. 1999. *Encyclopedia of Heads of States and Governments: 1900-1945*. Jefferson, NC: McFarland.
Ludwig, Arnold M. 2002. *King of the Mountain: The Nature of Political Leadership*. Lexington, KY: University Press of Kentucky.
Marshall, Mony G., and Keith Jaggers. 2002. "Polity IV Project: Political Regime Characteristics and Transitions, 1800-2000." In *University of Maryland's Center for International Development and Conflict Management (CIDCM)*.
Matthews, David R. 1954. *The social background of political decision-makers*. New York: Random House.
Norton, Edward C., Hua Wang, and Chunrong Ai. 2004. "Computing interaction effects and standard errors in logit and probit models." *The Stata Journal* 4 (2):154-67.
Pickering, A.D., et al. 1997. "Individual differences in reactions to reinforcing stimuli are neither black nor white: To what extent are they Gray?" In *The scientific study of human nature: tribute to Hans J. Evsenck at eighty*, ed. H. Nyborg. London: Elsevier.
Posen, Barry R. 1984. *The sources of military doctrine: France, Britain, and Germany between the world wars*. Ithaca: Cornell University Press.
Post, Jerald M. 2003. *The psychological assessment of political leaders: with profiles of Saddam Hussein and Bill Clinton*. Ann Arbor, MI: University of Michigan Press.
Powell, Colin L., and Joseph E. Persico. 1995. "My American Journey." New York: Random House.
Ray, James L. 2003. "Explaining interstate conflict and war: What should be controlled for?" *Conflict Management and Peace Science* 20 (2):1-31.
Roberts, Brent W., Avshalmon Caspi, and Terrie E. Moffitt. 2003. "Work Experiences and Personality Development in Young Adulthood." *Journal of Personality and Social Psychology* 84 (3):582-93.
Sarkees, Meredith R., and Frank Wayman. 2010. *Resort to War: 1816-2007*. Washington, DC: CQ Press.
Saunders, Elizabeth N. 2011. *Leaders at War: How Presidents Shape Military Interventions*. Ithaca, NY: Cornell University Press.

Sechser, Todd S. 2004. "Are soldiers less war-prone than statesmen?" *Journal of Conflict Resolution* 48 (5):746-74.
Signorino, Curt S., and David B. Carter. 2010. "Back to the Future: Modeling TIme Dependence in Binary Data." *Political Analysis* 18 (3):271-92.
Singer, J. David. 1987. "Reconstructing the Correlates of War Dataset on Material Capabilities of States, 1816-1985." *International Interactions* 14 (2):115-32.
Sirota, David. 2011. "Why people become chickenhawks." *Salon.com*, June 29, http://www.salon.com/news/david_sirota/2011/06/29/chickenhawk_origins.
Smith, Alastair. 2004. *Electon Timing*. New York: Cambridge University Press.
Snyder, Jack L. 1984. *The ideology of the offensive: Military decision making and the disasters of 1914*. Ithaca, NY: Cornell University Press.
Starobin, Paul. 2003. "The French Were Right." *National Journal* 35 (45):www.metu.edu.tr/~utuba/Paul%20Starobin.doc.
Voors, Maarten, et al. 2010. "Does Conflict affect Preferences? Results from Field Experiments in Burundi." *MICROCON Research Working Paper* 21.
Walt, Stephen M. 1987. "The search for a science of strategy: A review essay." *International Security* 12 (1):140-65.
Weeks, Jessica L. 2012. "Strongmen and Straw Men: Authoritarian Regimes and the Initiation of International Conflict." *American Political Science Review* 106 (2):326-47.
Wilkinson, Steven, and Saumitra Jha. Forthcoming. "Veterans and ethnic cleansing in the Partition of India." *American Political Science Review* Forthcoming.
Xue, Gui, et al. 2010. "The impact of prior risk experiences on subsequent risky decision-making: The role of the insula." *Neuroimage* 50 (2):709-16.

Supplementary Appendix For "How Prior Military Experience Influences The Future Militarized Behavior Of Leaders

This appendix covers several different issues referenced in the accompanying paper and provides additional statistical results demonstrating the robustness and importance of the findings in the paper. Appendix Table 1 below shows summary statistics for the core variables included in the militarized dispute initiation models displayed in the main paper.

Appendix Table 1: Summary Statistics For Core MID Initiation Model Variables

	N	Mean	SD	Min	Max
MID Initiation	13393	0.15411	0.361068	0	1
Military Service, No Combat	12181	0.119202	0.324039	0	1
Combat	12100	0.262066	0.439777	0	1
Rebel Service	12099	0.332755	0.471219	0	1
Prior War Win	12181	0.094163	0.292067	0	1
Prior War Loss	12181	0.081192	0.273141	0	1
Prior Rebel Win	12181	0.083983	0.277374	0	1
Prior Rebel Loss	12181	0.027091	0.162356	0	1
Material Capabilities	13199	0.014116	0.037573	2.43E-07	0.383864
Autocracy	13393	0.267976	0.442922	0	1
Tau B With System Leader	11843	0.090868	0.332199	-0.36683	1

MILITARY AND REBEL SERVICE VARIABLES

We utilize the following military service variables in the paper. They are coded as described below. Upon publication, we will release the full dataset, including citation information.

Military Service: Coded a 1 if a leader had any military service background and a 0 otherwise.

Military Experience, No Combat: Coded a 1 if a leader had military experience but not combat experience, and a 0 otherwise.

Combat: Coded a 1 if a leader had combat experience and a 0 otherwise. We define a leader as having seen combat if multiple sources suggest direct or indirect exposure to enemy fire while in

the military. If that data was not available, absent contrary evidence, we coded leaders as having seen combat if there was evidence they were in an active combat zone facing the risk of death while in the military. This addendum became necessary because, for many leaders, especially those who served prior to World War II, even detailed biographies only revealed whether or not a given person was in a war zone while fighting occurred. If we restricted the combat coding to only those leaders where multiple sources suggested the leader actively faced enemy fire with an imminent risk of death, it would have been impossible to code almost a half of the data. When we had more specific data, we used that data.

Rebel: Coded a 1 if a leader participated in a rebel movement, including a coup, and a 0 otherwise. The important factor for testing our theory is risk propensity, which would include more than just a formal guerilla movement. This is why we tested to ensure our results were robust to including controls for whether leaders entered office irregularly or through a coup (see below).

Rebel Experience, No Combat (not used in paper due to lower data coverage and reliability): Coded a 1 if a leader participated in a rebel movement but did not experience combat, and a 0 otherwise.

Rebel Combat (not used in paper due to lower data coverage and reliability): Coded a 1 if a leader participated in a rebel movement and experienced combat, and a 0 otherwise.

Prior War Win: Coded a 1 if a leader participated in a war as a member of a uniformed military and their side won in a war counted as a war by the Correlates of War Project (interstate, intrastate, and/or extra-systemic), and a 0 otherwise

Prior War Loss: Coded a 1 if a leader participated in a war as a member of a uniformed military and their side lost in a war counted as a war by the Correlates of War Project (interstate, intrastate, and/or extra-systemic), and a 0 otherwise

Prior Rebel Win: Coded a 1 if a leader participated in a war as a member of a rebel group and their side won in a war counted as a war by the Correlates of War Project (interstate, intrastate, and/or extra-systemic), and a 0 otherwise

Prior Rebel Loss: Coded a 1 if a leader participated in a war as a member of a rebel group and their side lost in a war counted as a war by the Correlates of War Project (interstate, intrastate, and/or extra-systemic), and a 0 otherwise

Appendix Table 2: Summary Statistics on Basic Military and Rebel Experience of Global Heads-Of-State, 1875-2004 (note this data goes 3 years past end of MIDs coverage)

	No Military Service	**Military Service**	**Data Coverage**	**No Rebel Group Participation**	**Rebel Group Participation**	**Data Coverage**
Americas	59.95%	39.88%	99.83%	62.98%	36.72%	99.70%
Europe	71.61%	28.34%	99.96%	79.70%	20.25%	99.96%
Sub-Saharan Africa	60%	39.38%	99.25%	58.73%	40.51%	99.25%
Middle East & North Africa	56.64%	43.36%	100.00%	63.28%	36.72%	100.00%
Asia	68.12%	31.42%	100.00%	68.95%	30.58%	99.54%
Oceania	86.72%	13.28%	100.00%	100.00%	0.00%	100.00%

	No Combat	**Combat**	**Data Coverage**
Americas	71.00%	28.60%	99.61%
Europe	78.23%	21.72%	99.96%
Sub-Saharan Africa	72.14%	26.64%	98.79%
Middle East & North Africa	63%	36.72%	100.00%
Asia	75.28%	24.26%	99.54%
Oceania	88.62%	11.38%	100.00%

A few things stand out in a first glance at these summary statistics of the variables of interest. For example, as we might expect given their relative lack of involvement with international conflict, the percentage of Oceanic leaders that have participated in military

activities across the board is significantly lower than in the other regions. There is also some regional variation with regard to military service versus actual combat experience. In Sub-Saharan Africa, for example the percentage of leaders that saw combat during their military career is almost identical to the percentage that served in militaries, which makes sense given the external and internal instability faced by many Sub-Saharan African countries. In contrast, while the Middle East and North Africa has a larger percentage of leaders with formal military service as Sub-Saharan Africa, it has fewer leaders with rebel experience. There are also differences in the combat rate. The gap between the military service rate and the combat rate could indicate any number of things, ranging from a lower propensity for countries in a given region to go to war to courtesy appointments that do not involve battlefield participation even in time of war.

Table 2 also shows the rates of rebel group participation by national leaders. Over 40% of the national leaders in Sub-Saharan Africa, which features a high number of civil wars and internal conflicts, participated in a rebel group at some point before assuming office. In contrast, 20.25% of European leaders participated in rebel activities before taking office. Many of those come from leaders who participated in resistance movements in occupied German territories in World War II, meaning as that generation passes away, the number has been declining over the last few decades.

OTHER VARIATION IN THE PRIOR MILITARY SERVICE OF LEADERS

The three factors examined in the paper – military service, rebel service, and prior success/failure – do not encompass all of the differences in the experiences of people in the military, or even all of the important differences. One possibility is that even the account described above is incomplete because it does not explicitly account for the particular branch of the armed services in which a leader previously participated. Feaver and Gelpi find, for example, that Air Force and Marine respondents favored international human rights interventions more

than Army officers (Feaver and Gelpi 2004, 61-62). The services were nearly identical when it came to interventions for traditional foreign policy goals, however. Janowitz (1960, 253) similarly found very little in the way of differences between the uniformed services.

In the broader universe of leaders described below, nearly all of them served in ground forces or in conflicts that did not feature participation from multiple service branches. While there are a few leaders who served in navies, as opposed to armies, there are no air force officers in our universe, as far as we can tell. There is also no theoretical reason to assume that branch differences matter or matter more than the overall effect of military service, though we recognize that this is a relevant factor. It is important to not impose our current Western conception of the branches of the armed forces onto conflicts in Latin and South America in the 19th century, for example, when these divides were not as poignant. That being said, data limitations prevented us from gathering this data for the entire universe, so this limits what we can say about this factor.

It was also not possible to systematically gather data on whether leaders with military experience served as officers or enlisted. While that granularity of data is possible to get for modern, Westernized militaries, that level of detail was inaccessible for the vast majority of leaders. Most future leaders, though not all, served as officers. Additionally, Jason Dempsey's recent survey research on the preferences of the US Army shows that, on key foreign policy issues, officers and enlisted personnel have similar attitudes (Dempsey 2010). There are some missions, such as disaster relief, where enlisted personnel were more supportive of action than officers. This is consistent with the Feaver and Gelpi findings comparing military and civilian elite (Feaver and Gelpi 2004), suggesting that socialization within the military may alter preferences for officers more than enlisted personnel. One problem is that all of this research focuses on active duty personnel, rather than veterans. It is also only definitively applicable to the United States, meaning any differences might not be generalizable.

If these small differences are generalizable and enlisted personnel have preferences more likely the civilian population, it means including these leaders as having military service actually biases against our finding significant results. Thus, even though we do not have complete data on this point, it is more likely to bias the overall results against our hypotheses than anything else. Finally, attempting to find data on whether someone served as an officer or as a soldier, like gathering data on the branch in which someone served, represents a potential path for future research. Neither of these factors is likely to matter, however, if military service in general does not matter.

Another possibility is that, rather than different military experiences serving to socialize leaders and shape their beliefs and risk propensity, people with greater levels of risk acceptance predominately select into the military. This would be an issue of particular concern for countries with volunteer militaries, such as the United States today. Thus, future leaders with military experience will naturally be more risk acceptant than an average member of the population without military service. If this argument is true, it does not actually undermine our results. Our results would still demonstrate the military background experiences of leaders represent important information that can help predict the way a country will act when that leader is in office. However, data from the United States also shows that a diverse set of factors, including educational benefits, social networks, and a sense of obligation influence why people join the military (G2 - United States Army Accessions Command 2008).[1] Dempsey's 2004 survey of the US Army found that educational benefits actually play a primary role in driving people to join (Dempsey 2010, 45-47). The well-document difficulty the Army and Marines, in particular, had recruiting between 2004 and 2009 suggests that, as the risk of death from joining the military increased, the propensity for people to select into the military has declined. Recruiting

[1] For more on this topic see (Krebs 2009).

difficulties only eased as the economy decline and joining the military became a more attractive career option once again (Alvarez 2009). Statistical models of the propensity to enlist conducted by Beth Asch and others at the RAND Corporation demonstrate that financial bonuses and the unemployment rate both play an important role in determining military enlistments (Asch et al. 2010 22-24). While it is possible that the people who find those benefits attractive also happen to be more risk acceptant, and that evidence is limited since it is only applicable to the United States, there is no systematic evidence suggesting that this particular selection effect exists. A variety of factors motivate people to join the military and most of them are not related to the propensity to engage in violent behavior after someone has left the military. Additionally, as we describe below, there are reasons to think the selection of riskier people into the military and then politics is a particular problem for some types of regimes, though not others. Finally, for countries with conscription militaries during particular time periods, selection into the military may happen as a matter of law, rather than as a personal choice.[2] We can control for this factor by coding whether or not a country has a conscript or volunteer army during a particular time period.

SURVEY DATA DIFFERENTIATING MILITARY SERVICE FROM COMBAT EXPERIENCE

One challenge in trying to differentiate the impact of military service from combat experience is that most surveys that ask respondents about their foreign policy beliefs only ask respondents, in the background section of the survey, whether or not they have prior military experience. Most surveys do ask enough about service backgrounds to allow us to differentiate between prior military service that did not include combat and prior military service that did include combat service. As referenced in the paper, however, there are a few existing surveys that do allow us to separately estimate the effect of military service from the effect of combat

service. Both provide general support for the core theoretical argument advanced in the paper that those with prior military service but not combat experience, especially in regimes featuring civilian control of the military, are more risk prone than those with combat experience.

The Jennings-Niemi panel study, first conducted in 1965, measured the political attitudes of seniors in high school originally interviewed in 1965. Of the 853 males interviewed in 1965, the survey researchers received second-wave data on 674 of them in 1974. In 1974, the survey researchers asked respondents about their prior military service and specifically differentiated between whether or not respondents had served in the Vietnam War or not. Given that the Vietnam War was the only ongoing conflict the United States was engaged in at the time, this allows us to differentiate two groups – those with military service who served in Vietnam and those that did not. To some extent, this conflates the "success" mechanism discussed in the paper and the "combat" mechanism, since service in Vietnam both involved combat and an eventual American defeat. That being said, it represents a first cut, and one of the few available in existing survey data, at evaluating the differences between those with combat service and those without combat service. In the third wave of the study, in 1982, the researchers asked respondents a question about the extent to which they supported American engagement around the world (Jennings and Markus 1977; Jennings et al. 1991). Higher scores represent greater support for an active American role in the world. This question is not perfect for our purposes. It reflects general beliefs about the world and is more about foreign policy itself than the actual use of force. However, it is the best proxy in the Jennings and Niemi survey instrument. As the results below show, those with military service who did *not* deploy to Vietnam show a much higher propensity to support an active American foreign policy than either those with no prior military service or those who deployed to Vietnam.

Appendix Table 3: T-Test of Impact of Military Experience on Foreign Policy Beliefs – Jennings and Niemi Survey Data

Group	N	Mean	Standard Error
No Military Service	899	3.73	0.058
Deployed to Vietnam	123	3.837	0.169
Military Service - No Vietnam	206	4.024**	0.121

Another source of micro-level survey data comes from Feaver and Gelpi. While the 1998-1999 survey has been used by several researchers, that survey did not ask questions to related to combat experience, specifically, A Feaver, Gelpi, and Reifler survey conducted by the Parker Group in 2003 did, however, obtain more detail about the military service backgrounds of respondents (Gelpi et al. 2009). It was a national random sample with 1203 respondents. Respondents were asked a range of questions about their political attitudes as they related to the war in Iraq as well as their willingness to see the US use armed force in a variety of situations. This study is unique among the various surveys conducted on US military action over the last decade because it explicitly asked not just whether participants had served in the military, but whether they had seen combat. While limited to the United States and focused on the general population, rather than leaders, this does allow us to differentiate, to some extent, between those with military service in general, those that have seen combat, and those with no service at all. They asked respondents about their willingness to support the US using force in several different scenarios and across several different levels of casualties. We would expect that differences between those with combat and those with military service but no combat experience should be relatively muted in this situation. The United States is a democracy and the beliefs of those with military service in general should be more militaristic than the general population, but much closer to the general population than those with military service in regimes that lack civilian

control of the military. In many of the scenarios, we do not find significant differences between combat and military service without combat, but there are several scenarios where differences emerge. One is an Iran intervention scenario with 5000 posited casualties. The results below show trends consistent with our theory and the Jennings and Niemi data cited above.

Appendix Table 4: T-Test of Impact of Military Experience on Intervention in Iran with 5000 casualties – Gelpi, Feaver, and Reifler data

	N	Mean	Standard Error
No Military Service	933	0.211	0.013
Military Service, No Combat	129	0.287**	0.04
Combat Service	80	0.25	0.049

FULL MODELS FROM PAPER WITH SUPPRESSED VARIABLES

To save space, we suppress a few of the variables in Table 1 include peace year controls and lower-order interaction terms.

Appendix Table 5: Full Version of Table 1

	Model 1: Simple Model	Model 2: Interaction with Autocracy	Model 3: Interaction With Military Regime	Model 4: War Initiation
	B/SE	B/SE	B/SE	B/SE
Military Service, No Combat	0.378***	0.012	0.075**	0.656***
	(0.141)	(0.026)	(0.030)	(0.241)
Combat	0.011	-0.009	-0.049	-0.446
	(0.148)	(0.026)	(0.039)	(0.339)
Rebel	0.481***	0.087**	0.077**	0.293
	(0.148)	(0.042)	(0.039)	(0.264)
Prior War Win	0.025	-0.004	0.049	0.943**
	(0.169)	(0.028)	(0.037)	(0.400)
Prior War Loss	0.229	0.027	0.009	0.671
	(0.168)	(0.025)	(0.029)	(0.453)
Prior Rebel Win	-0.256	-0.028	-0.040	0.752**
	(0.170)	(0.028)	(0.036)	(0.333)
Prior Rebel Loss	0.278	0.066	0.076	-0.207

	(0.266)	(0.059)	(0.063)	(0.402)
Leader Age	0.011*	0.001*	0.002**	-0.005
	(0.006)	(0.001)	(0.001)	(0.009)
Military Service, No Combat * Autocracy		0.139***		
		(0.043)		
Combat * Autocracy		0.091**		
		(0.042)		
Rebel * Autocracy		-0.031		
		(0.039)		
Military Service, No Combat * Military Regime			-0.119	
			(0.084)	
Combat * Military Regime			0.117**	
			(0.058)	
Rebel * Military Regime			-0.080	
			(0.055)	
Military Service, No Combat * Rebel		-0.028	0.136	
		(0.049)	(0.095)	
Combat * Rebel		-0.040	-0.017	
		(0.040)	(0.050)	
Military Dictatorship			0.052	
			(0.047)	
Civilian Dictatorship			0.027	
			(0.018)	
Autocracy	0.101	-0.018		0.142
	(0.113)	(0.018)		(0.276)
Material Capabilities	9.611***	2.082***	2.758***	13.238***
	(1.497)	(0.321)	(0.451)	(2.023)
Tau B With System Leaders	0.108	0.012	-0.030*	-0.516
	(0.132)	(0.018)	(0.017)	(0.350)
Five Year MID Lag (war lag in model 4)	0.506***	0.087***	0.090***	0.437
	(0.104)	(0.015)	(0.018)	(0.330)
Tenure in Office	0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)

Years since MID initiation (wars in model 4)	-0.262***	-0.024***	-0.024***	-0.055**
	(0.025)	(0.003)	(0.003)	(0.024)
Years since MIDs ^2 (wars in model 4)	0.010***	0.001***	0.001***	0.000
	(0.001)	(0.000)	(0.000)	(0.000)
Years since MIDs ^3 (wars in model 4)	-0.000***	-0.000***	-0.000***	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-2.108***	0.101**	0.054	-4.134***
	(0.306)	(0.041)	(0.061)	(0.542)
Observations	10683	10683	7393	10090
Pseudo R-squared	0.195			0.144
Log Pseudo likelihood	-4079.5	-3864.4	-2649.9	-538.5

* p<0.10, ** p<0.05, *** p<0.01

ADDITIONAL MODELS DEMONSTRATING ROBUSTNESS

The next section of the Appendix shows additional models designed to demonstrate the robustness of the main results presented in the paper.

Additional Control Variables

In the main models in the paper, we limit the number of control variables given the large number of leader variables and leader-specific controls already in our model. The table below shows that our results are consistent even when adding a series of additional controls, including trade openness, whether the country is a major power, the system concentration of power, and the number of borders a country has. We also include education and prior occupation background variables to ensure that our results are not biased by just including the various prior military service variables. We suppress the presentation of these additional leader variables below, along with lower order interaction terms and our peace year variables, for space reasons.

Appendix Table 7: Replication Of Models 1-4 From Table 1 With Additional Control Variables

	Model 1:	**Model 2:**	**Model 3:**	**Model 4:**

	Full Model	Interaction with Autocracy	Interaction With Military Regime	War Initiation
	B/SE	B/SE	B/SE	B/SE
Military Service, No Combat	0.518***	-0.017	0.073**	0.690**
	(0.182)	(0.036)	(0.031)	(0.300)
Combat	0.313*	-0.002	-0.008	-0.183
	(0.176)	(0.035)	(0.038)	(0.397)
Rebel	0.616***	0.101***	0.079**	0.613**
	(0.138)	(0.038)	(0.034)	(0.266)
Prior War Win	-0.072	-0.005	0.012	0.225
	(0.232)	(0.037)	(0.038)	(0.433)
Prior War Loss	-0.276	-0.024	-0.023	0.500
	(0.173)	(0.025)	(0.025)	(0.445)
Prior Rebel Win	0.017	0.006	-0.015	0.873**
	(0.159)	(0.027)	(0.031)	(0.388)
Prior Rebel Loss	-0.371	0.004	-0.028	-0.925*
	(0.322)	(0.065)	(0.069)	(0.513)
Military Service, No Combat * Autocracy		0.145***		
		(0.044)		
Combat * Autocracy		0.082**		
		(0.035)		
Rebel * Autocracy		-0.059*		
		(0.033)		
Military Service, No Combat * Rebel		0.029	0.109	
		(0.050)	(0.085)	
Combat * Rebel		-0.009	-0.012	
		(0.042)	(0.048)	
Military Service, No Combat * Military Regime			-0.061	
			(0.074)	
Civilian Dictator			0.028	
			(0.018)	
Military Dictator			0.011	
			(0.041)	
Material Capabilities	9.784***	2.109***	2.068***	4.326
	(2.724)	(0.529)	(0.553)	(2.756)
Taub B With System Leader	0.081	-0.005	-0.010	-1.145***
	(0.157)	(0.019)	(0.019)	(0.400)
Major Power Status	-0.059	0.051	0.047	1.521**

				*
	(0.332)	(0.067)	(0.073)	(0.416)
System Concentration of Power	entire system"	0.622	-0.005	0.021
	(1.514)	(0.190)	(0.196)	(2.966)
Number of Borders	0.092***	0.012***	0.012***	0.045
	(0.018)	(0.003)	(0.003)	(0.042)
Trade Openness (post WWII)	0.001	0.000	0.000	
	(0.001)	(0.000)	(0.000)	
Tenure in Office	-0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Five Year MID Challenge Lag	0.411***	0.083***	0.075***	
	(0.137)	(0.017)	(0.017)	
Constant	-3.039***	0.011	-0.045	-6.850***
	(0.663)	(0.082)	(0.086)	(1.209)
Observations	7104	7104	6887	11088
Pseudo R-squared	0.243			0.158
Log Pseudo Likelihood	-2599.6	-2429.2	-2303.5	-511.5
Clusters	1219	1219	1174	2305

* p<0.10, ** p<0.05, *** p<0.01

Fixed Effects

Despite our attempts to cluster standard errors by the leader, there is always the possibility that effects due to particular countries or time periods are skewing our results. One potential solution is to estimate a fixed effects model that corrects for this possibility. This is not an optimal solution for our data. Fixed effect models drop data anytime there is not variance in the dependent variable. This means countries that never experience a militarized dispute get excluded from the dataset entirely and we lose analytical leverage. Including those countries is important since the variables in the model might be why they have not experienced a MID in the first place. Taking these concerns into consideration, we estimate two fixed effects models. The first is a regular logit model that replicates Model 1 in Table 1 but adds individual variables for each year and country code in the model. It also includes additional controls for other leader

attributes and our "generational" control for how a country did in its last war. Individual years or country codes are dropped if they have non-varying outcomes. The second model is an actual fixed effects logit model. The results of both models are consistent with the tables in the paper and show the robustness of our findings.

Appendix Table 8: Fixed Effects Models Showing the Monadic Impact of Military Service on the Initiation of Militarized Disputes, 1875-2001

	Model 1: Logit Adding Individual Year And Country Code Variables	Model 2: Fixed Effects Logit
	B/SE	B/SE
Military Service, No Combat	0.285**	0.322***
	(0.131)	(0.123)
Combat Service	0.177	0.105
	(0.160)	(0.145)
Rebel Service	0.427***	0.319***
	(0.136)	(0.105)
Prior War Win	-0.002	-0.019
	(0.188)	(0.164)
Prior War Loss	0.047	0.154
	(0.176)	(0.171)
Prior Rebel Win	-0.275*	-0.298*
	(0.161)	(0.155)
Prior Rebel Loss	-0.038	-0.203
	(0.294)	(0.236)
Level Of Education	0.027	0.073
	(0.067)	(0.054)
Age	-0.006	-0.003
	(0.005)	(0.004)
Law	0.190	0.246**
	(0.129)	(0.113)
Engineering	0.100	0.191
	(0.232)	(0.207)
Business Career	0.109	0.205
	(0.147)	(0.142)
Creative	0.541**	0.328**

	(0.220)	(0.155)
Career Politician	0.186*	0.207**
	(0.110)	(0.096)
Military Career	-0.063	0.048
	(0.144)	(0.123)
Labor	0.164	0.006
	(0.207)	(0.180)
Police	0.250	0.293
	(0.622)	(0.524)
Teacher	0.366***	0.229*
	(0.135)	(0.118)
Journalism	-0.112	-0.152
	(0.182)	(0.163)
Material Capabilities	5.505**	0.934
	(2.739)	(1.728)
Autocracy	-0.003	0.040
	(0.120)	(0.098)
Tau B With System Leader	0.081	0.385***
	(0.173)	(0.136)
Time In Office	0.000	0.000**
	(0.000)	(0.000)
Five Year MID Challenge Lag	0.096	0.158
	(0.116)	(0.115)
Last War Loss	-0.373**	-0.087
	(0.185)	(0.144)
Last War Draw	0.060	0.468***
	(0.260)	(0.172)
Last War Win	0.006	0.352**
	(0.189)	(0.142)
Year Since Last MID	-0.149***	-0.109***
	(0.022)	(0.021)
Y^2	0.005***	0.003***
	(0.001)	(0.001)
Y^3	-0.000***	-0.000*
	(0.000)	(0.000)
Constant	-2.243*	
	(1.323)	
Observations	9918	8947
Pseudo R-squared	0.277	0.040
Log Likelihood	-3599.1	-2895.3

* p<0.10 ** p<0.05 *** p<0.01. Individual country and year values suppressed for space reasons. Contact the authors if interested in complete results.

Bootstrapping

One concern with our results is that the standard errors are clustered on the leader, which means the standard error for country-level variables such as material capabilities and regime type are incorrect. To some extent there is very little we can do to correct this. We did, however, estimate a bootstrapped model based on a modified version of Model 1 in Table 1 that clusters on the country code and then groups within that based on the leader variable. The results, shown below, are entirely consistent with the results presented in the paper and show the robustness of our findings. Note that the findings are split into two columns to conserve space.

Appendix Table 9: Bootstrapped Results Clustering On Country Code And Grouped On The Leader

Variable	**B/SE**	**Variable**	**B/SE**
Military Service, No Combat	0.506***	Journalism	-0.082
	(0.141)		(0.239)
Combat Service	0.122	Material Capabilities	8.236***
	(0.147)		(2.865)
Prior War Win	0.094	Autocracy	0.068
	(0.191)		(0.138)
Prior War Loss	0.137	Tau B With System Leader	0.120
	(0.136)		(0.166)
Prior Rebel Loss	-0.115	Time In Office	0.000
	(0.231)		(0.000)
Level Of Education	0.042	Five Year MID Challenge Lag	0.402***
	(0.063)		(0.112)
Age	0.002	Last War Loss	0.642***
	(0.005)		(0.169)
Law	0.056	Last War Draw	0.677***
	(0.124)		(0.142)
Engineering	0.203	Last War Win	0.691***

	(0.194)		(0.133)
Business Career	0.169	Year Since Last MID	-0.216***
	(0.136)		(0.030)
Creative	0.619**	Y^2	0.007***
	(0.302)		(0.001)
Career Politician	0.141	Y^3	-0.000***
	(0.104)		(0.000)
Military Career	-0.097	Constant	-2.246***
	(0.156)		(0.283)
Labor	0.216	Observations	10983
	(0.300)	Pseudo R-squared	0.220
Police	0.586	Log Likelihood	-4061.3
	(0.356)		
Teacher	0.280	* p<0.10 ** p<0.05 *** p<0.01	
	(0.172)		

Dyadic Specification

One concern is that our results reflect one type of bias inherent to monadic data – the inability to control for the attributes of other actors. For example, the probability a country initiates a militarized dispute against a particular country in a given year depends in part on the characteristics of the potential defender. To account for this concern, below we estimate a dyadic model with our leader experience variables. The unit of analysis is the directed dyad from 1869-2001, meaning all dispute initiations occur on side A of the dyad (Bennett and Stam 2000). Following King and Zeng, we sample 100% of dispute dyads and 10% of non-dispute dyads (King and Zeng). There are multiple observations per-year for some countries if they had multiple leaders or MID initiations in a year. This does not influence the results, just as it does not for the monadic models in the paper. For simplicity sake, we only include the military service variables for Side A and Side B. We do not have a strong expectation about the results for Side B, but the results for the military service variables for Side A should look as they do in our monadic analysis.

We also added a series of control variables, including the relative balance of power between both sides, if both sides are contiguous, if the sides are in the midst of an arms race, if either side is a democracy or autocracy, the level of satisfaction within the dyad, whether the two sides have a defensive military alliance, whether both sides are a democracy, and whether or not the international system is bipolar. We gathered the data for these variables from EUGene (Bennett and Stam 2000). We also include the controls for leader selection used in the main regressions in the paper – the length of time each leader has been in office and whether or not the country has been challenged in a MID in the last five years. We use Huber-White robust standard errors and cluster the standard errors on the dyad (to avoid the bias induced by particularly risk-prone dyads). Unfortunately, this means we cannot cluster on the leader, as we do in our monadic models.

Appendix Table 10: Dyadic MID Initiation Results

	B/SE		**B/SE**
Military Service, No Combat	0.311***	Arms Race	0.240***
	(0.100)		(0.071)
Combat Side A	-0.041	Directly Contiguous	2.993***
	(0.120)		(0.101)
Rebel Side A	0.186*	Bipolar System	-0.798***
	(0.100)		(0.101)
Military Service, No Combat Side B	0.224**	Democracy Side A	0.533***
	(0.112)		(0.113)
Combat Side B	-0.144	Democracy Side B	0.683***
	(0.125)		(0.111)
Rebel Side B	-0.191**	Joint Democracy	-0.718***
	(0.090)		(0.159)
Prior War Win Side A	0.386***	Autocracy Side A	0.035
	(0.146)		(0.096)
Prior War Loss Side A	0.239*	Autocracy Side B	-0.105
	(0.137)		(0.089)
Prior Rebel Win Side A	-0.011	Time In Office Side A	0.000*

	(0.133)		(0.000)
Prior Rebel Loss Side A	0.311*	Time in Office Side B	0.000***
	(0.180)		(0.000)
Prior War Win Side B	0.405**	Five Year MID Challenge Lag Side A	1.423***
	(0.161)		(0.071)
Prior War Loss Side B	0.348**	Five Year MID Challenge Lag Side B	0.686***
	(0.162)		(0.067)
Prior Rebel Win Side B	0.278**	Peace Years	0.002***
	(0.141)		(0.000)
Prior Rebel Loss Side B	0.314	Peace Years 2	-0.002***
	(0.212)		(0.000)
Defense Pact	1.027***	Peace Years 3	0.000***
	(0.254)		(0.000)
Balance of Power	0.383***	Constant	-4.183***
	(0.128)		(0.264)
Dyadic Satisfaction	-1.898***	Observations	113634
	(0.458)	Pseudo R-squared	0.340
		Log Pseudo-Likelihood	-6938.4
		Clusters	27069

* p<0.10 ** p<0.05 *** p<0.01

The results show the consistency of our results across both monadic and dyadic specifications. Our military service variables of interest perform in the same or substantively similar ways to the monadic models. If anything, the dyadic setup demonstrates the larger influence of our military service variables, given the significance of some of the prior war variables that are rarely significant in our monadic specifications. Our theory focuses exclusively on Side A in the dyadic interaction, but it is relevant to note a few of the results for the military experience variables for Side B. For example, leaders with military experience but not combat experience are not just more likely to initiate disputes, they are also more likely to be the subject of militarized challenges. As explained in the paper, this further undermines the possibility that some sort of leader selection on the basis of military service undermines our results. After all, if a country

thought selecting a leader with a particular background, in this case, military experience without combat experience, would make it the target of more militarized dispute initiations, it would be unlikely to select a leader on that basis. Regardless, the general results are extremely supportive of our theory and show the robustness of our findings.

Rare Events

Another concern is that, since war is a rare event, running a regular logit model biases our estimates (King and Zeng 2001). We therefore also estimated a rare events logit model based on Model 1 of Table 1 using the ReLogit program. The results, presented below, show that even when war is treated as a rare event, prior military experience – though not combat service – makes war initiation more likely, as do both prior victories *and* defeats.

Appendix Table 11: Rare Events Logit Model Showing the Monadic Impact of Military Service on the Initiation of Wars, 1875-2001

	B/SE
Military Service, No Combat	0.698**
	(0.300)
Combat Service	-0.677
	(0.492)
Rebel Service	0.423
	(0.286)
Prior War Win	0.947**
	(0.447)
Prior War Loss	1.113***
	(0.428)
Prior Rebel Win	0.840**
	(0.350)
Prior Rebel Loss	0.255
	(0.503)
Material Capabilities	11.691***
	(1.535)
Autocracy	-0.018
	(0.246)
Tau B With System Leader	-0.786**

	(0.380)
Time In Office	0.000
	(0.000)
Five Year MID Challenge Lag	1.253***
	(0.308)
Last War Loss	1.595***
	(0.400)
Last War Draw	1.625***
	(0.297)
Last War Win	-5.407***
	(0.564)
Observations	11481
* p<0.10 ** p<0.05 *** p<0.01	

Note: Peace year variables suppressed since not relevant to empirical point of the paper. Contact the authors for complete results.

Matching

Another potential challenge in estimating the relative effect of leader background experiences is the way that imbalance in national-level or individual-level characteristics across the data might skew our estimates for our key treatment variable, in this case military service. To reduce imbalance, we employ coarsened exact matching, a matching method developed by Iacus, King, and Porro (2011). One challenge here is similar to the standard error issue that led us to use bootstrapping as a robustness test – we have both unit (country) level variables and individual level variables in our model. We therefore attempt matching across both dimensions separately in an attempt to more effectively isolate the effect of military service. We also collapse our two uniformed military service variables, *Military Service*, *No Combat* and *Combat* into a binary *Military Service* variable for simplicity sake and drop the prior war victory/defeat variables. While this reduces our ability to use matching to fully understand all of the relationships described in the paper, it makes the results below significantly more accurate. Given the multiple ways we measure military service, we could not use just one of them as a proper "treatment".

In the case of matching on unit level variables such as national power and regime type, using CEM weights reduces our imbalance from .42 to .26, and in the case of matching on our alternative leader experience variables such as age and education, employing CEM reduces imbalance from .75 to .19. The results also continue to provide strong support to our theory, showing the robustness of our results even under more stringent testing conditions.

Appendix Table 12: Coarsened Exact Matching Models Showing the Monadic Impact of Military Service on Militarized Dispute Initiation, 1875-2001

	Model 1: Matching On Leader Attributes	Model 2: Matching On Country Attributes
	B/SE	B/SE
Military Service	0.490***	0.433***
	(0.122)	(0.137)
Rebel	0.337**	0.387***
	(0.143)	(0.129)
Level of Education	0.048	0.061
	(0.099)	(0.070)
Age	-0.003	0.001
	(0.006)	(0.006)
Occupation: Law	0.132	0.034
	(0.161)	(0.171)
Occupation: Engineering	-0.372	0.295
	(0.315)	(0.241)
Occupation: Business	0.206	0.085
	(0.307)	(0.179)
Occupation: Creative	0.072	0.506*
	(0.481)	(0.296)
Occupation: Career Politician	0.067	0.086
	(0.143)	(0.143)
Occupation: Military	.	-0.113
	.	(0.150)
Occupation: Labor	0.058	0.231
	(0.215)	(0.246)
Occupation: Police	.	0.270
	.	(0.338)

Occupation: Teacher	-0.740***	0.142
	(0.265)	(0.202)
Occupation: Journalism	0.157	-0.309
	(0.345)	(0.248)
Material Capabilities	9.437***	9.946***
	(1.663)	(1.448)
Autocracy	0.061	-0.013
	(0.162)	(0.147)
Tau B With System Leader	0.009	0.084
	(0.207)	(0.166)
Tenure In Office	0.000	0.000
	(0.000)	(0.000)
Five Year MID Challenge Lag	0.376**	0.252**
	(0.184)	(0.112)
Country: Last War Loss	0.439**	0.719***
	(0.172)	(0.156)
Country: Last War Draw	0.493**	0.596***
	(0.251)	(0.199)
Country: Last War Win	0.469***	0.610***
	(0.164)	(0.136)
Years Since MID Initiation	-0.199***	-0.214***
	(0.040)	(0.029)
Y2	0.007***	0.007***
	(0.002)	(0.001)
Y3	-0.000***	-0.000***
	(0.000)	(0.000)
Constant	-2.117***	-2.206***
	(0.442)	(0.391)
Observations	5300	10486
Pseudo R-squared	0.194	0.178
Log Pseudo Likelihood	-1863.0	-4163.2
Clusters	1191	2091

* p<0.10 ** p<0.05 *** p<0.01

Revolutionary Regimes

Finally, as discussed in the paper, our findings for rebel experience are robust even when we add specific controls designed to account for whether or not a country is likely to have a leader in office with prior rebel experience. These controls are whether a country was in a civil war in the

last five years, whether the leader entered office through irregular means, and whether the leader is considered "revolutionary" in terms of domestic policy preferences (Colgan; results also consistent using Carter et al. coding scheme).

Appendix Table 12: Robustness Controlling For Rebel Selection

	B	SE
Military Service, No Combat	0.373**	(0.165)
Combat	0.093	(0.211)
Rebel	0.364***	(0.134)
Prior War Win	-0.022	(0.230)
Prior War Loss	0.061	(0.179)
Prior Rebel Win	-0.250	(0.179)
Prior Rebel Loss	0.041	(0.342)
Level of Education	0.032	(0.070)
Age	0.006	(0.005)
Occupation: Law	-0.049	(0.150)
Occupation: Engineering	0.243	(0.214)
Occupation: Business	-0.121	(0.151)
Occupation: Creative	0.406*	(0.222)
Occupation: Career Politician	0.060	(0.117)
Occupation: Military	-0.155	(0.185)
Occupation: Labor	0.229	(0.184)
Occupation: Police	-0.147	(0.299)
Occupation: Teacher	0.225	(0.137)
Occupation: Journalism	-0.380**	(0.159)
Material Capabilities	10.111***	(3.391)
Autocracy	-0.017	(0.134)
Tau B With System Leaders	0.128	(0.151)
Time in Office	0.000	(0.000)
Five Year MID Challenge Lag	0.076	(0.135)
Last War Loss	0.561***	(0.154)
Last War Draw	0.632***	(0.164)
Last War Win	0.588***	(0.144)
Years Since MID Initiation	-0.238***	(0.029)
Y2	0.008***	(0.001)
Y3	-0.000***	(0.000)
Revolutionary Leader	0.878***	(0.154)
Irregular Entry Into Office	-0.251*	(0.140)

Civil War Lag (Five Years)	0.743***	(0.097)
Constant	-2.266***	(0.402)
Observations	6488	
Pseudo R-squared	0.236	
Log Likelihood	-2419.2	

* p<0.10 ** p<0.05 *** p<0.01

Bibliography

Alvarez, Lizette. 2009. "More Americans joining miltiary as jobs dwindle." *The New York Times*, January 19.

Asch, Beth J., et al. 2010. *Cash Incentives and Military Enlistment, Attrition, and Reenlistment*. Santa Monica, CA: RAND Corporation.

Bennett, D. Scott, and Allan C. Stam. 2000. "EUGene: A conceptual manual." *International Interactions* 26 (2):179-204.

Carter, Jeff, Michael Barnhard, and Glenn Palmer. Forthcoming. "Social Revolution, the State, and War: How Revolutions Affect War-Making Capacity and Interstate War Outcomes." *Journal of Conflict Resolution*.

Colgan, Jeff. 2010. "Oil and Revolutionary Governments: Fuel for International Conflict." *International Organization* 64 (4):661-94.

Dempsey, Jason K. 2010. *Our Army: Soldiers, Politics, and American Civil-Military Relations*. Princeton, NJ: Princeton University Press.

Feaver, Peter, and Christopher Gelpi. 2004. *Choosing your battles : American civil-military relations and the use of force*. Princeton, N.J.: Princeton University Press.

G2 - United States Army Accessions Command. 2008. "New Recruit Survey 2007 (Regular Army) Final Report - Redacted." ed. U. S. Army. Fort Monroe, Virginia: United States Army Accessions Command.

Gelpi, Christopher, Peter D. Feaver, and Jason A. Reifler. 2009. *Paying the human costs of war*. Princeton, NJ: Princeton University Press.

Iacus, Stefano M., Gary King, and Giuseppe Porro. 2011. "Causal Inference Without Balance Checking: Coarsened Exact Matching." *Political Analysis* 19.

Janowitz, Morris. 1960. "The Professional Soldier." New York: The Free Press.

Jennings, M. Kent, and Gregory B. Markus. 1977. "The effects of military service on political attitudes: a panel study." *American Political Science Review* 71 (01):131-47.

Jennings, M. Kent, Gregory B. Markus, and Richard G. Niemi. 1991. "Youth-Parent Socialization Panel Study, 1965-1982: Three Waves Combined [Computer file]. ICPSR09553-v1." Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].

King, Gary, and Langche C. Zeng. 2001. "Explaining rare events in international relations." *International Organization* 55 (3):693-715.

Krebs, Ronald R. 2009. "The Citizen-Soldier Tradition in the United States: Has its Demise Been Greatly Exaggerated." *Armed Force & Society* 36 (1):153-74.