# How Prior Military Experience Influences the Future Militarized Behavior of Leaders

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**Abstract** Policy-makers and the electorate assume political executives' life experiences affect their policy choices once in office. Recent international relations work on leaders focuses almost entirely on how political institutions shape leaders' choices rather than on leaders' personal attributes and how they influence policy choices. This article focuses the analytic lens on leaders and their personal backgrounds. We theorize that 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. We test several propositions employing a new data set, building on Archigos, that encompasses the life background characteristics of more than 2,500 heads of state from 1875 to 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.

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 Texas Air National Guard but never saw combat. His opponent, John Kerry, was a decorated veteran who served in combat during the Vietnam War. With the United States in the midst of fighting wars in Afghanistan and Iraq, many pundits argued that their respective military service backgrounds represented a window into their qualifications to be commander in chief. In a series of interviews, speeches, and columns, Kerry and his staff explicitly suggested that his combat experience in Vietnam gave him wisdom that would make him a more effective wartime president than Bush. During his speech 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."<sup>1</sup>

The way different types of prior military service may affect the future decisions of leaders is not only an issue for the American electorate. At the height of the Cuban Missile Crisis, as the United States and Soviet Union stood on the precipice of war, Nikita Khrushchev, a combat veteran from World War II, sent a message to another combat veteran from World War II, John F. Kennedy. The message, in part, read, "I have participated in two wars and know that war ends when it has

1. Kerry 2004.

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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."<sup>2</sup> Khrushchev explicitly argued that his experiences in war made him understand the consequences of escalation and interested in finding another way to resolve the crisis.

The general observation that life experiences shape an individual's future behavior constitutes a central proposition of psychology and sociology. This article focuses on variation in a particularly salient life experience: the military backgrounds of heads of state. We build on existing research in two ways. First, despite enormous growth in research on leaders over the past several years,<sup>3</sup> much of the literature on leaders and international conflict focuses on how domestic political institutions shape the choices of leaders, rather than leaders as independent actors. 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 across space and time.<sup>4</sup>

Accounting for the relative impact of leaders, however, is a logical step toward building more accurate models of international behavior. Incorporating variation in the beliefs of individual leaders could play a role in influencing the credibility of threats, the policy choices of domestic institutions, and the use of force. In this article, we focus on how the particular military experiences of leaders influences their future militarized decisions, while accounting for the interaction between leaders and the domestic political institutions. Institutions, after all, both screen the selection of leaders and constrain the range of policy options available to them.

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 force in the future?<sup>5</sup> Existing research on how military backgrounds shape future beliefs often fails to differentiate military service itself from actual participation in combat. We theorize that the most conflict-prone leaders should be those with military experience but no combat experience. These leaders, such as Kaiser Wilhelm II and Muammar Qaddafi, have the familiarity with military service that makes them more likely to support use of the military when they reach office, but they lack the combat experience.

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 is a particularly dangerous endeavor—challenging the state with military force is an activity much more likely

<sup>2.</sup> Khrushchev 1962.

<sup>3.</sup> For recent examples, see Weeks 2012; Debs and Goemans 2010; and Croco 2011.

<sup>4.</sup> Saunders 2011. Exceptions exist in research on leader selection and leaders and economic growth. See Besley and Reynal-Querol 2011; Besley, Montalvo, and Reynal-Querol 2011; and Jones and Olken 2005. Also, see Colgan 2010, on revolutionary leaders.

<sup>5.</sup> See Feaver and Gelpi 2004; Weeks 2012; Huntington 1957; Janowitz 1960; and Sechser 2004.

to end in failure than success. Those on the losing side also often suffer severe personal consequences. Individuals who self-select into leadership positions in rebel groups should thus be especially risk acceptant and receive reinforcement from those experiences, giving them efficacy beliefs that often carry over when they enter office later in life.<sup>6</sup>

Our results show that leaders with prior military service, but not combat experience, are significantly more likely to initiate militarized disputes and wars than other leaders. Prior rebel participants are even more likely to initiate militarized disputes than leaders lacking any rebel or military experience. Domestic political institutions clearly matter, however. In severely autocratic countries 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 selection process that, in autocratic regimes such as Saddam Hussein's 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 attributable 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. 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.

# Bringing Leader Experiences Back in

#### Reviewing the Study of Leaders

Examining how leaders' formative experiences shape their behavior in office is fundamentally different from most of the existing international relations literature on leaders. Most of the current literature, while 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,<sup>7</sup> the institutionally induced relationship between leadership tenure and conflict,<sup>8</sup> the responsibility and punishment of leaders,<sup>9</sup> and the decisions of leaders in the military arena.<sup>10</sup> This research convincingly shows that domestic political institutions profoundly shape the incentives leaders face for various types of policy choices.

10. Weeks 2012.

<sup>6.</sup> Differences may exist for foot soldiers pressured into service because of rebel control or coercion. Kalyvas and Kocher 2007.

<sup>7.</sup> See Bueno de Mesquita et al. 2003; and Chiozza and Goemans 2003 and 2004.

<sup>8.</sup> See Goemans 2008; and Debs and Goemans 2010.

<sup>9.</sup> See Goemans 2000; and Croco 2011.

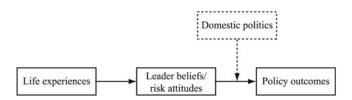


FIGURE 1. Theoretical relationship between leater experiences and policy outcomes

In these models, the leaders themselves, however, are "dispensable" black boxes, to paraphrase Greenstein.<sup>11</sup> 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 may behave differently.

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 constraints of a communist party central committee, though they are properly considered personalist leaders.<sup>12</sup> 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.<sup>13</sup> 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.

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.

# Why Do Leader Experiences Matter?

People and their personalities result from more than a simple aggregation of their experiences; but our individual experiences matter a great deal in shaping our attitudes during subsequent periods. 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.<sup>14</sup> Research by Jervis and Goldgeier, among others, demonstrates that lessons drawing on prior experience function as heuristics that drive how people estimate the potential costs and

<sup>11.</sup> Greenstein 1969, 51–55.

<sup>12.</sup> Weeks 2012.

<sup>13.</sup> Cheibub, Gandhi, and Vreeland 2010.

<sup>14.</sup> See Roberts, Caspi, and Moffitt 2003; and Caspi, Roberts, and Shiner 2005.

benefits of their choices and the types of strategies they view as likely to succeed.<sup>15</sup> As Matthews observes, "Human beings perceive what goes on about them within a *frame of reference* determined by their total previous experience."<sup>16</sup> This is true for political leaders as well as the general population. George argues that the prior experiences of leaders inform their "sense of personal efficacy,"<sup>17</sup> the view they have of their capabilities. The higher the level of knowledge leaders believe they have about a given situation, something drawn in part from prior experience, the lower the level of uncertainty about the appropriate policy response.<sup>18</sup> Burden and others show that the personal backgrounds of elected officials affect their policy choices.<sup>19</sup> Kennedy similarly finds that efficacy beliefs drawn from experience shape the future foreign policy behavior of leaders.<sup>20</sup>

It is important to be clear and recognize that our argument captures only some of the variation in the way that individual leaders behave. For example, the beliefs and psychologies of leaders may play a critical role in filtering how experiences are translated into policies. We also do not capture the role of nature, as opposed to nurture.

# 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 engages in prior to entering office—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.<sup>21</sup> It is also not simply the case that those with riskier personalities select into the military. Those who enter militaries do so for many reasons (see the online appendix). Experimental research, as well as twin studies, suggests that those experiences have an independent influence on an individual's personality and risk propensity.<sup>22</sup> 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.<sup>23</sup>

<sup>15.</sup> See Jervis 1976; and Goldgeier 1994.

<sup>16.</sup> Matthews 1954, 3.

<sup>17.</sup> George 1980, 5.

<sup>18.</sup> Ibid., 27.

<sup>19.</sup> See Burden 2007; and Washington 2007.

<sup>20.</sup> Kennedy 2011. Our argument captures only some of the variation in the way that individual leaders behave. For example, the beliefs and psychologies of leaders may play a critical role in filtering how experiences are translated into policies.

<sup>21.</sup> See Caspi, Roberts, and Shiner 2005; and Cutchin et al. 2008.

<sup>22.</sup> Roberts, Caspi, and Moffitt 2003.

<sup>23.</sup> Feaver and Gelpi 2004.

Some argue that those with military service may be more prone to militaristic behavior. Military service, after all, generates expertise in the use of violence. It 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, leading to a perceptual bias in favor of using military force.<sup>24</sup> Sechser argues that ties to the military also create parochial interests in favor of using force and decision-making biases favoring rapid escalation.<sup>25</sup> Concern with the militaristic attitudes of those in the armed forces in the United States, for example, goes back to the founding of the nation. In the early nineteenth century, Alexis de Tocqueville wrote, "a great army in the heart of a democratic people will always be a great peril."<sup>26</sup>

Exposure to combat represents a foundational experience that can influence future beliefs about violence. Some micro-level data suggest that exposure to combat makes people more risk acceptant. Survey research by Brunk and colleagues focusing on retired military officers in the United States found that those who had participated in combat were significantly less sensitive to risk.<sup>27</sup> In Burundi, Voors and colleagues 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.<sup>28</sup>

While much of this literature has been focused on the United States, Weeks and Brecher find that military regimes are more likely to initiate conflicts than other types of regimes.<sup>29</sup> Weeks specifically argues that the normalization of violence for leaders in military regimes, given that they often come to power through violence, makes them more likely to use force in office.

An alternative perspective originated with Huntington, who found that, within professional organizations, 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,<sup>30</sup> they are risk averse in the actual use of force. They view other states based on their capabilities, rather than their intentions.<sup>31</sup> Huntington wrote that "The military man normally opposes reckless, aggressive, belligerent action…war should not be resorted to except as a final recourse…the military man rarely favors

<sup>24.</sup> See Posen 1984; and Snyder 1984. Some argue this leads to biases in favor of offensive doctrines, but that does not necessarily imply biases toward using force, just using force in a particular way if a crisis occurs. See Snyder 1984; and Feaver and Gelpi 2004, 26.

<sup>25.</sup> Sechser 2004, 750–51.

<sup>26.</sup> de Tocqueville 2000, 622.

<sup>27.</sup> Brunk, Secrest, and Tamashiro 1990, 101.

<sup>28.</sup> Voors et al. 2010, 1-2.

<sup>29.</sup> See Weeks 2012; and Brecher 1996.

<sup>30.</sup> TISS data show that those with military experience tend to view China as a greater threat than those without military experience. Feaver and Gelpi 2004.

<sup>31.</sup> Huntington 1957, 69–70.

war."<sup>32</sup> Essentially, military experience leads to a desire for greater armaments and preparedness, not a greater desire to use force.

Similarly, 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.<sup>33</sup> Statements by then-General Dwight Eisenhower after World War II reflected a military operational code that viewed war not as inevitable, but as a last resort.<sup>34</sup> Conservatism results for several reasons: military personnel are the ones who will actually risk death in conflicts; in some organizations, setbacks can be career ending or worse for senior military officers; and military leaders often perceive civilians as naive, 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.<sup>35</sup> This military conservatism argument extends beyond the United States. Before World War I, German generals "generally viewed" war "as the last resort of policy."<sup>36</sup> Even in the early Nazi period, German generals favored a slow buildup of German military forces to deter foreign influences and discouraged Adolf Hitler's rapid adventurism at times.<sup>37</sup>

Most existing work, however, tends to assume that all military service is essentially equivalent.<sup>38</sup> In contrast, we theorize that different experiences within the military might affect individuals' attitudes in different ways. We focus in this study on three elements of prior service: exposure to combat, the type of political regime in which someone serves, and rebel group participation.

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 about military experience as a whole, but about the exposure to the risk of death in the military. Direct exposure to combat is a logical trigger for the type of conservatism that would accentuate planning and arms buildups but not the use of force.

<sup>32.</sup> Ibid., 69. This is sometimes presented along with a "chicken-hawk" claim about civilians. The question of why some leaders without military experience become chicken hawks while others do not is an interesting avenue for future research. We briefly empirically address this issue in the results section. 33. Janowitz 1960, 4, 230–31.

<sup>24</sup> IL: 1 274

<sup>34.</sup> Ibid., 274.

<sup>35.</sup> See Janowitz 1960, 259; and 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. Betts 1977, 4–5, 216.

<sup>36.</sup> Huntington 1957, 101, 105.

<sup>37.</sup> Hitler eventually replaced those generals. Ibid., 117-21.

<sup>38.</sup> Feaver and Gelpi's work is an exception. See the online appendix. Feaver and Gelpi 2004.

For example, while also making people less sensitive to risk, the study from Voors and colleagues 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 and colleagues 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.<sup>39</sup> 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.<sup>40</sup> 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, the famous French leader, recognized that, for soldiers "war is, first and last, the purpose of their lives." Yet he also stated 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."<sup>41</sup> 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.<sup>42</sup>

Some micro-level survey evidence also demonstrates a 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 service, including a question that allows us to differentiate those who deployed to Vietnam from those who just had some form of military service.<sup>43</sup> 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 more skeptical of an active American foreign policy than those who had served in the military but had not deployed to Vietnam.<sup>44</sup> We therefore theorize the following:

*H1: Leaders with military experience but no combat experience should be more likely to initiate militarized disputes.* 

- 39. Brunk, Secrest, and Tamashiro 1990.
- 40. Lerner and Keltner 2001.
- 41. de Gaulle 1960, 102.
- 42. Janowitz 1960, 230.

43. While not all who deployed to Vietnam would have had direct exposure to combat, all would have been in a combat zone as defined by the Defense Department. Even this imperfect measure allows us to differentiate in some way within the "veteran" population.

44. Jennings, Markus, and Niemi 1991. Also, see Gelpi, Feaver, and Reifler 2009. Average survey respondents might also differ from leaders in some systematic way. Thus, we need to look at the actual behavior of leaders to determine the relationship.

# 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. Professionalized military forces should view war as an inherently political process, with military aims and interests subservient to political ones. Thus, professional militaries should be those where the conservative values of the military, 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 political leaders who lack those values as well. Consistent with Weeks's findings about military regimes,<sup>45</sup> nonprofessional militaries, by not embedding deference to political authority, are more likely 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 take power will be more inherently aggressive because that aggressive behavior is what got them into power in the first place. Thus, the micro-level data suggesting a positive relationship between combat exposure and future militarized behavior should be especially plausible in nonprofessionalized militaries and extreme autocracies. This is particularly true given that the path to power is more likely to be through coups or other irregular means, which are dangerous endeavors.<sup>46</sup>

In nonmilitary regimes, the military personnel that become civilian political leaders tend to be strong, but less militaristic.<sup>47</sup> For example, following World War II, it was Eisenhower, not his more aggressive counterparts, Generals Curtis LeMay and Douglas MacArthur, who subsequently rose to the American presidency. The domestic political institutions in nonmilitary regimes are more likely to avoid selecting for military personnel who react to those experiences by becoming more aggressive. Instead, when selecting those with prior combat experience, they are likely to select strong leaders that appear more stable. Those who react to experiencing combat by becoming exceptionally aggressive and risk acceptant, rather than coming to power in autocracies and military regimes through risky gambits, are more likely to be selected out in other types of regimes.

H2: Leaders with combat experience in autocracies and military regimes should be more likely to initiate militarized disputes.

45. Weeks 2012.

47. Janowitz 1960, 4.

<sup>46.</sup> Goemans, Gleditsch, and Chiozza 2009.

#### 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 a rebel movement signals that an individual is likely to be more risk acceptant than average. Even though some might enter rebel groups because of coercion or other factors that make it a less risky choice,<sup>48</sup> former rebels who become national leaders tend to have had at least some position of leadership in rebel organizations, meaning they are more likely to join via active selection.<sup>49</sup> 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.<sup>50</sup>

For example, consider Mao Zedong's transition from a rebel to the national leader of China. In its early years, Mao's China experienced high levels of violence, both internal and external. Research by 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. More generally, drawing on George and Kennedy, the fact that a rebel in power, by definition, survived the rebellion, should give them higher levels of martial efficacy. 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.<sup>51</sup>

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. 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. Rebel 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 work by Colgan, who finds that revolutionary regimes are more likely to engage in militarized behavior.<sup>52</sup> Those with prior rebel experience might also be more risk acceptant, however, even if they do not immediately rise to power following a successful

<sup>48.</sup> Kalyvas and Kocher 2007.

<sup>49.</sup> Colgan 2010. No analogue to the military conservatism hypothesis exists for former rebel leaders. 50. Corr 2004.

<sup>51.</sup> See Kennedy 2011; George 1980; and Xue et al. 2010. On reinforcement, see Pickering et al. 1997.

<sup>52.</sup> See Colgan 2010 and 2013.

rebellion. Essentially, selection into a rebel group, followed by experiences that lead someone into the position of head of state, is likely to reinforce the utility of using military force in a way that makes these leaders more prone to militarized behavior than the average leader.

H3: Leaders with rebel military experience should be more likely to initiate militarized disputes than those without rebel military experience.

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 long and the international security environment often changes rapidly. We address this issue explicitly with statistical models that deal with selection into the military and 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 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 security environment is part, though not all, of the reason that military experience is generally regarded as a plus for US presidential candidates. Thus, any findings here might reflect the fact that countries select leaders with military experience when they believe they will experience militarized disputes.

In fact, this selection based on perceived competence does not actually contradict our theory because in most regimes it would make it more likely that countries facing conflict will select candidates we predict are not more conflict prone, those with prior combat service, 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 H2 is that heavily autocratic regimes should have leaderselection 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 based on perceived competence, rather than perceived conflict propensity, the question under consideration in this study.

Moreover, if the selection argument is true, it actually reinforces our argument. 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 are important. The leaders would therefore be selected because of their background, proving that background matters as a variable for examination.

More generally, the selection effects and endogeneity arguments presume that the selectorate can replace a leader at will and is choosing based on what we are studying,

leaders' and their states' conflict propensity. While possible in the abstract, during the 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<sup>53</sup> also demonstrates that there is essentially no relationship between length of time a leader spends in office and the probability of military dispute initiation or escalation, a finding our results replicate.

Additionally, and most important, leaders are not often placed into office because their country is about to face conflict. Economic and other domestic political issues tend to dominate debate and selection in electoral cycles, not foreign policy, as George H.W. Bush found to his chagrin following the US defeat of Iraq in 1991.<sup>54</sup>

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 reasonably random.<sup>55</sup> The ability to select a particular specialty or unit to escape combat is a particular and recent development in a small set of Western militaries. Other factors might include whether someone's side wins when they participate in a conflict, whether riskier individuals select into the military, the position in which someone served (officer versus enlisted), and their branch of service (that is Army versus Navy). We lack the space to address these questions in detail in this article, but we discuss each of them in the online appendix and return to this issue in the section on endogeneity and leader selection.

# **Research Design**

We used the Archigos data set developed by Goemans, Gleditsch, and Chiozza to obtain the universe of heads of state from 1875 to 2004, along with when they entered and exited office.<sup>56</sup> We then built a new data set, the Leader Experience and Attribute Descriptions (LEAD) data set, 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 1 if the leader had prior military service but no combat experience, and 0 otherwise. COMBAT is 1

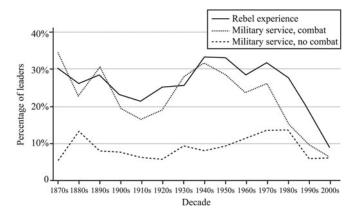
<sup>53.</sup> Horowitz, McDermott, and Stam 2005.

<sup>54.</sup> Michael Kelly, "The 1992 Campaign: The Democrates—Clinton and Bush Compete to Be Champion of Change; Democrat Fights Perceptions of Bush Gains," *New York Times*, 31 October 1992. Available at <<u>http://www.nytimes.com/1992/10/31/us/1992-campaign-democrats-clinton-bush-compete-be-champion-change-democrat-fights.html</u>>, accessed 10 August 2013.

<sup>55.</sup> Jha and Wilkinson 2012. It is a relevant limitation, however, that some people might serve at times where exposure to combat is not possible.

<sup>56.</sup> Goemans, Gleditsch, and Chiozza 2009.

if the leader had combat experience, and 0 otherwise.<sup>57</sup> Prior research on the military backgrounds of leaders coded only whether or not military service was the primary prior occupation of a future leader.<sup>58</sup> REBEL is 1 if the leader had prior rebel experience, and 0 otherwise. We also control for how leaders did in those conflicts, in case the experience of winning or losing drives the results. PRIOR WAR WIN/LOSS and PRIOR REBEL WIN/LOSS are all coded 1 if the relevant condition is met, and 0 otherwise.<sup>59</sup>



**FIGURE 2.** Military service and rebel breakdown by decade: One observation per leader

Broken down by decade and combat participation, Figure 2 displays the variation over time in the national military service backgrounds of heads of state from 1875 to 2004.<sup>60</sup> 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 past few decades. The supplementary table available in the online appendix illustrates that these results are representative in most regions.

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

58. See Cheibub, Gandhi, and Vreeland 2010; and Besley and Reynal-Querol 2011. 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 earlier.

59. See the online appendix for more on the question of prior success and failure and the potential implications.

60. Data sources included Lentz 1994 and 1999, encyclopedia of heads of states and governments, individual leader biographies, and other sources. We also cross-checked our data, when available, with other sources, including Cheibub, Gandhi, and Vreeland 2010; Besley and Reynol-Querol 2011; and Ludwig 2002. We conducted additional research to resolve all discrepancies.

<sup>57.</sup> The results are consistent when we include only one of the two military experience variables. 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, consistent with the US military definition. Also, see the online appendix for more on the specific coding of each of these variables.

prior rebel experience, with the exception of the incomplete prior decade, tends to vary between 20 and 30 percent. The increase in the percentage of leaders with rebel experience in the 1940s and 1950s is because of two groups—European leaders who served in resistance movements in World War II and leaders of newly decolonized countries.

We conduct monadic tests 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 data set slightly oversamples those leader years with militarized disputes.<sup>61</sup> Second, for leader years that did not experience militarized disputes, 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) data set. The decision to use the MID data restricts our analysis end date to 2001, the last year where MID data are currently available. The initiation of a dispute occurs when a state engages in a militarized challenge. Initiation is a dichotomous variable coded 1 if a state initiated a conflict in a given leader year, and 0 otherwise.

Given many of the known shortcomings of the MID data set,<sup>62</sup> 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, set up identically to the MID setup we described. We extended the Correlates of War (COW) 4.0 interstate war data set by including changes described in previous research.<sup>63</sup> We then identified which leader was in power at the outset of the war and created a wAR INITIATION variable coded 1 if a leader initiated a war in a given leader year, and 0 otherwise.<sup>64</sup>

Given the theoretically nonmonotonic effect of the independent variables, our analysis begins with separate logit models measuring dispute initiation and war.<sup>65</sup> While our results are consistent without control variables,<sup>66</sup> 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 that are not posttreatment to our military service variables of interest.<sup>67</sup> We include the material power of the state by incorporating the COW

<sup>61.</sup> We utilize this design because of the relative rarity of MIDs; including only the highest-hostility MID for a leader year does not change the results.

<sup>62.</sup> Downes and Sechser 2012.

<sup>63.</sup> Sarkees and Wayman 2010. We follow Reiter and Stam in splitting the World Wars by front to ensure consistency with prior research. Reiter and Stam 2002.

<sup>64.</sup> For leaders who initiated more than one war in a given year, we added observations as we did with the MIDs setup. This does not affect the results.

<sup>65.</sup> The results are robust to creating a rare events model to account for the infrequency of war, as well as a multinomial logit model. Bennett and Stam 2005.

<sup>66.</sup> See Achen 2005; and Ray 2003.

<sup>67.</sup> Singer 1988. Data generated using EUGene. Bennett and Stam 2000.

Material Capabilities score for each state (MATERIAL CAPABILITIES), the overall satisfaction of a state with the system leader (TAU B), and the AGE of the leader.<sup>68</sup> The results are also consistent when we add additional variables including major power status, number of borders, a control for the Cold War, and the system concentration of power, among others.<sup>69</sup>

As described earlier, 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 with an AUTOCRACY variable that is 1 if a state scored at or below -7 on the Polity scale, and 0 otherwise.<sup>70</sup> To test H2 concerning military regimes, we used the data from Cheibub and colleagues on authoritarian regime type and added a MILITARY DICTATOR variable coded 1 if a country is a military regime and 0 otherwise.<sup>71</sup> This allows us the most specific test of part of H2 but using it imposes limits. Using this variable restricts us to the 1945-99 period, so we also use the AUTOCRACY variable in some interactive models to test H2 on a broader scale. Not all severely autocratic regimes are likely to have military-dominated civil-military relations, but as regimes become more autocratic, it is generally more difficult for civilian leaders to control the military. Thus, even if they are not military regimes per se, autocracies are less likely to have the type of civil-military relations that Huntington envisioned.

As we described in the theory section, we 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 the next section on statistical models, we explicitly test our theory on leaders "randomly" selected into office,<sup>72</sup> among other robustness tests. All of the regressions also include two variables designed to control for the way leader selection based on 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.<sup>73</sup> If this variable is negative and significant, it would suggest countries

68. We include age given previous work suggesting its importance. Horowitz, McDermott, and Stam 2005.

71. These results are also robust to Geddes's alternative authoritarian regime type specifications. See Cheibub, Gandhi, and Vreeland 2010; and Geddes 1999.

72. Jones and Olken 2005.

73. 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.

<sup>69.</sup> See the online appendix.

<sup>70.</sup> Marshall and Jaggers 2002. We also tried 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. We recognize that this is an imperfect test of H2, since there could be an extremely autocratic regime with civilian control of the military. However, this does allow us to extend our test before 1945.

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 an 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.<sup>74</sup> This controls for the possibility that a country in a more dangerous neighborhood may be more likely to select a leader with *ex ante* characteristics that would bias our results.

Finally, while we do not include them here because of space limitations, many of the models we present in the online appendix also include additional leader experience variables (education level and prior occupation, including a MILITARY CAREER control) 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 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.

### Statistical Results

Simple cross-tabulations available in the online appendix show significant differences in the probability of a militarized dispute across our relevant conditions. Leaders with prior service are significantly more likely to initiate militarized disputes than either those with no prior service or those with combat experience. Leaders with prior rebel experience are also significantly more likely to initiate militarized disputes. 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.<sup>75</sup> All of the statistical models presented use Huber-White robust standard errors. We also control for leaders who spend a long time in office, such as Kim II 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 peace year splines measuring the time since the country was last in a MID (or a war, depending on the model).<sup>76</sup> For presentation reasons, we suppress the lower-order interaction terms in Models 3 to 5, as well as the time dependence controls.<sup>77</sup> They are available in the online appendix for interested readers.

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

<sup>74.</sup> 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. Setting the lag length to one, two, or five years does not affect the results.

<sup>75.</sup> 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, as predicted.

<sup>76.</sup> Beck, Katz, and Tucker 1998.

<sup>77.</sup> Interactions and calculations of substantive effects done as per Brambor, Clark, and Golder 2006; Norton, Wang, and Ai 2004; and Braumoeller 2004.

	Model 1 (MID model)	Model 2 (war model)	Model 3 (MID interaction with POLITY)	Model 4 (MID interaction with AUTOCRACY)	Model 5 (MID interaction with MILITARY REGIME)
MILITARY SERVICE, NO COMBAT	0.393**	0.656**	0.845***	0.158	0.485**
MILITARY SERVICE, COMBAT	(0.153) 0.089	(0.272) -0.501	(0.279) 0.377	(0.187) 0.080	(0.212) -0.249
REBEL SERVICE	(0.162) 0.474*** (0.165)	(0.378) 0.454 (0.291)	(0.272) 0.674** (0.330)	(0.218) 0.671*** (0.258)	(0.385) 0.672*** (0.252)
PRIOR WAR WIN	0.085 (0.177)	0.711 (0.484)	0.091 (0.185)	0.042 (0.184)	0.244 (0.262)
PRIOR WAR LOSS	0.145 (0.166)	0.965* (0.483)	0.143 (0.163)	0.115 (0.161)	-0.041 (0.214)
PRIOR REBEL WIN	-0.306* (0.173)	0.581*	-0.322* (0.193)	-0.250 (0.167)	-0.327 (0.223)
PRIOR REBEL LOSS	0.230 (0.249)	-0.272 (0.474)	0.240 (0.250)	0.284 (0.251)	0.184 (0.321)
MILITARY SERVICE, NO COMBAT * POLITY			-0.043*		
MILITARY SERVICE, COMBAT * POLITY			-0.016		
REBEL SERVICE * POLITY			(0.017) -0.001 (0.018)		
MILITARY SERVICE, NO COMBAT *			(0.018)	0.881***	
AUTOCRACY				(0.266)	
MILITARY SERVICE, COMBAT * AUTOCRACY				0.644***	
REBEL SERVICE *				(0.244) -0.154	
AUTOCRACY MILITARY SERVICE, NO COMBAT * MILITARY				(0.225)	-0.790*
REGIME					(0.450)
MILITARY SERVICE, COMBAT * MILITARY REGIME					(0.459) 0.709*
REBEL SERVICE * MILITARY REGIME					(0.420) -0.542
LEADER AGE	0.010*	-0.002	0.011*	0.009*	(0.334) 0.017**
AUTOCRACY	(0.006) 0.132	(0.009) -0.001	(0.006)	(0.006) -0.177	(0.001)
POLITY	(0.115)	(0.009)	-0.004	(0.174)	
MILITARY DICTATORSHIP			(0.010)		0.387

**TABLE 1.** The monadic impact of military service on the initiation of militarized dis-putes and wars, 1875–2001

Continued

#### TABLE 1. Continued

	Model 1 (MID model)	Model 2 (war model)	Model 3 (MID interaction with POLITY)	Model 4 (MID interaction with AUTOCRACY)	Model 5 (MID interaction with MILITARY REGIME)
					(0.317)
MATERIAL CAPABILITIES	11.66***	13.57***	11.68***	11.54***	13.65***
	(1.525)	(2.405)	(1.515)	(1.495)	(3.097)
TAU B WITH SYSTEM LEADER	0.108	-0.458*	0.159	0.117	-0.185
	(0.138)	(0.354)	(0.133)	(0.136)	(0.157)
TIME IN OFFICE	0.009	0.019	0.004	0.015	-0.011
	(0.016)	(0.040)	(0.017)	(0.016)	(0.021)
FIVE-YEAR MID CHALLENGE LAG (FIVE-YEAR WAR LAG FOR M2)	0.892***	0.211***	0.908***	0.893***	0.954***
	(0.083)	(0.360)	(0.084)	(0.083)	(0.107)
Constant	-2.719 * * *	-4.473***	-2.694 ***	-2.645***	-3.025***
	(0.330)	(0.512)	(0.330)	(0.321)	(0.453)
Ν	11300	10446	10851	11300	7374
Pseudo R <sup>2</sup>	0.191	0.117	0.192	0.195	0.214
Log pseudo- likelihood	-4433.6	-535.03	-4318.2	-4414.7	-2838.5
SE adjusted for	2,230 clusters	2,175 clusters	2,145 clusters	2,230 clusters	1,283 clusters

*Notes:* Suppressed but available in the online appendix: Peace year variables (years without war used for Model 2) and implied interactions between military and rebel service variables (Models 3 to 5). Standard errors are in parentheses. \* p < .05; \*\*\* p < .05; \*\*\* p < .01.

leader variables and Model 1 with the leader variables shows that the improved specification from adding the leader background variables is also statistically significant and improved the fit of the model. This demonstrates the value added from endogenizing the military experiences of leaders into models of international conflict.

As H1 predicts, the MILITARY SERVICE, NO COMBAT variable is consistently positive and statistically significant for MID initiation in Model 1, while combat is not significant. The significance of the MILITARY SERVICE, NO COMBAT variable despite adding controls demonstrates the initial robustness of H1. These findings are also robust for war initiation, as Model 2 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 Leopoldo Galtieri of Argentina. These results, which include controls for regime type and national material capabilities, show the independent effect of prior military service—though not combat experience—on leader behavior in office. What this may suggest is that the conflict-prone tendencies induced by military service are limited when the average individual experiences combat. The war result in particular provides initial evidence that these findings are not simply the result of fishing disputes or other minor issues creating "noise" in the MID data, but genuinely important international events as well.

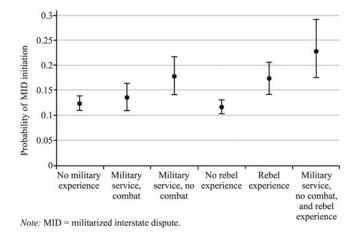


FIGURE 3. Probability of MIO initiation across different military experience conditions

This finding is also substantively important. Figure 3 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 43 percent.<sup>78</sup> The difference between the no military service category and the military service, no combat category is statistically significant. Examining the data, while fewer leaders have military service but no combat experience than the other categories, many of the most notorious late-nineteenth- and twentieth-century leaders appear in this category, including Francisco Lopez of Paraguay, Mobutu Seko of the Democratic Republic of the Congo, Saddam Hussein of Iraq, Muammar Qaddafi of Libya, and Hafez al-Assad of Syria. Additionally, since the MIDs data end in 2001, the predicted probabilities in this study likely understate the significance of our findings since it incorporates only one year of the George W. Bush presidency in the United States, another leader who fits this model.

Evaluating Figure 3, the confidence intervals for MILITARY SERVICE, NO COMBAT and MILITARY SERVICE, COMBAT somewhat overlap. This makes sense given our theory that it is only military service with no combat that is significantly different from no military service. H2 explains why we would expect to see at least some overlap between military service, no combat and military service, combat. In severely autocratic regimes and military regimes, we expect selection and socialization to support the

rise of leaders who react to prior combat experience by becoming more aggressive and risk acceptant.

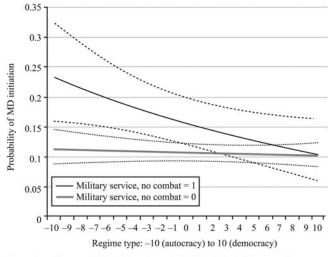
Supporting H3, prior participation in a rebel group is nearly always positive and significant across model specifications, suggesting that those leaders who come to power with prior rebel experience—an inherently dangerous behavioral background —are likely to be more dispute prone when they enter office as well. This finding is likely partly attributable to the greater inherent propensity for risk on the part of former rebels, but also attributable to higher levels of martial efficacy because of their past successes as rebels. This finding appears more relevant for initiating militarized disputes than wars, however. The REBEL variable fails to achieve conventional statistical significance in Model 2, though it does become significant if one excludes the prior success/failure variables. Like prior military experience, the findings for former rebels are not just statistically significant, but substantively important.

Figure 3 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 48 percent. In addition to those previously mentioned, two more 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. As described in detail shortly, these findings are not simply attributable to a selection process whereby countries that experience domestic turmoil are more likely to get involved in militarized disputes. They are also not simply attributable to regime type. Charles de Gaulle of France and David Ben Gurion of Israel are two former rebels who engaged in militarized behavior but led democracies.

In Models 1 and 2, the control variables behave in predicted ways. Countries with more material power are more likely to initiate militarized disputes, and countries that have been involved in MIDs in the recent past are likely to continue being involved in MIDs in the future. Regime type is unrelated to MID initiation, while older leaders appear more likely to initiate militarized disputes, consistent with Horowitz and colleagues.<sup>79</sup>

To better understand the effects of prior military and rebel experience in the context of domestic political institutions, we turn to interactive models. As described earlier, we estimate three interactive models to show different ways that leader attributes interact with regime type. Model 3 interacts the leader variables of interest with the polity score of the country, Model 4 focuses specifically on autocracies, and Model 5 evaluates military regimes. In all three models, a block coefficient test verifies that the linear and interaction terms (as a group) are statistically distinguishable from 0.

This also allows us to test H2 concerning the interaction between civilian control of the military, prior military experience, and militarized behavior. Consistent with our broader argument, each of the interactive models demonstrates the importance of accounting for domestic institutions. The results highlight the way that some of the effects of leaders are conditional on regime type, while others appear more independent.



Notes: Dotted lines are 95% confidence intervals. MID = militarized interstate dispute.

#### FIGURE 4. Effect of mlitary service without combat experience across regime type

The effect of MILITARY SERVICE, NO COMBAT appears somewhat conditional on regime type, though it is significant across a large set of regime types. In Model 3, we interact our military service and rebel variables with the polity score of the state. The interaction between MILITARY SERVICE, NO COMBAT and POLITY is significant in Model 3 and the lower-order MILITARY SERVICE, NO COMBAT term is statistically significant. Figure 4 shows how the relative effect of having military service but not combat experience varies across regime types in Model 3. It is significantly different from leaders with no military service from -10 to 0 on the polity scale, encompassing both extremely autocratic regimes and many mixed regimes. However, the effect becomes indistinguishable from leaders with no military service as regimes become more democratic. This supports our overall contention about the background experiences of leaders. It makes sense that the effect of the individual experiences of leaders may have more freedom of action compared to democratic regimes.

In Model 4, the interaction between MILITARY SERVICE, NO COMBAT and severe autocracies is significant, providing additional support for H2. The types of leaders selected in those more autocratic regimes are those that react to their military experiences by becoming more aggressive. Interestingly, the lower order MILITARY SERVICE, NO COMBAT term is not significant. Why might this be the case? Figure 4 above demonstrates that MILITARY SERVICE, NO COMBAT is significant across more than just very autocratic regimes. The insignificance of the lower-order term in this case (verified through looking at the first differences) suggests that the insignificance of the interaction between MILITARY SERVICE, NO COMBAT in more democratic regimes swamps the significance of the variable across those slightly less autocratic, but still not democratic, regimes. It does provide a limitation of the extent of the findings concerning leaders with military experience but not combat experience.

In Model 5, which focuses specifically the interaction with military regimes, the effect of MILITARY SERVICE, NO COMBAT is again significant, though the interaction with regime type is mildly significant in the opposite direction (p = 0.085). One reason is likely the nature of military regimes themselves. Given that military regimes come into power almost exclusively through irregular means such as coups or revolutions, they are naturally inclined to select more risk-acceptant and aggressive leaders regardless of their background conditions. It is hard to draw inferences about why because this category of leaders is exceedingly small-only sixty leader years and fifteen leaders out of the leader universe from 1946-99 (the time constraints of the military regimes variable could also influence this finding). 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. Moreover, evaluating the marginal effects for no military service versus MILITARY SERVICE, NO COMBAT, the confidence intervals significantly overlap, suggesting that this result is not robust. In particular, the negative sign may be driven by the relative comparison with a result explained below-that leaders with MILITARY SERVICE, COMBAT in military regimes are significantly more conflict prone.

The effect of combat experience in the interactive models highlights the differential relevance of MILITARY SERVICE, COMBAT across regime type. Models 4 and 5 provide evidence in favor of H2; leaders with any combat experience in nonprofessional militaries are more dispute prone. In both models, there is a strong and positive interactive relationship between combat experience, military or more autocratic regimes, and the probability that a leader initiates a militarized dispute in a given year.<sup>80</sup> In an extremely autocratic regime, the probability of a militarized dispute increases 62 percent if the leader has prior combat experience, compared to no military service. The difference is also statistically significant. Switching from a leader without military experience to a leader with combat experience in a military regime increases the probability of a militarized dispute by 41 percent. MILITARY SERVICE, COMBAT alone is still insignificant in both models, as our theory predicts. This also explains why the joint term and the lower-order combat term is insignificant in Model 3, when just interacted with POLITY, since that covers the full range of regimes.

The set of extremely autocratic leaders with prior combat experience includes infamous leaders such as Germany's Hitler. The leaders with prior combat experience who rule explicitly military regimes include South Korean leaders such as Hee Park

<sup>80.</sup> Given the small number of wars, we did not generate interactive results for war initiation. Varying probabilities across conditions without interactions, however, shows substantively similar results. Berry, DeMerrit, and Esarey 2010.

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 available beginning in only 1945.

Overall, the findings support our general argument about leader experiences in two ways. First, it suggests 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 leaderselection process for these regimes. In liberal and nonmilitary regimes, the path to power is less likely to be through violence by the armed forces. 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 nonmilitary authoritarian institutions may screen out potential leaders who are extremely militaristic because of their combat experience.

The effect of prior rebel experience on militarized behavior appears independent of regime type across all three interactive models. Indeed, prior rebel experience arguably has a larger effect on militarized behavior across most of the models than any of the military service variables. The interaction between REBEL EXPERIENCE and the relevant regime type variable rarely achieves statistical significance, but rebel experience itself is still significant. We then estimate the substantive effects given the issues involved in interpreting lower-order interaction terms.<sup>81</sup> Outside the context of autocracies, rebels are 75 percent more likely than nonrebels to initiate militarized disputes, while in nonmilitary regimes, rebels are 69 percent more likely to initiate militarized the independent effect of prior rebel experience appears robust.

Unlike prior military service, which may be directly related to governance in the case of a military regime, the traits that make former rebels more prone to initiate militarized disputes are conceptually distinct from regime type. The risk propensity and sense of martial efficacy learned from their experience as rebels means former rebels in both autocracies and democracies are more likely to engage in militarized behavior.

What does this mean for considering the overall relative importance of prior military or rebel experience? Our claim is not that prior military experience is all that matters, after all. Far from it. However, simply comparing first differences for leader 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 noncombat military experience or rebel experience as countries moved from the 10 percent percentile of relative power to the 90 percent percentile. The results demonstrate that the prior importance of noncombat military experience 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.<sup>82</sup>

# Endogeneity, strategic leader selection, and robustness

We now return to the questions of selection and endogeneity that we refered to 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<sup>83</sup> about the international security environment and the military challenges the country is likely to face. As we described, 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 H2, concerning the interaction between military experience and regime type. Third, if true, selection on this basis would lead to the opposite of the prediction of H1, 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 already control for this possibility. We account for the length of time leaders are in office, since if this 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.<sup>84</sup>

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.

<sup>82.</sup> Contact the authors for details.

<sup>83.</sup> Bueno de Mesquita et al. 2003.

<sup>84.</sup> We would also expect potential targets to take into account the prior military and rebel experiences of leaders when deciding how to respond to militarized disputes. Initial research suggests this is the case— dispute initiations by those with prior combat experience are less likely to be reciprocated, while those by former rebels are more likely to be reciprocated.

To better control for the possibility that leaders are selected during times of turmoil because of their military experiences, or that the same factors that lead to their selection also lead to militarized disputes, we estimate several models designed to show the robustness of our findings and test for these biases.

In Model 6 in Table 2, we isolate those leaders who left office randomly, operationalizing it by looking at the more than 100 leaders who died in office of natural causes according to Archigos.<sup>85</sup> The leaders who replace them through a "regular" entry process, for example, a vice president of the United States who replaces a president who 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 of our key variables of interest. The results provide strong support for H1. 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.<sup>86</sup>

What about the possibility that other national-level characteristics predict whether leaders are likely to have the sorts of military experiences we predict? In addition to the discussion here, we estimate three additional models to control for this possibility (Models 7 to 9 in Table 2) that focus only on the set of countries that have not experienced a militarized dispute in the past five years. These are countries not prone to becoming involved in disputes. Leaders in these regimes, such as Sweden, are less likely to have prior military experience and their countries are less likely to select leaders based on those attributes. Model 7 uses the same setup as Model 3 from Table 1; Model 8 draws on Model 4 from Table 1; and Model 9 uses Model 5 from Table 1, to show the robustness of our most important interactive results. Similar results from Model 1 from Table 1, to show the consistency of our results in an noninteractive setup, are available in the online appendix. Each model shows that testing our model only on these "nonrisky" countries produces very similar

<sup>85.</sup> See Goemans, Gleditsch, and Chiozza 2009; Jones and Olken 2005; and Besley, Montalvo, and Reynal-Querol 2011.

<sup>86.</sup> Unfortunately, we lose so many observations running this model that there are not enough degrees of freedom to run it on our interacted models. The variation across conditions, without interaction terms, in Model 6, is substantively similar to Model 1. Berry, DeMerrit, and Esarey 2010. For example, in an autocracy, a shift from a leader with no military service to military service, no combat increases the relative risk of a MID by 147 percent, while a similar shift for a leader with combat experience increases it 33 percent. Evidence of the higher level of robustness for the military service, no combat finding comes from the confidence intervals, which are nearly different for military service, no combat (exceptional given that there are less than 1,000 observations, which means *Clarify* has to simulate more observations). However, for the military service, combat findings, the confidence intervals overlap much more.

	Model 6 (leaders randomly selected into office)	Model 7 (POLITY interaction with low risk of MIDs)	Model 8 (AUTOCRACY interaction with low risk of MIDs)	Model 9 (MILITARY REGIME interaction with low risk of MIDs)
MILITARY SERVICE, NO COMBAT	1.025***	1.156***	0.227	0.605**
MILITARY SERVICE, COMBAT	(0.341) 0.397 (0.376)	(0.410) 0.466 (0.290)	(0.254) 0.205 (0.260)	(0.297) 0.035 (0.518)
REBEL SERVICE	(0.376) 0.134 (0.321)	(0.290) 0.410 (0.354)	(0.260) 0.539* (0.268)	(0.518) 0.510* (0.299)
PRIOR WAR WIN	$-2.737^{**}$ (1.362)	-0.148 (0.264)	-0.220 (0.269)	-0.408 (0.452)
PRIOR WAR LOSS	-0.360 (0.619)	0.125 (0.198)	0.081 (0.197)	-0.045 (0.330)
PRIOR REBEL WIN	-0.180 (0.411)	-0.002 (0.237)	0.071 (0.228)	0.119 (0.313)
PRIOR REBEL LOSS	0.688* (0.414)	-0.126 (0.429)	-0.154 (0.413)	0.711* (0.379)
MILITARY SERVICE, NO COMBAT * POLITY		-0.068*		
MILITARY SERVICE, COMBAT *		(0.038) -0.015		
POLITY REBEL SERVICE * POLITY		(0.021) 0.001		
MILITARY SERVICE, NO		(0.020)	1.247***	
COMBAT * AUTOCRACY			(0.344)	
MILITARY SERVICE, COMBAT * AUTOCRACY			0.532*	
REBEL SERVICE * AUTOCRACY			(0.320) -0.123 (0.286)	
MILITARY SERVICE, NO COMBAT * MILITARY REGIME			(0.200)	0.818
MILITARY SERVICE, COMBAT * MILITARY REGIME				(0.796) 1.587**
REBEL SERVICE * MILITARY REGIME				(0.701) -0.435
LEADER AGE	0.016 (0.013)	0.007 (0.006)	0.007 (0.006)	(0.554) 0.014 (0.008)
POLITY	(0.013)	-0.001 (0.012)	(0.000)	(0.008)
AUTOCRACY	0.214 (0.309)	(0.012)	-0.520** (0.231)	
MILITARY REGIME	* *			-0.702 (0.627)
MATERIAL CAPABILITIES	6.772** (2.858)	14.36*** (2.209)	14.47*** (2.307)	17.50 (27.89)
TAU B WITH SYSTEM LEADER	0.568 (0.551)	0.196 (0.182)	0.141 (0.184)	-0.019 (0.223)
TIME IN OFFICE	0.048 (0.051)	0.006 (0.020)	0.017 (0.020)	-0.003 (0.028)

# TABLE 2. Controlling for the selection of leaders

# TABLE 2. Continued

	Model 6 (leaders randomly selected into office)	Model 7 (POLITY interaction with low risk of MIDs)	Model 8 (AUTOCRACY interaction with low risk of MIDs)	Model 9 (MILITARY REGIME interaction with low risk of MIDs)
FIVE-YEAR MID CHALLENGE LAG	0.904***			
	(0.286)	2 50(***	2 550***	2 00 4***
Constant	-2.936***	-2.596***	-2.550***	-2.984***
	(0.792)	(0.309)	(0.301)	(0.418)
N	972	5676	6020	3844
Pseudo $R^2$	0.292	0.111	0.115	0.088
Log pseudo-likelihood	-340.0	-1610.0	-1670.9	-1034.8
SE adjusted for	120 clusters	1409 clusters	1483 clusters	869 clusters

*Notes:* Peace year variables included but suppressed, as are lower-level interaction terms. Standard errors are in parentheses. \* p < .05, \*\*\* p < .01.

results to those in Table 1. This reinforces our confidence that the effect of military experience is not simply endogenous to opportunities to serve.

Models 8 and 9 do show a few important limitations on our results, however. While in the interacted model in Table 1, the interaction between MILITARY SERVICE, NO COMBAT and POLITY is significant through POLITY = 0, in this model it is only statistically different (based on 95 percent confidence intervals) through POLITY = -2, suggesting a somewhat attenuated result. Additionally, the interaction between combat experience and autocratic regimes is less significant, casting some doubt on H2. This suggests that, in the population of countries that are extremely unlikely to get involved in militarized disputes, the impact of prior combat experience may not vary as much as in countries more likely to get into disputes.

Another possibility 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. Prime Minister Ben Gurion, for example, never served in the regular Israeli military; nor did Prime Minister 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 estimate a two-stage model in the online appendix that models whether a leader is likely to have prior military service in part based on whether the country has conscription when the leader was of age to join the military. As we show in the online appendix, these results still support our theory.

Another possible bias that could affect our results is that the set of leaders without military experience might come from countries that are extremely pacific. Essentially, for the same reasons that a country facing a military dispute might select a leader with prior military experience, a country not facing a military dispute might not. Therefore, including both sets of countries biases our results. Additionally, if the leader

background variables are significant when we focus only on the pool of countries likely to experience militarized disputes, it increases our confidence that pooling both dispute-prone and other countries together is not biasing our results. To test this argument, we estimated Model 1 from Table 1 only on the set of countries that had experienced any type of militarized dispute in the last five years. The results are almost identical to our broader findings, demonstrating the robustness of our theory.<sup>87</sup>

There might be concerns about endogeneity and omitted variable bias 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 the breadth of the former rebel category, which includes leaders such as de Gaulle and Ben Gurion. However, to account for this possibility, we ran an additional model based on Model 1 in Table 1 that controlled for rebel selection 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 previous five years.<sup>88</sup> Second, we controlled for whether the leader was a revolutionary leader according to Colgan.<sup>89</sup> Third, we controlled for whether the leader entered office through irregular means such as a coup.<sup>90</sup> 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 H3.

In addition to the robustness checks already described, the results were robust to the following additional tests:

- 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.
- A model where the universe is the directed dyad leader year, rather than the leader year.
- We used country and year fixed effects to ensure that unobserved unit-level variables are not biasing our results.

<sup>87.</sup> Contact the authors. There is also imbalance in the data along country-level attributes that could drive our results. To deal with this, we tested to make sure clustering standard errors on the country would not change the results. We also used Coarsened Exact Matching to reduce imbalance and re-weight the data. The results, available in the online appendix, further support our findings.

<sup>88.</sup> Gleditsch et al. 2002.

<sup>89.</sup> Colgan 2010.

<sup>90.</sup> Goemans, Gleditsch, and Chiozza 2009.

# Conclusion

In this article we develop a novel argument about the background experiences of leaders and test it on a new data set covering the background experiences of more than 2,500 heads of state from 1875 to 2004. Theory and data allow us to move beyond evaluating 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 study demonstrates an important linkage between the background military experiences of leaders and their propensity to initiate militarized disputes and wars once in office. Stated another way, 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 Dwight Eisenhowers, who are statistically more likely to engage in militarized behavior in office. These effects are strongest, however, in nondemocratic regimes. This provides critical nuance to help address the long-standing debate between those that view military experience as inherently likely to bias individuals toward future military action, and those that view leaders with military experience as especially conservative and force-averse. Former rebels, on the other hand, appear more prone to military behavior regardless of the political regimes in which they rule.

There are several potential extensions for this research agenda. We focus in this study on the link between background experiences and risk experience, rather than actual leader competence, but that is one promising way forward for the future.<sup>91</sup> The results we present here simply assess leaders' and their states' willingness to take greater or lesser risks. In part, this reflects the links between the types of experiences we addressed in this study—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 such behavior is not quite as "risky" as we imagine here. We can also build on recent work on leader selection<sup>92</sup> 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 leader backgrounds and policy choices, such as occupational

<sup>91.</sup> See Smith 2004; and Jones and Olken 2005.

<sup>92.</sup> Besley and Reynal-Querol 2011.

backgrounds and economic policy choices, as well as upbringing and social welfare choices, that represent potentially fruitful areas for further research.

# Supplementary material

Replication data and online appendix are available at http://dx.doi.org/ S0020818314000046.

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