

Damned if You Do, Damned if You Don't:  
Hawks, Doves, and Their Consequences for Interstate Targets

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**Abstract**

I argue the relationship between the threat of being targeted in an interstate dispute and leaders' preferences over the use of force is endogenous. This is because domestic populations are more likely to favor leaders with hawkish preferences than leaders with dovish preferences as the likelihood a state will be targeted increases and the probability a state will be challenged in an interstate dispute should be lower when it has a hawkish leader than when it has a dovish leader. Analysis using a new measure of leaders' preferences over the use of force and a structural estimator is consistent with the hypothesized relationships between leaders' preferences and being targeted in an interstate dispute. My findings suggest that when faced with an elevated risk of being targeted, domestic populations favor hawkish leaders that reduce the likelihood their state will be attacked but increase the likelihood their state will initiate an interstate conflict.

The recent theoretical and empirical focus on leaders suggests countries' political executives exert a strong effect on interstate conflict processes (among many others, Bueno de Mesquita et al. 1999, Chiozza and Goemans 2004, Wolford 2007, Debs and Goemans 2010, Croco 2011). While most of this research is centered around how political institutions and survival concerns influence leaders' decisions, a growing number of scholars have begun to consider how leaders' personal attributes and experiences influence patterns of interstate conflict (e.g., Colgan 2013, Horowitz and Stam 2014, Horowitz, Stam and Ellis 2015). This research typically analyzes how particular attributes affect the likelihood a leader initiates an interstate conflict. Here, I consider the relationship between a leader's general preferences over the use of force and the probability of being challenged in an interstate dispute. In particular, this paper addresses three questions. First, does the probability of being targeted in an interstate dispute influence whether states have leaders with hawkish or dovish preferences? Second, do the preferences of a state's leader influence whether it is targeted in an interstate crisis? Third, are leaders' preferences over the use of force and the probability of a state being targeted in a crisis endogenous to one another?

I argue the answer to all three questions is yes. There is strong evidence that citizens are more likely to support hawkish policies and politicians when they face an external threat (e.g., Gadarian 2010*b*, Getmansky and Zeitzoff 2014). Classic deterrence theory (Huth 1999) and a simple crisis bargaining model imply that hawkish leaders are less likely to be challenged in an interstate dispute than are dovish leaders. If these two things are true, it then follows that being targeted in an interstate crisis and the relative hawkishness of the leaders we observe are endogenous. This paper offers the first systematic empirical analysis of how the threat of being targeted and leaders' preferences over the use of force influence one another.

I assess the hypothesized relationships using a new measure of leaders' preferences regarding military force and a structural model that explicitly estimates the potential endogenous relationship between leaders' hawkishness and the probability of being targeted in an interstate dispute. My results are consistent with expectations. I find that hawkish leaders are less likely to be challenged in an interstate dispute than are dovish leaders and increasing the probability of being targeted is associated with states having more hawkish leaders. These results have several implications for our understanding of the relationship between domestic and international politics. Perhaps most notably, my findings suggest that an increased risk of being challenged puts domestic populations in an unfortunate situation: the type of leader that lowers the probability their country will be targeted in an interstate dispute is the same type of leader that increases

the probability their country will initiate an interstate dispute.

The remainder of this paper proceeds as follows. The first section describes how the threat of being targeted influences the type of leaders domestic populations prefer. The second uses a simple bargaining model to analyze how a leader's preferences over the use of force influences the likelihood her country will be targeted in an interstate dispute. The third section describes my theoretical expectations while the fourth presents the research design. The fifth section reports my results. The paper concludes with a brief discussion of my findings and their implications for our understanding of the relationship between leaders, domestic politics, and interstate conflict.

## 1 Threats and Preferences for Hawkish Leaders

Foreign policy and international relations typically play a minor role in determining who becomes a state's leader through domestic political processes (among others, Page and Brody 1972, Abramowitz 1995). This likely is due to the fact that the public generally pays little attention to foreign affairs (Holsti 1996). This implies that while leaders might play an outsized role in determining whether their states go to war (e.g., Bueno de Mesquita et al. 1999, Chiozza and Goemans 2011, Horowitz, Stam and Ellis 2015), in general domestic populations do not select political leaders based on their likely foreign policy performance.

While foreign policy considerations often have minimal influence on leader selection, this is not always the case. The importance of foreign policy in determining a country's leadership is increasing in citizens' concerns about foreign affairs and national security (e.g., Aldrich et al. 2006). As one might suspect, citizens pay more attention to foreign affairs during times of interstate crises and wars (among others, Holsti 1996, Aldrich et al. 2006, Baum and Groeling 2009). This implies the potential foreign policy consequences of selecting a leader should be more influential in domestic selection processes when countries face a high probability of being targeted in an interstate dispute.

A question that naturally follows is, what type of leader is preferred by a domestic population that fears being attacked by a foreign enemy? A number of prominent pieces of international relations scholarship argue domestic populations prefer resolved leaders who will "stand their ground" during interstate crises over territory and among rivals (e.g., Huth 1996, Senese and Vasquez 2005). Indeed, there is strong evidence of a relationship between an individual feeling threatened and support for hawkish policies and politicians. In a series of papers, Leonie Huddy,

Stanley Feldman, and various co-authors demonstrate that higher levels of threat are associated with greater support for more aggressive national security policies and military action (e.g., Huddy et al. 2005, Huddy, Feldman and Weber 2007). Merolla and Zechmeister (2009) find that higher levels of perceived threat increase support for aggressive military policies. Gadarian (2010*a*, 2010*b*) demonstrates that higher levels of threat are associated with individuals adopting more hawkish foreign policy preferences and an increased probability of voting for politicians with hawkish foreign policy preferences. Albertson and Gadarian (2015, pgs. 117-124) find that higher levels of anxiety (which encompasses threat in their coding) is associated with greater support for using military force instead of diplomacy, higher defense spending, stronger homeland security policies, and the Iraq war. Political candidates from relatively hawkish Israeli parties receive a higher vote-share in areas that suffer from terrorist attacks in general (Berrebi and Klor 2008) and rocket attacks in particular (Getmansky and Zeitsoff 2014). The consistent nature of these findings across research methodologies, measures of the independent and dependent variables analyzed, and samples lends credence to Huddy, Feldman and Weber statement that, “threat clearly increases support for aggressive foreign policies” (2007, pg. 132).

The preceding discussion indicates that as individuals feel increasingly threatened by an external enemy, they are more likely to support politicians with hawkish policy preferences or positions. The next section considers how leaders’ preferences over the use of force influence whether their states are targeted in interstate disputes.

## **2 The Effect of Leader Preferences on Being Targeted**

There is increasing evidence that a leader’s preferences regarding the use of force influences her state’s involvement in interstate conflicts. Research on this topic typically focuses on how specific attributes or past experiences that are thought to make leaders relatively more or less hawkish influence the probability of conflict initiation. For example, leaders who previously served in the military are more likely to initiate conflicts than leaders with a civilian background, especially if their military service did not involve combat (Horowitz and Stam 2014, Horowitz, Stam and Ellis 2015). The theoretical mechanism underlying this relationship is that military training socializes individuals to place a higher value on using force than civilians (e.g., Huntington 1957, Nordlinger 1977, Geddes 2003, Sechser 2004). Similarly, leaders who participated in revolutions prior to assuming office are more likely to initiate interstate conflicts

(Colgan 2013, Colgan and Weeks 2015). This is typically attributed to their relative risk-acceptance and motivation to change the international status quo (Skocpol 1979, Walt 1996, Carter, Bernhard and Palmer 2012, Colgan 2013). Among democracies, states led by right governments are more likely to initiate interstate conflicts than those led by left governments (Arena and Palmer 2009, Clare 2010), the idea being that politicians and supporters of right parties are more hawkish than those associated with parties on the left (Schultz 2001, Palmer, London and Regan 2004). Thus, there is strong evidence that hawkish leaders are more likely to initiate interstate crises than dovish leaders.

Where there is a clear relationship between a leader's preferences and conflict initiation, systematic empirical research on how leaders' preferences influence whether their states are targeted in an interstate dispute is lacking. Measuring leaders' preferences based on the foreign policy positions included in party manifestos, Heffington (2016) finds that democratic leaders with hawkish preferences are more likely to be targeted than those with dovish preferences, although the significance of this relationship is sensitive to model specification. Though not directly comparable, Koch and Cranmer's (2007) finding that governments on the left are more likely to suffer a terrorist attack than governments on the right runs counter to Heffington's results.

There are theoretical reasons to think that hawkish leaders are less to be targeted than dovish leaders. For example, the deterrence literature suggests doves are more likely to be challenged than hawks (for a nice review of rational deterrence theory, see Huth 1999). An immediate deterrence game holds that, all else equal, a challenger is more likely to choose the status quo and less likely to attack a target as the target's expected utility for war increases (Achen and Snidal 1989, Huth 1999). As hawks pay lower subjective costs for fighting a war than do doves, a hawkish leader's expected utility for war is higher than a dovish leader's expected utility for war. Accordingly, the logic of immediate deterrence implies that, all else equal, states should be less likely to attack hawkish leaders than dovish leaders.

While its implications are typically intuitive, classic deterrence theory suffers from a failure to explicitly consider non-random selection into immediate deterrence situations (Fearon 1994, 2002) or bargaining dynamics (Fearon 1995). Indeed, even bargaining models that considers the effect of hawkish and dovish preferences for conflict typically assume the actors are already in an interstate crisis (Wolford 2007). I therefore develop a simple bargaining model in which the leader of State 1 ( $L_1$ ) makes a decision of whether or not to initiate a crisis against the leader

of State 2 ( $L_2$ ) over a piece of territory whose value is normalized to one.<sup>1</sup> The model assumes that the status quo sees  $L_1$  in control of proportion of territory  $q$  and  $L_2$  in control of  $1 - q$ .  $L_1$  has a choice between doing nothing ( $n$ ) to alter the status quo or making demand  $x \in [0, 1]$  of  $L_2$ . If  $L_1$  accepts the status quo, the game ends with  $L_1$  and  $L_2$ , respectively, continuing to possess  $q$  and  $1 - q$  shares of the territory. If  $L_1$  makes a demand and  $L_2$  accepts, the game ends with  $L_1$  receiving  $x$  and  $L_2$  receiving  $1 - x$ . If  $L_1$  makes a demand and  $L_2$  rejects, the two sides fight a costly conflict in which the winner receives the entire territory.  $L_1$  wins the conflict with probability  $p$  and pays cost  $c_1 > 0$  for fighting, which implies her expected utility for war is  $p - c_1$ .  $L_2$  wins the war with probability  $1 - p$  and pays cost  $c_2 > 0$  for fighting. However, the cost  $L_2$  pays for fighting depends on whether he is a hawk or a dove, where  $c_2^d > c_2^h$ . I assume leaders are risk-averse and complete information. Figure 1 graphically depicts the model.

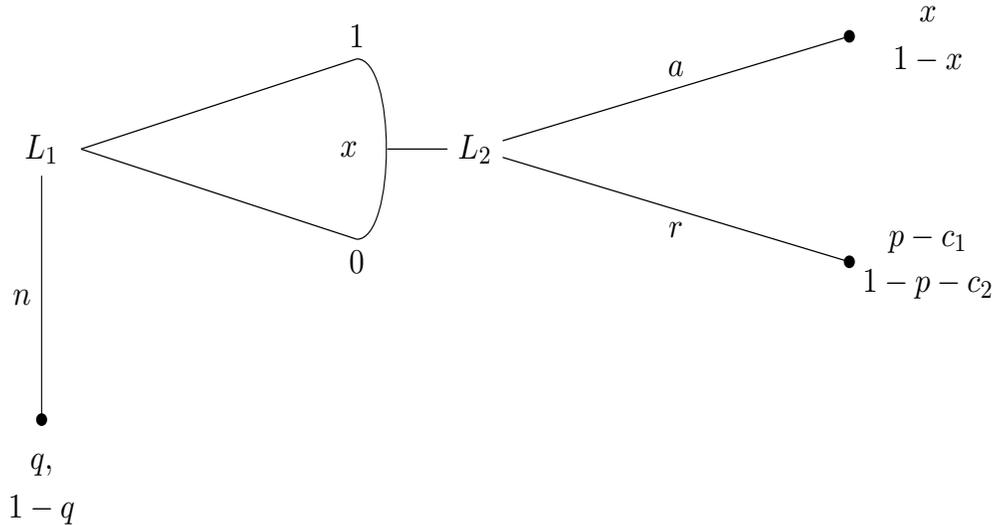


Figure 1: A Simple Crisis Bargaining Model.

The model's subgame perfect equilibrium is easily identified using backwards induction.  $L_2$  will reject a demand from  $L_1$  if and only if  $L_2$ 's expected utility for fighting is greater than the what it would receive from a negotiated settlement, which occurs when  $x < p + c_2$ . Thus, if  $L_1$  chooses to initiate a crisis, she induces a peaceful settlement by demanding  $p + c_2$  from  $L_2$ .  $L_1$  will only initiate a crisis when she will obtain a better outcome through bargaining than she is currently getting with the status quo distribution of territory. Accordingly,  $L_1$  will initiate a

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<sup>1</sup>I refer to  $L_1$  using female pronouns and  $L_2$  using male pronouns.

crisis if and only if  $q < p + c_2$ . Otherwise, the status quo obtains and the crisis is averted.

The model presented here is very simple, yet it provides insight into how a leader's relative preferences over the use of force influence whether his country is targeted in an interstate dispute. The model indicates that states with dovish leaders are more likely to be targeted by a challenger than are states with hawkish leaders. In particular,  $L_1$  will only target  $L_2$  if  $q < p + c_2$ . This implies that as  $L_2$ 's cost of fighting decreases,  $L_1$  requires an increasingly worse status quo distribution of territory to initiate a crisis against  $L_2$ . The reason for this is that the proportion of territory challengers can expect to gain through bargaining decreases as a target's cost of fighting decreases. In canonical bargaining language, the value of a target's outside option (war) increases as the costs of fighting decrease, which allows the target to obtain better negotiated settlements and reduces the territory a potential challenger could hope to get through crisis bargaining.<sup>2</sup> Given that hawkish targets pay a lower cost for fighting than do dovish targets ( $c_2^d > c_2^h$ ), it then follows that hawkish leaders should be targeted less frequently in interstate disputes than dovish leaders.<sup>3</sup>

### 3 Theoretical Expectations

The discussion in the preceding two sections suggests three empirical relationships that, to my knowledge, have not been empirically assessed.

**Expectation 1:** As the probability a state will be targeted in an interstate dispute increases, states should have leaders with relatively hawkish preferences over the use of force.

While foreign policy considerations typically play a relatively minor role in the process, their influence in determining a state's political leader increases with the public's attention to foreign affairs (e.g., Holsti 1996, Aldrich et al. 2006, Merolla and Zechmeister 2009). Individuals are more likely to support relatively hawkish policy positions and politicians when they feel threatened (Gadarian 2010a, Getmansky and Zeitzoff 2014). If a state's population pays more attention to foreign affairs and feels increasingly threatened as its probability of being attacked increases, then we should observe political leaders with more hawkish preferences when a state

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<sup>2</sup>See Muthoo (1999) on the relationship between outside options and negotiated settlements.

<sup>3</sup>A slightly more complicated model in which  $L_1$  is uncertain about  $L_2$ 's type also leads to the same conclusion. Given a preference for parsimony, I present the simpler model here.

is likely to be targeted in an interstate dispute.

My second expectation concerns the effect of a leader's preferences on the probability a state is targeted in an interstate conflict.

**Expectation 2:** The probability of a state being targeted in an interstate dispute should be decreasing in the hawkishness of its leader's preferences.

This expectation is consistent with the theoretical insights of classic deterrence theory and the simple crisis bargaining model presented in the previous section. Classic deterrence theory indicates hawks are less likely to be targeted because they are more likely to stand firm when challenged than are doves (Achen and Snidal 1989, Huth 1999). The bargaining model developed above implies the range of status quo distributions under which challengers are willing to target leaders with hawkish preferences is smaller than the analogous range for leaders with dovish preferences. This is because challengers expect to obtain relatively less through crisis bargaining with hawkish leaders than with dovish leaders. Accordingly, I expect that hawkish leaders are less likely to be targeted in an interstate dispute than are dovish leaders.

My third expectation follows directly from the first two.

**Expectation 3:** The probability a state is targeted in an interstate dispute and the relative hawkishness of its leader's preferences is endogenous to one another.

If they hold, the first two expectations have several implications for our understanding of the relationship between domestic and international politics. Perhaps the most straightforward is that the relationship between the preferences of a state's political leader and whether it is targeted in an interstate dispute is endogenous. The next section describes how I assess these three theoretical expectations.

## 4 Research Design

I use a leader-year data set of all political executives between 1919 and 2003 to estimate the relationship between the probability of a country being targeted in an interstate dispute and the hawkishness of its leader. The base data set was taken from the replication materials associated

with Debs and Goemans (2010).

My analysis requires two dependent variables. The first, *Target*, is coded one if a leader's country was targeted in an interstate crisis in a given year and zero otherwise. *Target* is drawn directly from Debs and Goemans (2010) and is based on data from the ICB project (Brecher and Wilkenfeld 1997).

The second dependent variable models the hawkishness of a state's incumbent political leader. Empirically identifying a leader's preferences over the use of force is notoriously difficult. Scholars typically take one of three approaches. The first is to use a measure of his or her government's left-right orientation (Palmer, London and Regan 2004, Arena and Palmer 2009, Clare 2010). As noted above, the logic behind this approach is that parties on the right generally hold more hawkish foreign policy preferences than parties on the left (Schultz 2001, Palmer, London and Regan 2004). The second commonly used strategy is to construct measures of a leader's personality or operational code (Renshon 2008, Keller and Foster 2012). Unfortunately, measures of government orientation and leaders' personality traits and operational code have limited temporal and spatial domains and are less likely to be available for non-democratic countries. The third approach is to measure leaders' preferences over the use of force as a function of their objective attributes and background experiences (Horowitz, Stam and Ellis 2015).<sup>4</sup> This approach is based on the idea that an individual's worldview, attitudes, and preferences are shaped by his or her life experiences. One advantage of this approach is that data on a wide range of leaders' objective personal attributes and experiences is available for all political executives from 1875 until 2004 via the LEAD data set (Ellis, Horowitz and Stam 2015). This opens up a number of possible ways for scholars to measure leaders' preferences over the use force. For example, Horowitz, Stam and Ellis (2015) construct a *Leader Risk Index* using predicted probabilities generated from a statistical model that estimates conflict initiation as a function of thirty-nine leader attributes and background experiences.

One of the principle difficulties of measuring a leader's underlying preferences over the use of force is that they are not directly observable; rather, preferences are latent. Motivated by this insight, the measure of leader preferences used here was developed using latent variable modeling techniques. Latent variable models are used increasingly in political science to measure concepts that are not directly observable; including but certainly not limited to legislators' ideology

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<sup>4</sup>Note that this is a natural extension of research that links individual leader attributes to the probability his or her country initiates an interstate conflict (Colgan 2013, Horowitz and Stam 2014).

(Poole and Rosenthal 1991, Clinton, Jackman and Rivers 2004), judges' ideology (Martin and Quinn 2002), regime type (Treier and Jackman 2008, Pemstein, Meserve and Melton 2010), states' preferences over the international status quo (Reed et al. 2008), and standards of human rights accountability (Fariss 2014). The measure used here was developed by Carter and Smith (2016). Carter and Smith use a hierarchical Rasch model implemented with Bayesian methods in Stan (Carpenter et al. 2016) to estimate leaders' latent preferences over the use of force based on twenty-six personal attributes and background experiences drawn from the leader-level version of the LEAD data (Ellis, Horowitz and Stam 2015).<sup>5</sup> The resulting measure, *Leader Hawkishness*, has a mean of 0 and ranges from minimum of -1.71 to a maximum of 2.02. Figure 2 presents a histogram and density plot of *Leader Hawkishness* for the universe of political leaders in the interstate system between 1875 and 2004.

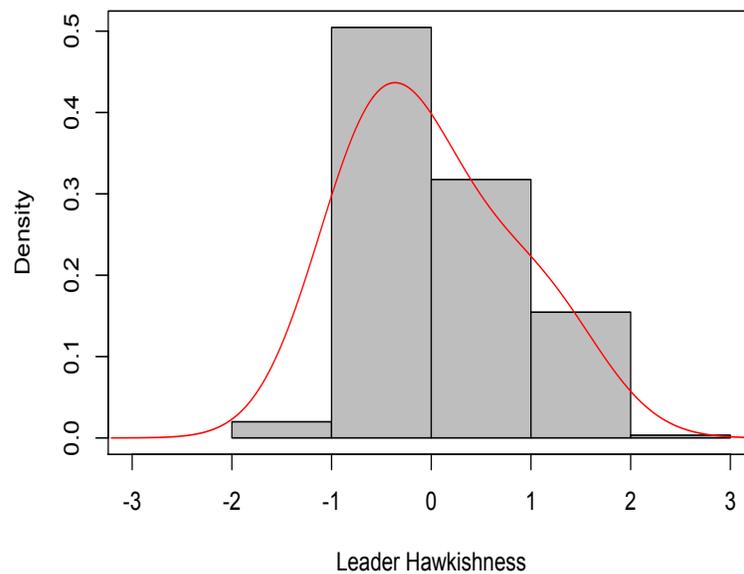


Figure 2: Latent Leader Hawkishness

My theoretical interest lies in the relationship between leader preferences and the probability a state is targeted in a dispute. However, in order to provide some face validity to my mea-

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<sup>5</sup>A full list of the attributes used to estimate *Leader Hawkishness* is included in the appendix. The leader-level LEAD data is available at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/ZK3FYV>.

sure of leaders' preferences, Table 1 reports the results of a bivariate logit of the probability a leader initiates an interstate crisis in a given year between 1919 and 2003 from the ICB project (Brecher and Wilkenfeld 1997) as a function of *Leader Hawkishness*. Consistent with expectations, Table 1 indicates the probability a leader initiates a crisis in a given year is increasing in *Leader Hawkishness*. This suggests that *Leader Hawkishness* is capturing leaders' underlying preferences over the use of force.

Table 1: Bivariate Relationship between Leader Hawkishness and Crisis Initiation

	<i>Crisis Initiator</i>
Leader Hawkishness	0.61*** (0.06)
Constant	-3.55*** (0.06)
Observation	10876
$\chi^2$	112.64
$p > \chi^2$	< 0.01
Log-Likelihood	-1609.27

Robust standard errors in parentheses.

Two-tailed: \*:  $p \leq 0.05$ ; \*\*:  $p \leq 0.01$ .

I now turn to an initial analysis the relationship between leaders' preferences and the likelihood their state will be targeted in an interstate crisis. Table 2 reports the results of a pair of models in which *Target* and *Leader Hawkishness* are estimated only as a function of one another. The results in Table 2 suggest the latent hawkishness of a leader is greater among countries that are targeted in an interstate conflict and the probability a country is challenged in an interstate crisis is *increasing* in the Leader Hawkishness of its leader. Thus, the results in Table 2 are consistent with the claim that domestic populations prefer relatively hawkish leaders when they are likely to be targeted in an interstate dispute, but not the argument that relatively hawkish leaders reduce the probability a state is targeted in an interstate crisis.

While suggestive, the bivariate models in Table 2 do not allow the probability of being targeted and the hawkishness of a country's leader to simultaneously affect one another. Doing so requires an estimator that can jointly assess 1) whether a leader's hawkishness affects the probability her country is targeted and 2) whether or not being targeted affects the hawkishness of the leader in charge of a state. I assess this possibility using a modified version of Chiozza and Goemans's (2003) approach to estimating the reciprocal relationship between conflict initiation and leader survival. I first estimate a reduced-form probit model of the probability a country

Table 2: Bivariate Relationships between Leader Hawkishness and Interstate Targets

	<i>Target</i>	<i>Leader Hawkishness</i>
Leader Hawkishness	0.21*** (0.06)	
Target		0.14*** (0.04)
Constant	-3.30*** (0.05)	0.19*** (0.01)
Observations	10876	10876
$\chi^2$	12.17	
pr > $\chi^2$	< 0.01	
F-statistic		11.91
pr > F-statistics		< 0.01
Log-Likelihood	-1730.60	-13404.20

Estimators: logit for *Target*; OLS for *Leader Hawkishness*.

Robust standard errors in parentheses.

Two-tailed: \*:  $p \leq 0.05$ ; \*\*:  $p \leq 0.01$ .

is targeted that includes a set of exogenous variables known to correlate with interstate conflict involvement, but does not include *Leader Hawkishness*. The probability of a state being targeted is modeled as a function of whether it is involved in a strategic interstate *Rivalry* (Thompson and Dreyer 2011) or an ongoing *Territorial Dispute* (Hensel 2001, Territorial Claims Data, version 1.01), its *Number of Borders* (Debs and Goemans 2010), its *Capabilities* (modeled by its CINC score (Singer, Bremer and Stuckey 1972)), whether it is a *Democracy* (identified by +7 or higher on the polity2 index (Marshall and Jaggers 2005)), whether it is involved in a *Civil War* (Fearon and Laitin 2003), and the cubic polynomial of the number of years since the last time it was targeted (Carter and Signorino 2010).<sup>6</sup> I then estimated a reduced-form linear regression model of *Leader Hawkishness* as a function of a set of factors that might reasonable influence a domestic population's preferences for a hawkish or dovish leader, but excluded the variable *Target*. Specifically, the leaders' preferences are modeled as a function of *Rivalry*, *Territorial Dispute*, *Capabilities*, *Democracy*, *Civil War*, and *Economic Growth* (Debs and Goemans 2010). I then calculated the linear expectations of the two reduced form models. Finally, I used a simultaneous equations model estimated via bootstrap to jointly model 1) the probability of a state being targeted as a function of the linear expectation of *Leader Hawkishness* and its set of exogenous control variables; and 2) *Leader Hawkishness* as a function of the linear expectation of

<sup>6</sup>Following Carter and Signorino's (2010) advice, I divided the number of peace years by ten to help aid the numeric stability of the estimates given that the maximum value of the non-standardized, cubed peace year was 592,704.

*Target* and its set of exogenous variables.<sup>7</sup> The next section reports the results of this analysis.

## 5 Results

The results of my primary analysis are presented in Table 3. The second column reports the reduced form estimates of *Target*. The probability a state is targeted in an interstate dispute is significantly higher when it has a rival, is a democracy, or is involved in a civil war, is increasing in its capabilities, and is a decreasing but non-monotonic function of the years since it was last targeted. The reduced-form model of *Leader Hawkishness* (third column) suggests having an international rival, more borders, greater capabilities, and positive economic growth increase the expected hawkishness of a state's leader. In contrast, democracies tend to have less hawkish leaders. The reduced-form models yield interesting results in their own right. However, their primary purpose is to generate the linear expectations of *Target* and *Leader Hawkishness* to allow for an assessment of the endogenous relationship between the probability a state is attacked and the relative hawkishness of its leader. I now turn to this analysis.

The structural model reported in the fourth and fifth columns of Table 3 estimates *Target* and *Leader Hawkishness* as a function of their exogenous control variables and, respectively,  $\widehat{Leader\ Hawkishness}$  and  $\widehat{Target}$ . Three important results emerge from the structural model. First, the probability of being targeted in an interstate crisis is decreasing in the the relative hawkishness of a state's leader (although not at the 0.05 level of significance). Second, the hawkishness of states' leaders is increasing in their risk of being targeted in an interstate dispute. Third, the processes that determine whether a state is targeted in an interstate dispute and the hawkishness of states' leaders are endogenous to one another. This follows from the first two results and the statistically significant  $\rho$  parameter. To get a better sense of the relationship, I used a set of post-estimation simulations based on the coefficient and variance-covariance matrices of the structural model to calculate how a leader's hawkishness and being targeted in an interstate dispute influence one another.<sup>8</sup>

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<sup>7</sup>Note that *Target* and *Leader Hawkishness* are each modeled as a function of at least one explanatory variable that is not used to model the other (see Chiozza and Goemans 2003).

<sup>8</sup>The simulations were based on 1,000 draws from a multivariate normal distribution. Predicted values were calculated using the median values for categorical or ordinal exogenous variables and mean values for continuous exogenous variables. Predicted probabilities of *Target* were calculated across the range of  $\widehat{Leader\ Hawkishness}$  and predicted values of *Leader Hawkishness* were calculated across the range of  $\widehat{Target}$ .

Table 3: The Relationship between Leader Hawkishness and Interstate Targets, 1919-2003

	Reduced-Form <i>Target</i>	Reduced-Form <i>Leader Hawkishness</i>	Structural Model	
			<i>Target</i>	<i>Leader Hawkishness</i>
$\widehat{Leader\ Hawkishness}$			-1.87 (1.25)	
$\widehat{Target}$				0.18*** (0.02)
Rivalry	0.43*** (0.06)	0.06** (0.02)	0.52*** (0.09)	-0.03 (0.02)
Territorial Dispute	0.02 (0.05)	-0.03 (0.02)	-0.04 (0.06)	-0.03 (0.02)
Number of Borders	-0.01 (0.01)	0.03*** (0.00)	0.05 (0.04)	0.03*** (0.02)
Capabilities	3.83*** (0.55)	1.56*** (0.26)	6.82** (2.08)	0.73** (0.28)
Democracy	0.15** (0.05)	-0.64*** (0.02)	-1.04 (0.80)	-0.66*** (0.02)
Civil War	0.48*** (0.06)	0.10*** (0.02)	0.67*** (0.14)	0.02 (0.03)
Economic Growth		0.29* (0.12)		0.28* (0.12)
Years Since Target	-0.37*** (0.10)		-0.36** (0.11)	
Years Since Target <sup>2</sup>	0.15*** (0.04)		0.13** (0.05)	
Years Since Target <sup>3</sup>	-0.02*** (0.01)		-0.01** (0.01)	
Constant	-2.01*** (0.08)	0.28*** (0.02)	-1.45*** (0.36)	0.68*** (0.05)
$\sigma$				-0.28*** (0.01)
$\rho$				0.07* (0.03)
Observations	10329	9086		9086
$\chi^2$	292.54			267.13
pr > $\chi^2$	< 0.01			< 0.01
F-statistic		331.42		
pr > F-statistic		< 0.01		
Log-Likelihood	-1524.76	-10402.05		-11707.88

Robust standard errors clustered on country reported for reduced-form models.

Bootstrapped, robust standard errors reported for structural model (500 Replications).

Two-tailed: \*:  $p \leq 0.05$ ; \*\*:  $p \leq 0.01$ ; \*\*\* :  $p \leq 0.001$ .

Figure 3 presents the probability a state is targeted in an interstate dispute across the range of  $\widehat{Leader\ Hawkishness}$ . As Figure 3 makes clear, dovish leaders face a substantially higher risk of being targeted than hawkish leaders. Given the mean value of  $\widehat{Leader\ Hawkishness}$  (0.22), the probability a state is targeted in an interstate crisis is 0.03, with the 95% confidence interval ranging between 0.01 and 0.06. The probability a state is targeted increases to 0.13 [0.01, 0.48] when  $\widehat{Leader\ Hawkishness}$  is reduced to one standard deviation below its mean (-0.12). In contrast, the probability a state is targeted in an interstate dispute falls to 0.01 [0.001, 0.02] when  $\widehat{Leader\ Hawkishness}$  increases to one standard deviation above its mean (0.56). The probability a state is targeted given a leader who is one standard deviation more dovish than average therefore is 0.13 higher than when it has a leader who is one standard deviation more hawkish than average. Framed differently, the probability a state is targeted is approximately 23 times more likely given the relatively dovish leader than it is given the relatively hawkish leader. Thus, leaders' preferences over the use of force exert a substantial effect on the probability their countries are targeted in an interstate crisis.

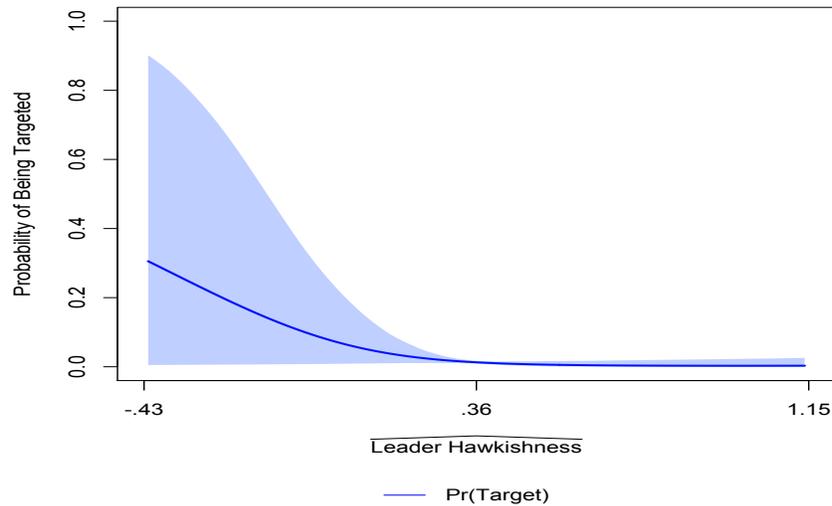


Figure 3: The Probability of Being Targeted as a Function of Leader Hawkishness.

The results in Figure 4 demonstrate the probability of being targeted affects the hawkishness of states' political leaders. At the mean value of  $\widehat{Target}$  (-1.92, which translates to a predicted probability of 0.03), the expected value of  $Leader\ Hawkishness$  is 0.42 [0.39, 0.45]. As the

value of  $\widehat{Target}$  rises to one standard deviation above its mean (-1.48, or a probability of 0.07), the value of *Leader Hawkishness* is expected to increase to 0.5 [0.46, 0.55]. If instead  $\widehat{Target}$  is reduced by one standard deviation (-2.36, or a probability of 0.01), the hawkishness of a leader is expected to fall to 0.35 [0.31, 0.38]. Framed differently, the expected value of *Leader Hawkishness* increases by 45% when we move from a scenario in which a state is one standard deviation below the average probability of being targeted in an interstate dispute to one in which a state is one standard deviation above the average probability of being targeted.

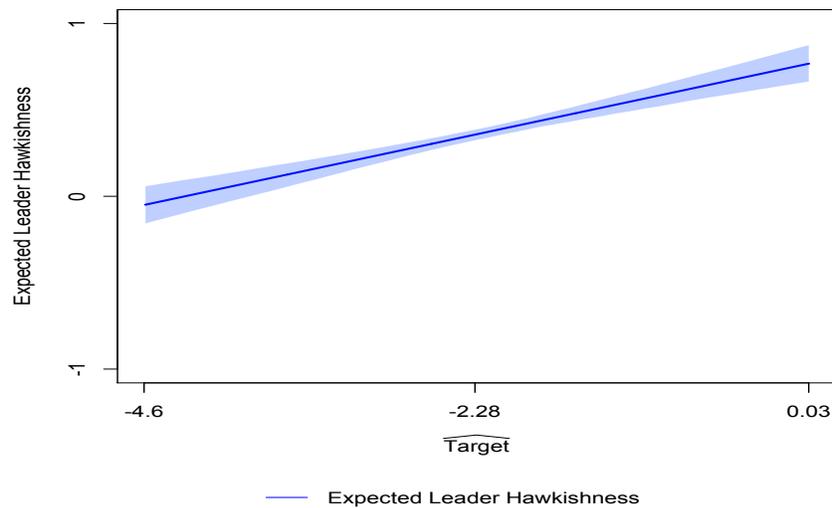


Figure 4: Leader Hawkishness as a Function of the Probability of Being Targeted.

Taken together, the results reported in Table 3 and Figures 3 and 4 are consistent with my theoretical expectations. Relatively hawkish leaders are less likely to be targeted in an interstate dispute than are relatively dovish leaders. At the same time, as the probability a state will be targeted in an interstate dispute increases, we are more likely to observe leaders with relatively hawkish preferences than leaders with relatively dovish preferences. Thus, leaders' preferences over the use of force and whether a country is targeted in an interstate dispute are endogenous to one another. I conclude with a brief discussion of the implications of my findings.

## 6 Discussion and Conclusion

The increase in leader-centric research among scholars of interstate conflict follows from the recognition it is not governments, regimes, or the international system that determine whether states fight, but leaders. This insight has increased our understanding of, among other things, interstate conflict initiation (Chiozza and Goemans 2011, Colgan and Weeks 2015, Horowitz, Stam and Ellis 2015), strategic target selection (Bueno de Mesquita et al. 1999), conflict outcomes (Croco 2011), and military coalitions (Wolford and Ritter 2016). This paper contributes to the literature on leaders and interstate conflict processes by analyzing the relationship between leaders' preferences over the use of force and the probability a state is targeted in an interstate dispute.

I find that hawkish leaders reduce the probability a state is challenged in an interstate conflict and that an increase in the likelihood of being targeted is associated with states having relatively hawkish leaders. These results lend further credence to the ideas that domestic and international politics are inextricably linked and leaders exert a powerful influence on patterns of interstate conflict. Further, they also suggest that domestic populations face an unenviable choice when they face a heightened risk of being challenged in an interstate dispute. If they select a hawkish leader, their state is less likely to be targeted in an interstate dispute but is more likely to initiate a conflict. If they select a dovish leader, their state is less likely to initiate an interstate dispute but more likely to be targeted in a crisis. The results reported here indicate domestic populations favor hawkish leaders when threatened, which is consistent with the wealth of studies that show individuals are more supportive of hawkish policies and politicians when they feel threatened (e.g., Huddy, Feldman and Weber 2007, Getmansky and Zeitzoff 2014). While hawkish leaders might deter challengers, my findings suggest that neither they nor their dovish counterparts will deliver peace.

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## 7 Appendix

As noted in the main text, *Leader Hawkishness* was developed in Carter and Smith (2016) using twenty-six leader attributes and background experiences drawn from the LEAD data set (Ellis, Horowitz and Stam 2015). The twenty-six attributes are provided in Table 4. A description of their coding can be found in the codebook associated with the LEAD data, available at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/ZK3FYV>. The variables in the first column of Table 4 were used to estimate *Leader Hawkishness* based on theoretical grounds. The remaining nineteen variables were included based on empirical grounds. Specifically, Carter and Smith (2016) estimated a set of bivariate logit models in which interstate conflict initiation (per the MID 3.1 data (Ghosn, Palmer and Bremer 2004)) was modeled as a function of every leader attribute or background experience included in the LEAD data set. If an attribute was a statistically significant predictor of conflict initiation, it was included in the Rasch model used to estimate *Leader Preferences*. Variables were recoded to ensure that 1) they were dichotomous (e.g., Older Leader instead of an age variable) and 2) higher values corresponded to more hawkish preferences/positive relationship with conflict initiation.

Table 4: Personal Attributes and Experiences Used to Estimate *Leader Hawkishness*

Military Service	Non-Combat	Lawyer	Science/Engineer
Rebel Service	Combat	Medicine	Parental Status
Level of Education	War Win	Religion	Illegitimate
Military Education	War Loss	Activist	Royalty
Male Leader	Rebel Win	Creative	Business
Older Leader	Rebel Loss	Aristocrat/Landowner	
Irregular Entry	Teacher	Military Career	