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National Leaders, Political Security, and the Formation of Military Coalitions

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States frequently form military coalitions, and these collaborations matter a great deal for international politics, yet their origins are poorly understood. Building coalitions in international crises improves military prospects. At the same time, it requires policy concessions to compensate partners. We show that a national leader's job security affects her willingness to make this tradeoff. First, politically insecure leaders are more willing to form coalitions than secure leaders. The former face greater incentives to accept tradeoffs in order to bolster their chances of victory and thereby improve their chances of remaining in power. Second, politically insecure leaders are also less selective in their choice of partners. Their willingness to make larger policy concessions leads them to form coalitions with states of increasingly divergent foreign policy preferences. A sample of crises from 1951-1999 provides statistical support for these arguments.

Military coalitions have fought in 40 percent of interstate wars since 1815. Multilateral wars are longer, bloodier, and more destructive than bilateral wars (Sarkees and Wayman 2010). Coalition building affects the escalation of crises to war (Wolford 2014b) and the expansion of conflicts (Wolford 2014a). However, we know little about the conditions under which—and with whom—states form military coalitions.

Most explanations for military cooperation focus on treaties of alliance, by which states make formal commitments of uncertain reliability to fight together in future wars. Structural factors such as military power (Waltz 1979), domestic institutions (Siverson and Emmons 1991), and foreign policy interests (Gibler and Rider 2004) all shape alliance formation. Yet most instances of military cooperation arise between *unallied* states. Further, many coalitions form when conflicts arise and disband after conflict ends (Ward 1982, 9–14). All of this suggests that cross-sectional factors used to explain alliance formation may prove less useful in understanding coalitions than more immediate, conflict-specific variables.

We present a theory linking short-term domestic incentives to the formation of military coalitions. We focus on national leaders' political security, which depends on both institutions and policies (Chiozza and Goemans 2011). Winning or losing a conflict can modify a leader's prospects of retaining power (Bueno de Mesquita et al. 2003; Chiozza and Goemans 2004). Expectations over this process shape a leader's incentives to seek coalition partners whose cooperation can boost her military prospects, but she must be willing to provide side payments in return for their support. National leaders therefore face varied, short-term incentives to make choices that affect crisis outcomes but diverge from long-term national interests. This makes leaders a key yet understudied element in the construction of military coalitions.

In this theory, a leader concerned with the national interest and her own political survival chooses whether to act unilaterally in an international crisis or seek a coalition partner. The latter improves military prospects, which forwards both national interests and the personal interests of the leader. It also requires that she reward partners with side payments—something that, all things being equal, she would prefer to avoid. In equilibrium, she builds coalitions when she is politically insecure. That is, she sacrifices part of her state's national interest to improve her domestic position by increasing the likelihood of obtaining a foreign policy success. She also builds coalitions with an increasingly diverse set of partners as her security decreases; a secure leader is more resilient to failure and prefers not to pay the high requirements of a divergent partner's cooperation.

We test these predictions using data on coalition participation in international crises in the twentieth century (Wolford 2015). Our findings show that politically secure incumbents are uniquely unlikely to take on coalition partners relative to their insecure counterparts. Politically insecure leaders are not only more likely to build coalitions but also less selective in choosing them. In other words, they prove more likely to build coalitions with partners whose preferences diverge from their own.

We develop a novel domestic political explanation for the formation and membership of interstate military coalitions. By focusing on leaders' incentives as a function of domestic political processes and foreign policy outcomes,

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we are able to assess the balance between the two. We further show that neither treaties of alliance nor multilateral authorization—both linked to military cooperation—are necessary or sufficient for the formation of military coalitions; indeed, allies are rare among coalition members, and the majority of coalitions form without the diplomatic support of international institutions. Political security concerns affect leaders' incentives to initiate and escalate conflicts. We show that they also shape whether, and with whom, states build the military coalitions that have been party to the widest and most consequential wars in international history.

Military Coalitions and Domestic Politics

Potential coalition builders must answer two questions: With whom do they wish to cooperate (if anyone), and can they secure cooperation cheaply? Leaders consider military capabilities and other contributions in this analysis, including basing, staging, and transit rights. However, securing cooperation in crisis bargaining and war typically requires costly side payments. These take the form of policy concessions or adjusted bargaining strategies. How leaders resolve this tradeoff depends on structural features of the crisis, the set of plausible partners, and the link between foreign policy outcomes and domestic political survival.

The Politics of Military Cooperation

We define a military coalition as two or more states that threaten to cooperate in the use of force in an international crisis. The coalition's aims can be revisionist or status quo oriented, its threat can be explicit or implicit, and the crisis may or may not escalate to war. For our purposes, the key element is a threat of collective military action (cf. Wolford 2015, ch. 2). Coalitions take the form of short-term, crisis-specific aggregations of military power. They are distinct from diplomatic coalitions formed around institutional authorization (see Kreps 2011) and formal alliances, which are of uncertain reliability once general deterrence breaks down (Leeds, Long, and Mitchell 2000). Nearly 75 percent of all coalitions involve no allied states. Many of those that do, such as the Gulf War coalition of 1991, see non-allied states and allies fighting together outside the terms of treaty commitments. Other examples include the Jordanian-Iraqi coalition of 1958 that demanded an end to Israeli cross-border raids targeting Palestinian militants and the 1946 Turkish-American-British coalition that resisted Soviet demands for rights in the Turkish Straits in the wake of World War II.[1]

Acting with coalition partners promises military benefits, including capability aggregation, basing and staging rights, and operational divisions of labor. However, partners rarely offer costly cooperation for free. Coalition builders must compensate their partners in the form of side payments, such as political concessions and adjustments to war aims. Turkey, for example, received trade concessions, military aid, and political considerations for participation in the 1991 Gulf War coalition (Sayari 1992, 19). Pakistan requested a defense pact with the United States and support against India for its claim to Kashmir in return for ground troops in the Korean War. It received neither and did not contribute troops (Stueck 1995, 72–3).

Alliances are often concerned with long-term general deterrence, implicating structural factors such as military power (Waltz 1979), foreign policy interests (Gibler and Rider 2004), the distribution of efforts (Fang and Ramsay 2010), the specificity of commitments (Chiba, Johnson, and Leeds forthcoming), burden-sharing and specialization (Kimball 2010), and domestic institutions (Siverson and Emmons 1991). In principle, many arguments about alliance formation apply to coalitions. But an alliance treaty's concern with as-yet-unrealized conflict means that states look for, and scholars predict formation with, relatively stable, long-term structural factors.

Military coalitions are less persistent than alliances (forming as needed and disbanding afterwards), so we need to explain them using similarly short-term factors. Extant scholarship ties coalition formation to a mix of short- and long-term variables, albeit with different samples and definitions of coalition. Kreps (2011) links the immediacy of threats and operational needs to American choices of multilateral action in a small sample of foreign interventions. Tago (2007) and Chapman (2011) show that states are more likely to join a coalition builder's side in particular crises if the coalition builder enjoys the support of international organizations; Vucetic (2011) links joining a coalition to a shared cultural heritage; and Pilster (2011) shows that regime type interacts with alliances to shape war coalitions. Most of these explanatory factors reside at the *international* level, yet leaders must also weigh the *domestic* costs and benefits of securing military cooperation if they hope to ensure their own political survival.

Political Survival and International Conflict

Having entered a conflict, leaders are on average rewarded for victory and punished for defeat (Bueno de Mesquita et al. 2003; Chiozza and Goemans 2004; Colaresi 2004; Arena 2008; Debs and Goemans 2010; Croco 2011). They may be deposed for failed foreign policies (Richards et al. 1993; Smith 1996; Johns 2006) or more easily toppled if defeat compromises the repressive apparatus (Debs and Goemans 2010, 435). Both prospects make crises risky for leaders. Thus, leaders are most likely to initiate international crises when they are least vulnerable to losing office (Chiozza and Goemans 2011), minimizing the risks of being turned out of power.

The risk that defeat threatens her security in office should influence a leader's decisions not only before but also *during* a crisis. If the outcome affects her political prospects, then she has strong private incentives to avoid defeat. One option is to take on a coalition partner, which can increase the chances of victory. However, building coalitions requires making side payments, and political survival incentives may shape a leader's willingness to make those payments; she may be more or less willing to compensate partners, depending on how valuable they are in securing victory. For example, changes in domestic political support for leaders lead to the abrogation of alliance commitments in non-democratic states (Leeds, Mattes, and Vogel 2009), suggesting a desire to extricate from international commitments when a leader's position is weakened. Likewise, a leader considering a coalition partner weighs the increased chances of military success, and thus political survival, against the cost of side payments needed to secure that cooperation.

[1]These are ICB crises #153 and #111, respectively (Wilkenfeld and Brecher 2010).

Decision makers navigate complex international and domestic factors when they choose whether and with whom to cooperate militarily. While most attempts to understand this process have focused on structural, state-level predictors, we argue that a switch to national leaders as the unit of analysis can help us understand why some states build coalitions while others act alone. Leaders weigh the cost of securing the cooperation of a potential coalition partner against the personal gains of bolstering their political security. Below, we show how their political prospects entering crises shape leaders' willingness and ability both to secure coalition partners and to initiate crises in the first place.

A Theory of Military Coalitions

We analyze a game theoretic model of crisis initiation and coalition building, in which an incumbent leader may offer a potential partner a side payment in return for its military cooperation. The potential partner cooperates when the proposed compensation is sufficient to offset the costs of conflict. After specifying the model's assumptions, we prove the existence of a unique Subgame Perfect Equilibrium, from which we draw empirical implications.

Model

Suppose that the incumbent leader L of state A must choose whether to initiate a crisis against some target state T over a prize of unit value to each side. The outcome of the crisis depends on relative military strengths, and to increase her side's share of total capabilities, L can propose a coalition to a potential partner state P. Securing military cooperation requires compensation, and we model L's approach to this tradeoff in terms of both public and private interests. While she values the substance of the policy dispute and the retention of domestic resources (national interest), she also values her own political survival (personal interest), which depends on the outcome of the crisis.

Formally, A's leader values two goods. First, she values both her country's share of the prize and the pool of resources from which she makes side payments, and these combine to form the national interest (η). Second, she values retaining office, which constitutes her personal interest (α). Her payoff is the product of the national and her personal interest, or $u_L(\eta_L, \alpha_L) = \eta_L \times \alpha_L$. The unitary state P values its own national interest, such that $u_P(\eta_P) = \eta_P$. The target state is wholly nonstrategic. The target's military strength influences the crisis outcome (cf. Banks 1990), but we abstract away from other elements of its role in the crisis.[2]

At the game's first node, L either initiates a crisis against T or tolerates the status quo, at which her state controls a share $q \in [0, 1]$ of the prize and a full complement of domestic resources $S > 0$. If she initiates a crisis, she then chooses whether to act alone against the target or to propose a side payment $s \in [0, S]$ to P as an inducement to join a coalition. P either accepts the proposal, contributing its military might to the crisis at some cost, or rejects it, in which case A faces the target unilaterally. Whether L acts alone or with a partner, the crisis is a reduced-form costly contest that probabilistically distributes the whole prize to either state A or T.

If she tolerates the status quo, L receives $\eta_L = q + S$ for the national interest. P receives its valuation of the status quo, βq, where $\beta \in [-\infty, \infty]$ is a bias term representing the extent to which P shares state A's preferences over the issue. As β rises, P's preferred resolution of the issue increasingly resembles A's, but as β decreases, its preferences increasingly oppose A's. P weighs the crisis outcome by β whether it participates or not, such that P may care about the location of A's border with T or whatever policies the target might change (see also Benson 2012), but its valuation of the issue is also independent of any side payments.

A's leader also values retaining political power. If L tolerates the status quo, she survives in office with probability $\sigma(q)$, where

$$\sigma(q) \equiv \frac{\theta}{\theta + \omega}, \tag{1}$$

which is a ratio of the favorable elements in her political record (θ) to the sum of favorable and unfavorable elements ($\theta + \omega$) in her record. Let θ and ω be integers greater than one. Since $\sigma(q)$ is conditioned on the status quo, it is L's *baseline political security*, which increases in the number of favorable elements and decreases in the number of unfavorable elements in her record. A leader may be more likely to stay in power, for instance, if she has held it for a long time or if her domestic policies are successful. Slumping economies and hostile public opinion, on the other hand, are unfavorable elements. If she retains office, she receives 1, and she receives 0 if deposed. Her personal interest payoff is $\alpha_L = \sigma(q)$.

If L initiates a crisis but acts alone, she pays upfront costs $c_A > 0$ to challenge the status quo, and her state succeeds in the crisis with probability $p_A \in (0, 1)$. Success means that she enjoys all the benefits of revising the status quo while retaining national resources S, less the costs of the crisis c_A. Her national interest payoff in a bilateral crisis is $\eta_L = p_A - c_A + S$. P receives a payoff for A's success reflecting its own valuation for altered policy, weighted by the probability that state A wins the crisis and is able to set the policy, such that $\eta_P = p_A\beta$. Next, the incumbent's personal payoff α_L depends on the crisis outcome, such that she is rewarded for success but punished for failure. Success in the crisis adds one item to the count of favorable elements in her political record while failure adds an item to the unfavorable side of the ledger. Letting $\sigma(1)$ and $\sigma(0)$ represent success and failure respectively, her probability of political survival following the crisis is either

$$\sigma(1) \equiv \frac{\theta + 1}{\theta + 1 + \omega} \quad \text{or} \quad \sigma(0) \equiv \frac{\theta}{\theta + \omega + 1}$$

As $\theta + \omega$ increases, L's political survival depends less on the crisis outcome, and she becomes both better able to survive defeat and less likely to benefit from success. Her personal payoff in the crisis is $\alpha_L = p_A\sigma(1) + (1 - p_A)\sigma(0)$.[3] Note that the crisis outcome affects L's personal interest as a function only of victory or defeat, *not* of the

[2] In a single-period game of complete information in which rejection results in a costly contest, players will reach a settlement that reflects relative military capabilities (cf. Fearon 1995). Allowing the target to be strategic would thus not alter the implications of the theory for coalition formation because military capabilities shape payoffs in our reduced-form representation of the crisis (see also Gilligan, Johns, and Rosendorff 2010).

[3] The incumbent receives no reward or punishment for the formation of a coalition itself. Coalition building weakly increases the probability of success in the crisis, so its value to the leader is indirect.

distributive outcome. This coarse indicator of outcome is a clear signal of competence to those who choose whether or not to retain the incumbent in power.

If L wishes to form a coalition, she proposes a share $s \in [0, S]$ of her pool of resources, such that she retains $(S - s)$ and P receives s as compensation for its cooperation.[4] P's acceptance of the offer forms the coalition, which weakly increases the probability that state A wins the crisis; the coalition succeeds with probability $p_{AP} \geq p_A$. L's national interest payoff balances the improved probability of success against the costs of compensation, such that $\eta_L = p_{AP} - c_A + S - s$. Her personal payoff reflects her increased chances of victory in the crisis, such that $\alpha_L = p_{AP}\sigma(1) + (1 - p_{AP})\sigma(0)$. Should P accept, it receives $\eta_P = p_{AP} - c_P + s$, where $c_P > 0$ represents its own upfront costs of participation. If P rejects, the game proceeds as if L acts unilaterally.[5]

With preferences and the sequence of moves defined, we can characterize the leader's payoff function as

$$u_L(\eta_L, \alpha_L) = \begin{cases} (q + S) \times \sigma(q) & \text{if status quo} \\ (p_A - c_A + S) \times (p_A\sigma(1) + (1 - p_A)\sigma(0)) & \text{if bilateral crisis} \\ (p_{AP} - c_A + S - s) \times (p_{AP}\sigma(1) + (1 - p_{AP})\sigma(0)) & \text{if coalitional crisis,} \end{cases}$$

and the potential partner's as

$$u_P(\eta_P) = \begin{cases} q\beta & \text{if status quo} \\ p_A\beta & \text{if bilateral crisis} \\ p_{AP}\beta - c_P + s & \text{if coalitional crisis.} \end{cases}$$

For P, military cooperation is costly, and it may require some compensation to make participation worthwhile. L would like to enhance her military prospects, both to pursue the national interest *and* to bolster her political security, but this comes at the cost of side payments she would rather not make.

Analysis

We identify the unique Subgame Perfect Equilibrium, which requires that no player can commit *ex ante* to take an action that would not be in its interest if given the opportunity. We state the equilibrium and comparative statics formally in Propositions 1-4 but save proofs for the supplementary appendix, presenting a less formal discussion below.

Proposition 1 When $\beta \geq \underline{\beta}$, the following strategies constitute the unique Subgame Perfect Equilibrium. P accepts a proposal iff $s \geq s_{AP}$. When $\beta > \beta_{AP}$, L proposes $s^* = \max\{s_{AP}, 0\}$, and it initiates a crisis iff $c_A < c_A^{AP}$. When $\beta \leq \beta_{AP}$, L acts unilaterally, and it initiates a crisis iff $c_A < c_A^U$.

Proposition 1 states that a coalition forms when a side payment exists that the partner will accept and that the leader of state A will propose. Otherwise, no coalition forms, and L acts unilaterally. In the game's first move, L considers the possibility of coalition formation when she chooses whether to initiate a crisis at all. Our discussion follows this logic of backward induction, beginning with potential coalition formation before considering crisis initiation.

Coalition Formation

Proposition 1 states that P accepts coalition proposals satisfying

$$s \geq \max\{0, c_P - \beta(p_{AP} - p_A)\} \equiv s_{AP}. \quad (2)$$

L must offer a side payment at least this large to secure P's cooperation. As shown in Inequality (2), the required compensation increases in P's costs for participating (c_P), and it decreases in the extent to which P's foreign policy preferences align with A's (β). Further, more powerful partners, who offer a larger military boost and should ostensibly be able to drive harder bargains over side payments, are relatively *easier* to compensate as long as their preferences are minimally aligned with L's ($\beta > 0$).[6] Less powerful partners set a smaller military boost against their own costs for participating, making them relatively more difficult to compensate.

Since L wishes to compensate P as little as possible, she meets the acceptance constraint at equality, building a coalition when P's preferences are sufficiently similar to her own, or when

$$\beta > \left(\frac{c_P}{p_{AP} - p_A}\right) - \left(\frac{S + p_A - c_A}{p_{AP} + \theta}\right) - 1 \equiv \beta_{AP}. \quad (3)$$

Similar foreign policy preferences (high β) mean that the partner values state A's success in the crisis enough that it will cooperate for smaller side payments, and L is happier to take on a partner when doing so is cheap. All else equal, states are more likely to take on partners who share their foreign policy preferences, as opposed to those with more divergent interests (low β) whose cooperation requires greater compensation.

Inequality (3) shows that L's baseline political security also shapes coalition formation. Recall that, as θ increases, the leader becomes more likely to survive in office whatever the crisis outcome, shifting her primary focus to the national interest. Formally, the right side of Inequality (3) increases in θ, making the coalition formation constraint more difficult to satisfy. L hesitates to make large side payments when she can weather defeats in office. A politically insecure leader, by contrast, pays more for P's cooperation because success in the crisis has a larger effect on her chances of retaining office.

Proposition 2 The coalition formation constraint ($\beta > \beta_{AP}$) becomes more difficult to satisfy as θ increases.

Figure 1 plots the coalition formation constraint (β_{AP}) as a function of the number of favorable elements in L's

[4] We have analyzed a version of the model (in the Supplementary Appendix) where side payments come out of the distributive outcome of the crisis itself. The character of the equilibrium and the empirical implications remain similar to those presented here.

[5] It is plausible that the incumbent might pay some kind of political cost for failing to form a coalition, but since complete information dictates that she knows *ex ante* whether a proposal will succeed or fail, she would avoid failed proposals under the same conditions that she does in the present version of the model, leading to no substantive changes in the results.

[6] To see this, note that $\partial s_{AP}/\partial(p_{AP} - p_A) = -\beta$. We are indebted to an anonymous reviewer for noticing this feature of the equilibrium.

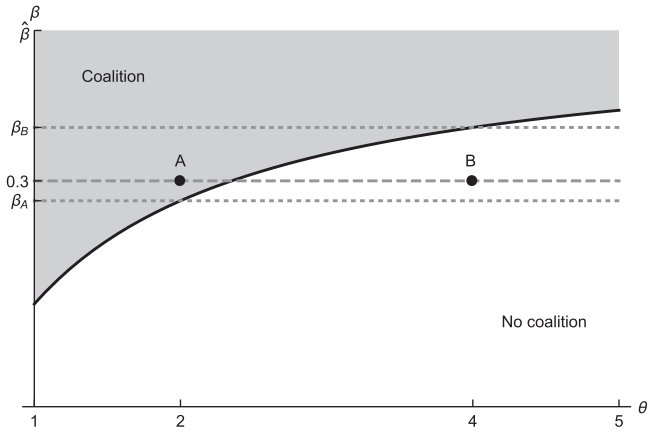

Figure 1. Coalition formation constraint and equilibrium outcomes by preference similarity and political security

baseline political record (θ) and the similarity of preferences between A and P. Below the threshold, or when $\beta \leq \beta_{AP}$, L acts unilaterally, but when $\beta > \beta_{AP}$ (shaded gray), L makes the required side payment, despite the fact that compensation comes at the expense of the national interest.[7] Note that $\hat{\beta} = c_P/(p_{AP} - p_A) - 1$ is the value that β_{AP} approaches in the limit as $\theta \to \infty$; when β surpasses $\hat{\beta}$, L is sure to build a coalition, even at her most politically secure.

Figure 1 also shows that L becomes less selective in her choice of partner as she becomes more politically insecure. Moving left along the horizontal axis, she is more likely to lose office after defeat, such that she is more willing to make large side payments to secure assistance. A secure leader will limit her proposals to only the cheapest partners (those with the most compatible preferences). The range of acceptable preference similarity grows as θ approaches one, or as the leader's job security declines. Consider points A and B in the figure, which are equal in preference similarity. While this level of similarity is sufficient to produce a coalition at A, it is insufficient at B, where the leader is more secure in office and less willing to make the necessary side payment.

As a result, the analyst's ability to predict whether an incumbent builds a coalition improves as L's political security decreases. To see how, suppose that β is a random variable distributed along $F(\beta)$. At point A, where $\theta = 2$, the probability of coalition formation is $\Pr(\beta > \beta_A)$, while at point B, where $\theta = 4$, it is $\Pr(\beta > \beta_B)$. Since $\Pr(\beta > \beta_A) > \Pr(\beta > \beta_B)$, the analyst can be more certain of predicting coalition formation when θ is low, because a wider range of β satisfies the formation constraint. The less secure a leader is in power, the more likely she is to find cooperation worth securing at any price, increasing the certainty with which she forms a coalition with P. As θ increases, other factors can outweigh the effects of preference similarity, leading to less confidence in the prediction that L forms a coalition. When θ is low, there should be fewer "misses" in terms of predicting a coalition, because more of the parameter space is taken up with values of β that satisfy $\beta > \beta_{AP}$, but as θ increases, the parameter space is more evenly shared between values of β that do and do not satisfy the coalition formation constraint, making coalitions harder to predict as a function of political security. Insecure leaders are thus more likely to find any particular partner acceptable, decreasing the variance around predictions of the probability of coalition formation even as the probability itself increases.

[7] In Figure 1, parameters are fixed at $c_P = 0.4$, $p_{AP} = 0.65$, $p_A = 0.35$, $S = 0.15$, and $c_L = 0.4$. Since $\overline{\beta} = -0.8\overline{3}$ and $\overline{\beta} = 1.\overline{3}$ fall outside the range of the graph, $(0.25, 0.\overline{3})$, we anchor the figure at $\beta = c_P/(p_{AP} - p_A) - 1 \equiv \hat{\beta}$.

Coalitions and Crisis Initiation

Proposition 1 states that L initiates a crisis when the costs of crisis bargaining are sufficiently low, or $c_A < c_A^U$ when she will act unilaterally and $c_A < c_A^{AP}$ when she will build a coalition. We analyze changes in these crisis initiation constraints as a function of expected coalition formation and L's baseline political security.

Proposition 3 When $\beta > \beta^\dagger$, the crisis initiation constraint is easier to satisfy when L will build a coalition than when it will act unilaterally ($c_A^U < c_A^{AP}$), but when $\beta_{AP} < \beta \leq \beta^\dagger$, the crisis initiation constraint is easier to satisfy when L will act unilaterally than when it will build a coalition ($c_A^U \geq c_A^{AP}$).

Proposition 3 states that there is no consistent bivariate relationship between the availability of a coalition partner and L's willingness to initiate a crisis. When P's cooperation comes cheap, or when $\beta > \beta^\dagger$, an available coalition increases the attractiveness of entering a crisis. However, when preferences are sufficiently similar to induce L to build a coalition but still sufficiently divergent to be expensive ($\beta_{AP} < \beta \leq \beta^\dagger$), L is *less* willing to initiate a crisis than she would be if no partner were available. When she cannot resist the temptation to build a relatively expensive coalition, she ties her hands against it by tolerating the status quo, choosing not to mortgage whatever she might gain in the crisis to ensure P's cooperation.

Next, Proposition 4 states that there is also no consistent bivariate relationship between L's baseline political security and crisis initiation, depending also on the distribution of military power.

Proposition 4 When L will act unilaterally, the crisis initiation constraint falls in θ when L is sufficiently likely to succeed ($p_A > p_A^\dagger$), and it rises in θ when L is insufficiently likely to win ($p_A < p_A^\dagger$). When L will build a coalition, the crisis initiation constraint falls in θ when L and P are sufficiently likely to succeed ($p_{AP} > p_{AP}^\dagger$), and it rises in θ when L and P are insufficiently likely to win ($p_{AP} < p_{AP}^\dagger$).

Whether L acts unilaterally or builds a coalition, increasing job security encourages crisis initiation when success is likely, but it discourages crises when success is unlikely. To see why, isolating the effects of each parameter is useful. First, increasing θ means that the crisis outcome has a smaller effect on L's political fortunes. Next, increasing either p_A or p_{AP} means that L is relatively more likely to benefit politically than to suffer from a crisis. How do these incentives interact? Beginning with the case in which L is likely to succeed in the crisis, she stands to gain politically. Yet she is only likely to use her military advantage to boost her chances of survival when her political record is weak. As θ rises, success means less to her political fortunes; thus, she is less likely to take advantage of a favorable military position when she is already secure in office. When she is unlikely to succeed militarily, her job security has precisely the opposite effect; since a crisis is

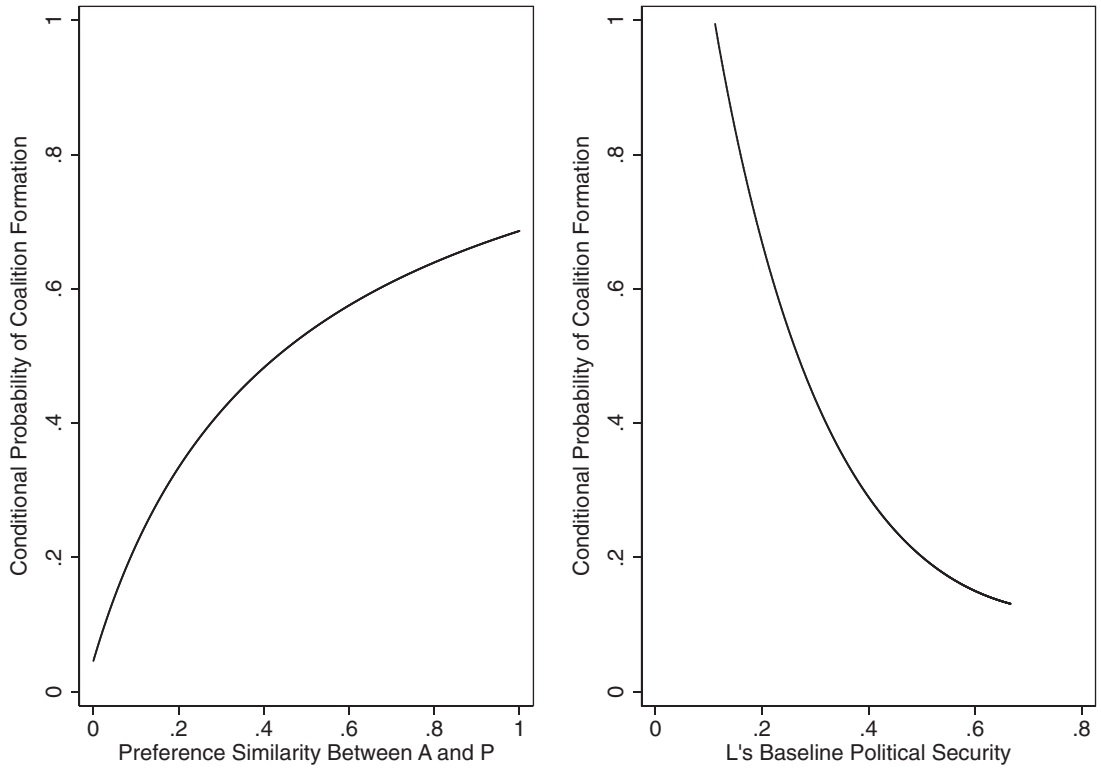

Figure 2. Conditional probability of coalition formation by preference similarity and political security

more likely to threaten her politically, she is only willing to initiate it when she is secure in office.

Propositions 3 and 4 are critical for our statistical models because they inform our understanding of the process by which states enter the sample of crises against which we test our hypotheses. We derive the implications of this selection process for our statistical analysis below, leveraging the theoretical model to make appropriate predictions about the patterns we expect to observe in a sample of international crises.

Statistical Models

The statistical analysis requires that we address two issues. First, since the potential for coalition building shapes the probability with which crises enter our sample, we derive hypotheses explicitly from the selection process. Second, while the effect of preference similarity is a straightforward claim about the mean of the outcome distribution, job security affects both the mean and the variance of the outcome distribution, necessitating the use of a heteroskedastic probit model. We therefore state hypotheses in terms of each of these moments of the outcome distribution before discussing data, model specification, and our empirical results.

Hypotheses

Adapting the stylized world of the theoretical model, where L considers only one potential partner, to the sample, where a would-be coalition builder chooses from many possible partners, requires that we sample on a set of dyads that pair each principal belligerent in a crisis (state A) with each possible coalition partner. (We define "principal belligerent" below.) The observed probability of coalition formation also depends on the selection process by which our sample of crisis participants emerges, so we base our hypotheses on the *conditional* probability of coalition formation, given that L has initiated a crisis. Using Bayes's Rule, this conditional probability, Pr(C|crisis), captures the intuition that the observed probability of coalition formation depends on the different rates at which states that will act unilaterally and those that will build coalitions enter the sample of international crises.

We examine how Pr(C|crisis) changes as a function of two variables: (a) preference similarity between A and a potential partner P and (b) L's baseline political security. Re-expressing the coalition formation constraint found in Inequality (3) in terms of c_A states that L builds a coalition when $c_A < c_A^{\dagger}$. Letting C denote a coalition and ¬C unilateral action, the probability that a leader who initiates a crisis also builds a coalition is

$$\begin{aligned}\Pr(\text{C}|\text{crisis}) &= \frac{\Pr(\text{C})\Pr(\text{crisis}|\text{C})}{\Pr(\text{C})\Pr(\text{crisis}|\text{C}) + \Pr(\neg\text{C})\Pr(\text{crisis}\neg\text{C})} \\ &= \frac{\Pr\left(c_A < c_A^{\dagger}\right)\Pr(c_A < c_A^{AP})}{\Pr\left(c_A < c_A^{\dagger}\right)\Pr\left(c_A < c_A^{AP}\right) + \Pr\left(c_A \geq c_A^{\dagger}\right)\Pr(c_A < c_A^{U})}, \quad (4)\end{aligned}$$

assuming that c_A is distributed uniformly along $(0, \overline{c}_A)$. Figure 2 plots the conditional probability of coalition formation as a function of β and θ.[8] This allows us to derive hypotheses that reflect the unobservable selection process that generates our observable data—a feature of the analysis that will be important once we discuss the need to model not just the mean but also the variance of the

[8]Parameters are fixed at $S = 0.5$, $\omega = 10$, $c_P = 0.2$, $p_A = 0.35$, $p_{AP} = 0.65$, $q = 0.5$, and $\overline{c}^A = 0.4$. For individual simulations, $\theta = 0.5$ and $\beta = 0.5$ when fixed. We simulate these relationships for widely varying values of p_A and p_{AP}, and the signs of the relationships remain the same.

outcome distribution, a problem for which estimators that also account for sample selection are unavailable.

The first hypothesis, derived from Proposition 1, treats the probability that a coalition forms between state A and some specific potential partner state P. As P's foreign policy preferences converge on A's, the side payment required to secure cooperation decreases, rendering coalition formation increasingly likely between A and P.

Hypothesis 1. *The more similar a principal belligerent's foreign policy preferences are to a potential partner's preferences, the more likely are the two to form a coalition.*

While Hypothesis 1 links coalition formation to the characteristics of individual partners, our hypotheses over political security involve a characteristic of a potential coalition builder that is consistent across all potential partner observations. As shown in the right panel of Figure 2, the relationship between L's political security and coalition formation remains negative, even taking into account the inconsistent effects of political security on crisis initiation indicated in Proposition 4.[9] Leaders in crises are thus more likely to build coalitions with any particular partner as their political insecurity increases.

Hypothesis 2. *The less secure the incumbent leader is in office, the more likely she is to form a military coalition with any given partner.*

Political insecurity also affects the *variance* of the outcome distribution. Less secure leaders (near the left of Figure 1) make offers to partners from across the spectrum of foreign policy preferences, making them leaders that are *more certain to form coalitions*, regardless of the pool of potential partners. More secure leaders are pickier, choosing partners as a function of independent variables unrelated to job security, such as preference similarity or military value. As stated in Proposition 2, the coalition formation constraint is more difficult to satisfy as L's job security increases, such that the decision is a function of conflicting elements, leading to wider variance in the decision to form coalitions. Less secure leaders more consistently make the same choice over coalition formation than more secure leaders, reducing the variance in the outcome distribution through a process of variance-reduction that Braumoeller (2006, 278–85) identifies as the result of constraint on strategic choice. In short, the theory implies a clearer choice for less secure leaders, which translates into Hypothesis 3's prediction over the pattern of heteroskedasticity in the statistical estimates.

Hypothesis 3. *The less secure the incumbent leader is in office, the lower the variance of the outcome distribution over coalition formation.*

Our key explanatory variables relate to either principal belligerents or to pairs of principal belligerents and potential partners, requiring the directed-dyad structure described in more detail below. Further, our predictions over the variance of the outcome distribution require a heteroskedastic probit estimator, which precludes the use of a model with sample selection. Thus, we analyze a sample of states that have already selected into international crises. The theoretical model yields precise predictions over coalition formation decisions that states involved in crises are likely to make, as derived in Equation (4). Should we find strong relationships between a leader's job insecurity and the mean and variance of the likelihood of coalition formation that match our theoretical expectations, these findings will be pieces of evidence that combine to inform our belief that the theory is useful for understanding the formation of military coalitions in international crises. Further, the narrow focus echoes what we believe to be the question of interest (When will coalitions form?) with an informed idea of the makeup of our sample.

Data and Model Specification

Testing our hypotheses requires data on international crises and their participants, especially (a) whether crisis participants build coalitions and (b) the identity of those partners. We use a sample of late twentieth century crises identified by the International Crisis Behavior (ICB) project (Wilkenfeld and Brecher 2010), which data limitations restrict to the period 1951-1999.[10] We focus on two-sided crises, which are defined by situations in which the highest-level decision makers in at least two states perceive threats from one another to some important value, time for reaction is limited, and there is a heightened probability of war (Brecher and Wilkenfeld 1997, 3). For each crisis, we identify a set of principal belligerents, or the two states contending over the primary issue and without which the crisis would not occur (Wolford 2015, 38). Iraq and the United States, for example, are the principal belligerents in the crisis that led to the 2003 Iraq War.

Coalition members are those states that side with a principal belligerent before the crisis escalates to war (if it escalates at all), making an implicit or explicit threat to cooperate in the application of military force. This includes the contribution of armed forces, as the United Kingdom provided in the 2003 Iraq War, or territory for the basing or staging of armed forces, as Kuwait provided in the same war. Purely diplomatic or financial support does not entail the same exposure to the costs and risks of military conflict as contributing either troops or territory, so we do not code it as military cooperation. Financial support (for example, Japan's contribution to the Gulf War coalition of 1991) allows states to pay a price and, effectively, look the other way; contributing troops or staging areas, however, opens one up to direct military costs and the possibility of retaliation. The data thus distinguish those instances in which a state cooperates militarily with a principal belligerent in a crisis from those in which no military cooperation occurs.[11]

Consider ICB Crisis #153, in which a Jordanian-Iraqi coalition traded military threats with Israel in 1958.[12] After Israel launched raids into Jordan in pursuit of Palestinian militants, Jordan requested Iraqi assistance in the event of further incursions. Iraq's King Faisal sent the army to the Jordanian border with orders to cross it and assist Jordanian forces in the event of further Israeli raids; Israel threatened further attacks on Jordan if Iraqi troops

[9]We plot $\sigma(q)$ on the horizontal axis, which is a function of θ, since the empirical models are based on the former quantity as opposed to the latter; both horizontal and vertical axes are a function of θ.

[10]These are the years for which political insecurity data are available.

[11]For details on the coding rules and a list of all coalitions and members, see Wolford (2015:34-38, 47-51).

[12]ICB Crisis Summaries, from which these anecdotes are drawn, can be accessed at http://www.cidcm.umd.edu/icb/dataviewer/.

Table 1. The principal belligerent-potential partner dyad structure of the data

Crisis	Principal disputant	Target	Potential partner	Job $Insecurity_L$	$Divergence_{AP}$	$Coalition^{AP}$
255	Israel	Egypt	USA	0.140	0.957	1
255	Israel	Egypt	UKG	0.140	0.882	0
255	Israel	Egypt	Kuwait	0.140	1.725	0
255	Egypt	Israel	Syria	0.138	0.280	1
255	Egypt	Israel	Lebanon	0.138	0.437	0
255	Egypt	Israel	USSR	0.138	1.498	1

crossed the border. In this case, Israel and Jordan are the principal belligerents, while Jordan and Iraq constitute a two-member coalition targeted at Israel. Not all crises with multiple participants on a side, however, constitute a coalition. ICB #427 pitted the United States against Afghanistan and Sudan, as the former launched cruise missile attacks against the latter two following Al Qaeda car bomb attacks against American embassies in Kenya and Tanzania. ICB identifies Afghanistan and Sudan as the United States' targets, but there is no evidence of military cooperation—observed or threatened—between the two states; we disaggregate this event into two crises.

After identifying principal belligerents and coalition membership for all ICB crises, we construct a dataset around directed principal belligerent-potential partner dyads. Each principal belligerent is observed as *A*, or a potential coalition builder, while the other is the target for those observations.

Then, the target in one observation is a potential coalition builder in another. For each principal belligerent, we construct a set of dyads that pair the potential coalition builder with a number of possible partners. These are (a) any state bordering either principal belligerent by land or less than 400 miles of water (Stinnett et al. 2002), (b) all the great powers (COW 2011), and (c) any state in either principal belligerent's Correlates of War-defined geographic region (Sarkees and Wayman 2010).[13]

Should a potential partner join a military coalition with *A*, then our outcome variable $Coalition_{AP} = 1$, while $Coalition_{AP} = 0$ for any pair of *A* and *P* that do not form a coalition. In ICB #153, every state paired with Israel as a potential partner is coded $Coalition_{AP} = 0$ when Israel is observed as *A*. When Jordan is observed as *A*, the Jordan-Iraq dyad is coded $Coalition_{AP} = 1$, while every other pairing of Jordan and potential partner is coded $Coalition_{AP} = 0$. Thus, our data allow us to measure characteristics of potential coalition builders (states observed as *A*), their targets (states observed as *T*), and every potential partner from which principal belligerents might draw in building a coalition (every state identified as *P*). This allows us to measure independent variables on each state in this triad—*A*, *T*, and *P*—as well as the relationships between them. Table 1 uses another crisis, the 1973 Yom Kippur War (ICB #255), to illustrate the structure of the data, though to keep things manageable it lists only six of the fifty-four observations in the dataset for this crisis.

Our first theoretical variable, *L*'s baseline political security, measures the concept's inverse, or $Job\ Insecurity_L$. We use Young's (2009) estimates, based on an event history model using an incumbent leader's time in office, the number of prior leadership changes, and domestic economic conditions to predict the probability that a leader in state *A* will lose office in a given year.[14] This captures an incumbent leader's yearly political prospects while holding constant any potential effects of foreign policy, which tracks with the intuition behind the political security function at the status quo, $\sigma(\theta)$, in Equation (1).

We measure preference similarity in two ways, both of which use Strezhnev and Voeten's (2013) estimated ideal points in the United Nations General Assembly (UNGA).[15] Each member state's votes inform estimates of its overall level of satisfaction with the United States-led international order formalized in the United Nations. Since UNGA votes are non-binding and variable in their content, states have strong incentives to vote in sincerely self-interested ways. Therefore, we can interpret differences in voting patterns as manifestations of differences in how states view the international status quo (Reed et al. 2008, 1207). To capture the extent of agreement/disagreement between *A* and *P*, we generate two variables. First, $Divergence_{TP}$ is the absolute value of the difference between the ideal points of *A*'s *target* and potential partner, which we can take as an indicator of how much the potential partner shares a preference with *A* for confronting the target state. Second, $Divergence_{AP}$ is the absolute value of the difference between *A*'s and a potential partner's estimated ideal points, capturing the extent to which the coalition builder's and potential partner's preferences tend to diverge. Where $Divergence_{TP}$ increases in preference similarity between state *A* and the potential partner, $Divergence_{AP}$ decreases in it. To ensure that ideal points are not based on the crises under observation, we lag them by one year.

We include control variables plausibly linked to coalition formation and either job insecurity or UNGA ideal points. At the crisis level, we control for principal belligerents' military capabilities using CINC scores (Singer, Bremer, and Stuckey 1972); geographical distance between *A* and *T* (Stinnett et al. 2002); whether the UN explicitly supported *A*'s use of force against *T* or formally condemned *T*'s actions in the crisis (Wilkenfeld and

[13]We adjust regions slightly, such that Western and Eastern Europe are considered part of the same region, as well as East Asia and Oceania. Otherwise, regions are North America, South America, the Middle East/North Africa, and the remainder of Africa. The shared region criterion captures a surprising number of coalition members that the distance threshold does not, such as Western European states joining the coalition arrayed against Serbia in the Kosovo War.

[14]Young (2009) replicates and extends Cheibub's (1998) measure of job insecurity, using source data from Bueno de Mesquita et al. (2003).

[15]We also estimate an alternative (in the Supplementary Appendix) that uses affinity scores calculated by the *S*-statistic based on UNGA voting (Signorino and Ritter 1999; Gartzke 2010). Results across job insecurity (both mean and variance) and affinity between *A* and *P* are similar, though affinity between *P* and *T* narrowly misses statistical significance, likely due to the fact that affinity scores exhibit less variation—and therefore convey less information—by construction.

Brecher 2010); whether A and P are democracies (Marshall and Jaggers 2009);[16] whether A is a great or major power (COW 2011); and whether the crisis occurs in the Post-Cold War era (after 1989), when diplomatic coalitions became easier to build under the aegis of the UN Security Council (Voeten 2005). For each potential partner, we measure its military capabilities, the job insecurity of its own leader, whether it is allied through a defense pact or entente with state A (Gibler and Sarkees 2004), its geographical distance from the target state, and whether it is a democracy.

Recall that Hypothesis 3 implies that the errors in a statistical model of coalition formation should not be constant, as assumed by standard regression models, but variable as a function of political security, or heteroskedastic. In the context of ordinary least squares regression, heteroskedasticity inflates standard errors, and estimates of the mean of the outcome distribution are inefficient but unbiased. For limited dependent variables, such as whether or not a coalition forms, a non-constant error variance produces *inconsistent* parameter estimates.[17] Yatchew and Griliches (1985, 138) show that "(a) biases [in parameter estimates] tended to increase as heteroskedasticity increased, and, (b) biases tended to be larger when the explanatory variable was correlated with the heteroskedasticity." Alvarez and Brehm (2002b, Appendix B, 13–14) likewise demonstrate that if estimates of coefficients "depend on the variance function" and "if there is heteroskedasticity in the data which is ignored, then the coefficient estimates are biased." Further, Greene (2003, 673–4) notes that probit "is *not* consistent in the presence of any form of heteroscedasticity [sic]," resulting in an estimator that is "biased in an unknown direction."[18] Therefore, we have no reason to expect that the mean estimate of *Job Insecurity*$_L$ in a naive probit model will have appropriate standard errors or the proper sign.[19] Heteroskedastic probit addresses this problem by estimating both the mean and variance of the outcome distribution as a function of independent variables (Alvarez and Brehm 1995, 2002a). Since we are interested in both the probability of coalition formation *and* the selectivity of potential coalition builders, we do not merely wish to correct for heteroskedasticity as a nuisance but to model it. This makes heteroskedastic probit the most useful estimator.

We estimate the following model, which allows a leader's level of political insecurity to shape both the probability that a coalition forms and the error around the model's estimates of that probability. The full specification is

$$\begin{aligned}\Pr(\text{Coalition}_{AP}) = \Phi[&\alpha + \beta_1(\text{Divergence}_{TP}) \\ &+ \beta_2(\text{Divergence}_{AP}) \\ &+ \beta_3(\text{Job Insecurity}_L) + \beta\mathbf{X} + \boldsymbol{\varepsilon_i}] \quad (5)\end{aligned}$$

for the mean function, where Φ is the CDF of the standard normal distribution, $\beta\mathbf{X}$ is a vector of control variables and their coefficients, and ε_i is an error term clustered on the individual crisis. The variance function is

$$\text{var}(\varepsilon_i) = \exp\left[\gamma_1(\text{Job Insecurity}_L)\right]^2, \quad (6)$$

where the variance of the errors ε_i in Equation (6) is a function of L's job insecurity, as predicted by Hypothesis 3. This allows us to track the effect of a leader's political insecurity on both mean (Equation (5)) and variance of the outcome distribution (Equation (6)) while ensuring the consistent estimation of the former.

Statistical Analysis

Table 2 presents the results of two models of coalition formation. The naive probit of Model 1 assumes constant error variance, which we include for comparison with Model 2, the heteroskedastic probit that allows L's job insecurity to shape the variance of the outcome distribution. While the signs and statistical significance of most of the mean coefficients are consistent across Models 1 and 2, the sign *and* statistical significance of *Job Insecurity*$_L$ changes, as we might expect for variables violating the assumption of homoskedasticity.

Recall that any variable that raises the cost of compensation should reduce the probability that two potential partners form a coalition. Furthermore, an increase in a variable that makes A more willing to pay those costs—regardless of partner—will raise the probability of coalition formation and decrease the variance of the outcome

Table 2. Statistical models of coalition formation in crises, 1951-1999

Variable	Model 1 *Probit*	Model 2 *Het. Probit*
	Mean Estimates	
Theoretical Variables		
Job Insecurity$_L$	−0.88 (1.29)	1.95 (0.78)**
Divergence$_{TP}$	0.28 (0.11)***	0.17 (0.08)**
Divergence$_{AP}$	−0.19 (0.07)**	−0.11 (0.06)**
Crisis-Level Controls		
CINC$_A$	0.03 (4.54)	0.29 (2.85)
CINC$_T$	−2.33 (2.29)	−1.08 (1.75)
Distance$_{AT}$	−0.10 (0.06)	−0.08 (0.04)*
UN Support$_A$	0.93 (0.52)*	0.69 (0.31)**
Democracy$_A$	−0.10 (0.25)	−0.07 (0.16)
Major Power$_A$	0.35 (0.64)	0.19 (0.41)
Post-Cold War	0.08 (0.23)	0.05 (0.14)
Potential Partner Controls		
CINC$_P$	3.89 (1.05)***	2.54 (0.92)***
Job Insecurity$_P$	1.58 (0.41)***	1.07 (0.31)***
Allies$_{AP}$	0.45 (0.13)***	0.31 (0.09)***
Distance$_{PT}$	−0.16 (0.03)***	−0.10 (0.03)***
Democracy$_P$	0.02 (0.12)	0.03 (0.08)
Intercept	−2.18 (0.31)***	−1.91 (0.24)***
	Variance Estimates	
Job Insecurity$_L$	–	−2.39 (0.79)***
	Model Statistics	
N	7866	7866
Log-Likelihood	−318.02	−316.06
Aikake Information Criterion	668.04	666.13
Wald test $\sigma^2 = 0$	–	$\chi^2_{(1)} = 9.07$***

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$, in two-tailed tests. Standard errors, clustered by crisis, reported in parentheses.

[16]To be coded as a democracy, a state must score a 6 or greater on Polity's combined democracy-autocracy scale. We included separate analyses in the Supplementary Appendix based on the full 21-point Polity2 scale and split samples between democracies and non-democracies.

[17]That is, in repeated sampling there is no guarantee that an inconsistent estimator will recover the same parameter estimates, such that the estimated parameter may be equal to the true value in expectation but will not converge on it as a consistent estimator would.

[18]On the spelling of "heteroskedasticity," see Mcculloch (1985).

[19]For discussions in political science, see Keele and Park (2006) and Bas (2012).

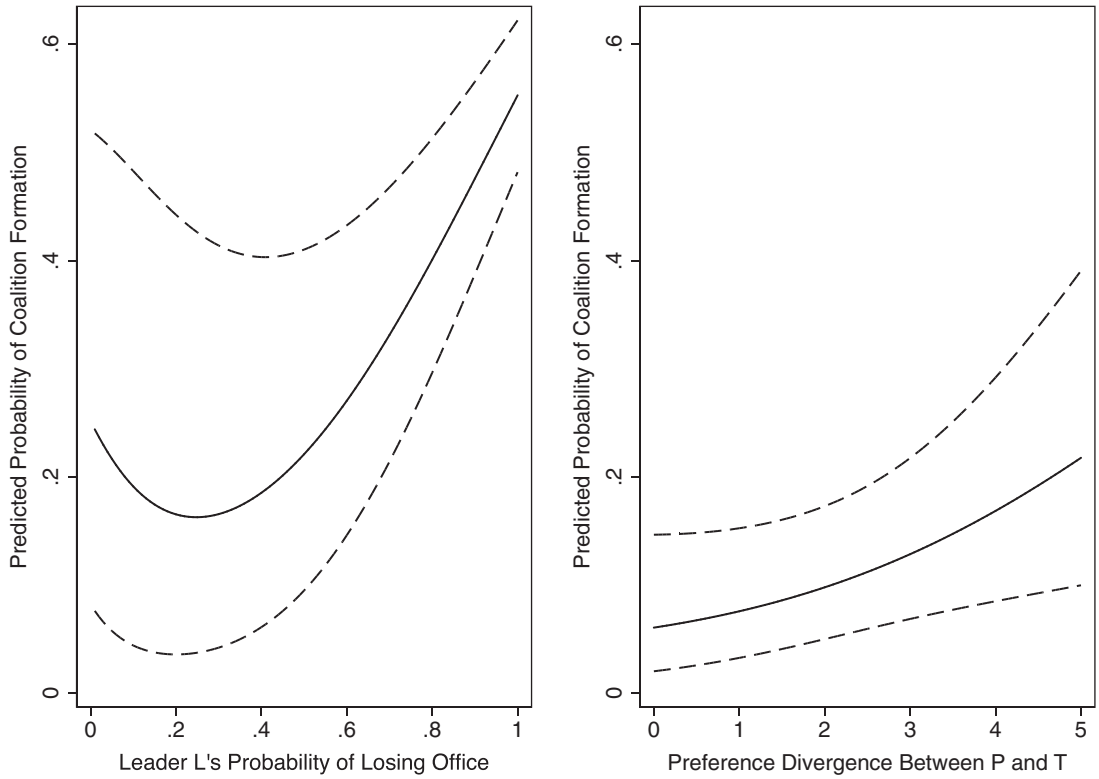

Figure 3. Predicted probability of coalition formation by (a) principal belligerent's job insecurity and (b) preference divergence between target and potential partner

distribution because the strength of the association will grow relative to potentially competing incentives as the willingness to compensate partners increases. That is, our ability to predict outcomes based on such a variable should increase as the variable increases because it is less likely to be counteracted by unrelated factors that would otherwise work against coalition formation.

To assess Hypothesis 1, we examine the coefficients on $Divergence_{TP}$ and $Divergence_{AP}$, which track decreasing and increasing costs of compensation, respectively. Both coefficients are distinguishable from zero at $p < 0.05$, and they are signed as expected. As a potential partner's preferences diverge from the target state's, P is more likely to join a coalition with A. As a potential partner's preferences diverge increasingly from A's, the probability that the two form a coalition decreases. In each case, we can reject the null hypothesis of no relationship between preference similarity and coalition formation.

Hypotheses 2 and 3 both involve $Job\ Insecurity_L$, for which the relevant coefficients can be found in the mean and variance equations, respectively. As expected, the coefficient on $Job\ Insecurity_L$ in Model 2 is positive and statistically discernible from zero at $p < 0.05$, allowing us to reject the null hypothesis of no relationship. Politically insecure leaders are systematically more likely to build coalitions than more politically secure leaders. Next, as predicted by Hypothesis 3, the variance in the outcome distribution decreases as state A's leader becomes less secure, strengthening the relationship with coalition formation as fewer countervailing incentives can counteract a strong domestic political incentive to build a coalition. By comparison, failing to model the error variance leads to an incorrectly signed coefficient and inflated standard errors in the naive probit of Model 1.

For a sense of the substantive impact of the theoretical variables, Figure 3 plots predicted probabilities of coalition formation with 95 percent confidence intervals for $Job\ Insecurity_L$ and $Divergence_{TP}$. $Job\ Insecurity_L$ and $Divergence_{TP}$ range from the sample minimum to the sample maximum, while continuous variables are held at their means and dichotomous variables at their modes. The left panel simulates the probability that a leader builds a coalition with a partner of average preference divergence as a function of her own job insecurity, while the right panel simulates the probability that a leader of average job insecurity builds a coalition with a partner of varying levels of preference divergence.[20] In the left panel, low levels of job insecurity evince no discernible relationship with the probability of coalition formation; as noted in the discussion of Figure 1, very secure leaders are free to make choices over military cooperation based on factors other than their personal political survival.[21] Once the risk of losing office becomes more appreciable—around 0.25—the mean probability of coalition formation begins to increase in L's probability of losing office, and the variance around those estimates decreases accordingly. Increasing political insecurity makes leaders more likely to build military coalitions on average, and they are increasingly certain to do so as they become less selective in their choice of partner.

The right panel presents the effect of increasingly divergent preferences between A's potential partner and target

[20]The former explains the apparently high predicted probabilities at high levels of job insecurity in the left panel; not all potential partners in the sample are of average cost, but with the few that are, a highly insecure L is quite likely to build a coalition.

[21]Note that as $\theta \to \infty$, the first partial of β_{AP} with respect to θ approaches zero, such that the probability of coalition formation does not change as θ increases at such high values.

state, also positively related to the probability of coalition formation. Starting at the left side of the scale, where *P* and *T* have very similar preferences, the probability that *A* draws *P* into a coalition is low (around 0.05), consistent with the higher costs of securing the cooperation of an enemy's friend. As the potential partner's preferences grow more antagonistic to *T*'s, the probability of coalition formation rises and peaks at around 0.22 when preferences between target and potential partner are most divergent. This is a large increase in the predicted probability of coalition formation, which is 4.4 times more likely at the right end than the left end of the scale.

Our empirical models are consistent with the implications of our theoretical model, and these results emerge in the presence of control variables indicating whether states are democratic, which tends to affect average levels of political security (Chiozza and Goemans 2004; Debs and Goemans 2010), the similarity of foreign policy preferences (Gartzke 1998), and the makeup of coalitions during war (Pilster 2011). A preexisting alliance raises the probability that two states will form a coalition, as we might expect from the alliance literature (Leeds 2003; Leeds, Long, and Mitchell 2000), as does the approval of the UNSC (Chapman 2011, Ch. 5), but formal commitments and institutional approval are neither necessary nor sufficient for the formation of military coalitions.

Conclusion

The literature on military cooperation lacks attention to crisis-specific instances of military cooperation that do not involve allied states. This poses problems because states often cooperate outside the framework of alliances. Scholars often associate coalitions with persistent collective action problems and failures to signal resolve (Lake 2010/2011; Auerswald and Saideman 2014; Byman and Waxman 2002), yet these studies beg the question of coalition formation in the first place. We offer an answer to this question, explaining when states take on coalition partners, as well as their willingness to build diverse coalitions. Coalitional diversity shapes the probability of war and the beliefs of fearful outsiders that might choose to expand the war (Wolford 2014a,b, 2015). We show that politically insecure leaders will be those most likely to build the diverse coalitions that implicate these processes. Failing to account for the sources of coalitional diversity can lead to suspect inferences, but analysts can use our results over coalitional formation and diversity to better predict conflict expansion and escalation in future conflicts.

We also contribute to the literature that takes national leaders as units of analysis (see, *inter alia*, Licht 2010; Chiozza and Goemans 2011; Saunders 2011; Weeks 2014). Most work on military cooperation looks to state-level characteristics to explain military cooperation, but a focus on leaders leads to predictions that differ from what we might expect based on state-level characteristics alone. While leaders in general prefer partners with similar foreign policy preferences, insecure leaders buck this trend, taking on any partner they can to enhance their chances of success. Further, leader- and state-level factors interact in our model, most clearly in the link between job security and partner selectivity, suggesting that we should reject claims for the superiority of one unit or level of analysis over the other. Future work should explore whether other factors encourage otherwise politically secure leaders to prefer multilateral action—such as, first, the pursuit of a costly domestic agenda, or second, strong domestic opposition to the allocation of scarce resources to the pursuit of foreign policy goals. While many see multilateralism as an unalloyed good that involves states conceding their interests to those of the greater international good (see, for example, Nye 2002), we show that it may actually involve sacrificing national interests to a leader's personal interests.

In a practical sense, our results shed light on the domestic politics of multilateralism. They suggest that we can see coalition building as a popular policy pursued by unpopular leaders. Leaders may have incentives to "gamble for resurrection" with high-risk foreign policies when they believe that an international success can stave off the likely loss of office (Downs and Rocke 1994; Chiozza and Goemans 2011). Coalition building may provide another option of demonstrating competence—but one that induces restraint rather than recklessness in bargaining and military postures (Kreps 2011; Wolford 2014b). Our model may also help predict when leaders are more or less likely to act multilaterally; they may, for example, tend to act unilaterally early in their tenure, when most secure in office, but tend toward more cooperative policies later, as their grip on power wanes or as elections approach. Finally, the statistical analysis also shows that a potential partner's own job security also increases the chances that it joins a coalition. This suggests that domestic politics shapes both the willingness to pursue partners and the price at which their cooperation can be bought. It points towards avenues for further research into the makeup of the military coalitions. After all, such coalitions account for a large percentage of all military cooperation in international relations.

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