

# Do Threats of Abandonment Motivate Increased Burden-Sharing? Evidence from U.S. Alliances

Brian Blankenship\*  
University of Miami

## Abstract

Fear of abandonment plays a key role in theories of alliance bargaining, and existing literature suggests that states can use their partners' abandonment fears to obtain favorable concessions for themselves. But evidence on the effectiveness of threats of abandonment as motivation for defense burden-sharing remains scarce. This article uses a survey experiment conducted in Poland and Germany to assess how American signals of support and threats of abandonment shape public support for increasing their countries' military spending. The findings suggest that threats of abandonment increase public support for higher defense spending. However, threats are most effective when they are paired with assurances of protection if the target country complies and when they do not fundamentally undermine targets' confidence in U.S. protection. The findings have implications for scholars' understanding of alliance politics and the utility of public pressure, as well as for policy debates about effective levers for encouraging defense burden-sharing.

---

\*Assistant Professor, Department of Political Science, University of Miami. [bx731@miami.edu](mailto:bx731@miami.edu).

# 1 Introduction

Under what conditions can states use coercion to secure policy concessions? Coercion is a central means by which states pursue their goals, as the threat to impose harm offers states the possibility to achieve their objectives at a lower cost than actually engaging in costly struggles like armed conflict (Schelling, 1966; Fearon, 1995). As such, scholars of international relations have long been interested in why coercion succeeds or fails (Fearon, 1994, 1997; Pape, 1996; Pfundstein Chamberlain, 2016; Powers and Altman, 2022). In general, existing scholarship argues that successful coercion requires the blending of credible *threats* to impose harm on a target along with *assurances* that the target will not be harmed if it complies (Davis, 2000; Sechser, 2018; Cebul, Dafoe, and Monteiro, 2021). To date, however, most theoretical and empirical work in international relations has focused on coercion using negative sanctions – threats to impose harm, often though not exclusively through military force – in the context of adversary countries. The role of positive inducements – promises to reward or withhold rewards – has received less attention (Knopf, 2012; Cebul, Dafoe, and Monteiro, 2021).<sup>1</sup>

This article studies coercion in the context of military alliances. Unlike in adversarial relationships, where coercion typically relies on the threat to impose harm, in alliance relationships coercion instead revolves around states' ability to withhold positive inducements through the threat of *abandonment* (Pressman, 2008). Seminal works suggest that allies can use the possibility of withholding security assistance in wartime to obtain policy concessions on a variety of issues, ranging from trade to nuclear nonproliferation and policies toward mutual adversaries (Snyder, 1997; Crawford, 2003; Norrlof, 2010; Bove, Elia, and Sekeris, 2014; Gerzhoy, 2015). But evidence on the effectiveness of threats of abandonment relative to other forms of persuasion remains scarce.

---

<sup>1</sup>One notable exception is the literature on foreign aid and policy concessions (Bueno de Mesquita and Smith, 2007, 2016; Sullivan, Tessman, and Li, 2011). See also Blankenship (2020) and Blankenship and Lin-Greenberg (2022) on assurances of support in military alliances.

Moreover, the article focuses on how the public reacts to attempts at alliance coercion. Public coercion comes with trade-offs; while “going public” may enhance credibility by generating domestic audience costs for leaders in the sending country who back down (Fearon, 1994; Tomz, 2007), doing so also runs the risk of making it more difficult for leaders in target countries to back down by creating a backlash among their own domestic audiences (Stasavage, 2004; Powers and Altman, 2022). Existing literature on alliance bargaining in particular points to the role of private threats (Crawford, 2003; Pressman, 2008; Gerzhoy, 2015; Blankenship, 2021), but we know relatively little about the degree to which leaders in target countries might face a domestic backlash for caving into public threats. Indeed, where U.S. President Donald Trump differed from his predecessors was not so much his use of threats to abandon allies – which are historically relatively common (Blankenship, 2021) – but rather the harsh, public nature of his language. This approach led many observers to predict that Trump’s presidency would at best fail to achieve his desired alliance goals and at worst fundamentally undermine American alliances (Rapp-Hooper, 2020). But the effectiveness of public alliance threats remains uncertain.

The article tests competing explanations of successful coercion and persuasion in the area of defense burden-sharing. Determining how the responsibilities of mutual defense are distributed among allies is among the most fundamental functions of an alliance. Without an adequate and acceptable sharing of defense burdens, the alliance risks failing to supply enough military power to deter attacks by adversaries or causing discord among partners. Yet a substantial body of conventional wisdom is pessimistic about states’ ability to coerce their partners to invest more in defense. One view holds that coercion is likely to fail because allies are unlikely to believe that their partner would actually carry out its threats to abandon them, whether due to the partner’s inherent strategic interest in the alliance (Olson and Zeckhauser, 1966), their relative size disparity (Morrow, 1991), or to its costly signals of commitment (Fearon, 1997; Lake, 2009; Martínez Machain and Morgan, 2013). Others argue that coercion could backfire, causing allies to resent attempts to strong-arm them, undermining their confidence in the alliance, and leading them to

seek other means of meeting their security needs. In this view, holding the alliance hostage to burden-sharing will at a minimum provoke stubborn resistance, and runs the risk of encouraging allies to seek nuclear weapons and de-align their foreign policies with that of the coercing partner (Brooks, Ikenberry, and Wohlforth, 2012; Gerzhoy, 2015; Schake, 2017; Daalder et al., 2021).

I draw on data from a survey experiment conducted among nationally representative samples of adults in Germany and Poland to test three models of burden-sharing pressure: the Rational Free-Riding model, the Alliance Solidarity model, and the Backlash model. Each makes a distinct prediction about the optimal strategies for encouraging allied burden-sharing. The Rational Free-Riding model, for example, emphasizes the importance of reducing allies' incentives to free-ride by leaning on the threat of abandonment. The Alliance Solidarity model, meanwhile, predicts that threats might backfire by fostering resentment. Instead, allies respond positively to gestures of reciprocity and to moral appeals. Burden-sharing, in this telling, results from feelings of mutual obligation and a sense of shared purpose. Finally, in the Backlash model, targets respond to foreign attempts to influence the country's policies by becoming angry, rallying around the flag, and turning against the alliance, undercutting the effectiveness of persuasion attempts.

The findings suggest that the Rational Free-Riding model offers the best explanation for the effectiveness of U.S. burden-sharing pressure, but with important caveats. Overall, threats of abandonment increase public support for higher defense spending, especially among respondents who already had a higher pre-treatment perception of external threat. Appeals to shared obligations and duties, by contrast, had no discernible effect. However, while the prospect of abandonment by itself did increase support for defense spending, U.S. coercion was especially effective when paired with assurances of protection if the target country complied. Moreover, analysis of the causal mechanisms suggests that if targets view threats as too heavy-handed, or view their credibility as too high while that of assurances as too low, this can trigger feelings of anger, annoyance, and distrust in the credibility of the United States, which in turn negatively predict defense spending preferences.

Thus, the evidence suggests that threats of abandonment made in public might be no less effective than those made in private have been shown to be (Blankenship, 2021, 2023). Indeed, while one cannot necessarily assume that the findings would hold for policymakers as well, recent evidence suggests that foreign policy elites and the public respond quite similarly to survey experiments, and thus the results likely have implications for understanding both elite-to-public and elite-to-elite pressure (Kertzer and Zeitzoff, 2017; Yarhi-Milo, Kertzer, and Renshon, 2018; Kertzer, 2020; Kertzer, Renshon, and Yarhi-Milo, 2021). Ultimately, the findings suggest that while threats of abandonment can work, coercers must take care to ensure that they do not fundamentally undermine the target’s confidence in them.

This article makes two main contributions to scholarship. First, it adds to the literature on coercion in international relations in several ways. For one, whereas most literature on coercion focuses on threats to impose harm through negative sanctions, this article explores the effectiveness of positive inducements and threats to withhold them – including in the form of threats to reduce protection under an alliance treaty. Second, the article provides further evidence on the conditions under what coercion succeeds or fails, and in particular by providing evidence on the relative effectiveness of combining threats and assurances. While the theoretical scholarship on coercion has long emphasized the importance of combining threats and reassurance (Davis, 2000), the literature has only recently begun testing the effects of threats, assurances, and the interaction between them in a systematic way, particularly using experimental evidence that can allow researchers to overcome a variety of causal inference challenges (Carnegie, 2015; Sechser, 2018; Cebul, Dafoe, and Monteiro, 2021). Finally, the article contributes to our understanding of how public opinion affects attempts at coercion. There has been a great deal of research on the role of public opinion on a sending state’s ability to successfully coerce. For example, the literature on domestic “audience costs” explores whether the threat of being domestically punished for backing down on threats and promises enhances the effectiveness of a sending state’s coercion (Fearon, 1994; Schultz, 1998; Lin-Greenberg, 2019). But with a few exceptions (Cebul, Dafoe, and Monteiro, 2021; Powers and

Altman, 2022), there has been comparatively less attention to the role of public opinion in the state being coerced.<sup>2</sup>

Second, the article contributes to the literature on alliance politics by shedding light on the relative effectiveness of different strategies for securing policy concessions, particularly in the area of defense burden-sharing. For decades, the literature on burden-sharing has been defined by Olson and Zeckhauser's (1966) "economic theory of alliances," which holds that larger members of alliances tend to disproportionately contribute for collective defense since their contributions ultimately matter most (Sandler, 1977, 1993; Oneal, 1990; Plümper and Neumayer, 2015). The role of coercion and bargaining has been largely understudied, however. While some studies assess bargaining over burden-sharing in the context of individual alliances like NATO or the U.S.-South Korea Mutual Defense Treaty (Lee and Heo, 2002; Thies, 2003), they do not offer general theories of burden-sharing success or failure. A recent wave of scholarship has attempted to fill this gap, but has done so by focusing more on the conditions that make for favorable bargaining over burden-sharing rather than the relative effectiveness of competing strategies, and by focusing on private rather than public pressure (Fang and Ramsay, 2010; Blankenship, 2021).

## **2 Coercion in International Relations**

The international relations literature generally distinguishes two forms of coercion: deterrence, which entails using threats to discourage certain behaviors, and compellance, which involves using threats of harm to force changes in behavior. In either case, the conventional wisdom in the literature is that successful coercion requires three elements: (1) the ability to inflict harm; (2) the willingness to inflict harm; and (3) reassurance that harm will not be inflicted if the target complies (Schelling, 1966; Pape, 1997; Cebul, Dafoe, and Monteiro, 2021).

In turn, large bodies of literature study the causes of successful deterrence and compellance. The literature on deterrence, for its part, suggests that deterrent threats succeed more often when

---

<sup>2</sup>Another notable exception is the literature on the effectiveness of economic coercion (e.g., Grossman et al., 2018; Frye, 2019; Gueorguiev, McDowell, and Steinberg, 2020).

the sending state has a greater stake in the disputed issue, when they are backed up with substantial military power, and when the sending state reinforces them with costly signals of resolve (Huth, 1988; Fearon, 1997; Danilovic, 2002; Fuhrmann and Sechser, 2014; McManus, 2018). The literature on compellence is more sparse, and its findings more mixed. Scholars disagree, for example, about whether possessing nuclear weapons increases the likelihood of compellence success (Sechser and Fuhrmann, 2013; Kroenig, 2013). Similarly, other studies set out to explain why the United States has often failed in its compellence attempts despite preponderant military power (Pfundstein Chamberlain, 2016) or why certain tools of statecraft – such as air power or economic sanctions – are poorly suited to coerce (Pape, 1996, 1997).

Existing scholarship leaves a number of gaps, however. For one, until quite recently, the empirical study of coercion has largely neglected the role of assurances. Recent studies have begun to reverse this trend (e.g., Carnegie, 2015; Sechser, 2018; Cebul, Dafoe, and Monteiro, 2021) but more work remains to be done, especially when it comes to coercion in alliances. Additionally, to date the literature has largely relied on observational evidence.<sup>3</sup> In addition to standard causal inference problems such as omitted variable bias and reverse causality, studying deterrence using observational evidence is difficult because the outcome of interest is a non-event – the absence of conflict – and it is difficult to prove the negative. Moreover, studying compellence is difficult because compellant threats are not made at random, and states may self-select into compellant attempts with a high likelihood of success.

Moreover, the literature on coercion has largely focused on interactions among adversaries rather than among allies. In the alliances literature, coercion plays a similarly central theoretical role, with the most seminal treatment being that of Glenn Snyder (1997), who argues that coercive bargaining leverage hinges on its relatively level of dependence upon and commitment to the alliance. The more an ally needs an alliance and the more committed it is to its partner – and, conversely, the less its partner needs and is committed to the alliance – the less successful an ally's

---

<sup>3</sup>Though see Grossman et al. (2018); Frye (2019); Cebul, Dafoe, and Monteiro (2021); Powers and Altman (2022)

coercive attempts will be. Future scholars built upon Snyder's (1997) work to draw insights into how allies bargain over a number of issues, including how allies restrain each other from engaging in conflict (Crawford, 2003; Pressman, 2008; Owsiak and Frazier, 2014). Yet alliance coercion is still remarkably understudied, particularly on the issue of defense burden-sharing. Moreover, existing studies of alliance bargaining leave familiar gaps – most notably their reliance on observational evidence, which not only makes it difficult to compare the effectiveness of different coercive strategies while holding contextual factors constant, but also creates the potential for biased inferences. For one, as described above, allies may not attempt coercion in cases where it is likely to fail. Additionally, allies may be reluctant to coerce each other openly and publicly, lest they give adversaries the impression that the alliance is disunited and tempt them to either test it militarily or to further drive a wedge in the relationship (Snyder, 1997; Crawford, 2021). Moreover, overt, public threats might shrink leaders' ability to make concessions lest they look weak to domestic audiences, and in general can foment resentment to the alliance among those audiences (Baum, 2004; Stasavage, 2004; Kurizaki, 2007; Gruffydd-Jones, 2019; Powers and Altman, 2022). Thus, easily observable cases of attempted alliance coercion are unlikely to be a representative sample of the universe of potential cases.

This study attempts to fill these gaps using experimental evidence on public bargaining over defense burden-sharing in U.S. alliances. Previous research points to the role of threats of abandonment in motivating allied burden-sharing (Fang and Ramsay, 2010; Blankenship, 2021), but largely focuses on the conditions that make for favorable bargaining over burden-sharing, rather than the effectiveness of different strategies. Moreover, while existing evidence suggests that private pressure can succeed in increasing defense spending (Blankenship, 2021, 2023), we know little about the effectiveness of public pressure, which as described above might run the risk of backlash. Thus, I present evidence on the relative effectiveness of different approaches that can be used to encourage allies and their publics to assume a greater share of the collective defense responsibility – including compellance using threats of abandonment, “naming and shaming” allies for



under-contributing, and appealing to allies' senses of mutual obligation, fairness, and reciprocity.

### **3 Three Models of Burden-Sharing Pressure**

This article tests three competing models of successful burden-sharing pressure, each of which makes distinctive predictions about the approaches that will be effective or not in encouraging greater defense efforts. The first is the Rational Free-Riding model, which emphasizes allies' incentives to free-ride to the extent that they believe they will be protected. This model would predict that successfully encouraging burden-sharing requires withholding or threatening to withhold protection in exchange for burden-sharing. The Alliance Solidarity model, in turn, emphasizes that alliances are social relationships, and that partners may resent their patron for attempting to hold the relationship hostage and lose trust that their patron would honor its promises to protect them and not simply demand even more burden-sharing once they comply with its initial demand. Successful burden-sharing pressure in this model requires appealing to the partners' mutual obligations and common interests, rather than trying to change their incentives. Finally, in the Backlash model, any overt attempt to pressure partners may backfire by fostering resentment, anger, and feelings of nationalism.

#### **3.1 Rational Free-Riding**

Much of the alliance burden-sharing literature argues that allies have incentive to free-ride on the efforts of their partners. Because investments in defense are costly, states may prefer to pass these costs to other countries if they can. This is especially true among weaker states that are in asymmetric alliances with great powers, as it is ultimately the latter's contributions that are most likely to be decisive in whether the alliance succeeds or fails to deter and win wars (Olson and Zeckhauser, 1966). Indeed, asymmetric alliances often feature an exchange of goods wherein smaller powers give up some of their foreign policy autonomy by agreeing to align their policies with the patron's preferences in exchange for receiving the patron's protection (Morrow, 1991; Lake, 2009).

In this view, allies are more likely to invest in defense to the extent that they believe the patron might force them to fend for themselves. This suggests that allies are more likely to burden-share in response to fears that their patron might abandon them. A patron's signals of abandonment can span a wide spectrum, from outright abrogation of the alliance treaty or refusal to defend its ally to simply reducing the level of its support. Withdrawing troops from allied territory, for example, might give allies incentive to do more for themselves by sending a powerful signal that their patron is serious about providing them with less protection, as foreign-deployed troops are often considered among the most credible signals of commitment (Lake, 2009; Martínez Machain and Morgan, 2013; Posen, 2014).

As described above, conventional wisdom on coercion suggests that threats are most effective when paired with assurances that the punishment will not be carried out if allies comply – in other words, that *conditional* pressure will be most effective (Schelling, 1966; Cebul, Dafoe, and Monteiro, 2021). Moreover, conditional pressure mitigates the potential risks of actually withdrawing protection, which include encouraging partners to seek nuclear weapons or emboldening adversaries to attack (Lanoszka, 2018; Avey, Markowitz, and Reardon, 2018). However, by presenting allies with the possibility of having to fend for themselves, even unconditional abandonment without any assurances might still motivate them to burden-share, albeit at greater risk.

Additionally, the literature on alliance coercion suggests that threats of abandonment will be more likely to succeed when they are more *salient*. Threats of abandonment face two inherent challenges. The first is that allies might discount them, either because they view them as not credible or because they do not fear the consequences of being abandoned. The second is that allies have an incentive to stand firm in the face of coercion because the sender cannot necessarily commit to not make additional demands in the future. If an ally gives in on burden-sharing in one year, there is little to stop the sender from asking for more at a later date, and thus it may prefer to stand firm rather than encourage future coercion (Fearon, 1995; Sechser, 2010). To offset these challenges, threats of abandonment must be sufficiently salient. For one, targets are likely to be more sensitive

to threats of abandonment when they view them as inherently credible (Snyder, 1997; Crawford, 2003). Blankenship (2020), for example, suggests that allies are take the possibility of U.S. abandonment seriously when the United States faces constraints on the resources it can devote to its foreign commitments and domestic pressure to retrench. Allies might also evaluate the credibility of threats in light of their ex ante perception of their partner's reliability, which could stem from sender's previous behavior or the target's assessment of its interests. Additionally, threats of abandonment are more likely to be salient when the target perceives a higher level of external threat, which magnifies the consequences of abandonment (Blankenship, 2021).

The Rational Free-Riding (RFR) model, then, would predict U.S. burden-sharing pressure to be more successful when it includes salient threats of abandonment. Such threats succeed by shaping allies' incentives, raising the prospect that they will be faced with the prospect of fending for themselves if they do not comply. The RFR model suggests the following hypotheses:

*Hypothesis 1a: The prospect of abandonment will increase support for greater defense burden-sharing, especially when paired with reassurance.*

*Hypothesis 1b: Reassurance on its own will decrease support for greater defense burden-sharing.*

*Hypothesis 1c: The prospect of abandonment will be more effective in increasing support for defense burden-sharing if the sender's threat of abandonment is more salient.*

*Hypothesis 1d: The prospect of abandonment will trigger concerns about external threat and fears of abandonment.*

### **3.2 Alliance Solidarity**

Other bodies of scholarship suggest that alliances, and international organizations more broadly, are not merely vehicles for self-interest, with egoistic actors attempting to amass security at the lowest possible cost, but are also social relationships. Constructivist arguments, for example, point to the role that socialization within international organizations can play in causing partners to see

each other's interests as their own (Checkel, 2005; Bearce and Bondanella, 2007; Johnston, 2007). Mutual defense is at the core of an alliance, and allies may take offense at the idea that their partner would hold the central premise of the relationship hostage to a single issue. The sender's threats may undermine confidence in the relationship and cause it develop a reputation as unreliable and coercive (Henry, 2022).

In this view, the form of persuasion most likely to succeed is one that does not threaten to hold the alliance hostage, but rather emphasizes the partners' common interests, history, and obligations. Patrons might pressure allies to burden-share by pointing out that doing so would bolster the alliance's collective defense and be consistent with their commitments to support their partners, and thus persuade allies that increasing their defense spending is both their duty and in the collective interest. This resembles an exercise of what Lukes (1974) calls the "third" face of power: influence over other actors' preferences. Research on "naming and shaming" similarly suggests that chastising partners for failing to live up to their obligations can embarrass them into compliance, especially if it informs domestic actors like the public that their government is behaving in a way that is immoral, illegitimate, unfair, or counter to their commitments – especially if it had made and failed to live up to explicit promises (Simmons, 2009; Tingley and Tomz, 2021). Existing literature suggests that shaming can be an effective tactic for encouraging compliance with human rights and environmental agreements (Simmons, 2009; Tingley and Tomz, 2021). However, its effectiveness in alliance bargaining is untested.

A related line of research on domestic audience costs suggests that public opinion may punish leaders for failing to follow through on their commitments, albeit in the context of military threats rather than alliance burden-sharing obligations (Fearon, 1994).<sup>4</sup> In the context of military alliances, Tomz and Weeks (2021) show that the presence of an alliance treaty makes the U.S. public more likely to see defending an ally as a moral obligation due to concerns about showing fairness and loyalty to partner nations that have been promised support.

---

<sup>4</sup>Though see Snyder and Borghard (2011) for a critique of the audience costs thesis.

A patron might also encourage burden-sharing by increasing its own contribution to the alliance. The logic here is partly one of reciprocity: in leading by example, the patron can appeal to allies' sense of fairness, equity, and loyalty to the relationship (Kertzer and Rathbun, 2015). Additionally, reassuring allies is likely to encourage them to balance against adversaries from a position of strength rather than buckle under pressure (Labs, 1992; Brooks, Ikenberry, and Wohlforth, 2012; Selden, 2013; Castillo and Downes, 2020). In this view, the trade-off between demonstrating commitment and encouraging burden-sharing may be overstated.

This view is quite common among foreign policy elites in the United States. President Joseph Biden, for example, wrote prior to his election that NATO “transcends dollars and cents; the United States’ commitment is sacred, not transactional” (Biden, 2020: 73), while Kori Schake (2017: 45) argues that “As the United States has retrenched, it has not inspired U.S. allies to confidently push back against assertive challengers. They have appeased aggressors instead.” Two senior Defense Department officials under President Barack Obama likewise wrote that “forward engagement means leveraging the United States’ biggest strength, the ability to lead, while encouraging others to share the burden” (Flournoy and Davidson, 2012: 56), while another argued that in the wake of Russia’s annexation of Crimea in 2014, “If the United States hadn’t stepped up, it’s doubtful that other allies would have stepped up.”<sup>5</sup> A senior National Security Council official similarly recounted that U.S. efforts to reassure allies were designed “to signal U.S. willingness to do its part, as well as its expectation that allies do more as well.”<sup>6</sup>

Viewing alliances as enduring social relationships suggests that the effectiveness of normative pressure is likely to vary depending on the social preferences of the target. Specifically, a long line of literature in political psychology and behavioral economics suggests that individuals vary in their “prosocial” orientation (Fehr and Fischbacher, 2002; Rabin, 2002; Kertzer and Rathbun, 2015). That is, some people are more attentive to considerations of altruism and fairness – or, con-

---

<sup>5</sup>Interview with Derek Chollet, Assistant Secretary of Defense for International Security Affairs (2012-14), August 25, 2016.

<sup>6</sup>Interview, September 6, 2016.

versely of competition and self-interest – than others (Deutsch, 1960; McClintock and Liebrand, 1988; De Cremer and Van Lange, 2001; De Dreu and Van Lange, 1995; Kuhlman and Marshello, 1975; Kuhlman and Wimberley, 1976). The more prosocial the person, the more receptive they will be to appeals to fairness and mutual obligation.

The Alliance Solidarity (AS) model, then, expects the most effective burden-sharing pressure to be that which triggers feelings of moral obligation to contribute. Senders might do so by emphasizing shared obligations under the alliance; naming and shaming targets for failing to live up to their commitments; or appealing to the principle of reciprocity by contributing more themselves. This leads to several testable predictions:

*Hypothesis 2a: Pressure that emphasizes shared obligations and interests will increase support for greater defense burden-sharing.*

*Hypothesis 2b: If the sender increases its own defense contributions, targets will be more willing to support greater defense burden-sharing.*

*Hypothesis 2c: Targets with prosocial orientations will be more likely to respond to appeals to shared obligations and interests.*

*Hypothesis 2d: Pressure that emphasizes shared obligations and interests will trigger feelings of moral obligation to contribute.*

### **3.3 Backlash**

A third set of arguments might expect coercive pressure to backfire not by seeming to violate the sanctity of the alliance relationship, but by triggering feelings of anger and resentment. A large body of literature suggest that public pressure can shrink leaders' ability to make concessions lest they look weak (Putnam, 1988; Baum, 2004; Stasavage, 2004; Kurizaki, 2007). The sources of this backlash could be sociological in nature, resulting from attachment to national identity, or psychological, stemming from an emotional response to having one's options constrained by another actor. Pape (1996, 1997), for example, argues that nationalism and rally-around-the-flag effects

reduce the likelihood that strategic bombing and economic sanctions can successfully persuade target countries to concede. Similarly, there is some evidence that naming and shaming campaigns can cause a backlash, with actors viewing them as an attack on the country's sovereignty and identity (Terman, 2016; Gruffydd-Jones, 2019; Becker et al., 2019). More broadly, psychological literature suggests that stigmatization which seems to threaten a closely-held identity can trigger anxiety, anger, and a circling of the wagons in defense of the identity perceived to be under threat (Major and O'Brien, 2005). Other studies suggest that the effect of external pressure is moderated by nationalism, with more nationalistic individuals responding with greater hostility and resistance to threats, coercion, and shaming (Herrmann, 2017; Spektor, Mignozzetti, and Fasolin, 2022).

Political psychological research, meanwhile, suggests that coercion often produces "reactance": the general tendency for targets to resist other actors' attempts to change their behavior (Dillard and Shen, 2005; Laurin et al., 2013; Powers and Altman, 2022). Reactance stems from negative feelings surrounding attempts to constrain an actor's freedom of action, resulting in anger and ultimately a backlash in which targets resist compliance and even do the opposite in order to reassert independence. Indeed, a long line of literature in American politics, for example, suggests that efforts to change political opinions often fail and even cause subjects to harden their views points to the difficulties of changing political opinions (Nyhan and Reifler, 2010; Nisbet, Cooper, and Garrett, 2015; Gadarian, 2014). Survey research in international politics likewise suggests that economic and military coercion often provokes targets and increases their resolve to resist by fostering resentment and the desire to display strength (Grossman et al., 2018; Dafoe, Hatz, and Zhang, 2021). Powers and Altman (2022) suggest that coercion's evidently dismal record of success in much of the international politics literature might be explained by this general tendency.

The Backlash model would thus expect external attempts to influence allied burden-sharing to the extent that they trigger feelings of anger, annoyance, and distrust, and the more an attempt relies on threats, punishments, and heavy-handed pressure, the less effective it will be.

*Hypothesis 3a: Targets will be unwilling to support greater defense burden-sharing when pre-*

<b>Approach</b>	<b>Rational Free-Riding</b>	<b>Alliance Solidarity</b>	<b>Backlash</b>
Unconditional Abandonment	+	No effect	No effect / –
Unconditional Reassurance	–	+	No effect
Conditional Pressure	++	No effect	No effect / –
Normative Appeals	No effect	+	No effect / –

Table 1: Empirical predictions of competing models.

*sented with external pressure.*

*Hypothesis 3b: Targets who are more nationalistic will be less likely to support greater defense burden-sharing when presented with external pressure.*

*Hypothesis 3c: External burden-sharing pressure will trigger feelings of anger.*

## **4 Research Design**

To test these propositions, I use a vignette survey experiment fielded on the public in Poland and Germany, both of which are members of the NATO alliance. Both countries are of substantive interest, as Germany and Poland are the first and seventh largest European members of NATO by GDP, respectively. Moreover, they differ in two important respects. The first is their vulnerability to Russia, as Poland shares a land border with Russia, Belarus (a Russian ally), and Ukraine, while Germany does not. As I discuss in more detail below, existing literature might expect Polish respondents to have a higher perception of threat, on average (Blankenship, 2021). The second is their existing level of success in meeting NATO’s agreed-upon standard of spending at least 2% of GDP on defense, which Poland exceeds but Germany does not. Including Germany, then, allows me to test the effectiveness of “naming and shaming” pressure in the context of a NATO member that to date has not met an explicit burden-sharing expectation.

In the experiment, respondents are presented with a hypothetical scenario in which American policymakers have encouraged their country to spend more on defense. Various characteristics of the scenarios are randomized, and afterwards each respondent is asked to rate their support for increasing or decreasing their country’s military spending in each scenario. The experiment



took place in the context of a short, 5-10 minute online survey administered by Qualtrics on a nationally representative sample of adults in each country. The survey also included questions on demographic information like respondents' gender, age, and level of education. Each respondent had to pass two attention checks throughout the survey.<sup>7</sup> The sample size totaled 3,985, with 1,848 respondents from Poland and 2,187 from Germany, sampled separately.<sup>8</sup> Respondents in both samples were selected randomly, and both samples were nationally representative, with sampling quotas for gender (50% male, 50% female) and age.<sup>9</sup> Within each section of the survey, questions were presented in a random order to reduce ordering effects.

Using a sample of the public carries the benefit of offering sufficient statistical power to draw meaningful inferences from the data, as well as the advantage of being substantially easier to collect than an elite sample. Moreover, use of a public sample is appropriate for this study, which attempts to understand the effectiveness of public threats, rather than private threats. One might object that the public could respond differently to the experimental conditions than a sample of elites, who are more familiar with the intricacies of – and may think more strategically about – foreign policy (Hafner-Burton, Hughes, and Victor, 2013; Saunders, 2022). However, two factors mitigate this concern. The first is the public can influence foreign policy by sanctioning elected leaders whose policies do not conform to its preferences (Tomz and Weeks, 2013). Indeed, recent experimental research in Israel, the United Kingdom, and the United States suggests that elites

---

<sup>7</sup>These attention checks simply asked respondents which was the larger of two numbers, with ordering randomized.

<sup>8</sup>The surveys were distributed and collected by Qualtrics in partnership with Ugam Solutions and were translated by Protranslate. Initial sampling targets were 1,800 in Poland and 2,100 in Germany, but Qualtrics and Ugam were able to collect extra responses. IRB approval was obtained from the University of Miami (project “Do Threats of Abandonment Encourage Burden-Sharing? Evidence from U.S. Alliances,” IRB ID 20220194) on March 3, 2022. The pre-analysis plan with power analysis was registered on the Evidence in Governance and Politics (EGAP) registry on October 13, 2022, and can be accessed here: <https://doi.org/10.17605/OSF.IO/42DWU>.

<sup>9</sup>Age is sampled based on the following brackets: 18-34, 35-54, and 55+. For Poland, these quotas are 25.3%, 36.0%, and 38.7%, respectively, while for Germany they are 23.8%, 31.1%, and 45.1%. These are based on official Polish and German government statistics from 2020-21. See: Demographic Yearbook of Poland, 2021, <https://stat.gov.pl/en/topics/statistical-yearbooks/statistical-yearbooks/demographic-yearbook-of-poland-2021,3,15.html> (accessed August 1, 2022); Federal Statistical Office of Germany, <https://www-genesis.destatis.de/genesis/online?operation=sprachwechsel&language=en> (accessed August 1, 2022).

respond differently when presented with information about the public’s preferences (Tomz, Weeks, and Yarhi-Milo, 2020; Lin-Greenberg, 2021; Chu and Recchia, 2022). The second is that recent studies suggest that public samples react quite similarly in foreign policy survey experiments to elite samples (Kertzer and Zeitzoff, 2017; Yarhi-Milo, Kertzer, and Renshon, 2018; Kertzer, 2020; Kertzer, Renshon, and Yarhi-Milo, 2021).

#### **4.1 Experimental Conditions**

In the experiment, respondents are presented with a general description of a scenario in which the United States has asked their country to spend more on defense<sup>10</sup>

*You will now be presented with a hypothetical scenario related to foreign policy. The situation is general, and is not about events in the news today. After being presented with the scenario, you will be asked a few questions.*

*Your country is allied with the United States through the North Atlantic Treaty Organization (NATO), an alliance which commits its members to defend each other from armed attack. Imagine a scenario in which the NATO alliance is considering how much military power the alliance needs. In this scenario, the United States has requested that your country increase its defense spending so that it can make a larger contribution to the alliance’s collective defense.*

Respondents in the control condition are given no additional information. Respondents can also receive one of five treatments (six, for German respondents) that combine the U.S. request with various other forms of pressure and incentives. First, respondents may be presented with an “unconditional abandonment” scenario, in which U.S. policymakers indicate that they will not de-

---

<sup>10</sup>One might object that the scenario’s level of abstraction and hypotheticality pose problems insofar as the results might be more difficult to generalize outside the context of the experiment than a more grounded, concrete scenario, and that respondents might use current events to “fill in the blank” for any missing context (e.g., who is President). However, Brutger et al. (2022) find no evidence that the level of abstraction or hypotheticality in survey experiments shape substantive results.

<b>Condition</b>	<b>Text</b>	<b>N</b>
Unconditional Reassurance	American leaders have also declared that they <u>would</u> defend your country if it was attacked, and are planning to increase U.S. military spending.	607 (304 Polish, 303 German)
Unconditional Abandonment	American leaders have also declared that they <u>would not</u> defend your country if it was attacked.	606 (306 Polish, 300 German)
Conditional Pressure	American leaders have also declared that the United States <u>would not</u> defend your country if it was attacked <u>unless</u> your country increases its defense spending.	618 (312 Polish, 306 German)
Domestic Pressure	American leaders have also declared that the United States <u>would not</u> defend your country if it was attacked <u>unless</u> your country increases its defense spending. Recently, the U.S. Congress and the American public have pressured American leaders to withdraw U.S. military forces that are deployed in other countries and to abandon U.S. alliances.	613 (311 Polish, 302 German)
Appeal to Shared Obligations	American leaders have also declared that members of NATO have a shared obligation to maintain capable military forces. They say that spending more on defense would allow your country to honor its duties to the alliance, but refusing to spend more on defense would be a failure of your country's duties.	614 (307 Polish, 307 German)
Shaming	American leaders have also emphasized that all NATO alliance members previously agreed to spend at least 2% of gross domestic product (GDP) on defense. Germany currently spends only 1.5% of GDP on defense, and is thus failing to fulfill its promise to spend more on defense.	308 (0 Polish, 308 German)

Table 2: Treatment conditions in the experiment, each of which has an equal probability of being randomly selected.

defend the country if it is attacked. The second is an “unconditional reassurance” condition, which tells respondents that the United States will defend the country if it is attacked. Third, respondents may face the “conditional pressure” condition which combines elements of the previous two conditions by indicating that the United States will only defend the country if it increases its defense spending. The fourth condition combines the conditional pressure condition with an indication that American leaders have faced domestic pressure to withdraw U.S. forces from abroad and abandon American allies. Fifth, some respondents are presented with a “normative appeal” condition. Here, the scenario informs respondents that American leaders are pointing to their country’s failure to live up to its previously-promised levels of defense spending as a reason for the country to increase its military expenditures. Sixth, some respondents in Germany are presented with a “naming and shaming” condition that informs respondents that Germany only spends 1.5% of GDP on defense, despite all NATO members’ pledge to spend at least 2% of GDP on defense.<sup>11</sup> Polish respondents are not presented with this condition, as Poland spends more than 2% of GDP on defense.

A summary of the experimental conditions that serve as the independent variables in the analysis can be found in Table 2. Each condition has an equal probability of being selected. The balance tests presented in Table A2 suggest that the randomization procedure was successful, as the assignment to the treatment conditions do not correlate with statistically significant differences in pre-treatment responses; of the 48 balance tests, there are only statistically significant differences at the 95% level in two of them, which is what one would expect by random chance. The results are also robust to including a variety of pre-treatment control variables, as shown in Table A8.

## **4.2 Heterogeneous Treatment Effects**

Hypotheses 1c, 2c, and 3b also predict heterogeneity in how respondents will react to the treatment conditions. First, H1c expects that respondents for whom the U.S. threat of abandonment is more

---

<sup>11</sup>Data are from official NATO statistics (ca. early 2022): [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2022/3/pdf/220331-def-exp-2021-en.PDF](https://www.nato.int/nato_static_fl2014/assets/pdf/2022/3/pdf/220331-def-exp-2021-en.PDF); <https://www.reuters.com/business/aerospace-defense/germany-hike-defense-spending-scholz-says-further-policy-shift-2022-02-27/>.

salient will be more susceptible to American pressure. To capture this, I use the mean of two survey questions to capture respondents' pre-treatment perception of external threat.<sup>12</sup> Additionally, I use one item to capture respondents' pre-treatment confidence in the U.S. security guarantee.<sup>13</sup> H2c, in turn, predicts that respondents with a prosocial orientation will be more susceptible to normative appeals for greater burden-sharing. Following Kertzer and Rathbun (2015), I pose respondents with a series of pre-treatment scenarios in which they are asked to choose a distribution of points between themselves and a hypothetical "Other." Those who tended to choose the option of distributing points equally are coded as being "prosocial."

Finally, H3b predicts that respondents who are more nationalistic will be less susceptible to U.S. burden-sharing pressure. I measure nationalism using two pre-treatment survey questions, one of which captures what scholars have called "national attachment," while the other captures "national chauvinism" (Kosterman and Feshbach, 1989; Kertzer and McGraw, 2012; Herrmann, 2017; Spektor, Mignozzetti, and Fasolin, 2022).<sup>14</sup> Nationalism is coded as the mean of respondents' answers to these two questions.

### **4.3 Control Variables**

While not necessary for causal identification, as robustness checks I include a variety of respondent-specific control variables. These include respondents' age, level of education, gender identity, and political interest.<sup>15</sup> Additionally, to address heterogeneity between the Polish and German samples, I include a country-level dummy variable indicating whether the respondent was from Poland or Germany.

---

<sup>12</sup>"In general, how safe do you think your country is from foreign attack?"; "How likely do you think it is that your country will be attacked by another country in the next five years?"

<sup>13</sup>"In general, how confident are you that the United States would defend your country if your country was attacked by another country?"

<sup>14</sup>Respectively, respondents are asked to rate their agreement (1-5) with the following two statements: "When someone says something bad about your country's people, you feel it is as if they said something bad about you."; "Your country is superior compared to other countries."

<sup>15</sup>These are measured following Tomz and Weeks (2021).

#### 4.4 Dependent Variable

The primary outcome variable is respondents' level of support for higher or lower military spending. Immediately below the vignette, respondents were asked to rate each scenario on a scale of 1-5 on the basis of the following question: "In this scenario, what would you like to happen to your country's military spending?" Respondents have five response outcomes:

1. Decrease significantly
2. Decrease slightly
3. Stay the same
4. Increase slightly
5. Increase significantly

I focus on defense spending as a burden-sharing outcome for a few reasons. First, military spending is the most generalizable measure of defense burden-sharing; while allies might contribute in any number of context-specific ways – hosting U.S. bases, participating in American foreign wars – the success or failure of an alliance ultimately hinges on its ability to marshal sufficient military power to deter and win wars. Second, defense spending is one of if not the most common indicator of burden-sharing literature studied in existing literature (e.g., Oneal, 1990; Palmer, 1990*a,b*; Plümper and Neumayer, 2015; Blankenship, 2021).

In addition to testing the determinants of support for defense spending, the study will also probe the causal mechanisms by which the treatments impact that support (captured in H1d, H2d, and H3c). Thus, after the treatment and the support for defense spending question are presented, respondents are presented with a series of additional questions (presented in random order).

The first two of these probe respondents' faith in U.S. protection as well as their fear of external attack (H1d): (1) "In this scenario, how confident are you that the United States would defend your country if your country was attacked by another country?"<sup>16</sup>; (2) "In this scenario, how concerned

---

<sup>16</sup>Responses range from 1 (Not confident at all) to 5 (Very confident).

are you that your country might be attacked by another country?”<sup>17</sup> The Rational Free-Riding Model would expect the experimental conditions that include threats of abandonment should increase respondents’ fears of being abandoned and attacked. Third, I ask respondents whether they believe their country has a moral obligation to contribute to the alliance’s collective defense, which the Alliance Solidarity Model would expect to be higher in the presence of the normative pressure and naming and shaming experimental conditions: (1) “In this scenario, do you believe that your country has a moral obligation to make a larger military contribution to the alliance’s collective defense?”; and (2) “In this scenario, do you believe that your country has an obligation to its allies to make a larger military contribution to the alliance’s collective defense?”<sup>18</sup> Finally, to capture “reactance,” following Quick and Considine (2008), I ask respondents to rate how angry and annoyed they would be in this scenario (0 being not at all, 7 being a great deal). The Backlash model would expect the more heavy-handed, coercive treatments to be associated with greater reactance.

#### 4.5 Statistical Methods

Models are estimated using ordinary least squares regression, though the results are robust to using ordered logistic regression models.<sup>19</sup> The model specification I use is specified as follows:

$$\text{DefenseSpending}_i = \vec{\beta}_1 \text{USPressure}_i + \gamma \mathbf{X}_i + \epsilon_i$$

where  $i$  indexes respondents. *DefenseSpending* is an ordinal variable (1-5) which captures respondents’ support for greater or lower military spending, **USPressure** is a vector of options for the type of U.S. pressure employed in each scenario,  $\mathbf{X}_i$  is a vector of respondent-level control variables, including a dummy variable indicating whether the respondent was from the German or Polish sample, and  $\epsilon_i$  is a stochastic error term.

<sup>17</sup>Responses range from 1 (Not concerned at all) to 5 (Very concerned).

<sup>18</sup>Respondents can choose from “No,” “Somewhat,” and “Yes.”

<sup>19</sup>See Table A9 in the appendix.

## 5 Results

The presentation of the results is organized as follows. First, I present the main results showing the effects of each treatment condition. Second, I present heterogeneous treatment effects showing how the effects of the treatments vary depending on a series of pre-treatment factors, namely: (1) confidence in the United States; (2) perception of threat; (3) prosocial orientation; and (4) nationalism. Finally, I present evidence for the causal mechanisms by (1) showing how each treatment condition affects a series of secondary outcomes, including respondents' distrust of the United States, perception of threat, feelings of moral obligation to contribute to the alliance, and feelings of anger and annoyance; and (2) presenting a mediation analysis which shows the degree to which the main treatment effects are mediated by the impacts the treatments had on these secondary outcomes.

The main treatment effects are presented in Figure 1. The left side of the figure (1a) shows the treatment effects with and without the inclusion of controls for gender, age, education, and political awareness, while the right side of the figure (1b) separates the sample into its Polish and German subsamples. Across all models, the most consistently effective treatment is the Conditional Pressure condition (0.238 [95% CI: .111-.364]), followed by the Unconditional Abandonment condition (0.166 [95% CI: 0.039-0.293]). These results are substantively fairly large, amounting to a 0.2 and 0.15 standard deviation change in defense spending preferences, respectively, or about a 7% and 5% increase over the mean level of defense spending preferences in the control condition (3.475). Notably, this is greater than the absolute magnitude effect of German versus Polish nationality, gender, and education, and the equivalent of a more than twenty-year age difference. The Reassurance condition has a similarly positive effect, though the effects are not quite statistically significant at the 95% level ( $p < 0.12$ ). By contrast, the Domestic Pressure, Appeal to Obligations, and Shaming conditions have effects not statistically distinguishable from zero, and point estimates very near zero.



Taken together, the results provide little support for the Alliance Solidarity and Backlash models. Contrary to the predictions of the former, the most effective treatment conditions were not those emphasizing shared obligations and duties or appealing to the principle of reciprocity, but rather those emphasizing the threat of abandonment. This likewise runs counter to the Backlash model, which would have predicted that relying on threats and punishments would backfire.

The Rational Free-Riding Model receives stronger support, though not without caveat. The strongest treatment conditions are those attempting to reduce allies' incentives to free-ride by changing their incentives through threats of abandonment. Curiously, however, this did not apply in the case of the Domestic Pressure condition, which paired the Conditional Pressure condition with a statement that the U.S. Congress and public wanted to abandon American alliances and withdraw American forces abroad.

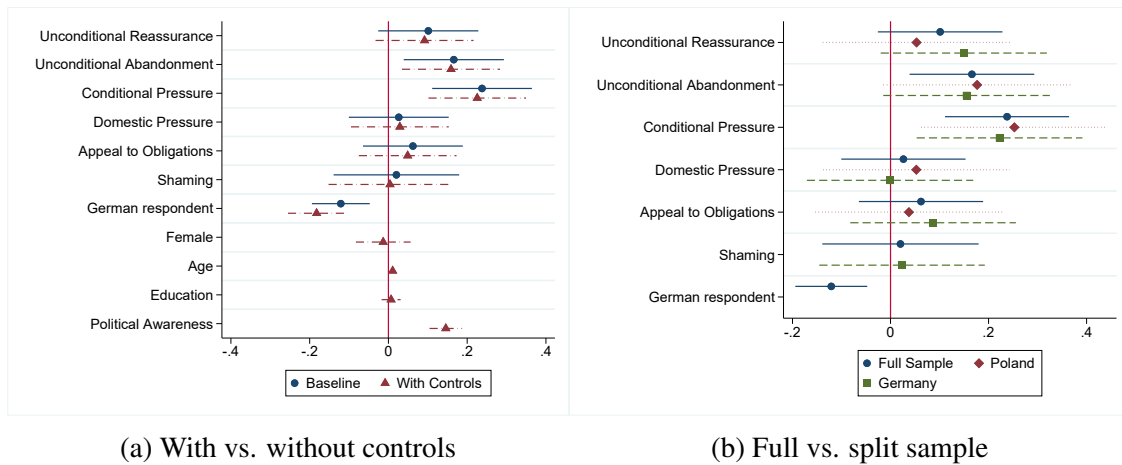


Figure 1: Coefficient plot showing the effects of each treatment condition on respondents' support for their country spending more on defense (1-5).

## 5.1 Heterogeneous Treatment Effects

As described in the pre-analysis plan and in Hypotheses 1c, 2c, and 3b, I interact the treatment conditions with a variety of pre-treatment variables in order to test for the presence of theoretically-motivated heterogeneous treatment effects. The RFR model would expect the treatments emphasizing the possibility of abandonment to work especially well among respondents who already

have a high perception of threat and who have little confidence in the United States, while the AS model would expect the Reassurance, Appeal to Shared Obligations, and Shaming conditions to be more effective among respondents who have a prosocial disposition. Finally, the Backlash model would expect all of the treatments to be less effective among more nationalistic respondents.

The results presented in Figure 2 tell a similar story as the main effects. Of the three models, the Rational Free-Riding model receives the strongest support, with respondents who expressed more fear of external attack before treatment assignment being more likely to support greater defense spending in the presence of treatment conditions emphasizing the threat of abandonment – including, notably, the Domestic Pressure condition. Confidence in the United States has little impact on the treatment effects, however. This is likely because confidence in the United States was an element of the treatment conditions, and thus respondents’ pre-treatment confidence may have been overridden by their post-treatment confidence. Indeed, in the next subsection I show that this appears to be the case. The other two models receive little support. Prosocial orientation does not appear to condition the treatment effects, counter to the Alliance Solidarity model, whereas Nationalism does but in the opposite direction expected by the Backlash model, with more nationalistic respondents being if anything more likely to support higher defense spending in the presence of the treatment conditions.

## **5.2 Causal Mechanisms**

To test Hypotheses 1d, 2d, and 3c, I test whether the treatment conditions correlate with a series of additional post-treatment outcomes, namely: (1) perception of external threat; (2) distrust of the United States; (3) feelings of moral obligation to spend more on defense; and (4) feelings of anger and annoyance, which as described above are referred to as “reactance” for shorthand. Additionally, following Imai and coauthors, I use mediation analysis to test the extent to which the effects of the treatment conditions on defense spending preferences were mediated by their effects on these secondary outcomes (Imai, Keele, and Tingley, 2010; Imai, Keele, and Yamamoto, 2010;

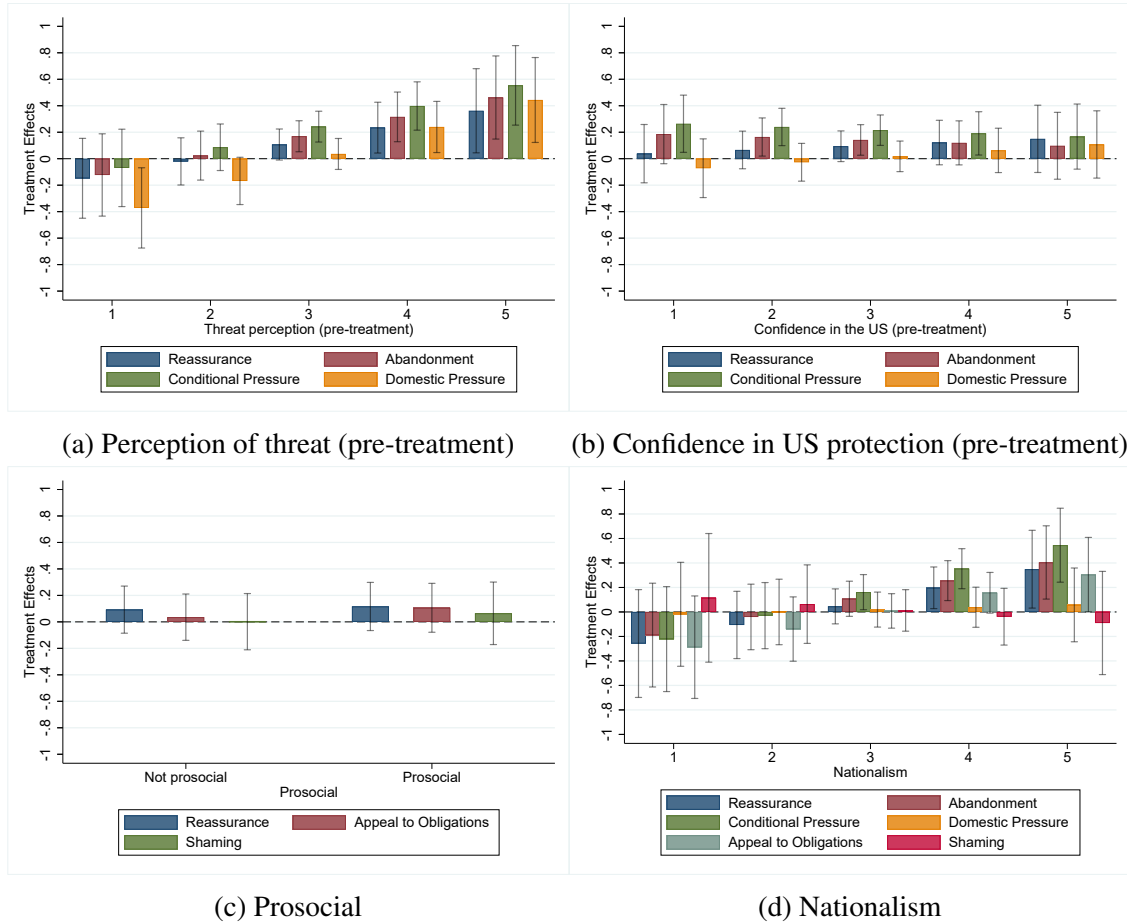


Figure 2: Heterogeneous treatment effects. Each subfigure shows the treatment effects of the relevant experimental conditions on defense spending preferences (y-axis), conditional on either respondents' pre-treatment perception of threat (Figure 2a), confidence in the United States (Figure 2b), prosocial orientation (Figure 2c), and nationalism (Figure 2d), all along the x-axis. Figures 2a and 2b include treatment conditions relevant to the Rational Free-Riding Model, Figure 2c includes treatment conditions relevant to the Alliance Solidarity Model, and Figure 2d includes those relevant to the Backlash Model.

Imai and Yamamoto, 2013).<sup>20</sup> The RFR model might expect pressure that emphasizes the possibility of abandonment to trigger increases in respondents' fear of external attack and undermine their confidence in the United States. The AS model, in turn, would expect the Reassurance, Appeal to Shared Obligations, and Shaming treatments to trigger feelings of moral obligation to spend more on defense, while the Backlash model would expect U.S. pressure to trigger feelings of anger and annoyance, especially the more heavy-handed treatments emphasizing threats and punishments and implying guilt.

The results are presented in Figure 3 and Table 3. The evidence is only partly consistent with the Alliance Solidarity model. The Reassurance condition was the only one treatment that triggered feelings of moral obligation to contribute, while the Appeal to Obligations and Shaming conditions did not affect any of the secondary outcomes. Moreover, the mediation analysis suggests that the vast majority of Reassurance's weakly positive effect on respondents' support for defense spending was due to this feeling of moral obligation.

The expectations of the Rational Free-Riding and Backlash models receive more support. In particular, the effects of the Unconditional Abandonment, Conditional Pressure, and Domestic Pressure conditions across the secondary outcomes offer some insight into why the Conditional Pressure condition was the most effective treatment condition overall. All three conditions triggered feelings of anger, annoyance, and distrust of the United States, but the Conditional Pressure treatment did so least of all. The results of the mediation analysis suggest that this difference contributed to the Conditional Pressure condition's effectiveness, as its effects on anger, annoyance, and U.S. distrust only reduced its treatment effect by about half as much as the Unconditional Abandonment and Domestic Pressure conditions.

As a whole, then, the results suggest that, while relying on threats and punishments does have a modest backfiring effect as the Backlash model would expect, the most effective approaches

---

<sup>20</sup>Note: the mediation analysis is exploratory and was not described in the pre-analysis plan. Mediation analysis conducted using the R package *mediation* (Tingley et al., 2014).

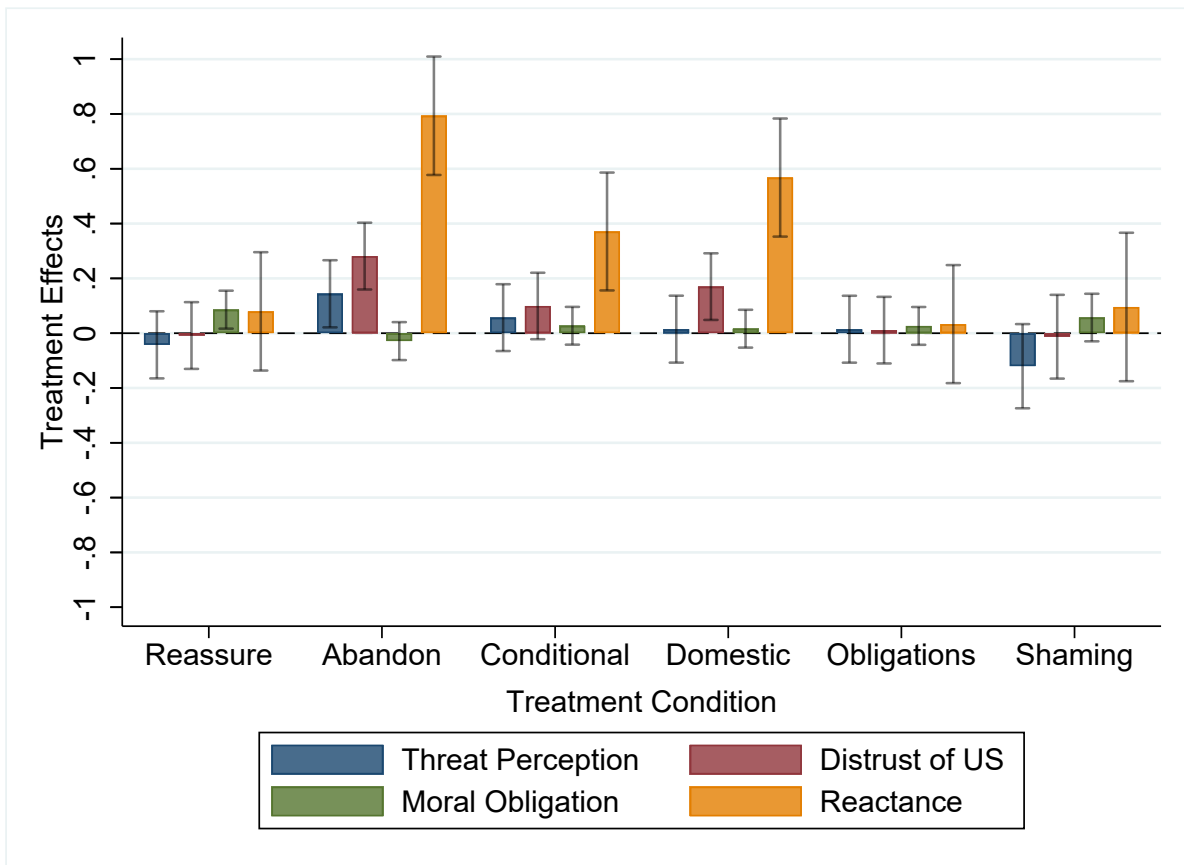


Figure 3: Coefficient plot showing the effects of each treatment condition on several secondary outcomes. Each outcome is indicated in the legend, and include: respondents' post-treatment perception of threat, distrust of the United States, feelings of moral obligations to spend more on defense, and feelings of anger and annoyance ("reactance").

Mediator		Reassurance	Abandonment	Conditional	Domestic	Obligations	Shaming
<b>Threat Perception</b>	Direct effect	0.104 (0.130)	0.152* (0.016)	0.227*** (0.000)	0.024 (0.720)	0.060 (0.370)	0.031 (0.686)
	Mediated effect	-0.004 (0.540)	0.013* (0.014)	0.005 (0.370)	0.001 (0.800)	0.001 (0.810)	-0.011 <sup>+</sup> (0.098)
<b>Distrust of the US</b>	Direct effect	0.100 (0.120)	0.234*** (0.000)	0.262*** (0.000)	0.068 (0.270)	0.062 (0.31)	0.017 (0.83)
	Mediated effect	0.003 (0.87)	-0.069*** (0.000)	-0.024 (0.11)	-0.042* (0.012)	-0.002 (0.91)	0.003 (0.86)
<b>Moral Obligation</b>	Direct effect	0.037 (0.568)	0.190*** (0.000)	0.219*** (0.000)	0.011 (0.86)	0.042 (0.51)	-0.021 (0.76)
	Mediated effect	0.065* (0.014)	-0.022 (0.41)	0.020 (0.45)	0.013 (0.58)	0.021 (0.45)	0.044 (0.18)
<b>Reactance</b>	Direct effect	0.108 <sup>+</sup> (0.092)	0.220** (0.002)	0.269*** (0.000)	0.066 (0.33)	0.064 (0.32)	0.025 (0.75)
	Mediated effect	-0.006 (0.468)	-0.056*** (0.000)	-0.026** (0.002)	-0.040*** (0.000)	-0.003 (0.72)	-0.007 (0.51)

p-values in parentheses. <sup>+</sup> $p < 0.10$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Table 3: Mediation analysis indicating how much each treatment condition’s impact on defense spend preferences was mediated through various secondary outcomes. Each column on the right hand side of the table indicates both the direct (non-mediated) of one treatment condition on defense spending preferences, along with the effect of that treatment condition on defense spending preferences, conditional on the mediating variable indicated in the far-left column. Estimates produced using R’s *mediation* package. The mediated effects represent the average causal mediation effect (ACME), which captures “the expected difference in the potential outcome when the mediator took the value that would realize under the treatment condition as opposed to the control condition, while the treatment status itself is held constant.” The direct effects represent the average direct effect (ADE), which captures “the expected difference in the potential outcome when the treatment is changed but the mediator is held constant at the value that would realize” under the treatment condition (Tingley et al., 2022).

to encouraging burden-sharing are nevertheless those emphasizing the threat of abandonment, as the Rational Free-Riding model predicts. Moreover, they suggest that the Conditional Pressure condition was able to strike a “Goldilocks”-like balance: it offered a material incentive to spend more on defense by wielding the threat of abandonment, but by combining that threat with the reassurance that the country would not be abandoned if it spent more on defense, it did not produce feelings of anger, annoyance, and distrust of the United States in the way that the Unconditional Abandonment and Domestic Pressure conditions did.

## **6 Conclusion**

Burden-sharing is central to the proper functioning of an alliance, and American policymakers frequently lament the degree to which U.S. allies fall short of the amount of burden-sharing that policymakers desire. This study thus set out to understand which strategies for encouraging burden-sharing in alliances were more or less effective and under what conditions. Using a survey experiment with six different treatment conditions conducted on representative samples in Poland and Germany, the study tested the explanatory power of three competing models of the success and failure of alliance burden-sharing pressure: (1) the Rational Free-Riding model, which expects allies to respond to fears of abandonment; (2) the Alliance Solidarity model, which expects allies to respond to appeals to fairness, reciprocity, and shared interests and obligations; and (3) the Backlash model, which expects external pressure to at best fail and at worst backfire.

The overall finding of the study is that the explanation which best fits the results and predicts the success of U.S. burden-sharing pressure is a slightly amended version of the Rational Free-Riding model. In particular, three results stand out. The first is that public opinion responds to U.S. threats of abandonment. The most effective treatment condition explicitly threatened to abandon allies unless they spent more on defense, while the other consistently effective treatment flatly told allies that the United States would not protect them. The second finding, however, is a caveat to the first: namely, that while incentives work, instilling doubt in U.S. protection is not an unmitigated

good, and nor does reassuring allies necessarily reduce the public's willingness to burden-share. The treatments emphasizing the possibility of abandonment led to distrust of the United States and feelings of anger and annoyance, both of which were in turn negatively correlated with preferences for more defense spending. This was more true for the Unconditional Abandonment treatment, which offered no reassurance, and the Domestic Pressure condition, which informed respondents that the U.S. Congress and public wanted to withdraw from U.S. alliances, than for the Conditional Pressure condition, which paired the threat of abandonment with the reassurance that the United States would not abandon the country if it spent more on defense. Moreover, the use of Unconditional Reassurance without any threat of abandonment did not reduce support for more defense spending. Taken together, then, the results show that it is the combination of threats and assurances that makes U.S. pressure maximally effective, as causing allies to lose faith in U.S. protection entirely is likely to undercut the effectiveness of attempts to encourage them to burden-share. Third and finally, the results suggests some room for doubt about the effectiveness of appealing to allies' feelings of shared duties and obligations. The treatment conditions that emphasized fairness and mutual obligation – including, for German respondents, pointing out that Germany does not meet NATO's 2% of GDP defense spending target – failed to trigger willingness to spend more on defense.

The findings have implications for understanding both the politics of burden-sharing in military alliances as well as the the success and failure of coercive bargaining. For one, the findings add to a growing body of literature on alliance burden-sharing which moves beyond the study of whether smaller allies free-ride or not to instead study the conditions under which larger members of the alliance can successfully encourage their allies to contribute more (Fang and Ramsay, 2010; Blankenship, 2021). Like these studies, this study finds that fear of abandonment plays an important role in motivating allied burden-sharing. But whereas existing research largely focuses on underlying structural factors that make burden-sharing pressure more or less likely to succeed and focus on intergovernmental diplomacy conducted in private, this study sheds light on the com-



parative effectiveness of threats of abandonment and other forms of pressure using public opinion data.

Additionally, the study offers further evidence on the effectiveness of interstate coercion by presenting evidence from a comparatively understudied issue area: coercion in military alliances. In contrast to research suggesting that threats and imposition of sanctions and military attacks can backfire (Grossman et al., 2018; Powers and Altman, 2022), this study finds that while there is strong potential for a backlash effect, this does not necessarily negate the effectiveness of coercion, especially when it includes assurances that the punishment will not be inflicted if the target complies. This is perhaps more surprising given that this study uses a public opinion sample. A number of scholars suggest that states often opt for private rather than public coercion due to the risk that policymakers in the target country might face domestic pressure to resist foreign demands (Stasavage, 2004; Kurizaki, 2007; Yarhi-Milo, 2013; Gruffydd-Jones, 2019; Gueorguiev, McDowell, and Steinberg, 2020). The results suggest that threats of abandonment can be effective even when done in public, provided they do not undermine the target's faith in the coercer's credibility; indeed, the magnitude of the effects could be even higher in an elite sample. Ultimately, the findings reinforce Thomas Schelling's (1966) classic insight that the credibility of one's promises to withhold punishment is no less important than the credibility of one's threats to impose it. If allies lose faith in their patron, they have little incentive to cooperate and comply with it (Davis, 2000; Sechser, 2018; Cebul, Dafoe, and Monteiro, 2021).

Future research could iterate on these findings in several ways. The first and most direct is to expand the analysis beyond Europe to include U.S. allies elsewhere, particularly in East Asia, as well as beyond American alliances entirely. Second, future studies might go further toward identifying the most optimal mix of reassurance, threats, and efforts to make them credible, with the goal of understanding the thresholds beyond which threats go too far or need to be offset with reassurance. Third and related, further research could compare the effects of different types of assurances – for example, statements of support versus troop deployments – and how they interact

with different forms of pressure and coercion. Finally, future studies could study the degree to which the pursuit of burden-sharing undermines the pursuit of other alliance objectives, such as nuclear nonproliferation or discouraging allies from seeking alliance alternatives (Lanoszka, 2015; Gerzhoy, 2015).

## References

- Avey, Paul C., Jonathan N. Markowitz, and Robert J. Reardon. 2018. "Do US Troop Withdrawals Cause Instability? Evidence from Two Exogenous Shocks on the Korean Peninsula." *Journal of Global Security Studies* 3 (1): 72–92.
- Baum, Matthew A. 2004. "Going Private: Public Opinion, Presidential Rhetoric, and the Domestic Politics of Audience Costs in U.S. Foreign Policy Crises." *Journal of Conflict Resolution* 48 (5): 603–631.
- Bearce, David H., and Stacy Bondanella. 2007. "Intergovernmental Organizations, Socialization, and Member-State Interest Convergence." *International Organization* 61: 703–733.
- Becker, Jordan, Sarah E. Kreps, Paul D. Poast, and Rochelle Terman. 2019. "Transatlantic Shake-down: Does Presidential 'Naming and Shaming' Affect NATO Burden-Sharing?" SSRN Scholarly Paper ID 3493570.  
**URL:** <https://papers.ssrn.com/abstract=3493570>
- Biden, Joseph R. 2020. "Why America Must Lead: Rescuing U.S. Foreign Policy after Trump." *Foreign Affairs* 99 (2): 64–76.
- Blankenship, Brian. 2020. "Promises under Pressure: Statements of Reassurance in U.S. Alliances." *International Studies Quarterly* 64 (4): 1017–1030.
- Blankenship, Brian. 2021. "The Price of Protection: Explaining Success and Failure of U.S. Alliance Burden-Sharing Pressure." *Security Studies* 30 (5): 691–724.
- Blankenship, Brian. 2023. *The Burden-Sharing Dilemma: US Coercive Diplomacy and Alliance Politics*. Ithaca, NY: Cornell University Press.
- Blankenship, Brian, and Erik Lin-Greenberg. 2022. "Trivial Tripwires? Military Capabilities and Alliance Reassurance." *Security Studies* 31 (1): 92–117.
- Bove, Vincenzo, Leandro Elia, and Petros G. Sekeris. 2014. "US Security Strategy and the Gains from Bilateral Trade." *Review of International Economics* 22 (5): 863–885.
- Brooks, Stephen G., G. John Ikenberry, and William C. Wohlforth. 2012. "Don't Come Home, America: The Case against Retrenchment." *International Security* 37 (3): 7–51.
- Brutger, Ryan, Joshua D. Kertzer, Jonathan Renshon, Dustin Tingley, and Chagai M. Weiss. 2022. "Abstraction and Detail in Experimental Design." *American Political Science Review* Forthcoming.  
**URL:** <https://doi.org/10.1111/ajps.12710>
- Bueno de Mesquita, Bruce, and Alastair Smith. 2007. "Foreign Aid and Policy Concessions." *Journal of Conflict Resolution* 51 (2): 251–284.
- Bueno de Mesquita, Bruce, and Alastair Smith. 2016. "Competition and Collaboration in Aid-for-Policy Deals." *International Studies Quarterly* Forthcoming: doi: 10.1093/isq/sqw011.

- Carnegie, Allison. 2015. *Power Plays: How International Institutions Reshape Coercive Diplomacy*. New York: Cambridge University Press.
- Castillo, Jasen J., and Alexander Downes. 2020. "Loyalty, hedging, or exit: How weaker alliance partners respond to the rise of new threats." *Journal of Strategic Studies* Forthcoming.  
**URL:** <https://doi.org/10.1080/01402390.2020.1797690>
- Cebul, Matthew D., Allan Dafoe, and Nuno P. Monteiro. 2021. "Coercion and the Credibility of Assurances." *The Journal of Politics* 83 (3): 975–991.
- Checkel, Jeffrey T. 2005. "International Institutions and Socialization in Europe: Introduction and Framework." *International Organization* 55 (3): 553–588.
- Chu, Jonathan A., and Stefano Recchia. 2022. "Does Public Opinion Affect the Preferences of Foreign Policy Leaders? Experimental Evidence from the UK Parliament." *The Journal of Politics* Forthcoming.  
**URL:** <https://doi.org/10.1086/719007>
- Crawford, Timothy W. 2003. *Pivotal Deterrence: Third-Party Statecraft and the Pursuit of Peace*. Ithaca, NY: Cornell University Press.
- Crawford, Timothy W. 2021. *The Power to Divide: Wedge Strategies in Great Power Competition*. Ithaca, NY: Cornell University Press.
- Daalder, Ivo H., Chuck Hagel, Malcolm Rifkind, and Kevin Rudd. 2021. "Preventing Nuclear Proliferation and Reassuring America's Allies." The Chicago Council on Global Affairs Report.  
**URL:** <https://globalaffairs.org/research/report/preventing-nuclear-proliferation-and-reassuring-americas-allies>
- Dafoe, Allan, Sophia Hatz, and Baobao Zhang. 2021. "Coercion and Provocation." *Journal of Conflict Resolution* 65 (2-3): 372–402.
- Danilovic, Vesna. 2002. *When the Stakes are High: Deterrence and Conflict among Major Powers*. Ann Arbor, MI: University of Michigan Press.
- Davis, James W. 2000. *Threats and Promises: The Pursuit of International Influence*. Baltimore, MD: Johns Hopkins University Press.
- De Cremer, David, and Paul A. M. Van Lange. 2001. "Why Prosocials Exhibit Greater Cooperation Than Proselfs: The Roles of Social Responsibility and Reciprocity." *European Journal of Personality* 15 (S1): S5–S18.
- De Dreu, Carsten K. W., and Paul A. M. Van Lange. 1995. "The Impact of Social Value Orientations on Negotiator Cognition and Behavior." *Personality and Social Psychology Bulletin* 21 (11): 1178–1188.
- Deutsch, Morton. 1960. "The Effect of Motivational Orientation upon Trust and Suspicion." *Human Relations* 13 (2): 123–139.
- Dillard, James Price, and Lijiang Shen. 2005. "On the nature of reactance and its role in persuasive health communication." *Communication Monographs* 72 (2): 144–168.
- Fang, Songying, and Kristopher W. Ramsay. 2010. "Outside Options and Burden Sharing in Non-binding Alliances." *Political Research Quarterly* 63 (1): 188–202.
- Fearon, James D. 1994. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88 (3): 577–592.
- Fearon, James D. 1995. "Rationalist Explanations for War." *International Organization* 49 (3):

379–414.

- Fearon, James D. 1997. “Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs.” *Journal of Conflict Resolution* 41 (1): 68–90.
- Fehr, Ernst, and Urs Fischbacher. 2002. “Why Social Preferences Matter: The Impact of Non-selfish Motives on Competition, Cooperation and Incentives.” *Economic Journal* 112 (478): C1–C33.
- Flournoy, Michéle, and Jaime Davidson. 2012. “Obama’s New Global Posture: The Logic of U.S. Foreign Deployments.” *Foreign Affairs* 91 (4): 54–63.
- Frye, Timothy. 2019. “Economic Sanctions and Public Opinion: Survey Experiments From Russia.” *Comparative Political Studies* 52 (7): 967–994.
- Fuhrmann, Matthew, and Todd S. Sechser. 2014. “Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence.” *American Journal of Political Science* 58 (4): 919–935.
- Gadarian, Shana Kushner. 2014. “Beyond the water’s edge: Threat, partisanship, and media.” In *The Political Psychology of Terrorism Fears*. New York: Oxford University Press pp. 67–84.
- Gerzhoy, Eugene. 2015. “Alliance Coercion and Nuclear Restraint: How the United States Thwarted West Germany’s Nuclear Ambitions.” *International Security* 39 (4): 91–129.
- Grossman, Guy, Devorah Manekin, , and Yotam Margalit. 2018. “How Sanctions Affect Public Opinion in Target Countries: Experimental Evidence From Israel.” *Comparative Political Studies* 51 (14): 1823–1857.
- Gruffydd-Jones, Jamie J. 2019. “Citizens and Condemnation: Strategic Uses of International Human Rights Pressure in Authoritarian States.” *Comparative Political Studies* 52 (4): 579–612.
- Gueorguiev, Dimitar, Daniel McDowell, and David A. Steinberg. 2020. “The Impact of Economic Coercion on Public Opinion: The Case of US-China Currency Relations.” *Journal of Conflict Resolution* 64 (9): 1555–1583.
- Hafner-Burton, Emilie M., D. Alex Hughes, and David G. Victor. 2013. “The Cognitive Revolution and the Political Psychology of Elite Decision-Making.” *Perspectives on Politics* 11: 368–386.
- Henry, Iain D. 2022. *Reliability and Alliance Interdependence: The United States and Its Allies in Asia, 1949-1969*. Ithaca, NY: Cornell University Press.
- Herrmann, Richard. 2017. “How Attachments to the Nation Shape Beliefs About the World: A Theory of Motivated Reasoning.” *International Organization* 71 (S1): S61–S84.
- Huth, Paul. 1988. *Extended Deterrence and the Prevention of War*. New Haven, CT: Yale University Press.
- Imai, Kosuke, Luke Keele, and Dustin Tingley. 2010. “A General Approach to Causal Mediation Analysis.” *Psychological Methods* 15 (4): 309–334.
- Imai, Kosuke, Luke Keele, and Teppei Yamamoto. 2010. “Identification, Inference, and Sensitivity Analysis for Causal Mediation Effects.” *Statistical Science* 25 (1): 51–71.
- Imai, Kosuke, and Teppei Yamamoto. 2013. “Identification and Sensitivity Analysis for Multiple Causal Mechanisms: Revisiting Evidence from Framing Experiments.” *Political Analysis* 21: 141–171.
- Johnston, Alastair Iain. 2007. *Social States: China in International Institutions, 1980-2000*.

- Princeton, NJ: Princeton University Press.
- Kertzer, Joshua D. 2020. "Re-Assessing Elite-Public Gaps in Political Behavior." *American Journal of Political Science* Forthcoming.  
**URL:** <https://doi.org/10.1111/ajps.12583>
- Kertzer, Joshua D., and Brian C. Rathbun. 2015. "Fair is Fair: Social Preferences and Reciprocity in International Politics." *World Politics* 64 (4): 613–655.
- Kertzer, Joshua D., Jonathan Renshon, and Keren Yarhi-Milo. 2021. "How Do Observers Assess Resolve?" *British Journal of Political Science* 51 (1): 308–330.
- Kertzer, Joshua D., and Kathleen M. McGraw. 2012. "Folk Realism: Testing the Microfoundations of Realism in Ordinary Citizens." *International Studies Quarterly* 56: 245–258.
- Kertzer, Joshua D., and Thomas Zeitzoff. 2017. "A Bottom-Up Theory of Public Opinion about Foreign Policy." *American Journal of Political Science* 61 (3): 543–558.
- Knopf, Jeffrey, ed. 2012. *Security Assurances and Nuclear Nonproliferation*. Stanford, CA: Stanford Security Studies.
- Kosterman, Rick, and Seymour Feshbach. 1989. "Toward a Measure of Patriotic and Nationalistic Attitudes." *Political Psychology* 10 (2): 257–274.
- Kroenig, Matthew. 2013. "Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes." *International Organization* 67 (1): 141–171.
- Kuhlman, D. Michael, and Alfred F. Marshello. 1975. "Individual Differences in Game Motivation as Moderators of Preprogrammed Strategy Effects in Prisoner's Dilemma." *Journal of Personality and Social Psychology* 32 (5): 922–931.
- Kuhlman, D. Michael, and David L. Wimberley. 1976. "Expectations of Choice Behavior Held by Cooperators, Competitors, and Individualists across Four Classes of Experimental Games." *Journal of Personality and Social Psychology* 34 (1): 69–81.
- Kurizaki, Shuhei. 2007. "Efficient Secrecy: Public versus Private Threats in Crisis Diplomacy." *American Political Science Review* 101 (3): 543–558.
- Labs, Eric J. 1992. "Do Weak States Bandwagon?" *Security Studies* 1 (3): 383–416.
- Lake, David A. 2009. *Hierarchy in International Relations*. Ithaca, NY: Cornell University Press.
- Lanoszka, Alexander. 2015. "Do Allies Really Free-Ride?" *Survival* 57 (3): 133–152.
- Lanoszka, Alexander. 2018. *Atomic Assurance: The Alliance Politics of Nuclear Proliferation*. Ithaca, NY: Cornell University Press.
- Laurin, Kristin, Aaron C Kay, Devon Proudfoot, and Gavan J Fitzsimons. 2013. "Response to restrictive policies: Reconciling system justification and psychological reactance." *Organizational Behavior and Human Decision Processes* 122 (2): 152–162.
- Lee, Jong-Sup, and Uk Heo. 2002. *The U.S.-South Korean Alliance, 1961-1988: Free-Riding or Bargaining?* Lewiston, NY: Edwin Mellen Press.
- Lin-Greenberg, Erik. 2019. "Backing up, not backing down: Mitigating audience costs through policy substitution." *Journal of Conflict Resolution* 56 (4): 559–574.
- Lin-Greenberg, Erik. 2021. "Soldiers, Pollsters, and International Crises: Public Opinion and the Military's Advice on the Use of Force." *Foreign Policy Analysis* Forthcoming.  
**URL:** <https://doi.org/10.1093/fpa/orab009>
- Lukes, Steven. 1974. *Power: A Radical View*. London: Macmillan.

- Major, Brenda, and Laurie T. O'Brien. 2005. "The Social Psychology of Stigma." *Annual Review of Psychology* 56: 393–421.
- Martínez Machain, Carla, and T. Clifton Morgan. 2013. "The Effect of US Troop Deployment on Host States' Foreign Policy." *Armed Forces & Society* 39 (1): 102–123.
- McClintock, Charles G., and Wim B. Liebrand. 1988. "Role of Interdependence Structure, Individual Value Orientation, and Another's Strategy in Social Decision Making: A Transformational Analysis." *Journal of Personality and Social Psychology* 55 (3): 396–409.
- McManus, Roseanne W. 2018. "Making It Personal: The Role of Leader-Specific Signals in Extended Deterrence." *Journal of Politics* 80 (3): 982–995.
- Morrow, James D. 1991. "Alliances and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances." *American Journal of Political Science* 35 (4): 904–933.
- Nisbet, Erik C, Kathryn E Cooper, and R Kelly Garrett. 2015. "The partisan brain: How dissonant science messages lead conservatives and liberals to (dis) trust science." *The ANNALS of the American Academy of Political and Social Science* 658 (1): 36–66.
- Norrlöf, Carla. 2010. *America's Global Advantage: US Hegemony and International Cooperation*. New York: Cambridge University Press.
- Nyhan, Brendan, and Jason Reifler. 2010. "When corrections fail: The persistence of political misperception." *Political Behavior* 32 (2): 303–330.
- Olson, Jr., Mancur, and Richard Zeckhauser. 1966. "An Economic Theory of Alliances." *Review of Economics and Statistics* 48 (3): 266–279.
- ONeal, John R. 1990. "The Theory of Collective Action and Burden Sharing in NATO." *International Organization* 44 (3): 379–402.
- Owsiak, Andrew P., and Derrick V. Frazier. 2014. "The Conflict Management Efforts of Allies in Interstate Disputes." *Foreign Policy Analysis* 10 (3): 243–264.
- Palmer, Glenn. 1990a. "Alliance Politics and Issue Areas: Determinants of Defense Spending." *American Journal of Political Science* 34 (1): 190–211.
- Palmer, Glenn. 1990b. "Corralling the Free Rider: Deterrence and the Western Alliance." *International Studies Quarterly* 34 (2): 147–164.
- Pape, Robert. 1997. "Why Economic Sanctions Do Not Work." *International Security* 22 (2): 90–136.
- Pape, Robert A. 1996. *Bombing to Win: Air Power and Coercion in War*. Ithaca, NY: Cornell University Press.
- Pfundstein Chamberlain, Dianne. 2016. *Cheap Threats: Why the United States Struggles to Coerce Weak States*. Washington, DC: Georgetown University Press.
- Plümper, Thomas, and Eric Neumayer. 2015. "Free-riding in Alliances: Testing an Old Theory with a New Method." *Conflict Management and Peace Science* 32 (2): 247–268.
- Posen, Barry R. 2014. *Restraint: A New Foundation for U.S. Grand Strategy*. Ithaca, NY: Cornell University Press.
- Powers, Kathleen E., and Dan Altman. 2022. "The Psychology of Coercion Failure: How Reactance Explains Resistance to Threats." *American Journal of Political Science* Forthcoming.
- Pressman, Jeremy. 2008. *Warring Friends: Alliance Restraint in International Politics*. Ithaca, NY: Cornell University Press.

- Putnam, Robert D. 1988. "Diplomacy and Domestic Politics: The Logic of Two-Level Games." *International Organization* 42 (3): 427–460.
- Quick, Brian L., and Jennifer R. Considine. 2008. "Examining the Use of Forceful Language When Designing Exercise Persuasive Messages for Adults: A Test of Conceptualizing Reactance Arousal as a Two-Step Process." *Health Communication* 23 (5): 483–491.
- Rabin, Matthew. 2002. "A Perspective on Psychology and Economics." *European Economic Review* 46 (4): 657–685.
- Rapp-Hooper, Mira. 2020. "Saving America's Alliances: The United States Still Needs the System That Put It on Top." *Foreign Affairs* 99 (2): 127–140.
- Sandler, Todd. 1977. "Impurity of Defense: An Application to the Economics of Alliances." *Kyklos* 30 (3): 443–460.
- Sandler, Todd. 1993. "The Economic Theory of Alliances: A Survey." *Journal of Conflict Resolution* 37 (3): 446–483.
- Saunders, Elizabeth. 2022. "Elites in the Making and Breaking of Foreign Policy." *Annual Review of Political Science* 25.
- Schake, Kori. 2017. "Will Washington Abandon the Order?: The False Logic of Retreat." *Foreign Affairs* 96 (1): 41–47.
- Schelling, Thomas. 1966. *Arms and Influence*. 2008 ed. New Haven, CT: Yale University Press.
- Schultz, Kenneth A. 1998. "Domestic Opposition and Signaling in International Crises." *American Political Science Review* 92 (4): 829–844.
- Sechser, Todd. 2018. "Reputations and Signaling in Coercive Bargaining." *Journal of Conflict Resolution* 62 (2): 318–345.
- Sechser, Todd S. 2010. "Goliath's Curse: Coercive Threats and Asymmetric Power." *International Organization* 64 (4): 627–660.
- Sechser, Todd S., and Matthew Fuhrmann. 2013. "Crisis Bargaining and Nuclear Blackmail." *International Organization* 67 (1): 173–195.
- Selden, Zachary. 2013. "Balancing Against or Balancing With? The Spectrum of Alignment and the Endurance of American Hegemony." *Security Studies* 22 (2): 330–364.
- Simmons, Beth. 2009. *Mobilizing for Human Rights*. New York: Cambridge University Press.
- Snyder, Glenn H. 1997. *Alliance Politics*. Ithaca, NY: Cornell University Press.
- Snyder, Jack, and Erica D. Borghard. 2011. "The Cost of Empty Threats: A Penny, Not a Pound." *American Political Science Review* 105 (3): 437–456.
- Spektor, Matias, Umberto Mignozzetti, and Guilherme N. Fasolin. 2022. "Nationalist Backlash Against Foreign Climate Shaming." *Global Environmental Politics* 22 (1): 139–158.
- Stasavage, David. 2004. "Open-Door or Closed-Door? Transparency in Domestic and International Bargaining." *International Organization* 58: 667–703.
- Sullivan, Patricia L., Brock F. Tessman, and Xiaojun Li. 2011. "US Military Aid and Recipient State Cooperation." *Foreign Policy Analysis* 7 (3): 275–294.
- Terman, Rochelle. 2016. "Backlash: Defiance, Human Rights, and the Politics of Shame." Ph.D. Dissertation, University of California, Berkeley.
- Thies, Wallace J. 2003. *Friendly Rivals: Bargaining and Burden-shifting in NATO*. Florence: Routledge.

- Tingley, Dustin, and Michael Tomz. 2021. "The Effects of Naming and Shaming on Public Support for Compliance with International Agreements: An Experimental Analysis of the Paris Agreement." *International Organization* <https://doi.org/10.1017/S0020818321000394>.
- Tingley, Dustin, Teppei Yamamoto, Kentaro Hirose, Luke Keele, and Kosuke Imai. 2014. "mediation: R Package for Causal Mediation Analysis." *Journal of Statistical Software* 59 (5).
- Tingley, Dustin, Teppei Yamamoto, Kentaro Hirose, Luke Keele, Kosuke Imai, Minh Trinh, and Weihuang Wong. 2022. "Package 'mediation'." R documentation, October 13, 2022.  
**URL:** <https://cran.r-project.org/web/packages/mediation/mediation.pdf>
- Tomz, Michael. 2007. "Domestic Audience Costs in International Relations: An Experimental Approach." *International Organization* 61 (4): 821–840.
- Tomz, Michael, Jessica L.P. Weeks, and Keren Yarhi-Milo. 2020. "Public Opinion and Decisions About Military Force in Democracies." *International Organization* 74: 119–143.
- Tomz, Michael, and Jessica Weeks. 2013. "Public Opinion and the Democratic Peace." *American Political Science Review* 107: 693–724.
- Tomz, Michael, and Jessica Weeks. 2021. "Military Alliances and Public Support for War." *International Studies Quarterly* Forthcoming: DOI: 10.1093/isq/sqab015.
- Yarhi-Milo, Keren. 2013. "Tying Hands Behind Closed Doors: The Logic and Practice of Secret Reassurance." *Security Studies* 22 (3): 405–435.
- Yarhi-Milo, Keren, Joshua D. Kertzer, and Jonathan Renshon. 2018. "Tying Hands, Sinking Costs, and Leader Attributes." *The Journal of Conflict Resolution* 62 (10): 2150–2179.