

# PLAYING HARD TO GET: STRATEGIC SIGNALING IN AID BARGAINING\*

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## Abstract

Foreign aid is a political exchange between a donor and target. Existing literature focuses primarily on the strategic actions of donors, but less is known about how targets advance their interests. This article explores the role of aid-receiving states as strategic actors who can extract concessions from donors. I model the aid exchange using a costly signaling model in which targets send a (potentially misleading) signal of their policy preferences before the donor makes an aid offer. In equilibrium, when the cost of sending a misleading signal is sufficiently low, targets who are aligned with a donor on policy sometimes lie about their alignment, which yields them aid that they would not have received otherwise. Empirically, I show that strategic nonresponse in the UN General Assembly – a low-cost signal of nonalignment – is correlated with higher future aid inflows.

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The 2022 Russian invasion of Ukraine sparked swift backlash from Western states, who placed harsh sanctions on the Russian economy and provided material assistance to Ukraine's defense efforts. However, not all Western partners followed this lead; Vietnam and South Africa – not necessarily formal allies, but states that extensively cooperate on economic and security issues with the West – joined adversaries like China and Iran in abstaining from a UN General Assembly (UNGA) vote that condemned the invasion, although they did not endorse Russia's position (Voeten, 2022).<sup>1</sup> Beyond the UNGA, South Africa hosted Russian Foreign Minister Sergei Lavrov for a visit and participated in joint military exercises with Russia, even as it continued cooperating with its Western partners as normal (Allison, 2023; Eligon, 2023; Makhanya, 2023). Despite Western diplomats' claims that they were not concerned about where South Africa's true loyalties lie, the public friendliness with Russia appears to have sparked concern, with the US quickly arranging several high-profile diplomatic visits (Gramer, 2023).

Why would South Africa and other states with deep Western ties abstain on this vote? Material considerations such as oil and arms likely played a role. However, it seems unlikely that these states view Russia as a viable partner beyond the short-term; Russia is an increasingly isolated state with a precarious economy and insignificant development assistance program, and South Africa is not a politically repressive regime that lacks other friends. It also seems unlikely that South Africa – led by the African National Congress, a party with a history of anticolonial activism – views Russia's imperial project as genuinely righteous.

In this article, I argue that aid-receiving states like South Africa can exaggerate the distance between their policy ideal point and the policy proposal of a donor to incentivize the donor to give them a level of aid that exceeds their true reservation price. This argument posits a novel explanation for the policy divergence between the US and some of its partners on the issue of Russia, framing

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<sup>1</sup>The few states who voted against the UNGA resolution were generally pariah states like Belarus, North Korea, Syria, and post-coup Mali.

UNGA abstentions and Russian diplomatic visits as an attempt by those partner states to attract more resources from the US. The flurry of diplomatic activity on the US side is early evidence that this strategy is bearing fruit for South Africa; by contrast, Cuba's abstention is unlikely to affect its relationship with the US, as the US does not stand to gain deep Cuban cooperation on the issue of Ukraine.

I focus on this strategy in foreign aid bargaining, a common form of political exchange between donors and recipient states. According to existing literature, donors use aid to stabilize allied regimes, incentivize domestic policy changes by partner states, and purchase support for diplomatic initiatives, among other things (Alesina and Dollar, 2000; Dreher, Lang, et al., 2022; Levitsky and Way, 2010; Wright, 2009). Recipients use aid to enhance their political position, which may come through funnelling the benefits of aid to a narrow elite (e.g. through rent seeking opportunities or patronage) or to the population more broadly (by placing projects in politically valuable constituencies or touting the development benefits of projects) (Andersen et al., 2022; Cruz and Schneider, 2017; Dreher, Fuchs, et al., 2019; Morrison, 2009).

In general, recipients want to maximize aid inflows while minimizing policy concessions; donors want to achieve certain policy goals while minimizing aid spending (Bueno de Mesquita and Smith, 2007). However, donors do not necessarily know the target's true policy preferences and thus cannot discern the amount of aid necessary to ensure its preferred policy is implemented. In this article, I focus on how target states exploit the donor's dilemma through strategic signaling behavior. This contrasts with most existing work on donors' aid allocation decisions, which focuses on the role of donor interests and structural features of recipients in determining aid flows. I argue that target states that are aligned with the donor may portray themselves as *less* aligned with the donor to receive more aid. Under certain conditions, this works by inflating the donor's perception of the target's reservation price for implementing the donor's preferred policy. Consequently, the donor believes –

inaccurately – that the target will not do what the donor wants without aid as an incentive.

I develop my argument using a costly signaling model before testing it empirically. In the model, the donor does not know whether the recipient shares their policy preference. The recipient reveals information about this preference before the donor makes an offer of aid; this signal is costly if and only if the target lies about their preference. Analysis of the model shows that, when the cost of lying is sufficiently low and donor's interest in the target's policy is sufficiently high, aligned targets optimally claim nonalignment and donors, uncertain over the target's true preferences, give those states aid at least some of the time. By contrast, with complete information, donors would recognize that such aid is unnecessary for policy alignment. I derive and test implications of the model using data on nonresponse (abstentions and absences) in the UN General Assembly (UNGA), a forum in which signals can be sent clearly and at relatively low cost. I argue that UNGA resolutions are a tool for donors to infer partners' underlying preferences and likely future actions; because UNGA votes are often inconsequential in their own right, however, recipients do not face high costs to lying in those votes. Using a selection on observables approach, I show that strategic nonresponse is significantly and positively associated with future aid from the US and US-dominated international institutions for poor US allies. Consistent with the model, the returns to nonresponse decline as foreign policy similarity increases.

Given considerable geopolitical power imbalances between donors and recipient and the asymmetric nature of the aid relationship, existing scholarship on who gives aid to whom has focused mostly on donors' pursuit of their interests as the drivers of aid allocation (Alesina and Dollar, 2000; Collins, 2009; Dang and Stone, 2021; Scott and Carter, 2019; Steinwand, 2015). However, there is a growing (sometimes implicit) recognition that recipients can influence the amount of terms of aid in their favor under particular circumstances, including when they have large economies (Bayer et al., 2015), hold temporary positions on the UN Security Council (Berlin et al., 2022;

Kuziemko and Werker, 2006), present spillover risks to the donor's economy (Ferry and Zeitz, 2024), or have access to alternative sources of revenue like other donors' aid (Brown, 2023; Dunning, 2004; Hernandez, 2017; Horning, 2008; Li, 2017) or natural resource rents (Swedlund, 2017a; Swedlund, 2017b; Winters, 2024). More broadly, this work fits within a growing interest in the "power of the weak", or how geopolitically minor states advance their interests internationally (Snidal et al., 2024). This article contributes to this growing literature by proposing a novel theoretical pathway – the misrepresentation of their preferences – through which recipients can improve aid bargaining outcomes and empirically testing the implications of that theory. To my knowledge, this article is the first to explicitly model aid recipients as actors who can behave strategically beyond the decision to accept or reject aid.

Misrepresentation of policy preferences is a type of signaling action, a class of behavior that has received considerable attention in the broader IR literature, but has not yet been explored in the aid context. In signaling setups, a player *A* has a type that they observe, but the other player *B* does not observe; the realization of this type affects the utility of both players and thus the actions they choose to take. *A* sends a signal to *B* that reveals information about that type, but might not be honest; *B* updates its beliefs about the type accordingly. In crisis bargaining, state *A* wishes to signal that they are resolved (their type) by taking costly actions like mobilizing their military, which might lead *B* to believe that *A* is indeed resolved and thus grant *A* concessions (Powell, 1987; Schelling, 1966; Slantchev, 2011, February 3; Wolford, 2014).<sup>2</sup> Despite the prevalence of signaling models and the argument of major IR theorists that incomplete information is a fundamental feature of international politics (e.g. Fearon, 1995; Mearsheimer, 2001), existing work on aid bargaining uniformly assumes that donors know recipients' policy preferences and thus how much aid is necessary to gain concessions (Bueno de Mesquita and Smith, 2007; Bueno de Mesquita and Smith,

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<sup>2</sup>Signaling games are also commonly analyzed in the literature on economic sanctions, escalation in interstate disputes, and terrorism (Crisman-Cox and Gibilisco, 2021).

2009; Bueno de Mesquita and Smith, 2016; Wright, 2009). The logic of preference misrepresentation is also consistent with case evidence. For example, Uganda held a seat on the UNSC when the major powers sought to enact new sanctions against Iran over its nuclear weapons program. Just three weeks before a vote on the sanctions, Uganda hosted Iranian president Ahmadinejad for a state visit to discuss the issue. Uganda did eventually vote in favor of the sanctions, but it was granted concessions on crucial security issues by the Security Council, apparently in exchange for its sanctions vote. It seems unlikely that Uganda had any true interest in protecting Iran's nuclear program, instead giving that impression in pursuit of its own goals (Mikulaschek, 2021). If such misrepresentation is profitable, as it was in the Ugandan case, there is no clear reason why it would not occur in the aid bargaining context.

In the empirical section of this paper, I argue that the UNGA is a suitable forum for preference misrepresentation, suggesting a novel informational function of an institution whose importance has been doubted by the scholarly literature. Existing work generally follows Dixon (1981) in painting the UNGA as "little more than a passive arena for the political interaction of member states" (p. 47). This view has led scholars to view the institution as generally inconsequential for international politics in its own right and as an imperfect but suitable forum for estimating state's underlying preferences (Bailey et al., 2017; Voeten, 2000). My argument is consistent with the former point but inconsistent with the latter because I show it is a forum for strategic misrepresentation of preferences. I also diverge from the work on aid that assumes that donors are deeply interested in buying UNGA votes with aid (Dreher, Nunnenkamp, and Thiele, 2008; Lundborg, 1998). Instead, I argue that the limited policy effects of the UNGA lend the forum to a different purpose for developing states in particular: it serves as a forum for signaling policy preferences – not necessarily truthfully – in order to attract resources from donor states. Donors, for their part, use the UNGA as a means of inferring a target's preferences over a certain policy, which are distinct from but related to the content of a

UNGA vote. In the case of the invasion of Ukraine, the failure of some Western partners to condemn Russia suggests to the US that those states will not join in sanctions or provide material assistance to Ukraine. If this argument is correct, it raises questions about the validity of UNGA-derived measures of alignment, which are commonly used in studies of international political economy (e.g. Nelson, 2014; Strüver, 2016; Tomashevskiy, 2021). Narrowly, the model suggests that UNGA voting underestimates the degree of alignment between aid-receiving states and their leading donor or donors. More broadly, it points to the possibility that UNGA votes are used strategically to pursue goals unrelated to the underlying preferences about the resolution in question.

## Theoretical Model

I build a costly signaling model of aid-for-policy deals.<sup>3</sup> Existing work on aid-for-policy deals comes from the selectorate literature and focuses largely on how structural features of donors and recipients shape the nature of foreign aid (Bueno de Mesquita and Smith, 2007; Bueno de Mesquita and Smith, 2009; Bueno de Mesquita and Smith, 2016). My model builds on this work by relaxing the assumption that donors know the target's policy preferences. Instead, donors have incomplete information over the target's ideal point; donors have beliefs over the probability that the target is aligned with them, but do not know the realization of that probability. Targets can exploit this lack of information by misrepresenting their type to convince donors that they require aid to implement a certain policy, even though receiving aid would not increase their likelihood of implementing that policy.

In the model, a donor (D) and a target (T) bargain over a transfer of resources from donor to target ( $r_D$ ) and a policy to be implemented by T ( $y_T$ ). The target has some genuine preference ( $\theta_T$ , T's type in signaling terms) that is either aligned with the donor's preferred policy or unaligned. The

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<sup>3</sup>Broadly speaking, aid has two political functions: purchasing policy and subsidizing favorable regimes. These two functions have different underlying logics and thus it is difficult to model them together. I focus on the first goal and acknowledge that the model fails to predict certain behaviors that stem from the second goal.

donor knows the probability that the target is aligned with them, but does not observe the alignment. Both players care to some degree about the target implementing their most preferred policy;  $\alpha_D$  represents the benefit gained by D if T implements her most preferred policy, while  $\alpha_T$  is the cost incurred by T implementing a policy other than its most preferred policy. Prior to the offer of aid and policy implementation, the target has an opportunity to send a signal of their view of the donor's policy ( $s_T$ ); empirically, this could be many things, such as releasing a statement or report of the government's assessment of that policy, votes on non-binding or binding resolutions, or diplomatic visits with proponents or opponents of the policy. This signal does not need to be honest, but the target pays a cost of lying ( $c$ ); this cost is imposed by the domestic winning coalition, which may interpret the signal as evidence that their own preferred policy is less likely to be implemented. The donor observes the signal – but crucially, does not observe any costs of signaling incurred by the target – and then decides on an allocation of resources to send to the target, conditional on the target's implementation of the donor's preferred policy. After seeing the offer, the target decides which policy to implement. If the donor's preferred policy is implemented, the proposed resource transfer occurs.<sup>4</sup>

A key assumption is that misrepresentation of type (i.e. sending a dishonest signal) is costly to the target. An assumption that different signals impose distinct costs on the sender is a standard feature of signaling games (Tadelis, 2013), and existing models of electoral competition have introduced costs specifically for lying (Callander and Wilkie, 2007; Kartik and McAfee, 2007). I conceptualize this cost as stemming from domestic political consequences of sending a dishonest signal, which allows the realized value to vary by both method of delivery and issue area. Consider the following two-level game illustration of this cost: a political leader acts as an agent for two

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<sup>4</sup>A rich literature has highlighted commitment problems for both donors and recipients of aid (Collins, 2009; Curtice and Reinhardt, 2023; Dunning, 2004; Gibson et al., 2005; Hernandez, 2017; Swedlund, 2017a). Consistent with other formal work on aid (e.g. Bueno de Mesquita and Smith, 2016), I set aside the commitment problem, instead focusing attention on the less-explored role of information problems in aid bargaining.



principals with sometimes-conflicting interests, her aid donor and her winning coalition. Both principals are interested in a signal of the policy she is likely to implement in the future. The donor uses this signal to decide the optimal aid offer, while the winning coalition uses it to decide whether to mobilize against the leader. The extent of this mobilization varies based on the bindingness of the signal and salience of the policy issue. For example, diplomatic cables show that a Tuvallese diplomat stated his country's goal at the UNGA quite plainly to US diplomat: "We are here to seek assistance" (Plaisted, 2009, December 18). By contrast, when Greek Prime Minister George Papandreou suggested to European leaders that his country would hold a referendum on an unpopular, austerity-laden bailout deal – which would in effect mean a referendum on eurozone membership – the backlash from within his government was so severe that Papandreou was forced to step aside (Kathimerini, 2011; Spiegel, 2014).<sup>5</sup> In the Tuvallese case, signaling dishonestly was inconsequential, but for Papandreou's government it was devastating.

This conceptualization of cost is distinct from audience costs as described by Fearon (1994). Work on audience costs suggests that domestic audiences punish leaders for backing down from publicly stated positions, even if they ultimately agree with the policy implemented. Like this literature, I assume that audiences observe both some public stance taken by the leader and a related policy implemented after that stance. However, I assume that audiences punish leaders for signals and policies that are not in line with the audience's preferences. In my conceptualization, a voter is unhappy if the leader takes a position she does not agree with and unhappy if the leader implements a policy she does not agree with, but consistency between signal and policy does not affect voter utility.<sup>6</sup>

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<sup>5</sup>This cost is not observed by the donor. The empirical applicability of this assumption, and thus the broader model, are related to intraregime coordination (i.e. communication that a dishonest signal is aid-seeking), which may stem from regime type and winning coalition size. The unobservability assumption is often reasonable because the model describes routine interactions between states across many issue areas, where a donor deals with multiple states. This is distinct from the crisis bargaining literature (Ramsay, 2004; Schultz, 1998) where similar costs are observable. This literature describes high-profile interactions between a pair of states in crisis, where expending some effort to discern domestic political dynamics is more often optimal.

<sup>6</sup>This is in line with critiques of audience costs presented by Chaudoin (2014) and others.

Finally, what policy linkages do donors care about and how do they relate to the target's winning coalition? The answer to this naturally varies by donor and target, as well as over time and space. Donors may care about gaining meaningful support on key diplomatic initiatives, access to markets and natural resources for firms from the donor's country, economic and political liberalization, and other institutional reforms like corruption reduction. Members of the target's winning coalition have preferences over these issues. Ideological and/or material ties may shape preferences over international relations; for example, influential business elites with ties to China may pressure leaders not to engage diplomatically with Taiwan. Changes to economic policy also threaten business elites as well as laborers. In the past, Western aid has been conditional on reduction in protectionist policies, exposing domestic firms who had benefited from government protection to competition with more efficient foreign firms (Dang and Stone, 2021). Finally, autocratic elites are likely to often oppose political liberalization that upends the political status quo, especially if such liberalization may push them out of power and expose them to retaliation.

## Model Setup

I now introduce the game more formally. There are two players,  $i \in \{T, D\}$ , who have the following utility functions:

$$U_T(s_T, y_T, r_D; \theta_T) = r_D \cdot y_T - \mathbb{1}_{y_T \neq \theta_T} \cdot \alpha_T - \mathbb{1}_{s_T \neq \theta_T} \cdot c$$

$$U_D(r_D, y_T) = \alpha_D \cdot y_T - r_D \cdot y_T$$

where  $r_D \geq 0$  is the amount of resources transferred from D to R,  $y_T \in \{0, 1\}$  is a policy,  $\alpha_i > 0$  is the degree of player  $i$ 's interest in T's policy,  $\theta_T \in \{0, 1\}$  is T's type and corresponds to T's most preferred policy,  $s_T \in \{0, 1\}$  is a signal of T's type chosen by T to indicate (not necessarily honestly) their most preferred policy, and  $c > 0$  is the cost associated with sending a dishonest signal

( $s_T \neq \theta_T$ ). I assume that D prefers that  $y_T = 1$ . The probability that T is aligned with D (i.e. the probability that  $\theta_T = 1$ ) is  $p \in (0, 1)$ . The game proceeds as follows (which is represented in game tree form in Figure 1):<sup>7</sup>

1. Nature chooses whether the Target is aligned with the Donor's policy preferences ( $\theta_T \in \{0, 1\}$ ).  
Nature chooses an aligned type with probability  $p = \Pr[\theta_T = 1]$ . This alignment is observed only by the Target.
2. The Target privately observes its preference  $\theta_T$  and selects a signal  $s_T \in \{0, 1\}$ .
3. The Donor observes the signal (but not  $\theta_T$  or any cost incurred by the Target) and decides how much aid  $r_D$  (if any) to offer the Target, conditional on the Target's implementation of the Donor's preferred policy  $y_T = 1$ .
4. T observes the aid offer  $r_D$  and chooses to implement a policy  $y_T \in \{0, 1\}$ . If the Target chooses the Donor's preferred policy  $y_T = 1$ , the Donor pays the promised amount of aid  $r_D$  to the Target.
5. Payoffs are realized.

Given this sequence of play, each player has a strategy that maps features of the game and/or other player's actions into their own actions. The target T has a strategy composed of two functions. The first,  $\sigma_T^s : \{0, 1\} \rightarrow [0, 1]$  maps a type  $\theta_T$  into a probability of sending a signal  $s_T = 1$ . The second,  $\sigma_T^y(r_D) : \{0, 1\} \times \mathbb{R}^+ \rightarrow [0, 1]$ , maps the type and D's aid offer (i.e. each pair  $(\theta_T, r_D)$ ) into a probability of implementing the donor's preferred policy  $y_T = 1$ . I refer to these two strategies together as  $\sigma_T$  (that is,  $\sigma_T = \{\sigma_T^s, \sigma_T^y\}$ ). Likewise, a donor's strategy is a function  $\sigma_D(s_T) : \{0, 1\} \rightarrow \mathbb{R}^+$  that maps a signal  $s_T$  into a weakly positive offer of aid  $r_D$  (made before observation of the policy  $y_T$ ) to be sent if and only if  $y_T = 1$ . Additionally,  $\beta_D$  denotes D's beliefs

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<sup>7</sup>Payoffs are displayed with Target utility on top and Donor utility on the bottom.

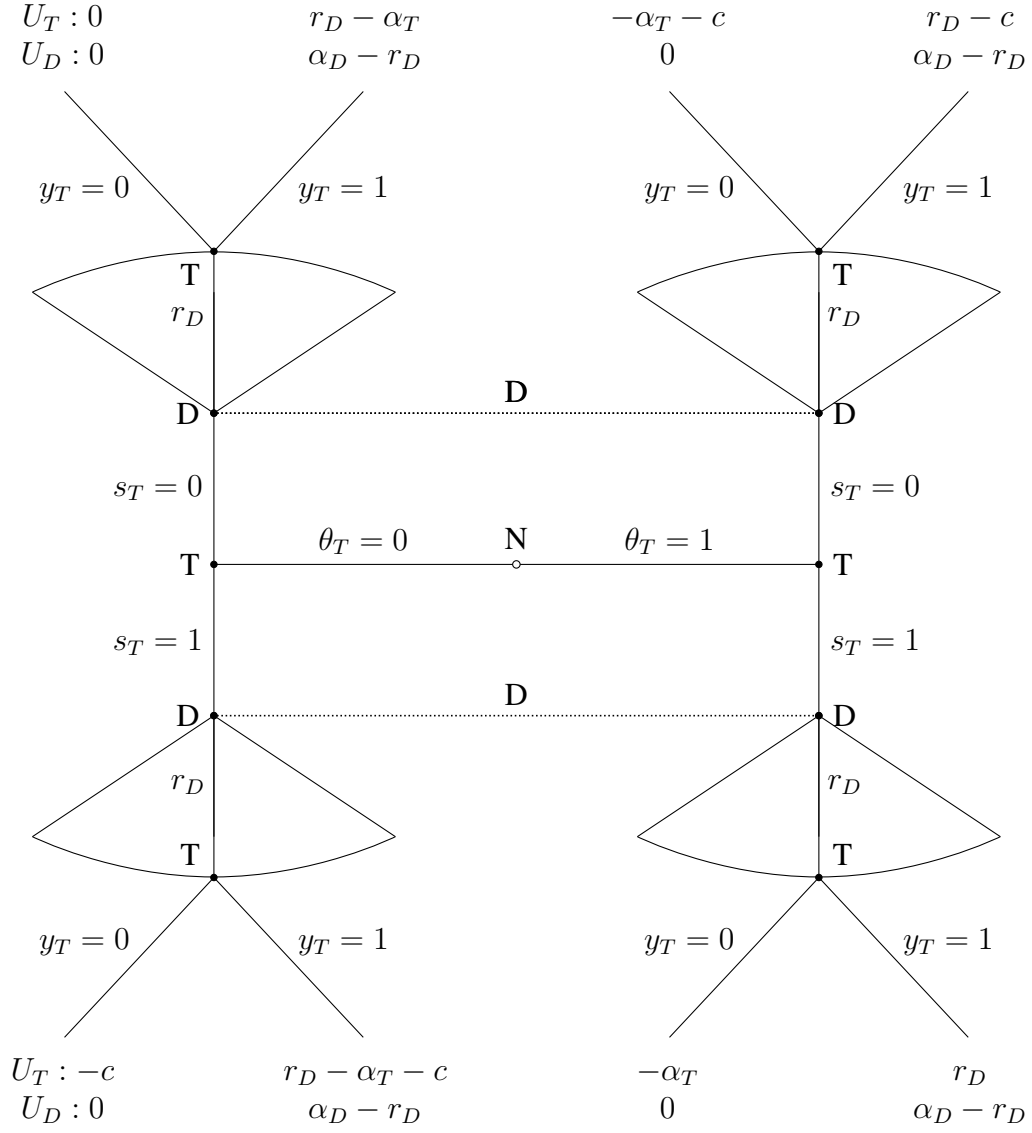


Figure 1: Game Tree

over the type  $\theta_T$  of the target  $\beta_D : (0, 1) \times \{0, 1\} \rightarrow [0, 1]$ , which defines the posterior probability that  $\theta_T = 1$  for each pair  $(p, s_T)$ , the prior probability of  $\theta_T = 1$  and the signal  $s_T$ .

I use perfect Bayesian equilibrium (PBE) as my solution concept. In PBE, an equilibrium is defined by strategies and beliefs that are consistent with Bayes' rule. A strategy profile  $(\sigma_T, \sigma_D, \beta_D)$  constitutes an equilibrium whenever  $\sigma_T$  and  $\sigma_D$  are optimal, given the beliefs  $\beta_D$ . I denote an equilibrium strategy profile as  $(\sigma_T^*, \sigma_D^*, \beta_D^*)$ .

## Equilibrium Analysis

The Target will only accept an offer of aid that makes them weakly better off. Otherwise, they will implement their most preferred policy. This does not mean that the Target who does not accept an offer of aid always implements the Donor's least preferred policy; if the Target truly wants to implement  $y_T = 1$ , then they will regardless of the offer of aid. Lemma 1 presents this strategy more formally. Proofs of this and all formal results are in Appendix B.

**Lemma 1** *A Target who receives an offer of aid that is weakly greater than  $\alpha_T$  implements  $y_T = 1$ . A Target who does not receive such an offer implements their most preferred policy  $y_T = \theta_T$ . The optimal policy implementation strategy  $\sigma_T^{y*}$  is thus*

$$\sigma_T^{y*}(\theta_T, r_D) = \begin{cases} \theta_T & \text{if } r_D < \alpha_T \\ 1 & \text{if } r_D \geq \alpha_T \end{cases}$$

In any equilibrium, there are only two possible offered quantities of aid: zero and  $\alpha_T$ . The Target's interest in implementing its most preferred policy ( $\alpha_T$ ) is also the Target's reservation price for implementing a policy other than its most preferred policy. Because there are only two possible types, there are only two possible reservation prices. An offer between zero and  $\alpha_T$  does not convince unaligned types, while an offer that exceeds  $\alpha_T$  results in the same outcome as offering  $\alpha_T$ . This fact allows the bargaining element of the game to be collapsed from a continuum of actions into only two feasible actions. This also indicates an alternative interpretation of  $\alpha_T$  as the Target's demand for aid. When the Target has a higher demand for aid, they are willing to “pay” a higher price, in

this case meaning give up more in policy.

**Lemma 2** *In any equilibrium, the Donor's aid offer equals either 0 or  $\alpha_T$ .*

Lemmas 1 and 2 describe behavior that applies to any equilibrium. I now introduce the features of equilibria that vary based on parameter values. This behavior depends on the cost of lying ( $c$ ), the prior probability of alignment ( $p$ ), and the relative values of the weight placed on the Target's policy by both the Target and Donor ( $\alpha_T$  and  $\alpha_D$ , respectively). I introduce the behavior formally in Propositions 1-4, while Figure 2 displays graphically where in the parameter space each equilibrium occurs when the donor is willing to make a strictly positive offer of aid to targets it believes may be unaligned (i.e.  $\alpha_D > \alpha_T$ ).<sup>8</sup> I offer the necessary belief structure for the donor, the optimal signal sent by the target, the optimal aid offer by the donor, and finally the optimal policy to be implemented by the target. I make the simplifying assumption that D is only willing to pay for policy change when it makes them strictly better off (when  $\alpha_D > \alpha_T$ ).

**Proposition 1 (Separating Equilibrium)** *Suppose that the cost of lying is high ( $c \geq \alpha_T$ ) and the Donor is willing to pay for policy change ( $\alpha_D > \alpha_T$ ). There is a separating equilibrium in which the Target signals honestly and the Donor pays each type of Target its reservation price. The policy  $y_T$  is implemented according to Lemma 1; in equilibrium, both types of Target implement  $y_T = 1$ .*

$$\begin{aligned}\beta_D^*(p, s_T) &= \begin{cases} 0 & \text{if } s_T = 0 \\ 1 & \text{if } s_T = 1 \end{cases} \\ \sigma_T^{s*}(\theta_T) &= \theta_T \\ \sigma_D^*(s_T) &= \begin{cases} 0 & \text{if } s_T = 0 \\ \alpha_T & \text{if } s_T = 1 \end{cases}\end{aligned}$$

Proposition 1 describes a separating equilibrium, by which I mean each type of Target takes a unique signaling action (in this case sending the signal that matches their type). In this equilibrium, lying is highly costly to the Target, so even though the Donor will respond to an unaligned signal with aid, lying is ultimately not worth the increased aid inflow. Intuitively, this suggests that the

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<sup>8</sup>The figure is arbitrarily scaled and thus should not be understood as a representation of which equilibria are most likely.

Target will not use high stakes policy decisions as opportunities to misrepresent their preferences. This is the Donor's most preferred equilibrium, as they will give aid equivalent to the Target's true reservation price for all types of the target.

**Proposition 2 (Pooling Equilibrium)** *Suppose that the cost of lying is low ( $c < \alpha_T$ ), the prior probability of the Target being aligned with the Donor is low ( $p \leq 1 - \frac{\alpha_T}{\alpha_D}$ ), and the Donor is willing to pay for policy change ( $\alpha_D > \alpha_T$ ). There is a pooling equilibrium in which the Target always signals that they are unaligned with the Donor and the Donor pays all types of the Target the unaligned type's reservation price ( $\alpha_T$ ). Consistent with Lemma 1, both types of Target implement  $y_T = 1$  in equilibrium.*

$$\begin{aligned}\beta_D^*(p, s_T) &= \begin{cases} p \leq 1 - \frac{\alpha_T}{\alpha_D} & \text{if } s_T = 0 \\ 1 & \text{if } s_T = 1 \end{cases} \\ \sigma_T^{s*}(\theta_T) &= 0 \\ \sigma_D^*(s_T) &= \alpha_T\end{aligned}$$

Proposition 2 presents a pooling equilibrium, in which any Target, regardless of type, sends the same signal.<sup>9</sup> In this case, they pool on sending the unaligned signal. Because I have specified that the Donor is willing to pay for policy alignment, all Targets will receive the unaligned Target's reservation price of  $\alpha_T$ . For this strategy profile to constitute an equilibrium, the Donor's prior belief must be that alignment is unlikely, so the expected value of an offer of aid, conditional on receiving an unaligned signal, is high; giving aid that exceeds the true reservation price is a remote possibility. Knowing that the Donor is best off giving aid to all ostensibly unaligned Targets, aligned Targets can always fruitfully lie. This region of the parameter space yields the highest utility for an aligned Target, as lying will always be rewarded. By contrast, an unaligned Target is equally well off in the pooling and separating equilibria. For the Donor, the pooling equilibrium is unfavorable. For a potentially significant portion of Targets (a portion which is increasing in the importance of the Target and decreasing in the reservation price), the Donor gives aid in excess of the true reservation price.

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<sup>9</sup>In the appendix, I show that this equilibrium strategy profile survives the Intuitive Criterion described by Cho and Kreps (1987), meaning that it is sustained by sensible beliefs.

In Appendix A, I formally describe two additional equilibria. In the semi-separating equilibrium (Proposition 3), the aligned Target employs a mixed strategy, signaling dishonestly only some of the time. In response to an unaligned signal, the Donor similarly employs a mixed strategy, sending aid only some of the time. For this strategy profile to constitute an equilibrium, the Donor's prior must be that policy alignment is relatively likely. Intuitively, an unaligned signal from a Target who is very likely *ex ante* to be aligned is not credible, and the Donor expects that no payment is necessary to secure policy alignment. In Proposition 4, I describe a second separating equilibrium (which I call the priced-out equilibrium) in which both types of Target signal honestly but the Donor gives no aid to either type. This strategy profile is an equilibrium if the unaligned Target's reservation price exceeds the Donor's willingness to pay ( $\alpha_T \geq \alpha_D$ ). In this case, changing the Target's mind is simply too costly, so the Donor opts against offering aid. With no aid to be gained, the Target has no incentive to pay the lying cost and thus signals honestly. Figure 2 displays graphically where in the parameter space each equilibrium occurs, conditional on the Donor being willing to pay for policy change.

Taken together, the model suggests three individually necessary and jointly sufficient conditions for false signaling to be optimal at least some of the time for the Target. First, the Target must be the aligned type ( $\theta_T = 1$ ). Sending a signal of alignment suggests the reservation price for implementing the Donor's preferred policy is zero, and thus does not yield aid because the Donor does need to spend resources to achieve its objective. Second, the Donor must be willing to pay for the Target to change policy; stating the same condition differently, the Target's aid demand must lead them to a reservation price that is less than the maximum price the Donor will pay for policy change.<sup>10</sup> Third, the costs of lying must be lower than the Target's reservation price for policy change ( $c < \alpha_T$ ). Otherwise, even if lying “works” in the sense that it yields aid, the disutility incurred from lying exceeds the utility gained from aid. Beyond these conditions, the prior probability of policy

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<sup>10</sup>Formally,  $\alpha_D$  must be strictly greater than  $\alpha_T$ .



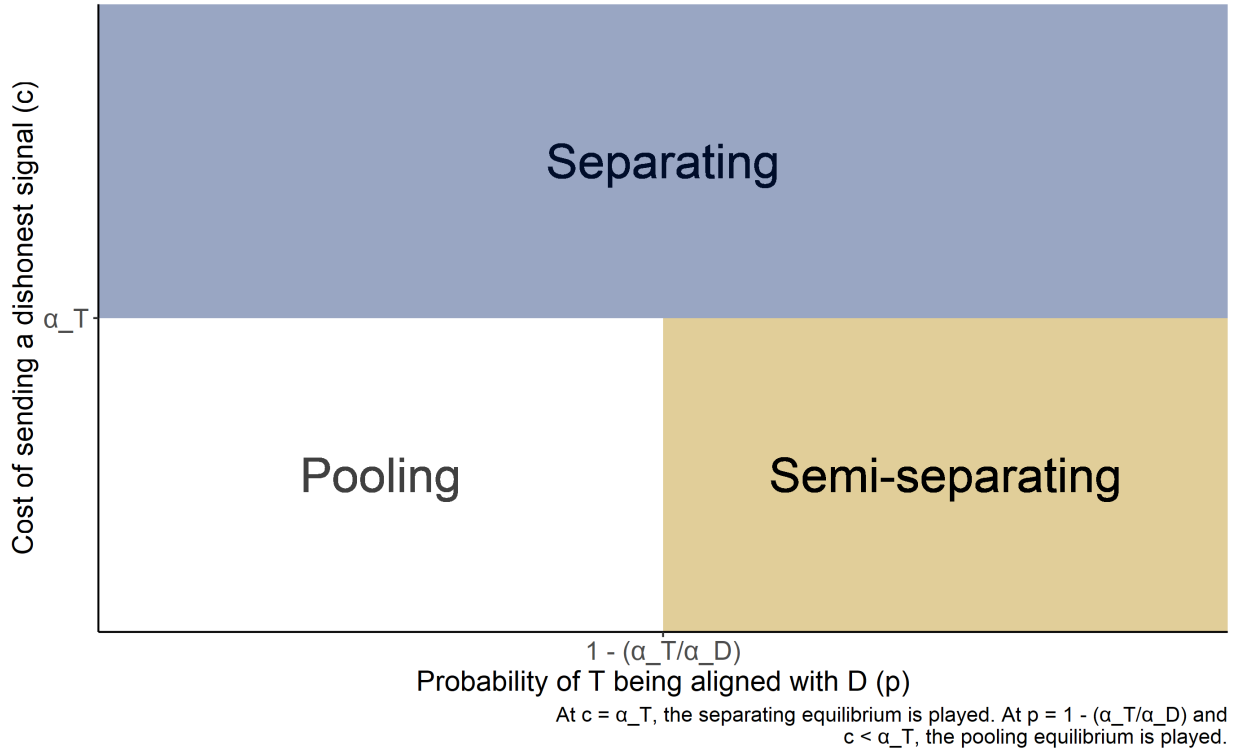


Figure 2: Equilibrium Plot when Donor is Willing to Pay for Policy Change ( $\alpha_D > \alpha_T$ )

alignment  $p$  affects the probability that the Target lies; as  $p$  increases, the credibility of an unaligned signal ( $\Pr[\theta_T = 0 \mid s_T = 0]$ ) declines and the Donor becomes less likely to pay after an unaligned signal.

## Empirical Implications

What, then, does the model predict empirically? I focus on two implications. First, when two jointly sufficient conditions are met – high aid demand that the donor is willing to meet and low lying costs – the model predicts that signals of nonalignment should be correlated with higher aid. Second, as the posterior probability of alignment  $\rho$  increases, this correlation declines because the signal becomes less believable. Consider the following equation, which is a stylized translation of the implications of the model.

$$r_D = \alpha_T \times (\mathbb{1}_{s_T=0} \times \mathbb{1}_{\alpha_D > \alpha_T} \times \mathbb{1}_{c < \alpha_T}) - \alpha_T \times (\mathbb{1}_{s_T=0} \times \mathbb{1}_{\alpha_D > \alpha_T} \times \mathbb{1}_{c < \alpha_T} \times (1 - \rho))$$

I simplify this equation by choosing a setting where lying costs are low. I also label the parts as they correspond to the hypotheses I introduce below.

$$r_D = \underbrace{\alpha_T \times (\mathbb{1}_{s_T=0} \times \mathbb{1}_{\alpha_D > \alpha_T})}_{\text{Unaligned signals increase aid (H1)}} - \underbrace{\alpha_T \times (\mathbb{1}_{s_T=0} \times \mathbb{1}_{\alpha_D > \alpha_T} \times (1 - \rho))}_{\text{Smaller effect when likelihood of policy alignment is high (H2)}}$$

This equation is the theoretical analogue of what I estimate below. Below, I translate key elements of the model into testable empirical hypotheses.

I choose the UN General Assembly as the empirical setting and the United States as the donor of interest. First, the US has stated publicly that it pays attention to UNGA votes and that aid decisions are made in part based on UNGA votes. Further, the US has a mechanism by which it designates certain votes as important; on important votes, the US lobbies other countries, and other work has found that foreign aid is more strongly correlated with alignment on those votes (Bailey et al., 2017). I expect that, in general, the US does not necessarily care about UNGA votes *in their own right*; instead, the US uses UNGA votes as a signal of the target's orientation on other issues or towards the US more broadly.<sup>11</sup> Second, UNGA resolutions are not binding and thus voting in a way that is divorced from one's preferences is unlikely to cause severe policy repercussions. This suggests that the cost of lying is sufficiently low that targets may misrepresent their true preferences and that we will thus observe non-separating behavior (in model terms,  $s_T$  will not necessarily equal  $\theta_T$ ). Third, votes are observable to two key audiences: the US and the target's winning coalition. It is thus unlikely that the US will misinterpret a signal of nonalignment as a signal of alignment or vice versa, which would create some unmodeled mismatch between how the signal is intended to be perceived and how it is actually perceived. The winning coalition has the opportunity to see its (pro- or anti-US) orientation misrepresented by its country on the international stage and inflict

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<sup>11</sup>Related to but not a direct implication of the model is that the US may have an interest in overstating its interest in UNGA outcomes. If votes are a useful signal, the US would like targets to honestly signal their type, which is more likely to work if targets believe votes are consequential to its relationship with the US, including its future aid flows.

costs if necessary. Depending on the orientation of the winning coalition, then, I expect variation in the magnitude of the cost of lying and the target's reservation price.

Of course, the UNGA is not the only plausible means of signaling for recipient states. For example, leaders may use public or private statements, diplomatic visits, the signing of relatively flexible international agreements, or a host of other methods to signal their underlying preferences. My model does not solely apply to UNGA voting, but there are pragmatic reasons to focus there, beyond the substantive fit discussed above. First, all countries may vote at the UNGA, allowing observation of countries with different model-relevant characteristics. Some other signaling methods, like diplomatic visits, require the costly participation on the part of another state. Second, data on UNGA voting is centrally available. Focusing on statements, for example, would force the analyst into an unclear decision as to which statements to include. It is not clear, for example, the conditions under which statements to a domestic newspaper are viewed by US policymakers. Third, the ultimate position taken by the recipient state is observable, although any private communication between actors is, of course, unobservable. While statements are public, for example, it need not land on a particular position like a vote must (even if that position is silence).

I briefly discuss donor goals at the UN General Assembly. The UNGA is considered to be of low importance by most scholars of international relations; studies that focus on the UNGA typically justify this focus not by its importance, but its status as the “only forum in which a large number of states meet and vote on a regular basis on issues concerning the international community”, making it a convenient location to attempt to observe and measure state preferences and international cleavages (Voeten, 2000, p. 186). Nonetheless, there is considerable evidence that great powers allocate resources to increase voting alignment (Dreher, Nunnenkamp, and Thiele, 2008; Lundborg, 1998). This work usually makes the implicit assumption that donors are interested in maximizing voting alignment, not in maximizing the likelihood of a resolution passing; this appears to be consistent

with evidence from diplomatic cables, where reports center on how countries voted, not which resolutions were passed. For example, one diplomatic cable notes that despite the consistent passage of resolutions with anti-Israel language, the US works to reduce the margin by which they pass. Notably, the US does also work to advance, stop, and/or modify the content of certain resolutions in the committee stage with some success, even on resolutions that would pass a plenary vote by a wide margin, meaning that aid may be sensitive to unobserved pre-plenary activities (Scott, 2006, December 18).

I focus on abstentions and absences (which I refer to collectively as nonresponse, following Rosas et al., 2015) as a signal of nonalignment. Nonresponse is preferable to all votes that differ from the US's for a few reasons. First, they do not signal strong commitment to a different policy; in terms of the model, it suggests that  $\alpha_T$  is not necessarily high. If  $\alpha_T$  is high, donors do not distribute aid to the target under any circumstances, as their interest in the policy is not sufficiently high ( $\alpha_T \geq \alpha_D$ ). Second, it is less likely to inflict prohibitively high lying costs on the targets if it does not match the type. If the value of  $c$  was too high, then targets would never be willing to incur the cost of lying. Third, it is less likely to capture signals that are primarily directed at other audiences, although this is still a possibility. Nonresponse may be used to draw funds from multiple donors at once, while voting in line with Russia may be more about an interaction with Russia than one with the US.

Considerable work differentiates between abstentions and absences. Historically, scholars have argued that abstentions are a purposeful statement of neutrality, while absences are connected to capacity constraints or turmoil at home (Bailey et al., 2017; Voeten, 2013). Recent work challenges this; Morse and Coggins (2024) argue that states use absences strategically to avoid punishment for not supporting powerful partners' initiatives. With respect to the model in this paper, it is not clear that one necessarily maps more cleanly onto the concept of an unaligned signal. Abstentions

may more definitively shift the US's beliefs in the direction of nonalignment, but as stronger signals, may signify a more genuine and unaffordable disagreement. Absences may be less obvious signs of nonalignment, but do little to resolve uncertainty about where the state stands and do not signal an immovable policy stance, meaning that giving aid is a best response. Drawing on the strategy from Morse and Coggins (2024), I identify strategic absences – defined as an absence on a day when the country voted on other resolutions. I create a composite *strategic nonresponse* variable, which groups together abstentions and strategic absences. These represent purposeful attempts by states to signal nonalignment. Later in the paper, I use nonstrategic absences as a placebo test.

I use official development assistance from the US and aligned international financial institutions to represent aid in the model ( $r_D$ ). Specifically, I use the sum of US bilateral aid disbursements, World Bank commitments, and IMF commitments. This measure follows evidence from Dreher, Lang, et al. (2022) that the US uses its influence at the IFIs to distribute aid to countries that deviate from US positions in international fora. This strategy allows the US to pursue cooperation with less risk of a domestic backlash. I use aid as a percentage of lagged GDP as the outcome, following recent guidance from Chen and Roth (2024), who suggest scaling outcomes with zeros instead of using log-like transformations.<sup>12</sup> To ease interpretation of the results, I multiply aid as a percentage of GDP by 100.

To approximate the underlying probability of foreign policy alignment ( $p$ ), I measure the similarity of a given target's portfolio of alliance commitments to the US.<sup>13</sup> While this conceptualization of foreign policy similarity has been used since at least Bueno de Mesquita (1975), there has been considerable debate about the proper statistical method for measuring such similarity (Lee, 2024; Signorino and Ritter, 1999). In line with guidance from Häge (2011) and Miller (2022), I use

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<sup>12</sup>Using lagged GDP alleviates concerns that the independent variable may be otherwise correlated with changes in GDP, thereby driving changes in the dependent variable even with aid held constant.

<sup>13</sup>To avoid measuring direct alliance ties, which I use later to approximate  $\alpha_D$ , I omit ties between the US and the target in calculation of the similarity scores.

Cohen's  $\kappa$  as my preferred indicator of foreign policy similarity, which corrects for the rarity of alliance ties.<sup>14</sup> This measure approximates the prior likelihood that the US and a given target hold the same policy preferences over a given issue. Although alliances are formed strategically, the costs of forming an alliance – some sacrifice of autonomy (Morrow, 2000) – make it less likely that alliances are formed as a deliberate misrepresentation of policy preferences. However, alliances do not cover the same breadth of issues that the UN General Assembly does, meaning that the US cannot simply use alliance commitments to infer a target's true policy position. Crucially, this variable is conceptually distinct from, although correlated with, a target's importance to the US. For example, the Bahamas and Haiti exhibit high foreign policy similarity to the US, but are less important partners than some states with lower similarity, like the UK; the Caribbean states' high similarity is probably driven by geographic considerations and their relatively low propensity to form ties, compared to the UK. Table 4 shows that the measures of similarity are correlated with agreement with the US at the UNGA. This is consistent with Proposition 3, where an increase in the probability of alignment decreases the probability of an aligned type sending an unaligned signal.

I use the critical media score from Varieties of Democracy to capture lying costs. This index measures the number and prominence of media outlets that criticize government. This relates to lying costs in two ways. First, it provides a means for unhappy winning coalition members to publicize their grievances with a signal they dislike. With a critical media, those who are unhappy with the government have an opportunity to express that in a way that may mobilize others against the leader. Second, with a more critical media, it is less difficult for a donor to discern backlash. If the backlash is discernible, the donor may know that the signal was dishonest, undermining the key modeling assumption that the cost is unobservable to the donor. The validation exercise in Table 5

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<sup>14</sup>I probe the robustness of my results using Scott's  $\pi$ , a similar measure with slightly different underlying assumptions. I use Cohen's  $\kappa$  in the main specifications because it is a better predictor of UNGA voting alignment (Table 4). In Appendix C, I describe the method for calculating the measures and demonstrate that the variables are highly correlated with those from Häge (2011).

shows that, conditional on country- and year-fixed effects, critical media is uncorrelated with foreign policy similarity and direct alliance ties with the US. This indicates my empirical analysis does not conflate  $c$ ,  $p$ , and  $\alpha_D$ .

To approximate the target's aid demand ( $\alpha_T$ ), I use a dummy variable that takes the value 1 if the country is eligible for support from the International Development Association (IDA) of the World Bank in a given year. Countries with this status are below a GNI per capita threshold and are not sufficiently creditworthy to borrow on market terms; there is also an assessment of the extent to which the countries implement policies that promote economic growth and poverty reduction. IDA-eligible countries should have higher aid demand (i.e., lower values of  $\alpha_T$ ), as they tend to be poorest. Notably, countries that “graduate” from this status are still eligible for World Bank support from the International Bank for Reconstruction and Development (IBRD), but graduation is associated with less favorable aid terms and considerable drops in aid receipts, both from the World Bank and other donors (Ahuja, 2024; Dreher and Lohmann, 2015; Galiani et al., 2017). Among states near the cutoff, a common concern about the exogeneity of the IDA threshold is that states manipulate their GNI data to remain eligible for aid; while the evidence for this manipulation is scant (Galiani et al., 2017), its existence would not be a problem for my setting. Indeed, such manipulation would imply higher aid demand. Consistent with the model and existing empirical work, Table 6 shows that IDA eligibility is correlated with aid inflows.

To capture the importance of the target to the US ( $\alpha_D$ ), I use direct alliance ties. This is distinct from the alliance portfolio similarity described above. Although a target may have a similar portfolio of commitments, it may not be sufficiently important to US interests to yield a formal alliance. The presence of an alliance suggests the US is willing to incur potential costs in order to cooperate with that target, consistent with the idea of dedicating aid to a country to yield policy cooperation (Morrow, 2000). Alliances may also endogenously increase US interests by creating economic or

security ties that are costly to replace; domestic firms with investments in a partner may punish a leader who undermines their returns, or finding a new partner to cooperate with in a particular region may be costly. To show that this measure does not simply capture the prior, Table 7 shows that, conditional on indirect foreign policy similarity, direct alliance ties are not correlated with voting alignment at the UNGA.<sup>15</sup>

Using these empirical mappings of key model terms, I test for the presence of a relationship between strategic nonresponse at the UNGA and future aid from the US. Recall from the equilibria that there are three necessary conditions for an unaligned signal to yield aid: the cost of a dishonest signal (low  $c$ ) must be low, the target's aid demand must be high (low  $\alpha_T$ ), and the donor's interest in the target's policy must be sufficiently high (high  $\alpha_D$ ). These conditions give rise to the following hypothesis.

**Hypothesis 1 (H1)** *Holding foreign policy similarity and lying costs constant, strategic nonresponse elicits higher future aid only among IDA-eligible US allies.*

Second, I explore the implications of variation in foreign policy similarity, or the prior  $p$  from the model. The model suggests that nonresponse should be more often followed by aid if the target is *ex ante* unlikely to be aligned with the donor on an issue; in model terms, lowering  $p$  moves the game toward the pooling equilibrium. Intuitively, targets that are unlikely to be aligned are more likely to either 1) be truly unaligned or 2) be able to convincingly lie about being unaligned. I thus hypothesize the following.

**Hypothesis 2 (H2)** *Holding lying costs constant, strategic nonresponse elicits more aid for IDA-eligible US allies with low foreign policy similarity with the US than for those with high foreign policy similarity.*

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<sup>15</sup>Note that, unlike in the foreign policy similarity term, I do not exclude alliances that are solely non-aggression pacts. The main rationale for this choice is to increase statistical power; the intersection of US allies beyond non-aggression pacts and IDA-eligible states is quite small. Theoretically, this choice is conservative beyond its power implications; allies with only non-aggression pacts are probably less important to the US on average than those with deeper alliance commitments.



One reasonable critique of the model's applicability to observable political interactions is that the model is a one-shot game, whereas, empirically, political interactions are repeated many times. This is potentially problematic because repeated play means that a donor has many opportunities to refine their beliefs about a target's true type. However, it is not clear that this is the case. This could be modeled at least two different ways. First, the type may remain fixed across each iteration of the game; that is, the target's type in period  $t$  is always equal to its type in the first period. In this, the concern about donors learning the recipient's type with certainty is especially salient. At first glance, it appears that the donor need only withhold aid from a recipient signaling nonalignment once to discern its true type, unless the target can profitably implement policies it does not like in search of aid. However, the target may in equilibrium respond by continuing to dissemble, especially if doing so is not too costly and aid is appealing. This scenario resembles resolve or reputation-style arguments in which the question is who can hold out longer, a donor determined to discern the target's type or a target determined to attract aid. Empirically, it is not clear that donors are willing to sacrifice policy wins in such a situation. For example, some states have engaged in repeated public switching of their diplomatic recognition of Taiwan and China in search of aid (Rich and Dahmer, 2022). They must have some true preference, but it is sufficiently unimportant relative to the attention and benefits attracted by selling recognition. The second possibility is that type is redrawn according to the same  $p$  in each play of the game.<sup>16</sup> In this case, uncertainty will remain over type in any given round and the signal remains informative. Indeed, some states – especially poor, aid-dependent states – do change their public positions on identical resolutions over time (Brazys and Panke, 2017). If aid, as existing literature suggests, responds to changing votes, then this indicates that donors believe that the type has changed as well. It is more likely that both possibilities may operate under different conditions than that one is the true description of the real world. Critically

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<sup>16</sup>Empirically, we might expect that targets have different values of  $p$  for different issue areas. Two countries need not agree at the same rate across a variety of issue areas.

for my analysis, repeated play does not guarantee the cessation of dishonest signaling.

## Empirical Analysis

I use a selection on observables approach. Using OLS, I estimate the following equation to test H1

$$Aid_{i,t+1} = \beta \cdot NonresponsePct_{it} \times IDA_{it} \times USAlly_{it} + \gamma \cdot \mathbf{x}_{i,t-1} + Y_t + C_i + \varepsilon_{it}$$

where  $\beta$  is the parameter of interest and the percentage of votes in which target  $i$  abstained or was strategically absent in a given year is the explanatory variable of interest.<sup>17, 18</sup> I use aid as a percentage of GDP for target unit  $i$  in year  $t + 1$  to reduce the likelihood of reverse causality.  $\mathbf{x}$  is a vector of pre-treatment covariates and  $Y$  and  $C$  are time- and target country-fixed effects, respectively. Standard errors are clustered at the target country level. To test H2, I include an interaction with US foreign policy similarity.

My analysis covers the years 1992 to 2021. For alliance ties, I use data collected by Leeds et al. (2002). I omit alliances in the data that are solely defined by non-aggression pacts. These alliances do not fit the dataset's conceptual definition of alliances and have a weaker correlation with UNGA voting alignment, making them a less fitting approximation of the US's prior. Figure 3 shows the distribution of strategic nonresponse percentages broken down by alliance status. While only suggestive, it is worth noting that the relative nonresponse patterns depicted in Figure 3 is consistent with the predictions of my model. If US allies are typically more important to the US's high goals (high  $\alpha_D$  relative to reservation price  $\alpha_T$ ), they are more likely to have opportunities to profitably misrepresent their type.

I include several covariates to ensure my estimates match the quantities of interest from my

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<sup>17</sup>Note that all of the constituent terms of the interaction are included individually, as are the interactions between the individual terms.

<sup>18</sup>Because I am interested in divergence with the US, I only count nonresponses on votes on which the US does not also engage in nonresponse.

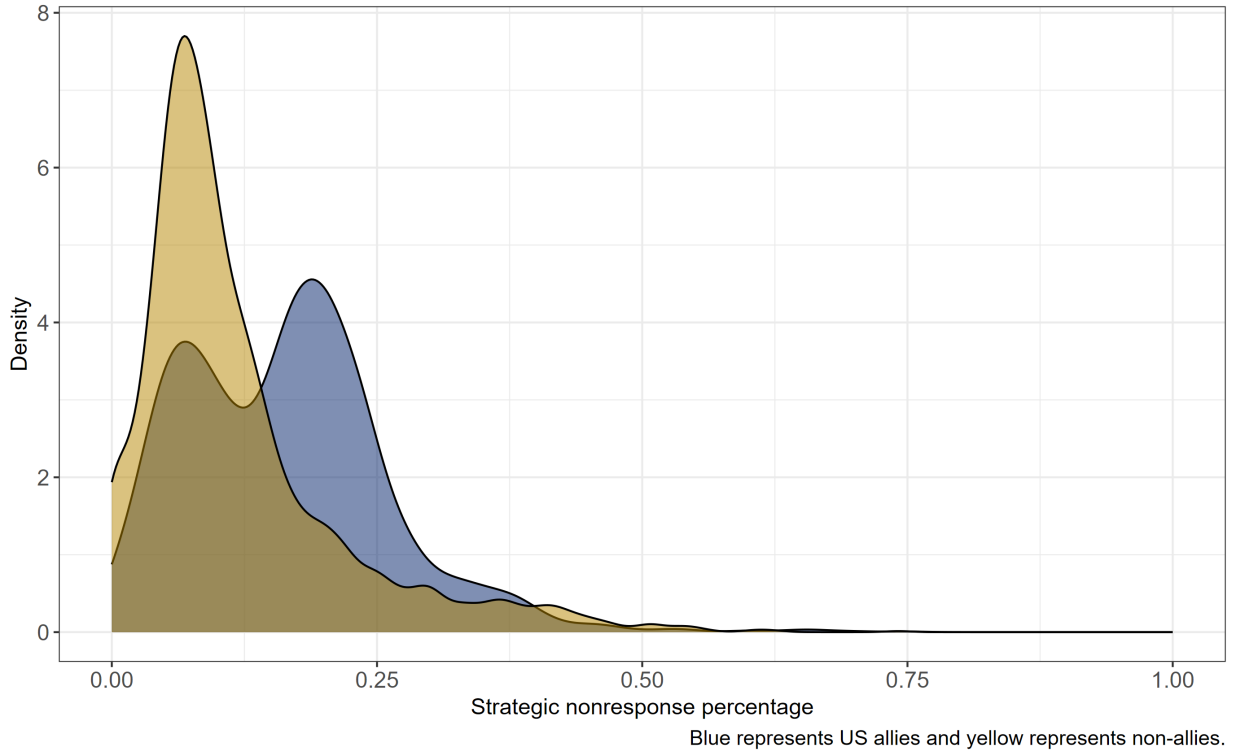


Figure 3: Distribution of Strategic Nonresponse by Alliance Status. The distribution in yellow represents strategic nonresponse by non-US allies, while the distribution in blue represent strategic nonresponse by US allies.

hypotheses and reduce the risk of omitted variable bias. In all specifications, I include the Cohen's  $\kappa$  measure of foreign policy similarity and the clean elections index from V-DEM, holding constant the parameters  $p$  and  $c$ , respectively. Political and economic contexts shape the interests of countries and thus their voting behavior at the UN; I control for democracy, GDP per capita, and population as they also influence aid flows (Alesina and Dollar, 2000; Brazys and Panke, 2017). Membership on the UN Security Council has been shown to shape the allocation and terms of foreign aid, as members vote on high-stakes resolutions that matter more to major powers than most UNGA resolutions (e.g. Berlin et al., 2022; Jud, 2024); it may also create incentives for states to behave differently in the UNGA. I include the lagged value of my dependent variable, which may reflect past efforts at policy persuasion via aid (Dreher, Lang, et al., 2022) and affect the marginal cost of giving future aid. Finally, low state capacity may increase the rate of absences via unpredictable government turnover and staff shortages while affecting aid flows in an indeterminate way, as giving is more risky, but

may have higher returns (Voeten, 2013).

## Results

Table 1 displays the baseline results. Models 1 and 3 take the composite strategic nonresponse term as the independent variable, while Models 2 and 4 take the individual strategic absence and abstention terms as separate variables. Models 1 and 2 include only the model-based covariates, while Models 3 and 4 include all covariates described in the prior section.<sup>19</sup> While I display relevant coefficients for completeness, the most informative results are the marginal effects. Consistent with H1, the estimated marginal effect of strategic nonresponse is positive and significant at the 95% confidence level in the models where abstentions and absences are measured together. The estimated marginal effects suggests that aid increases by about 2.8 percentage points of GDP as a recipient goes from never to always nonresponding. More realistically, a one standard deviation increase (0.10) is correlated with an increase of 0.28 percentage points of GDP worth of aid. For comparison, the sample mean of the outcome variable is 2.5 percent of GDP coming from summed aid. When strategic nonresponse is decomposed in Models 2 and 4, the estimates of the marginal effects are null but directionally consistent with H1. The point estimates suggest that abstentions yield more aid on average than absences do. Crucially and as hypothesized, Figure 4 shows that these results do not appear for other values of IDA eligibility and US alliance status, for which the marginal effects estimates are substantively smaller (and sometimes negative) and always indistinguishable from zero; substantively speaking, signaling nonalignment does not yield additional aid for states that are not IDA-eligible US allies.

What countries drive these results? Figure 5 displays country-years for which the theory predicts positive effects of strategic nonresponse (which I'll refer to as "eligible signalers" for brevity), including the number of years in which a country is a eligible signaler (i.e., is an IDA-eligible US

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<sup>19</sup>To preserve space Table 1 does not display the coefficients for the covariates. These are available in Table 8.

Table 1: Baseline results

	<i>Dependent variable:</i>			
	Summed aid as pct. of GDP			
	(1)	(2)	(3)	(4)
Nonresponse	0.117 (0.772)		1.531 (1.004)	
Abstentions		−0.916 (1.899)		1.076 (1.961)
Absences		0.493 (1.151)		1.661 (1.334)
Nonresponse × US ally	−0.414 (0.798)		−2.611* (1.041)	
Nonresponse × IDA	−2.738 (1.512)		−2.390 (1.256)	
Nonresponse × IDA × US ally	5.836* (2.455)		6.114** (1.908)	
Abstentions × US ally		−0.394 (2.197)		−3.077 (2.188)
Abstentions × IDA		−0.127 (2.561)		−0.602 (2.623)
Absences × US ally		0.703 (1.094)		−1.161 (1.440)
Absences × IDA		−3.650* (1.723)		−2.945 (1.616)
Abstentions × IDA × US ally		4.762 (4.443)		6.414 (4.355)
Absences × IDA × US ally		4.877* (2.156)		4.016 (2.481)
<i>Marginal effects</i>				
Nonresponse	2.802*		2.644*	
Abstentions		3.325		3.81
Absences		2.423		1.57
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
All covariates	No	No	Yes	Yes
Observations	3205	3034	3205	3034

*Note:* This table displays the coefficients on the interaction of IDA eligibility, direct alliance ties to the US, and the specified form of UNGA nonresponse, as well as constituent terms in the triple interaction terms that are relevant for the calculation of marginal effects. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

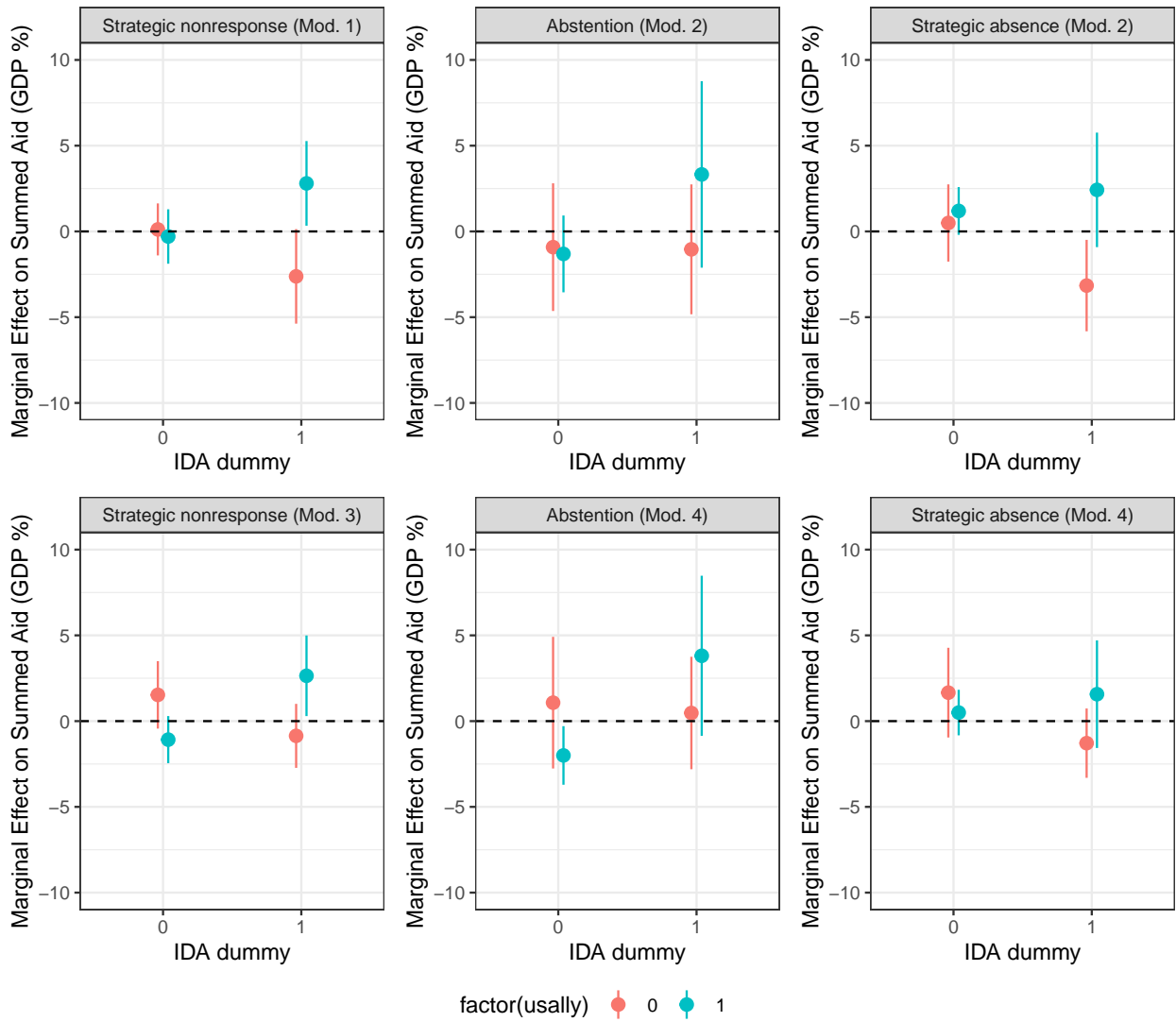


Figure 4: Marginal Effect of Nonresponse on Summed Aid. Marginal effects are computed using the results from Table 1. The top row displays results with only model-based covariates (i.e., Models 1 and 2), while the bottom row displays results including other covariates (i.e., Models 3 and 4). Error bars represent 95 percent confidence intervals. The color of the dot and line signifies the group's value of US alliance, while the column signifies the group's value of IDA eligibility. The rightmost blue dot represents the main estimate of interest.

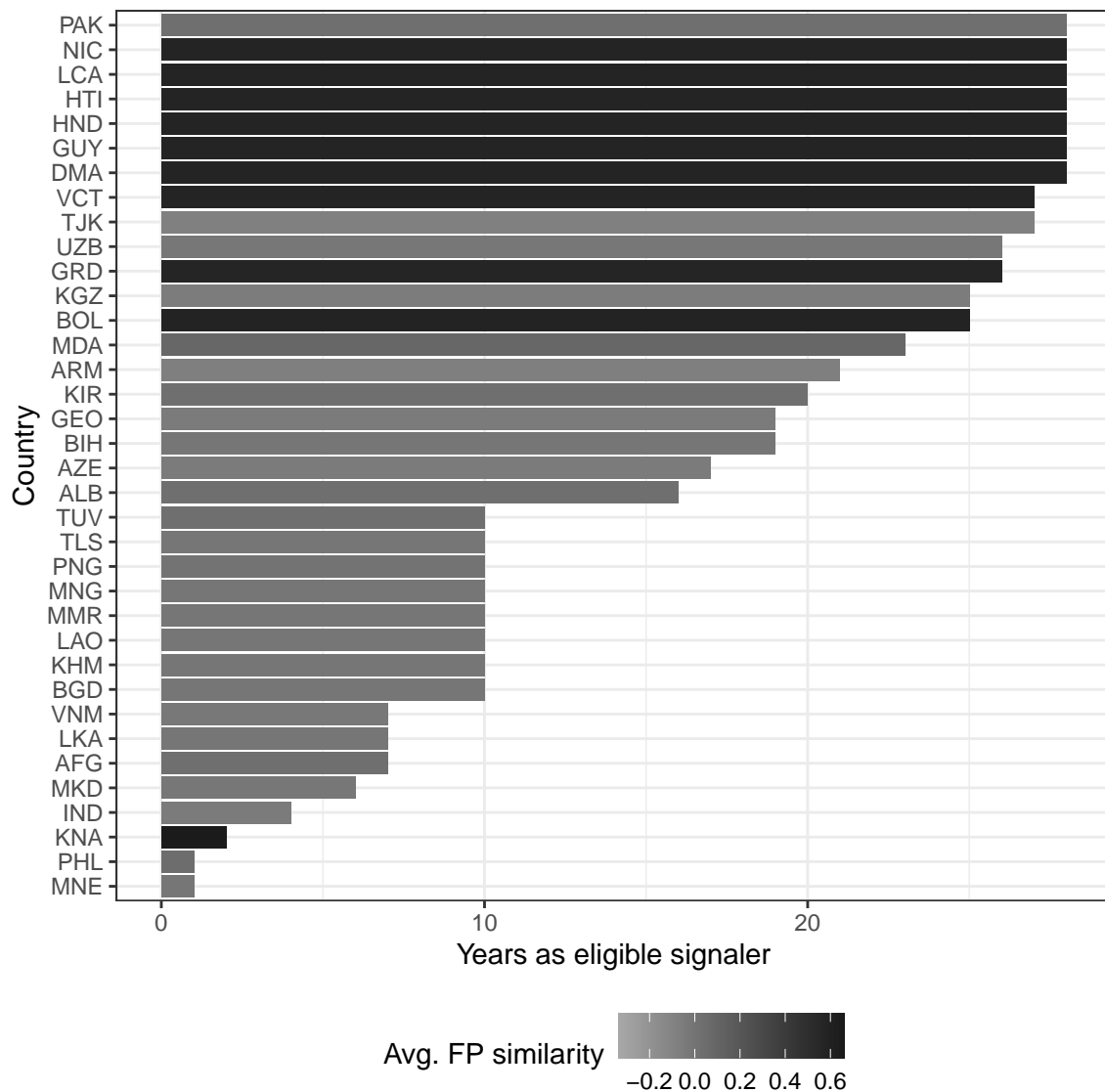


Figure 5: Eligible Signaler Observations by Country. Countries are represented by the ISO alpha-3 codes. A country-year is an eligible signaler when they are an IDA-eligible US ally.

ally). Eligible signalers are concentrated mostly in Asia and the Americas. This is consistent with the low incidence of IDA eligibility in Europe and low US strategic valuation of Africa. The plot also includes the country's mean foreign policy similarity score, which is important for knowing the support of the test of H2 below. There is considerable variation among the treated group, although it does not span the full range of values, displayed in the legend.

Table 2 and Figure 6 display the results of the test of H2.<sup>20</sup> Again, Models 1 and 3 use the composite strategic nonresponse variable, and 2 and 4 break out nonresponse into abstentions and

<sup>20</sup>Table 9 display the results with all covariates.

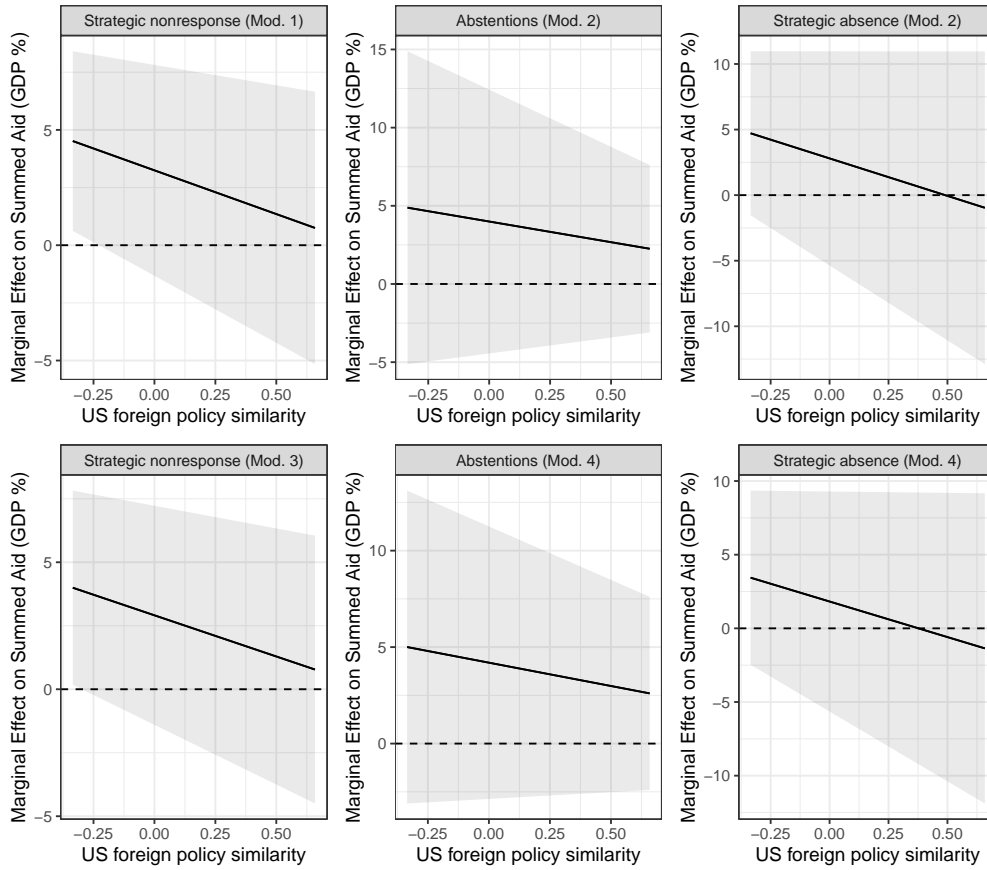


Figure 6: Marginal Effects of Nonresponse with Summed Aid with Variation in Foreign Policy Similarity. Marginal effects are computed using the results from Table 2. The top row displays results with only model-based covariates (i.e., Models 1 and 2), while the bottom row displays results including other covariates (i.e., Models 3 and 4). To isolate the relationship of interest, the IDA and US ally variables are held constant at 1 in all plots. Shaded regions represent 95 percent confidence intervals.

strategic absences. Models 1 and 2 include only model-based covariates, while Models 3 and 4 include other covariates. These results complicate the story from Table 1. Consistent with H2, the estimated marginal effect of strategic nonresponse increases as foreign policy similarity decreases. Intuitively, low similarity targets much more believably signal that they are unaligned with the donor, but the same signal from a high similarity target does not convince the donor. Similar to the results in the test of H1, the marginal effects are positive and significant only in the analyses with the composite nonresponse independent variable (1 and 3) and the point estimates for abstentions are larger than for absences, but fail to reach statistical significance (Models 2 and 4).

These results are generally consistent with the implications of the model. When states strategically



	<i>Dependent variable:</i>			
	Summed aid as pct. of GDP			
	(1)	(2)	(3)	(4)
Nonresponse	-0.349 (0.834)		1.215 (0.740)	
Abstentions		0.441 (2.238)		3.315 (2.556)
Absences		-0.704 (1.175)		0.572 (0.775)
Nonresponse × US ally	-0.615 (1.437)		-2.790* (1.240)	
Nonresponse × IDA	-2.836 (2.076)		-2.328* (1.187)	
Abstention × US ally		-2.340 (2.658)		-5.773* (2.598)
Abstention × IDA		-0.955 (3.070)		-2.545 (3.583)
Nonresponse × FP similarity	-4.238 (8.982)		-1.514 (8.990)	
Nonresponse × IDA × US ally	7.047* (3.110)		6.814** (2.072)	
Abstention × FP similarity		25.805 (19.975)		29.344 (18.265)
Absence × US ally		1.390 (1.500)		-0.278 (1.113)
Absence × IDA		-3.427 (2.184)		-2.330 (1.388)
Absence × FP similarity		-14.808 (16.830)		-11.933 (16.612)
Abstention × IDA × US ally		6.849 (5.005)		9.196 (5.158)
Nonresponse × US ally × FP similarity	5.560 (8.221)		2.909 (7.929)	
Nonresponse × IDA × FP similarity	-5.376 (17.243)		-2.796 (12.610)	
Nonresponse × IDA × US ally × FP similarity	0.262 (17.103)		-1.841 (12.468)	
Abstention × US ally × FP similarity		-24.653 (21.486)		-28.095 (19.635)
Abstention × IDA × FP similarity		-22.652 (27.192)		-27.894 (22.828)
Absence × IDA × US ally		5.542** (2.031)		3.857 (2.206)
Absence × US ally × FP similarity		15.609 (16.816)		12.310 (16.409)
Absence × IDA × FP similarity		0.555 (21.988)		5.401 (19.478)
Abstention × IDA × US ally × FP similarity		18.856 (27.891)		24.227 (23.882)
Absence × IDA × US ally × FP similarity		-7.073 (23.891)		-10.607 (20.587)
<i>Marginal effects at minimum FP similarity</i>				
Nonresponse	4.517*		3.997*	
Abstentions		4.881		5.004
Absences		4.715		3.439
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
All covariates	No	No	Yes	Yes
Observations	3205	3034	3205	3034

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Table 2: Results with Variation in  $p$ . This table displays only the coefficients necessary for the calculation of the marginal effects in Figure 6

nonrespond, they receive more aid in the next year. Of course, this analysis does not reveal whether such nonresponses were honest or dishonest. However, if such nonresponses are profitable for certain states, this suggests that UNGA voting is an opportunity for profitable dishonesty. In the appendix, I probe the robustness of my results by using Scott's  $\pi$  as the approximation of  $p$  (Figure 10) and using longer leads on the outcome to potentially better capture aid budgeting dynamics (Figures 11 and 12). The key results from the main text are unchanged; the results with longer outcome leads suggests that using a one-year lead is conservative. I also test for differential effects among important votes.<sup>21</sup> The formal model's predictions are not clear in this case; on the one hand, important votes should be correlated with donor interest in securing policy alignment ( $\alpha_D$ ), but they are also likely correlated with higher target reservation prices ( $\alpha_T$ ). The results suggest that the nonresponse-aid relationship is weaker on more important votes, although marginal effect estimates are positively signed and increase as foreign policy similarity declines.

### **Placebo Test: Nonstrategic Absences**

As discussed above, scholars have long tied absence on UNGA votes to capacity or stability concerns (Voeten, 2013). This is distinct from strategic absences, which are purposeful attempts by states to avoid revealing their preferences (Morse and Coggins, 2024). These distinct rationales lend themselves to a placebo test. In particular, donors are presumably more inclined to help politically aligned states in crisis than unaligned states. Similar to my theory, this line of reasoning predicts that nonstrategic absence is positively correlated with future aid. Unlike my theory, however, the marginal effect of nonstrategic absence should increase with foreign policy similarity. If these divergent conditional marginal effects exist, it lends further evidence to my theory that strategic absences are viewed as indicators that donors must exert effort to secure policy alignment. I rerun

---

<sup>21</sup>I estimate effects of nonresponse on votes designated as important by the US State Department and separately on votes regarding the Israel-Palestine conflict – a high salience issue in the UNGA for the US – to avoid distortions from possible strategic designation decision by the US.

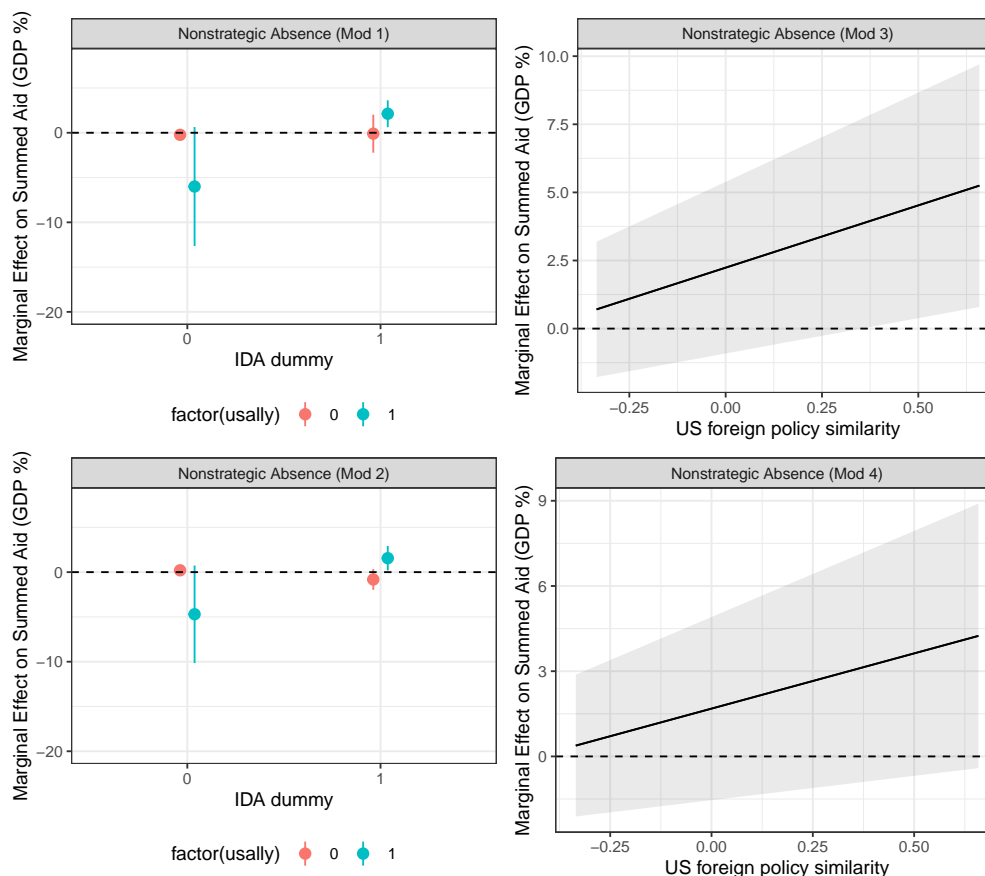


Figure 7: Marginal Effect of Nonstrategic Absence. In the plots in the right-hand column, IDA eligibility and US alliance status are held constant at 1 to isolate the relationship of interest.

my main analyses with nonstrategic absence as the independent variable. The results are displayed in Figure 7. Consistent with the capacity-related absences story, allies with highly similar foreign policy see the highest impact of nonstrategic absence on aid.

## Conclusion

My findings raise several implications for scholars of international relations. As I discussed in the introduction, they suggest that low stakes actions like UNGA votes do not map neatly onto a state's underlying preferences. Considerable work uses UNGA voting alignment – or some transformation of it, like ideal points generated from certain votes (Bailey et al., 2017) – as an indicator of foreign policy alignment (e.g. Nelson, 2014; Strüver, 2016; Tomashevskiy, 2021). This work often suggests that the symbolic nature of UNGA voting makes it an appealing forum for approximating preferences.

Comparing UNGA votes to alliance formation, Gartzke (2006) writes that the relatively low-cost nature of UNGA votes means that preferences should be less distorted; similarly, Bailey et al. (2017) suggest that the nonbinding nature of UNGA resolutions means that strategic voting is less likely. My results challenge this assumption; according to my model, the minimal consequences of UNGA voting are the *source* of strategic distortions, as states can purposefully misrepresent their preferences in search of increased resources. Future research should carefully consider for which dyads strategic distortions are likely and when possible use multiple approximations of state preferences, such as the alliance-based measure from Häge (2011) that I employ here. My results also highlight an additional explanation for the often-adversarial nature of UNGA voting highlighted by Mesquita and Pires (2022) and others; existing work suggests that dramatic UNGA politics function to reinforce state's international identities and/or appeal to domestic constituencies, while my work suggests that it may also give states an opportunity to signal profitable recalcitrance to key donors.

This work also holds implications for regime survival in autocratic target states. Aid – a fungible resource – is an important tool for leaders in both democracies and autocracies, as it allows them to engage in several regime maintenance activities; aid may be used to line the pockets of key allies, fund patronage networks to mobilize voters, and tout their economic development credentials, among other activities aimed at building political support. Existing work shows that donors are less likely to pressure for regime liberalization when that regime is a key partner for the donor because liberalization may undermine the achievement of more pressing donor objectives (Collins, 2009; Levitsky and Way, 2010). My work highlights an additional mechanism connecting target importance, aid, and autocratic survival: those key targets are best positioned to successfully misrepresent their preferences to draw excess aid, which is in turn used to stabilize the regime.

The basic logic of my argument is also potentially applicable to bargaining contexts outside of international relations, such as legislative bargaining and clientelism. In a legislative setting,

potentially pivotal members may fence sit by releasing statements expressing reservations about a particular proposal or failing to vote in favor of the bill on procedural votes that serve as tests of the bill's likelihood to pass, even if they privately support the bill's passage. According to my model, we might expect members like this to secure a disproportionately high amount of government appropriations for their constituency or a more favorable committee assignment. In the case of clientelism, politicians hire brokers to secure votes in a certain area. Brokers, although knowledgeable about the residents of their area, lack complete information over voters' preferences. Some voters – especially those who are less familiar to brokers – may choose to express that they are unlikely to vote for the brokers' candidate in order to attract a bribe.

Although I have set aside the credible commitment component of aid bargaining, my findings do not conflict with the insights of that literature. My model points to an element of aid bargaining that exists even in the presence of credible commitment. Additional problems related to commitment also contain informational components. For example, recipients cannot credibly commit to faithfully implement aid programs that they are being paid to implement, and donors may not necessarily be able to observe whether or not implementation occurred in the spirit of the agreement. This informational component may limit the disciplining effect of reputation concerns – targets wish to receive both present and future aid and thus must act in a way that does not preclude future aid – although donor's failure to credibly commit to punish may be sufficient on its own (Dunning, 2004; Swedlund, 2017a). Future research should explore the nexus of commitment and information problems in aid bargaining.

An additional area for future research is strategic creation of value by targets. Targets who are highly valued by donors receive aid may engage in profitably misleading signaling more often, allowing them to capture additional surplus. This makes the creation of value a potentially strategic process. Targets may opt to offer favorable investment terms to influential businesses from the donor

country, pursue deeper military cooperation, and/or strengthen diplomatic ties with the donor. This may be costly and in the short term reduce the policy autonomy of the target, but also create a more secure inflow of aid and other resources that ultimately allows the target more flexibility in avoiding punishment for transgressions. Relatedly, future work may explore how targets encourage competition between donors to increase the willingness to pay of multiple donors; for example, countries that recognize Taiwan may threaten to switch their recognition of Taiwan to China in order to prompt an increase in aid from Taiwanese allies (Chen, 2022).

Generally, this work points to a need for further research on strategic decision-making by aid-receiving countries. While donor-side decision-making is undoubtedly important, the environment that donors evaluate can be profitably manipulated by target states.

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## A Additional Formal Results

**Proposition 3 (Semi-Separating Equilibrium)** *Suppose that the cost of lying is low ( $c < \alpha_T$ ), the prior probability of the Target being aligned with the Donor is high ( $p > 1 - \frac{\alpha_T}{\alpha_D}$ ), and the Donor is willing to pay for policy change ( $\alpha_D > \alpha_T$ ). The following strategy-belief profile is a semi-separating equilibrium. An unaligned Target will signal truthfully, while an aligned Target plays a mixed strategy in its signal choice. Conditional on observing an unaligned signal, the Donor offers aid some of the time. Aligned type Targets and unaligned type Targets that receive an offer of aid implement  $y_T = 1$ , while unaligned type Targets who do not receive an offer of aid implement  $y_T = 0$ .*

$$\begin{aligned}\beta_D^*(p, s_T) &= \begin{cases} \rho & \text{if } s_T = 0 \\ 1 & \text{if } s_T = 1 \end{cases} \\ \sigma_T^{s*}(\theta_T) &= \begin{cases} 0 & \text{if } \theta_T = 0 \\ \pi & \text{if } \theta_T = 1 \end{cases} \\ \sigma_D^*(s_T) &= \begin{cases} 0 \text{ with probability } 1 - q & \text{if } s_T = 0 \\ \alpha_T \text{ with probability } q & \text{if } s_T = 0 \\ 0 & \text{if } s_T = 1 \end{cases}\end{aligned}$$

where  $\rho \equiv \Pr[\theta_T = 0 \mid s_T = 0] = \frac{1-p}{(1-p)+\pi p}$ ,  $\pi \equiv \Pr[s_T = 0 \mid \theta_T = 1] = \frac{(1-p)(\alpha_D - \alpha_T)}{\alpha_T p}$ , and  $q \equiv \Pr[r_D = \alpha_T \mid s_T = 0] = \frac{c}{\alpha_T}$ .

Proposition 3 introduces a semi-separating equilibrium, a class of equilibria in which at least one type of signal sender plays a mixed strategy in signal choice. In my case, aligned targets sometimes truthfully signal and sometimes lie. Intuitively, aligned targets want to blend in with the nonaligned types, but the existence of an nonaligned type is sufficiently unlikely that the donor does not always “believe” the signal and reward it with aid. The likelihood of a deceptive signal increases with donor interest in the target’s policy ( $\alpha_D$ ), decreases with the target’s reservation price ( $\alpha_T$ ), and decreases with the probability of alignment ( $p$ ). The mixed strategy response allows the donor to capture some truly unaligned targets while wasting resources less often than they would if they paid all targets that signaled that they were nonaligned. Donors are more likely to give aid to possibly nonaligned targets when the cost of lying is higher, but less likely to do so when the requisite amount of aid is higher ( $\alpha_T$ ). This situation is the unaligned Target’s least preferred outcome, as their truthful signals sometimes do not yield them aid. This scenario is the only one where the Donor is willing to pay for policy change but may not do so, and thus the only scenario when  $\alpha_D > \alpha_T$  and the Target may not implement  $y_T = 1$ . This occurs when an unaligned Target signals truthfully, but the Donor suspects that they are lying and thus offers no aid.

**Proposition 4 (Priced-Out Equilibrium)** *Suppose that the Donor is not willing to pay for policy change ( $\alpha_D \leq \alpha_T$ ). There is a separating equilibrium in which all types of the Target signal*



truthfully and the Donor never gives aid. The Target will implement the policy that matches its type.

$$\begin{aligned}\beta_D^{****}(p, s_T) &= \begin{cases} 0 & \text{if } s_T = 0 \\ 1 & \text{if } s_T = 1 \end{cases} \\ \sigma_T^{s****}(\theta_T) &= \theta_T \\ \sigma_D^{****}(s_T) &= 0 \text{ for all } s_T\end{aligned}$$

The priced-out equilibrium described in Proposition 4 is a second separating equilibrium. Each type of Target signals truthfully, but not because of a prohibitively high lying cost. Instead, the truthfulness stems from the prohibitively high reservation price of the unaligned types. Even if an aligned Target could convince the Donor that it is unaligned, the Donor would not send aid, leaving the Target to absorb the lying cost with no compensation. With no benefit to lying, the Target signals truthfully and implements its most preferred policy. Because the Donor's willingness to pay does not depend on  $c$  or  $p$ , there is no variation based on those parameters as depicted in the  $\alpha_D > \alpha_T$  case in Figure 2.

## B Proofs of Formal Results

### B.1 Proof of Lemma 1

Consider the following policy implementation strategy  $y_T^*$  played by T.

$$y_T^* = \begin{cases} \theta_T & \text{if } r_D < \alpha_T \\ 1 & \text{if } r_D \geq \alpha_T \end{cases}$$

I check for profitable deviations below. I do not consider the cost  $c$  of a deceptive signal, as it is sunk by this point in the game. At the indifference point, T will take the aid money and implement  $y_T = 1$ . First, suppose that  $r_D < \alpha_T$ .

$$\begin{aligned}U_T(y_T = \theta_T \mid r_D < \alpha_T) &> U_T(y_T = 1 \mid r_D < \alpha_T) \\ p \cdot r_D + (1 - p)(0) &> p \cdot r_D + (1 - p)(r_D - \alpha_T) \\ r_D &< \alpha_T \quad \checkmark \\ U_T(y_T = \theta_T \mid r_D < \alpha_T) &> U_T(y_T = 0 \mid r_D < \alpha_T) \\ p \cdot r_D + (1 - p)(0) &> p(-\alpha_T) + (1 - p)(0) \\ r_D &> -\alpha_T \quad \checkmark\end{aligned}$$

Now suppose that  $r_D \geq \alpha_T$ .

$$\begin{aligned}
 U_T(y_T = 1 \mid r_D \geq \alpha_T) &\geq U_T(y_T = 1 \mid r_D \geq \alpha_T) \\
 p \cdot r_D + (1 - p)(r_D - \alpha_T) &\geq p \cdot r_D + (1 - p)(0) \\
 r_D &\geq \alpha_T \quad \checkmark \\
 U_T(y_T = 1 \mid r_D \geq \alpha_T) &\geq U_T(y_T = 0 \mid r_D \geq \alpha_T) \\
 p \cdot r_D + (1 - p)(r_D - \alpha_T) &\geq p(-\alpha_T) + (1 - p)(0) \quad \checkmark
 \end{aligned}$$

There are no profitable deviations from  $y_T^*$ .  $\square$

## B.2 Proof of Lemma 2

Suppose not; that is, suppose that there exists an offer  $r_D = \alpha_T \pm \varepsilon$ , where  $\varepsilon > 0$ . I demonstrate below that  $r_D = \alpha_T - \varepsilon$  and  $r_D = \alpha_T + \varepsilon$  are strictly dominated strategies, beginning with  $r_D = \alpha_T - \varepsilon$ .

$$\begin{aligned}
 U_D(r_D = 0 \mid y_T^*) &> U_D(r_D = \alpha_T - \varepsilon \mid y_T^*) \\
 p \cdot \alpha_D + (1 - p)(0) &> p(\alpha_D - (\alpha_T - \varepsilon)) + (1 - p)(0) \\
 \alpha_T &> \varepsilon \quad \checkmark
 \end{aligned}$$

$r_D = \alpha_T - \varepsilon$  is thus strictly dominated by  $r_D = 0$ . I now show that  $r_D = \alpha_T + \varepsilon$  is strictly dominated by  $r_D = \alpha_T$ .

$$\begin{aligned}
 U_D(r_D = \alpha_T \mid y_T^*) &> U_D(r_D = \alpha_T + \varepsilon \mid y_T^*) \\
 \alpha_D - \alpha_T &> \alpha_D - (\alpha_T + \varepsilon) \\
 \varepsilon &> 0 \quad \checkmark
 \end{aligned}$$

There are thus only two possible offers,  $r_D = 0$  and  $r_D = \alpha_T$ , that are not strictly dominated strategies, so  $r_D \in \{0, \alpha_T\}$ .  $\square$

## B.3 Proof of Proposition 1

I solve for the equilibrium of this game given the results from Lemmas 1 and 2. Suppose that  $s_T^* = \theta_T$  and

$$r_D^* = \begin{cases} 0 & \text{if } s_T = 1 \\ \alpha_T & \text{if } s_T = 0 \end{cases}$$

I check if either player has profitable deviations, beginning with the donor.

$$\begin{aligned}
 U_D(r_D = \alpha_T \mid \beta_D^*, s_T = 0) &\geq U_D(r_D = 0 \mid \beta_D^*, s_T = 0) \\
 \alpha_D - \alpha_T &\geq 0 \\
 \alpha_D &\geq \alpha_T \quad \checkmark \\
 U_D(r_D = 0 \mid \beta_D^*, s_T = 1) &\geq U_D(r_D = \alpha_T \mid \beta_D^*, s_T = 1) \\
 \alpha_D &\geq \alpha_D - \alpha_T \\
 \alpha_T &\geq 0 \quad \checkmark
 \end{aligned}$$

The donor has no profitable deviations. I now check the target's incentive compatibility.

$$\begin{aligned}
 U_T(s_T = 1 \mid \theta_T = 1, \beta_D^*, r_D^*) &\geq U_T(s_T = 0 \mid \theta_T = 1, \beta_D^*, r_D^*) \\
 0 &\geq \alpha_T - c \\
 c &\geq \alpha_T \\
 U_T(s_T = 0 \mid \theta_T = 0, \beta_D^*, r_D^*) &\geq U_T(s_T = 1 \mid \theta_T = 0, \beta_D^*, r_D^*) \\
 \alpha_T - \alpha_T &\geq -c \\
 0 &\geq -c \quad \checkmark
 \end{aligned}$$

T has a profitable deviation if and only if  $c \geq \alpha_T$ . This equilibrium therefore exists only if  $c \geq \alpha_T$ .  
 $\square$

## B.4 Proof of Proposition 2

I first derive the prior  $p$  for which the expected value of an offer of  $r_D = \alpha_T$  without an informative signal is greater than that of  $r_D = 0$ .

$$\begin{aligned}
 U_D(r_D = \alpha_T) &> U_D(r_D = 0) \\
 \alpha_D - \alpha_T &> p \cdot \alpha_D + (1 - p)(0) \\
 1 - \frac{\alpha_T}{\alpha_D} &> p
 \end{aligned}$$

Suppose that  $\beta_D^{**}(\theta_T) = p \leq 1 - \frac{\alpha_T}{\alpha_D}$ ,  $p < 1 - \frac{\alpha_T}{\alpha_D}$ ,  $s_T^{**} = 0$ , and

$$r_D^{**} = \begin{cases} 0 & \text{if } s_T = 1 \\ \alpha_T & \text{if } s_T = 0 \text{ and } \alpha_D > \alpha_T \end{cases}$$

I first check the donor's incentive to deviate.

$$\begin{aligned}
 U_D(r_D = \alpha_T \mid s_T = 0, \beta_D^{**}) &\geq U_D(r_D = \alpha_T \mid s_T = 0, \beta_D^{**}) \\
 \alpha_D - \alpha_T &\geq p(\alpha_D) + (1 - p)(0) \\
 1 - \frac{\alpha_T}{\alpha_D} &\geq p \quad \checkmark \\
 U_D(r_D = \alpha_T \mid s_T = 1, \beta_D^{**}) &\geq U_D(r_D = \alpha_T \mid s_T = 1, \beta_D^{**}) \\
 \alpha_D &\geq \alpha_D - \alpha_T \\
 \alpha_T &\geq 0 \quad \checkmark
 \end{aligned}$$

I now check the target's incentive to deviate.

$$\begin{aligned}
 U_T(s_T = 0 \mid \theta_T = 1, r_D^{**}, \beta_D^{**}) &\geq U_T(s_T = 1 \mid \theta_T = 1, r_D^{**}, \beta_D^{**}) \\
 \alpha_T - c &\geq 0 \\
 \alpha_T &\geq c \\
 U_T(s_T = 0 \mid \theta_T = 0, r_D^{**}, \beta_D^{**}) &\geq U_T(s_T = 1 \mid \theta_T = 0, r_D^{**}, \beta_D^{**}) \\
 \alpha_T &\geq -c \quad \checkmark
 \end{aligned}$$

For this equilibrium to hold, the cost of lying must be sufficiently low ( $c \leq \alpha_T$ ).  $\square$

**Equilibrium Refinement: The Intuitive Criterion** I show that the pooling equilibrium survives the Intuitive Criterion described by Cho and Kreps (1987). First, I show that the aligned type  $\theta_T = 1$  is the type of T that has a possible incentive to deviate.

$$\begin{aligned}
 U_T(s_T^{**} \mid \theta_T = 1) &< \max U_T(\neg s_T^{**} \mid \theta_T = 1) \\
 \alpha_T - c &< \alpha_T
 \end{aligned}$$

whereas the unaligned type does not.

$$\begin{aligned}
 U_T(s_T^{**} \mid \theta_T = 0) &> \max U_T(\neg s_T^{**} \mid \theta_T = 0) \\
 \alpha_T - \alpha_T &> \alpha_T - \alpha_T - c \text{ OR } 0 - 0 - c \\
 0 &> -c
 \end{aligned}$$

Even for the type that may have an incentive to deviate, the equilibrium survives based on the second condition of the Intuitive Criterion.

$$\begin{aligned}
 U_T(s_T^{**} \mid \theta_T = 1, r_D^{**}) &> \min U_T(\neg s_T^{**} \mid \theta_T = 1, r_D^{**}) \\
 \alpha_T - c &> 0
 \end{aligned}$$

This condition is always met, as existence of this equilibrium depends on the condition  $\alpha_T > c$ . Therefore, the equilibrium survives the Intuitive Criterion.  $\square$

### B.5 Proof of Proposition 3

Consider the model when  $p > 1 - \frac{\alpha_T}{\alpha_D}$  and  $\alpha_D > \alpha_T$ . I define  $\rho = \Pr[\theta_T = 0 \mid s_T = 0]$ ,  $\pi = \Pr[s_T = 0 \mid \theta_T = 1] \in (0, 1)$  and  $q = \Pr[r_D = \alpha_T \mid s_T = 0] \in (0, 1)$ . Suppose that D holds the following beliefs:

$$\beta_D^{***}(\theta_T) = \begin{cases} 1 & \text{if } s_T = 1 \\ 0 \text{ with probability } \rho & \text{if } s_T = 0 \\ 1 \text{ with probability } 1 - \rho & \text{if } s_T = 0. \end{cases}$$

I conjecture the following strategies:

$$s_T^{***} = \begin{cases} 0 & \text{if } \theta_T = 0 \\ 0 \text{ with probability } \pi & \text{if } \theta_T = 1 \\ 1 \text{ with probability } 1 - \pi & \text{if } \theta_T = 1 \end{cases}$$

$$r_D^{***} = \begin{cases} 0 & \text{if } s_T = 1 \\ \alpha_T \text{ with probability } q & \text{if } s_T = 0 \\ 0 \text{ with probability } 1 - q & \text{if } s_T = 0 \end{cases}$$

I first solve for the posterior belief that a target claiming to be unaligned is actually unaligned, using Bayes' rule.

$$\begin{aligned} \Pr[\theta_T = 0 \mid s_T = 0] &= \frac{\Pr[s_T = 0 \mid \theta_T = 0] \cdot \Pr[\theta_T = 0]}{\Pr[s_T = 0 \mid \theta_T = 0] \cdot \Pr[\theta_T = 0] + \Pr[s_T = 0 \mid \theta_T = 1] \cdot \Pr[\theta_T = 1]} \\ &= \frac{1 \cdot (1 - p)}{1 \cdot (1 - p) + \pi \cdot p} \\ \rho &= \frac{1 - p}{(1 - p) + \pi \cdot p} \end{aligned}$$

Using this probability, I solve for the mixing probability by an aligned target ( $\theta_T = 1$ ) necessary to make the donor indifferent between giving  $r_D = \alpha_T$  and  $r_D = 0$ , conditional on observing  $s_T = 0$ .

$$\begin{aligned}
 U_D(r_D = \alpha_T \mid s_T = 0) &= U_D(r_D = 0 \mid s_T = 0) \\
 \alpha_D - \alpha_T &= \Pr[\theta_T = 0 \mid s_T = 0] \cdot (0) + \Pr[\theta_T = 1 \mid s_T = 0] \cdot (\alpha_D) \\
 &= \left( \frac{1 - p + \pi \cdot p}{1 - p + \pi \cdot p} - \frac{(1 - p)}{1 - p + \pi \cdot p} \right) (\alpha_D) \\
 \alpha_D - \alpha_T &= \frac{\pi \cdot p \cdot \alpha_D}{1 - p + \pi \cdot p} \\
 \pi &= \frac{(1 - p)(\alpha_D - \alpha_T)}{\alpha_T \cdot p}
 \end{aligned}$$

This probability  $\pi$  is between 0 and 1 as long as  $p > 1 - \frac{\alpha_T}{\alpha_D}$ , which is the same probability that forms the upper bound of the pooling equilibrium. I now determine the mixing probability  $q$  for the donor's strategy that makes the aligned type target indifferent between lying and telling the truth.

$$\begin{aligned}
 U_T(s_T = 1 \mid \theta_T = 1) &= U_T(s_T = 0 \mid \theta_T = 1) \\
 0 &= q \cdot (\alpha_T - c) + (1 - q)(-c) \\
 q &= \frac{c}{\alpha_T}
 \end{aligned}$$

which is in the interval  $(0, 1)$  when  $c < \alpha_T$ .

Because there are neither pooling nor separating strategies that can be sustained in this region of the parameter space and both actors are set indifferent when mixing with probabilities in the interval  $(0, 1)$ , this is a PBE (Morrow, 1994).  $\square$

## B.6 Proof of Proposition 4

When  $\alpha_T > \alpha_D$ , the minimum offer D must make to convince a T with  $\theta_T = 0$  to implement  $y_T = 1$  is higher than the additional payoff D will receive from policy alignment.

$$\begin{aligned}
 U_D(r_D = 0 \mid s_T = 0, \alpha_T > \alpha_D) &\geq U_D(r_D = \alpha_T \mid s_T = 0, \alpha_T > \alpha_D) \\
 0 &\geq \alpha_D - \alpha_T \\
 \alpha_T &\geq \alpha_D
 \end{aligned}$$

D will thus never make an offer of aid, as those states that need to be purchased to achieve policy alignment are too pricey ( $r_D^{***} = 0$ ). Because no aid is being offered, no targets have any incentive to deviate from their type ( $s_T^{***} = \theta_T$ ).  $\square$

## C Calculation of foreign policy similarity

To measure foreign policy similarity, my approximation of  $p = \Pr[\theta_T = 1]$  from the model, I use Scott's  $\pi$  and Cohen's  $\kappa$ . These measures are most often used to assess intercoder reliability, but

are recommended by Häge (2011) for assessing alliance portfolio similarity. I use the alliance data from Leeds et al. (2002) and remove direct ties between the US and the target. This allows me to approximate foreign policy similarity while retaining the ability to separately measure target importance using direct alliance ties. I also do not include alliances from the data that are only defined by nonaggression pacts. These diverge from the conceptual definition in the dataset, but are included by the authors to better resemble other datasets and to give users maximum flexibility. The principal advantage of using chance-corrected measures like  $\pi$  and  $\kappa$  over other similarity scores (like  $S$  from Signorino and Ritter (1999) or  $\tau$  from Bueno de Mesquita (1975)) is that they better capture the rarity of alliance ties and differences between states in their likelihood of forming such ties.

I present the formulas for both measures below; for actual calculation, I use the package `irrCAC`. For a more detailed discussion of the merits and calculation of the metrics, see Häge (2011).

$$\pi = 1 - \frac{\sum_{i \neq j} p_{ij}}{\sum_{i \neq j} \left( \frac{p_{i \cdot} + p_{\cdot i}}{2} \right) \left( \frac{p_{j \cdot} + p_{\cdot j}}{2} \right)}$$

where the numerator calculates observed dissimilarity and the denominator calculates dissimilarity expected by chance.

$$\kappa = 1 - \frac{\sum_{i \neq j} p_{ij}}{\sum_{i \neq j} p_{i \cdot} p_{\cdot j}}$$

The formula for  $\kappa$  does not assume marginal homogeneity, meaning that variation in the propensity to form ties is attributed not to actual dissimilarity, but to underlying characteristics of the actor(s).

To demonstrate the validity of the data I generated, I show in Table 3 that my measures are highly correlated with those from Häge (2011) when non-aggression pacts are excluded. Use of a different source of alliances data, exclusion of direct alliance ties, and use of a different R package explain slight differences in calculation.

Measure	Scott's $\pi$	Cohen's $\kappa$
Non-aggression pacts included	0.492	0.499
Non-aggression pacts excluded	0.929	0.933

Table 3: Correlation with Häge (2011)

## D Validation Exercises

Table 4: Validation of Foreign Policy Similarity measure

	<i>Dependent variable:</i>	
	Agreement with US at UNGA	
	(1)	(2)
Scott's $\pi$ similarity	0.116*** (0.015)	
Cohen's $\kappa$ similarity		0.129*** (0.019)
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	5111	5111
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

Table 5: Validation of Lying Cost Measure

	<i>Dependent variable:</i>	
	Foreign policy similarity	
	(1)	(2)
Critical media	-0.005 (0.005)	0.006 (0.021)
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	4643	4643
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	



Table 6: Validation of Aid Neediness Measure

	<i>Dependent variable:</i>	
	US, WB, IMF aid as pct. of GDP	
	(1)	(2)
IDA dummy	1.353*** (0.349)	1.150** (0.395)
GDP per capita		−0.0002 (0.0001)
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	3746	3746
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

Table 7: Validation of Donor Interest Measure

	<i>Dependent variable:</i>
	Agreement with US at UNGA
US ally dummy	0.017 (0.009)
Foreign policy similarity	0.126*** (0.019)
Country fixed effects	Yes
Year fixed effects	Yes
Observations	5111
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001

## **E Additional Empirical Results**

### **E.1 Main Results with Covariates**

Table 8: Results from Table 1 with Covariates Displayed.

	<i>Dependent variable:</i>			
	Summed aid as pct. of GDP			
	(1)	(2)	(3)	(4)
US ally	−0.980 (0.507)	−0.947 (0.601)	−1.101* (0.516)	−1.027 (0.582)
IDA	1.085* (0.443)	0.874 (0.509)	0.505 (0.416)	0.340 (0.499)
Nonresponse	0.117 (0.772)		1.531 (1.004)	
Abstentions		−0.916 (1.899)		1.076 (1.961)
Absences		0.493 (1.151)		1.661 (1.334)
FP similarity	−1.777 (1.326)	−1.694 (1.321)	−0.747 (1.023)	−0.683 (1.020)
Critical media	0.284 (0.257)	0.287 (0.258)	0.217 (0.202)	0.219 (0.202)
Lagged summed aid			0.258*** (0.047)	0.258*** (0.047)
State capacity			0.151 (0.181)	0.158 (0.180)
Population			0.002 (0.002)	0.003 (0.002)
GDP per capita			−0.0001* (0.0001)	−0.0001* (0.0001)
UNSC			−0.206 (0.131)	−0.217 (0.132)
IDA × US ally			−0.219 (0.738)	−0.299 (0.916)
Nonresponse × US ally			−2.611* (1.041)	
Nonresponse × IDA			−2.390 (1.256)	
Nonresponse × IDA × US ally			6.114** (1.908)	
Abstentions × US ally				−3.077 (2.188)
Abstentions × IDA		−0.127 (2.561)		−0.602 (2.623)
Absences × US ally		0.703 (1.094)		−1.161 (1.440)
Absences × IDA		−3.650* (1.723)		−2.945 (1.616)
Abstentions × IDA × US ally		4.762 (4.443)		6.414 (4.355)
Absences × IDA × US ally		4.877* (2.156)		4.016 (2.481)
<i>Marginal effects</i>				
Nonresponse	2.802*		2.644*	
Abstentions		3.325		3.81
Absences		2.423		1.57
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
All covariates	No	No	Yes	Yes
Observations	3205	3034	3205	3034

Table 9: Results from Table 2 with Covariates Displayed.

	<i>Dependent variable:</i>			
	Summed aid as pct. of GDP			
	(1)	(2)	(3)	(4)
US ally	-1.024 (0.581)	-0.885 (0.570)	-1.232* (0.607)	-1.010 (0.543)
IDA	0.829 (0.494)	0.649 (0.496)	0.225 (0.451)	0.183 (0.481)
Nonresponse	-0.349 (0.834)		1.215 (0.740)	
Abstentions		0.441 (2.238)		3.315 (2.556)
FP similarity	0.089 (3.239)	-1.180 (3.061)	1.068 (2.701)	-0.460 (2.535)
Absences		-0.704 (1.175)		0.572 (0.775)
Critical media	0.290 (0.258)	0.299 (0.259)	0.227 (0.203)	0.233 (0.202)
State capacity			0.154 (0.183)	0.159 (0.184)
Population			0.003 (0.002)	0.003 (0.002)
GDP per capita			-0.0001* (0.0001)	-0.0001* (0.0001)
UNSC			-0.226 (0.127)	-0.225 (0.127)
Lagged summed aid			0.257*** (0.047)	0.256*** (0.047)
IDA × US ally	-0.325 (0.864)	-0.375 (0.956)	-0.076 (0.786)	-0.290 (0.926)
Nonresponse × US ally	-0.615 (1.437)		-2.790* (1.240)	
Nonresponse × IDA	-2.836 (2.076)		-2.328* (1.187)	
Abstention × US ally		-2.340 (2.658)		-5.773* (2.598)
Abstention × IDA		-0.955 (3.070)		-2.545 (3.583)
US ally × FP similarity	-0.741 (3.337)	0.592 (3.461)	-1.282 (2.668)	0.316 (2.856)
IDA × FP similarity	-2.981 (3.598)	-2.186 (3.671)	-2.945 (2.623)	-1.609 (2.652)
Nonresponse × FP similarity	-4.238 (8.982)		-1.514 (8.990)	
Nonresponse × IDA × US ally	7.047* (3.110)		6.814** (2.072)	
Abstention × FP similarity		25.805 (19.975)		29.344 (18.265)
Absence × US ally		1.390 (1.500)		-0.278 (1.113)
Absence × IDA		-3.427 (2.184)		-2.330 (1.388)
Absence × FP similarity		-14.808 (16.830)		-11.933 (16.612)
Abstention × IDA × US ally		6.849 (5.005)		9.196 (5.158)
IDA × US ally × FP similarity	4.796 (4.304)	4.204 (4.474)	4.119 (3.233)	3.032 (3.472)
Nonresponse × US ally × FP similarity	5.560 (8.221)		2.909 (7.929)	
Nonresponse × IDA × FP similarity	-5.376 (17.243)		-2.796 (12.610)	
Nonresponse × IDA × US ally × FP similarity	0.262 (17.103)		-1.841 (12.468)	
Abstention × US ally × FP similarity		-24.653 (21.486)		-28.095 (19.635)
Abstention × IDA × FP similarity		-22.652 (27.192)		-27.894 (22.828)
Absence × IDA × US ally		5.542** (2.031)		3.857 (2.206)
Absence × US ally × FP similarity		15.609 (16.816)		12.310 (16.409)
Absence × IDA × FP similarity		0.555 (21.988)		5.401 (19.478)
Abstention × IDA × US ally × FP similarity		18.856 (27.891)		24.227 (23.882)
Absence × IDA × US ally × FP similarity		-7.073 (23.891)		-10.607 (20.587)
<i>Marginal effects at minimum FP similarity</i>				
Nonresponse	4.517*		3.997*	
Abstentions		4.881		5.004
Absences		4.715		3.439
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
All covariates	No	No	Yes	Yes
Observations	3205	3034	3205	3034

Note:

\*p&lt;0.05; \*\*p&lt;0.01; \*\*\*p&lt;0.001

## **E.2 Nonresponse on Important Votes**

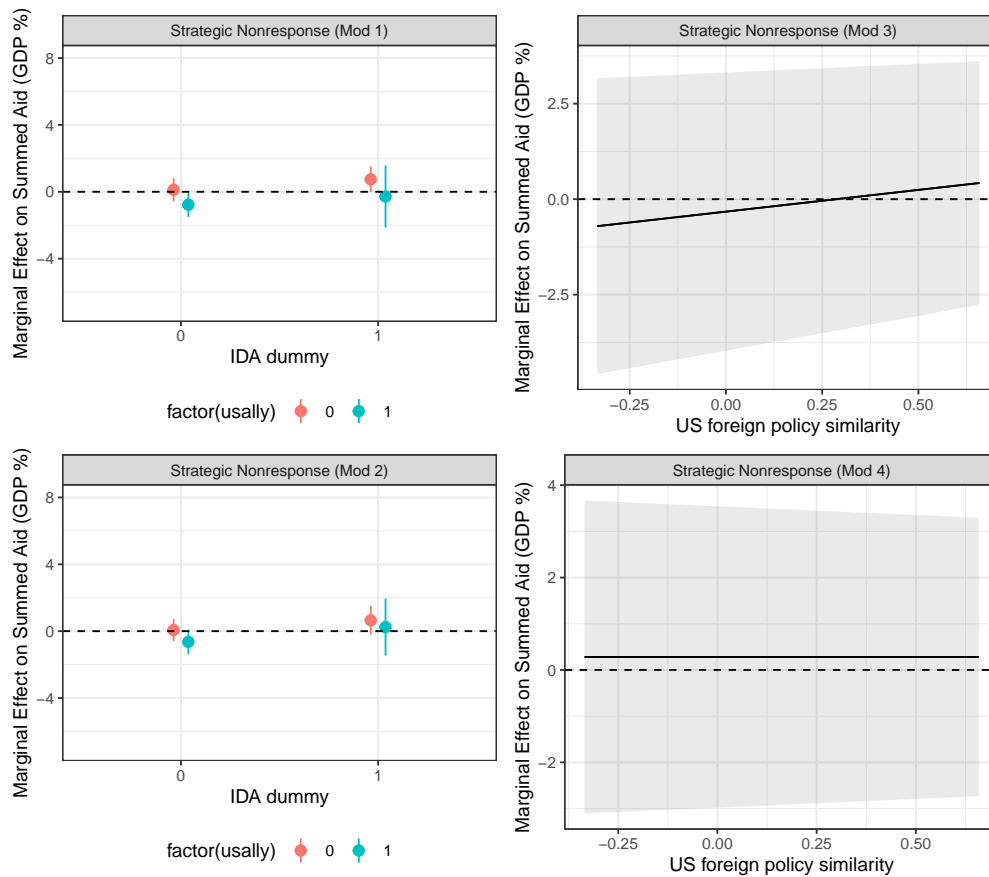


Figure 8: Marginal Effect of Strategic Nonresponse, Important Votes Only. Strategic nonresponse is the nonresponse rate excluding nonstrategic absences as defined by Morse and Coggins (2024). In the plots in the right-hand column, IDA eligibility and US alliance status are held constant at 1 to improve readability. Important votes are designated by the US State Department and collected by Voeten (2013).

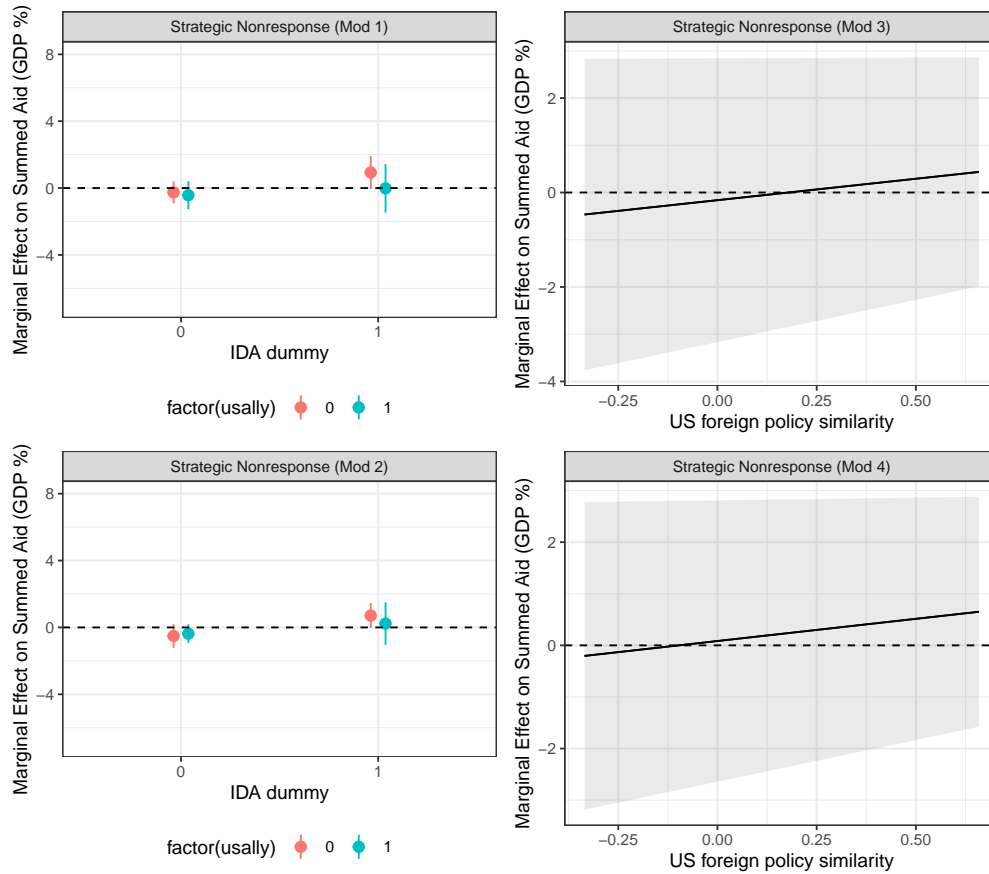


Figure 9: Marginal Effect of Strategic Nonresponse, Israel-Palestine-Related Votes Only. Strategic nonresponse is the nonresponse rate excluding nonstrategic absences as defined by Morse and Coggins (2024). In the plots in the right-hand column, IDA eligibility and US alliance status are held constant at 1 to improve readability. Israel-Palestine-related votes are designated by Voeten (2013).

## **E.3 Robustness Checks**

### **E.3.1 Using Scott's $\pi$ for $p$**



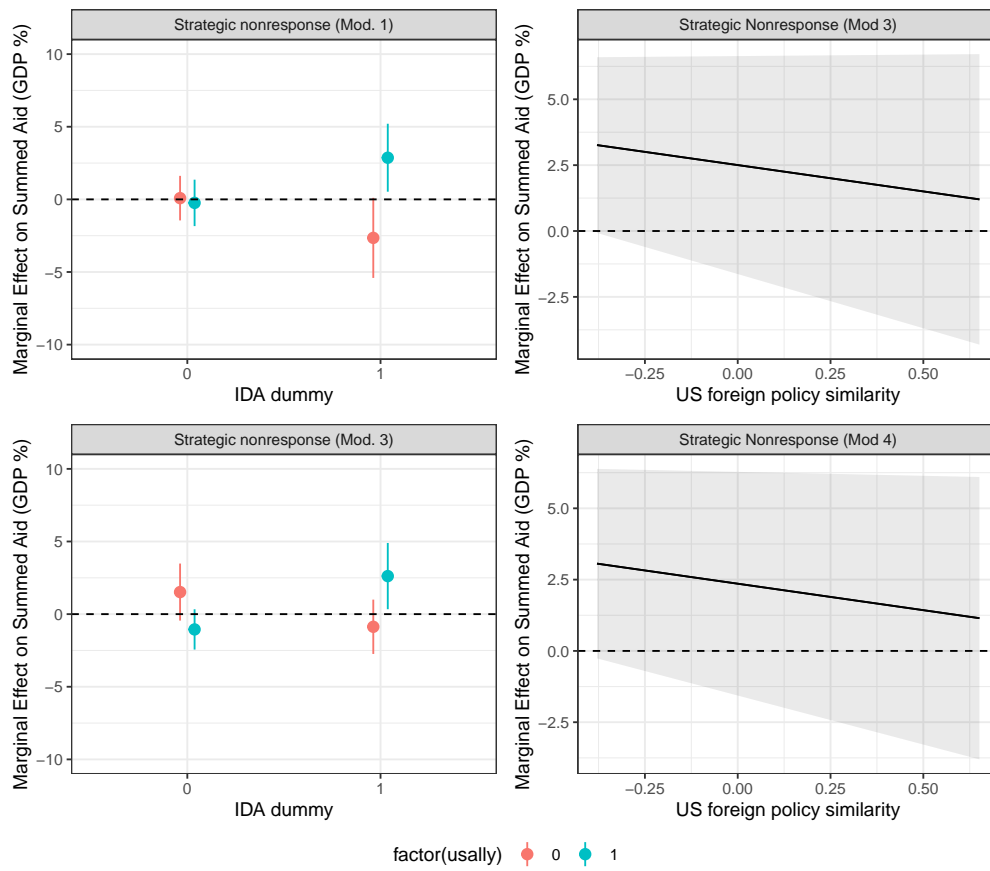


Figure 10: Marginal Effect of Strategic Nonresponse Using Scott's  $\pi$  for FP Similarity.

### **E.3.2 Varying Outcome Leads**

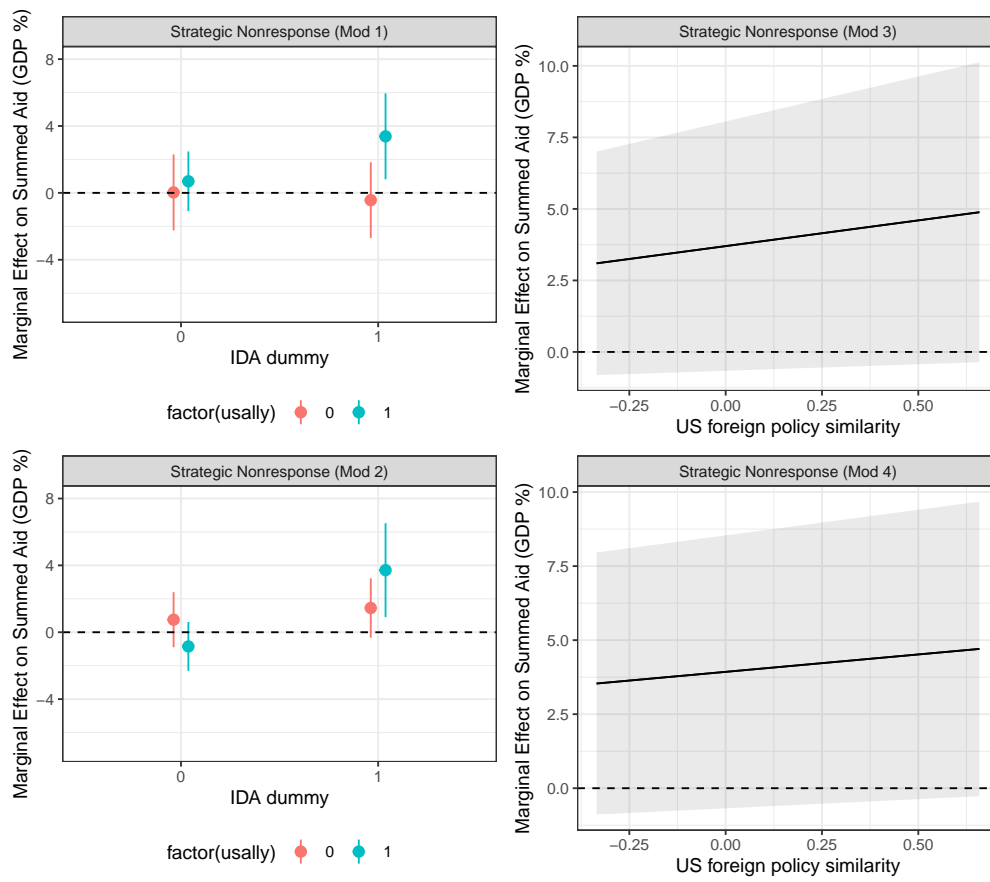


Figure 11: Marginal Effect of Strategic Nonresponse Using Two-Year Lead on Outcome.

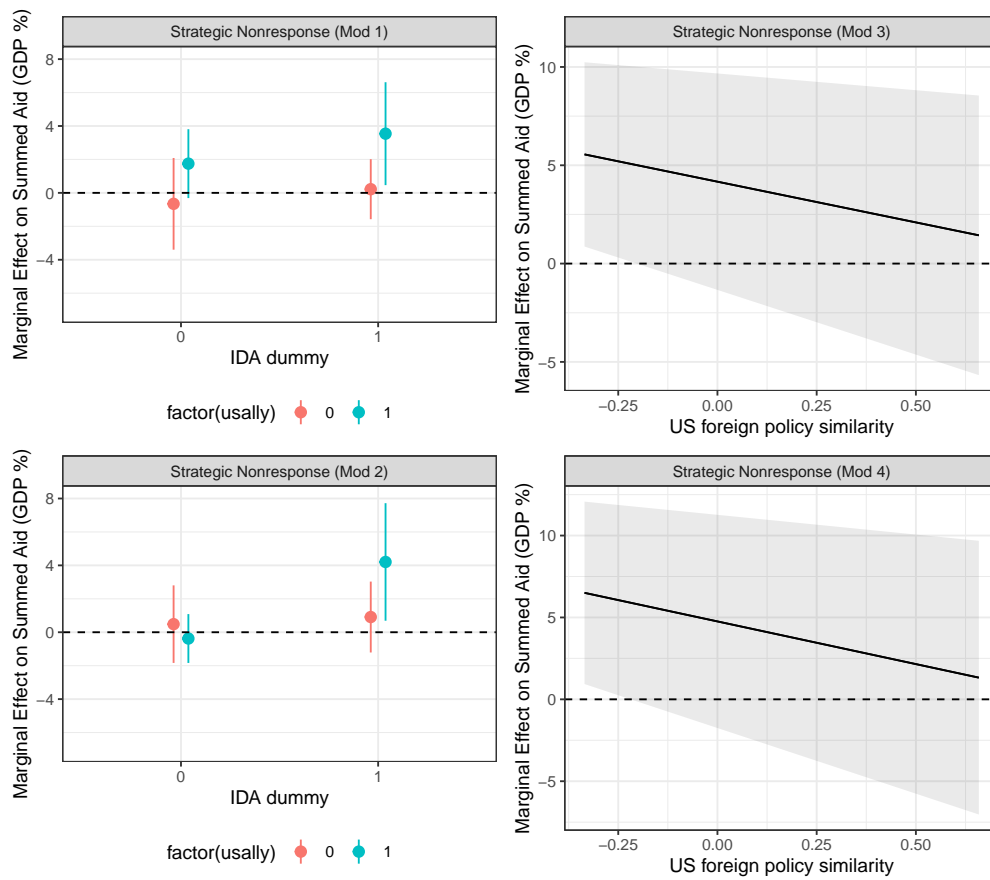


Figure 12: Marginal Effect of Strategic Nonresponse Using Three-Year Lead on Outcome.