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Audience costs in the eyes of an adversary

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Abstract

Audience cost theory suggests that as a country increases its audience costs, it can send a credible threat to an opponent and prevail in an international crisis. Many experimental studies show that domestic citizens of a challenger state disapprove of a leader who backs down in a crisis, which constitutes evidence for audience costs. However, what about the audience's perception in the target country? Even if audience costs emerge in a threatening country, audiences in its adversary may not recognize this. If that is the case, audience costs do not function as costly signals. Additionally, the challenger's regime type may play an important role in how people perceive the emergence of audience costs. Our pre-registered survey experiment in the United States ($N = 1404$) finds that audiences in a target state correctly perceive the emergence of audience costs in a challenger state. However, we also find that the magnitude of perceived audience costs or threat credibility does not differ between a democratic and a dictatorial challenger. These findings suggest that leaders of both democratic and autocratic regimes can effectively tie their hands by increasing domestic audience costs.

Keywords

audience cost, public opinion, crisis bargaining, experiment

Introduction

John F. Kennedy's televised speech on the U.S. blockade is one of the motivating examples referenced in the seminal article by Fearon (1994, p. 582) on domestic audience costs, which are the political costs incurred by a leader who backs down in an international crisis. Audience cost theory suggests that domestic audience costs for Kennedy were high because he publicly issued a threat. According to this argument, the large audience costs should have led Soviet counterparts, such as Nikita Khrushchev, to perceive Kennedy's resolve as high, resulting in the Soviet concession. Nonetheless, historical evidence suggests that Khrushchev did not take U.S. domestic political factors seriously into consideration (Trachtenberg, 2012: 27–32), or behaved in a way that indicates he did not understand Kennedy's audience costs (Snyder and Borghard, 2011: 454–5).

Historical cases such as the Cuban Missile Crisis challenge a key premise of audience cost theory: for audience costs to function as a tying-hands signal, the target's audience must correctly understand the emergence of audience costs in the challenger state. Consistent with these anecdotes, some empirical studies also suggest that receivers may not interpret sunk-cost signals as senders intend (e.g., Quek, 2016). As such, we cannot take for granted that tying-hands signals generated by audience costs are always perceived as intended. Nevertheless, despite the theoretical importance of this assumption, whether and under what conditions a target state perceives a challenger's audience costs remains an important blind spot in one of the most debated literatures in contemporary international relations. While some studies assess the credibility of public threats under the assumption that this type of threat generates large

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domestic audience costs (Kertzer et al., 2021; Katagiri and Min, 2019; Takei, 2024; Yarhi-Milo et al., 2018), it is possible that the effect of public threats arises from other mechanisms, such as international reputation costs. To evaluate the audience cost theory, rigorous empirical scrutiny of this premise is necessary.

This registered report fills this gap. Our original, pre-registered survey experiment is a natural extension of the survey experiment conducted by Tomz (2007), which examines whether citizens of a challenger state impose audience costs on their leader when the leader escalates an international crisis but then backs down. Since our interest lies in perceived audience costs on the target side, we ask the target's audiences whether they believe that a challenger's audiences punish their leader for backing down from a threat. In addition, we revisit another important conjecture of audience costs: the size of audience costs should be conditional on regime type. Scholarship on audience costs suggests that audiences perceive larger audience costs in democratic states than in autocratic states because democratic states provide institutional opportunities for citizens to punish their leaders. To this end, we manipulate the regime type of a challenger state.

Testing perceived audience costs in a target country

Many formal models of audience costs (Fearon, 1994, 1997; Kurizaki, 2007; Kurizaki and Whang, 2015; Schultz, 1998) assume that the domestic audiences of a state punish a leader when they back down in an international crisis and, more importantly for our purposes, that an adversary correctly understands this. This mutual understanding between the sender (i.e., the challenger) and the receiver (i.e., the target) of costly signals is a crucial assumption underlying how audience costs function as a tying-hands signal.

However, as discussed earlier, the findings of historical case studies are not consistent with this expectation (Snyder and Borghard, 2011; Trachtenberg, 2012). There are reasons to believe that a target's audiences do not perceive the emergence of audience costs in a challenger state. Past studies show that there is a sender–receiver gap in costly signals. For instance, Quek (2016)'s experimental study demonstrates that senders with high resolve are more likely to incur additional costs, but those sunk costs do not change receivers' perceptions regarding the credibility of threats. While sunk costs are a different type of costly signaling from tying hands (Fearon, 1997; Yarhi-Milo et al., 2018), it is not surprising if the same pattern applies to tying-hands signals such as audience costs. Additionally, Yarhi-Milo (2014) finds that experienced leaders of a state rely more on their pre-existing beliefs and intuitions than on signals from their adversaries, which also questions the validity of perceived audience costs. Thus, we should investigate whether audiences in an adversary can correctly perceive audience costs for a challenger's leader who backs down in a crisis.

- H1: Audiences in a target state believe that audiences in a challenger state would disapprove of their leader more when the leader issues a threat but backs down than when the leader does not issue a threat and stays out.

Also, perceived audience costs can be conditional. One potential moderator of perceived audience costs is regime type. Previous studies expect larger audience costs in democracies compared to non-democracies because democratic citizens can punish their leaders through institutions (Fearon, 1994; Schultz, 1998).[1] As a result of this audience cost advantage, democracies should prevail in international crises. The democratic advantage assumes that audiences in a target country anticipate stronger punishment for backing down in a crisis directed at the leader of a democracy than at the leader of a dictatorship. Nonetheless, this claim of a democratic advantage due to domestic audience costs is inconclusive at best (e.g., Crisman-Cox and Gibilisco, 2018; Downes and Sechser, 2012; Kurizaki and Whang, 2015; Trachtenberg, 2012).

Why are the findings inconclusive? Given the complexity of the logic of costly signals and/or empathy deficits (Quek, 2016), a target's audiences may not be able to recognize the difference in audience costs between a democracy and a dictatorship. It is important to test whether a democracy's audience costs are perceived as higher than those of a dictatorship in the eyes of an adversary. Relatedly, the democratic advantage conjecture suggests that the military threat of a democracy should be more credible than that of a dictatorship because of the higher audience costs of the former. While experimental studies in autocratic countries such as China (Li and Chen, 2021; Quek and Johnston, 2018; Weiss and Dafoe, 2019) and Russia (Smetana, 2025) suggest that audience costs exist in dictatorships, given a lack of regular competitive elections, these audience costs may not be institutionally translated into threat credibility. If our findings are null, the weak evidence for the democratic advantage may lie in the receiver's perception of costly signals. On the other hand, if they perceive larger audience costs in a democracy as theory predicts, the current mixed evidence should be attributed to other factors.

- H2-1: Audiences in a target state perceive larger audience costs when a challenger state is a democracy than a dictatorship.
- H2-2: A challenger's threat is perceived as more credible when the country is a democracy than a dictatorship.

Table 1. Experimental design.

Group	Action	Regime type of challenger	*N*
G1	No threat	Democracy	361
G2	Empty threat	Democracy	336
G3	No threat	Dictatorship	341
G4	Empty threat	Dictatorship	366

Research Design

We experimentally test the hypotheses because it is difficult to obtain causally identified evidence of audience costs using observational data due to selection issues (Kurizaki and Whang, 2015; Schultz, 2001). In this context, if a state's audience costs are high (e.g., a democracy), an opponent should be more likely to make concessions over a contentious issue before a crisis occurs. Consistent with this expectation, studies show that democratic allies contribute to the success of extended general deterrence when partners are strategically important (Clare, 2013). On the other hand, in the case of low audience costs for a challenger (e.g., a dictatorship), a crisis may escalate, but a target should perceive that the leader of the challenger will not be severely punished by domestic audiences. This discussion of selection issues suggests that observational studies tend to underestimate the magnitude or the effect of audience costs. This may account for the null findings regarding perceived audience costs in a target country in historical case studies (Snyder and Borghard, 2011; Trachtenberg, 2012). Thus, following Tomz (2007) and subsequent studies, we address this problem by employing a survey experiment.

We conducted a survey experiment in the United States for comparability with previous experiments. Our experiment was conducted on a mass sample from the U.S. Though one may argue that an elite sample is more appropriate for our study because it is the elite who make decisions regarding foreign policies, we decided to use a public sample for three reasons. First, previous experimental studies report various results of audience costs. If the effect size of audience costs is small, the limited statistical power common in elite experiments may be problematic (Dietrich et al., 2021; Kertzer and Renshon, 2022). Second, there are grounds for optimism regarding the consistency of results between public and elite samples in this context. Specifically, in their study of the factors that affect resolve, Kertzer et al. (2021) demonstrate that their findings from the U.S. mass sample largely hold for an elite sample of foreign decision-makers from the Israeli Knesset. Third, the evaluation of the public's threat perception is important in itself. The bottom-up theory of foreign policy suggests that the public is not merely a follower of elite rhetoric; the public can form its own opinions based on its dispositions and group cues (Kertzer and Zeitzoff, 2017). Additionally, recent studies show that public opinion on foreign policy also shapes elites' opinions and preferences (Chu and Recchia, 2022; Tomz et al., 2020). Therefore, the public's threat perception can be an important factor that affects foreign policy decision-making by the elite.

We recruited 1404 participants via Prolific, an online crowd-sourcing service.[2] Prolific is commonly used for studies in political science (e.g., Diamond, 2020) and international relations (e.g., Takei, 2024). Past research shows that, compared to other platforms for convenience samples, such as Amazon Mechanical Turk, Prolific subjects are of higher quality and more diverse (Palan and Schitter, 2018). We conducted our experiment in October 2025. Though we write this paper as a registered report, we also pre-registered our study in the Open Science Framework prior to the data collection.[3] As we show in the Appendix, our pilot experiment in South Korea finds some evidence for the heterogeneous effects of gender and age. To estimate the treatment effect on domestic audiences as a whole, we collect a representative sample with respect to these characteristics.

After answering standard questions regarding demographic and attitudinal factors, including gender, age, income, race, partisanship, political ideology, and education, respondents were presented with a hypothetical scenario of an international crisis. The full vignettes and questions are shown in the Appendix. The scenario states that Country A and the United States are in dispute over a U.S. foreign military base in Country B, a neighboring rival of Country A. Country A is now considering whether to issue a threat regarding the U.S. base. This vignette is modeled after recent cases of Iranian threats against U.S. bases in the Middle East (e.g., Chambers and Brook, 2024).

Table 1 shows the experimental design. Participants are randomly assigned to one of four groups.[4] There are two treatment arms. The first is whether Country A, a challenger, issues a military threat or not. In the No Threat condition, the leader of Country A in 2035 does not make any threat, while the Empty Threat condition states that the leader issues a military threat that if the United States does not withdraw its military base in Country B, Country A will forcefully remove it. In both conditions, however, Country A ultimately does not take any military measures upon the U.S. verbal commitment to maintain its base in Country B. Previous literature identifies several types of audience costs, such as inconsistency (Fearon, 1994; Levy et al., 2015; Quek, 2017), belligerence (Kertzer and Brutger, 2016), and incompetence (Nomikos and Sambanis, 2019; Smith, 1998). While previous experimental studies rightly point out that a simple comparison between staying out and backing down conflates distinct types of audience costs, this conflation is immaterial for our purposes because our interest lies in whether the challenged correctly understand the emergence of audience costs, regardless of their types.

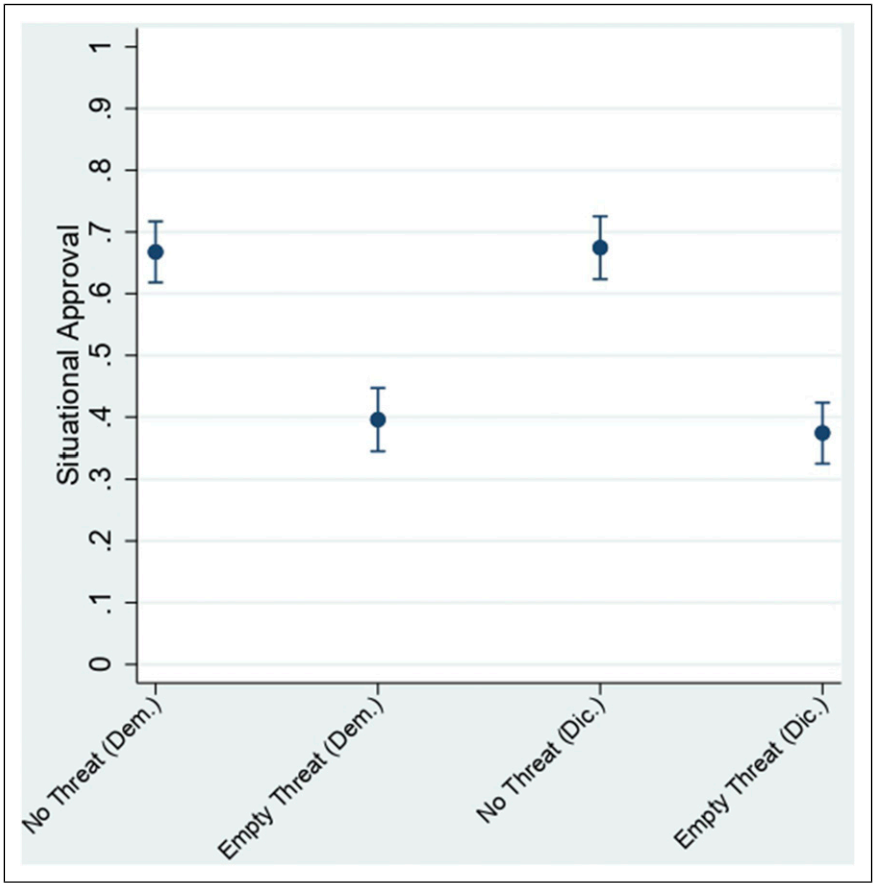

Figure 1. Perceived audience costs.

The second treatment arm is whether the challenger state is a democracy or a dictatorship. The vignette states that Country A is led either by a dictator or by a democratically elected government. Many factors may confound the relationship between regime type and audience costs. To maintain information equivalence (Dafoe et al., 2018; Tomz and Weeks, 2013), following Tomz (2007), we randomize the information on the military strength, motives, and interests at stake of Country A. We also randomize the location of Country A and B between Europe and the Middle East because, without any information on the region, respondents may imagine a European country when the scenario involves a democracy but a Middle Eastern country when it involves an autocracy.

To test the hypotheses, we prepare measures for two outcome variables: threat credibility and leader approval. However, it is awkward to ask respondents about how credible a challenger's threat is after they know that it does not take any military action. For this reason, we separate the experiment into two stages. In Stage 1, respondents receive information on whether Country A issues a military threat or not, as well as its regime type. They then answer questions on threat credibility as well as leader approval. In Stage 2, subjects are informed that Country A does not attack U.S. military bases and then answer questions regarding their situational and general approvals. Regarding threat credibility, we ask, "How likely do you think Country A would carry out a military attack if the U.S. did not withdraw its military bases in Country B?" We construct a dichotomous variable of perceived likelihood of military action that takes 1 if they answer "Very likely" or "Likely" and 0 otherwise, as well as a 4-point scale measure. In terms of leader approval, following Croco et al. (2021), we prepare questions for both situational and general approvals. Since our variable of interest is *perceived* audience costs, in the case of situational approval, for example, we ask, "Do you think the people of Country A approve or disapprove of the way their leader handled the situation?" Follow-up questions ask how much they (dis) approve. Similar to the threat credibility measure, we create both dichotomous and 7-point scale continuous variables. While the specific measure was not predetermined in our pre-analysis plan, we decided to report the results of the dichotomous measures in the main text for the ease of interpretation, and show those of the continuous ones in the Appendix. The choice of the measures does not change our findings.

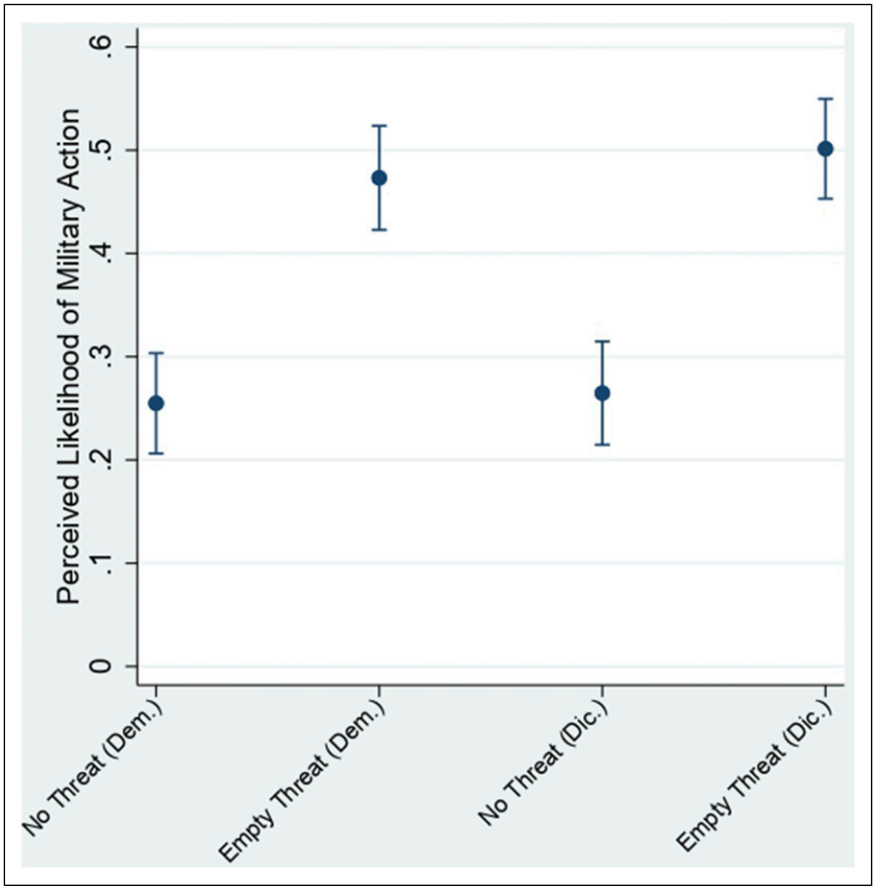

Figure 2. Threat credibility.

Results

Figure 1 presents the mean approval of each group with 95% confidence intervals. The results show that, compared to no threat, a leader's approval perceived by a target's audience is lower when a challenger state issues an empty threat. The t-test shows that, combining different regimes, a challenger's empty threat results in a 28.6 percentage-point drop in the approval perceived by a target's audiences ($p < 0.0005$). This result supports H1 that audiences in a target state correctly understand that audience costs emerge in a challenger state.

However, we do not find any support for H2-1. ANOVA and post-hoc Tukey HSD tests show that perceived approval decreases by 27.1% in a democracy ($p < 0.0005$) and 30.0% in a dictatorship ($p < 0.0005$) for an empty threat. This result suggests that, while the audience in the target state understands the emergence of audience costs, their magnitude is not significantly influenced by regime type. OLS regression models reported in the Appendix show that the interaction term between an empty threat and regime type is not statistically significant ($p = 0.579$).

Regarding threat credibility, the results reported in Figure 2 show that verbal threats significantly increase the perceived likelihood of military action by 21.8 percentage points in a democracy ($p < 0.0005$) and 23.7 percentage points in a dictatorship ($p < 0.0005$). These findings suggest that verbal threats of both democratic and dictatorial leaders are perceived as credible. However, since the interaction term of threat and democracy does not reach a conventional level of statistical significance ($p = 0.716$), H2-2 is not supported. These findings are consistent with the previous results on perceived audience costs: On one hand, given that audience costs are accurately recognized, they should improve the credibility of threats. On the other hand, if the magnitude of perceived audience costs does not differ between a democracy and a dictatorship, it makes sense that there is not any democratic advantage in threat credibility.

Conclusion

Do audiences in a target country correctly perceive the emergence of audience costs in a challenger side? Our survey experiment finds support for perceived audience costs, but there is no systematic difference between a democracy and a dictatorship regarding the magnitude of audience costs and threat credibility. This result suggests that both democratic and autocratic leaders can effectively tie their hands by raising domestic audience costs. One

direction for future research is a closer look at the role of regime types. Notably, Weeks (2008) suggests that most types of autocracies can generate as high audience costs as democracies. Similarly, Potter and Baum (2014) argue that the ability of democracies to generate audience costs depends on domestic electoral institutions and media freedom. As such, while our study provides an informative baseline comparison between democracies and dictatorships regarding perceived audience costs, it would be intriguing to unpack perceived audience costs in the subtypes of democracies and dictatorships. In addition, unlike Quek (2016) on sunk-cost signals, this study suggests that the receiver of a tying-hands signal correctly interprets it as the sender intends. Accordingly, future research may examine which types of costly signals generate a receiver–sender gap and under what conditions.

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Supplemental material

Supplemental material for this article is available online.

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Notes

1. While Weeks (2008) finds that many types of autocracies generate as high audience costs as democracies, a replication study by Gibler et al. (2016) questions the validity of her finding.
2. The details of power analysis are reported in the Appendix.
3. The link to the preregistration is here: https://osf.io/7t9aj/overview.
4. The results of the balance checks across demographic and attitudinal variables are reported in the Appendix.

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