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# The Politics of Perception : Do Power and Ideology Affect Signal Perception?*

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• Abstract •

Recent studies on signaling perception suggest that costly signals are perceived as less credible than defensive realists claim. Is this the case? If so, why are costly signals less effective for reassurance? To address the question, this paper leverages the experimental dataset from Kim's study (2022), one of the most recent and somewhat pessimistic studies on the effects of reassurance signals. Consistent with offensive realists' claims such as Mearsheimer and Rosato, this study explores the possibility that uncertainty about state intentions makes costly reassurance less effective than expected. Then it examines two potential candidates that might reduce the uncertainty—signaler's relative power and observers' political ideology to assess whether these factors play a mediating role in the perception of costly reassurance signals. This study finds that, first, costly signals have more limited reassuring effects than defensive realists expected, possibly due to uncertainty about intentions. Furthermore, contrary to expectations, this study finds no evidence that observers assess costly signals differently based on the signalers' power or their own political ideology. These results have implications not only for the costly signaling literature, but also for the ongoing debate between those who argue that signaling can induce cooperation in international relations, and those who believe that pervasive uncertainty will prevent this from occurring.

Key words : Costly Signals, Reassurance, Uncertainty, Survey Experiment.

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# Introduction

A predominant body of international relations literature argues that states can reassure one another by issuing "costly" signals – that is, by undertaking actions with costs or risks that only benign states would be willing to consider.[1] Two specific mechanisms of generating costs have received particular attention: leaders can tie their hands by issuing public statements that engage domestic and international audiences, or they can sink costs up front by expending unrecoverable resources to signal their true intent.[2] By risking the future imposition of political costs or absorbing significant military costs ex ante, leaders can alleviate uncertainty in the international system and pave the way for cooperation.

The ability to reassure other states of one's intentions is a key component of defensive realist arguments that cooperation is possible in an anarchic international system.[3] However, offensive realists remain skeptical that cooperation is possible, even if a state believes another is a security seeker.[4] Consistently, the most recent studies challenge defensive realists' claim that costly signals can reassure observers of state signals.[5] These studies suggest that reassurance may be more challenging than defensive realists propose, either

1) Schelling, Thomas. *The Strategy of Conflict*. Cambridge, MA: Harvard University Press, 1960; Glaser, Charles L., "Realists as Optimists: Cooperation as Self-help." *Security Studies* 5 (3), 1994/1995, pp.122-163; Fearon, J. D., "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs." *Journal of Conflict Resolution* 41 (1), 1997, pp.68-90; Kydd, Andrew, "Sheep in Sheep's Clothing: Why Security Seekers Do Not Fight Each Other." *Security Studies* 7 (1), 1997. pp.114-155; Kydd, Andrew, "Trust, Reassurance and Cooperation." *International Organization* 54 (2), 2000, pp.325-357; Kydd, Andrew, *Trust and Mistrust in International Relations*. Princeton, N.J: Princeton University Press, 2005.

2) Fearon, 1997, op.cit.

3) Glaser 1994/5, op.cit; Glaser, Charles L, "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs." *Journal of Conflict Resolution* 41 (1), 1997, pp.68-90; Glaser, Charles L., 2010. *Rational Theory of International Politics: The Logic of Competition and Cooperation*. Princeton, N.J: Princeton University Press. 2010; Glaser, Charles, Andrew Kydd, Mark Haas, John Owne, and Sebastian Rosato. "Correspondence: Can Great Powers Discern Intentions?" *International Security* 40 (3), 2016, pp.197-215.

4) Mearsheimer, John J. *The Tragedy of Great Power Politics*. New York: Norton, 2001; Rosato, Sebastian, "The Inscrutable Intentions of Great Powers." International Security 39(3), 2015, pp.48-88.

5) Kim, Seok Joon, "Do Costly Signals Matter? Unifying Theories of Signaling and Perceptions in International Relations." PhD diss., The George Washington University, Washington, DC. 2016; Kim, Seok Joon. "Quick on the Draw: American Negativity Bias and Costly Signals in International Relations" *Journal of Conflict Resolution*, 66(2), 2022a, pp.246-271; Kim, Seok Joon, "Doom and Gloom, From Structure to Human Minds: What Makes a North Korean Nuclear Deal Difficult?" *Political Psychology* 43 (4), 2022b, pp.715-730; Albuyeh, Rod, and Mark Paradis, "Thawing Rivalries and Fading Friendships: An Experimental Approach to Rapprochement and Alienation." Political Psychology 39 (4), 2018, pp.811-27.

due to human perceptual bias[6] or a perceptual gap between signalers and signal receivers[7]. However, previous research has largely overlooked the mechanisms that make reassurance difficult. While Kim attributes this difficulty to a negativity bias mechanism, the analysis remains incomplete, and the specific mechanism of reassurance is still inconclusive.[8]

This study reanalyzes Kim[9]'s dataset and finds that, first, while costly signals of reassurance are modestly effective at influencing observers' inferences about state intentions, they are less effective in shaping their threat assessments and foreign policy preferences. This study supports offensive realists' claim that high uncertainty makes reassurance difficult. Even if a rival state issuing costly signals is assessed to have more benign intentions than states that do not send costly signals, lingering uncertainty about those intentions prevents these inferences from translating into reduced threat perceptions or a more conciliatory stance. Second, this study identifies two factors that may potentially reduce uncertainty about state intentions—namely, the rival state's relative power and the observers' political ideology—and examines whether these factors influence the interpretation of costly signals. The findings show that while relative power and political ideology can, under certain conditions, reduce uncertainty about state intentions to some extent, they do not lead observers to respond more actively to costly signals based on these two factors.

This study makes several contributions to the signaling literature. First, it provides a basis for testing the debate at the micro-level between defensive realists such as Glaser and offensive realists such as Mearsheimer and Rosato, on uncertainty about state intentions. Second, by elucidating the roles of relative power and political ideology in signal perception, it advances both the rationalist theory of costly signals and the perception-based theories challenging it. Third, this study contributes to rethinking and clarifying the meaning of reassurance. Defensive realists tend to focus on a shift in a target state's beliefs about an adversary's intentions or a change in its cooperative behavior, asserting that beliefs about a state's benign intentions can foster cooperation.[10]

6) Kim, Seok Joon, 2022a, op.cit.
7) Kim, Seok Joon, 2022b, op.cit.
8) Kim, Seok Joon, 2022a, op.cit.
9) Ibid.
10) Glaser 1994/5, 2010, op.cit.; Kydd 1997, 2000, 2005, op.cit.

This paper explores the meaning of reassurance by examining observers' threat assessments, inference about intentions, and foreign policy preferences. The findings highlight the limitations of costly signals of reassurance and underscore the need for further theorization to understand the conditions under which reassurance can be effective.

## Costly Signals : Uncertainty and Reassurance

According to dominant rationalist theories, the ability of states to communicate effectively in international relations is complicated by problems of private information and uncertainty in an anarchic international system. This uncertainty creates opportunities for all actors to exaggerate their intentions and resolve to secure better bargaining outcomes. In the course of crises, for example, uncertainty can incentivize states to engage in bluffs or limited probes to convince adversaries to grant them concessions. It also allows states to exaggerate their peaceful intentions, making cooperation a risky endeavor. To overcome this problem of private information and communicate effectively—whether to threaten or reassure—states need to find means by which they can reveal their intentions credibly and separate themselves from actors incentivized to deceive about their intentions. States can do this, a number of scholars claim, by issuing costly signals—actions involving some costs or risks, which only states of a certain type or level of resolve would be willing to undertake.[11] By doing so, states are believed able to reveal their true interests and intent to other actors, creating conditions conducive to conflict resolution and even cooperation in the international system.

Credible reassurance has long been noted as central to international cooperation and forms a key component of defensive realist claims that states can escape the tragic consequences of the security dilemma.[12] In making this claim, defensive realists have focused mainly on the importance of costly actions—for example, investing in defensive weapons, undertaking significant troop withdrawals, and implementing unilateral disarming measures—to reassure an adversary of a state's benign intent.[13] Unlike these defensive

11) Schelling 1960, op.cit; Fearon 1994, 1997, op.cit.

12) Glaser 1994/5, 2010, op.cit; Kydd 1997, 2000, 2005, op.cit.

realists, some scholars emphasizing the high level of uncertainty about state intentions argue that great powers can never be fully certain of another great power's intentions[14] and that, at best, a state's signals can only marginally reduce this uncertainty.[15]

Building on the debate between defensive and offensive realists, this study examines, at the micro level, the conditions under which costly signals are perceived as credible in a reassurance context, as argued by defensive realists. Notably, Kim found that while ordinary citizens are highly responsive to signals of resolve, they tend to be insensitive to signals of reassurance.[16] Despite Kim's contribution in showing that the logic of costly signals may not always apply, the study offers limited explanation as to why intention inference has only a restricted effect on threat assessment and attitudes toward the potential use of force.

This study extends and reinterprets Kim's findings by focusing on signals of reassurance. It delves into more detailed participant responses, including an examination of their uncertainty regarding intention inference for a hypothetical state.

## Predictions

The first prediction of this study is that even if a rival state's costly signals contribute to inferring its intentions, they may still be ineffective in reducing threat perceptions or increasing support for a conciliatory attitude toward that state. This ineffectiveness could stem from high *uncertainty* about the rival state's intentions at the intention inference stage.

Furthermore, this study considers the possibility that a signaler's relative power and observers' political ideology could mediate the effects of costly reassurances by reducing uncertainty about a rival state's intentions. Mearsheimer posits that in a state of anarchy lacking a central authority such as a world government, states may be compelled to assume the worst about others' intentions for the sake of their own security.[17] Following

13) Jervis, "Cooperation Under the Security Dilemma." *World Politics* 30 (2), 1978, pp.167-214, Glaser 1994/1995, 2010, op.cit.

14) Mearsheimer, op.cit.

15) Rosato, Sebastian, "The Inscrutable Intentions of Great Powers." *International Security* 39(3), 2015, p.51.

16) Kim 2022a, op.cit.

this logic, if a rival state is strong, the likelihood of it acting aggressively increases due to the logic of power, whereas if it is weak, the probability of aggression decreases. Thus, if costly signals are ineffective for reassurance due to significant uncertainty in inferring intentions, the uncertainty that a rival will act aggressively should decrease when the rival is weaker, holding other factors constant. Based on this logic, the second prediction of this study is that costly reassurances will be perceived as more credible when the signaler is weak compared to when it is strong, as the uncertainty about aggression from the weak should diminish. This reduction in uncertainty could make reassurance more effective, thereby reducing fear of the rival and promoting a more cooperative attitude toward it.

If relative power is a situational variable that can reduce uncertainty about a rival's intentions, political ideology is a dispositional variable among observers of state signals. Generally, liberals tend to adopt a more conciliatory stance toward potential adversaries, while conservatives tend to respond more hawkishly to the same adversaries. Thus, liberals may assess the uncertainty of a rival state's aggression as lower than conservatives. Derived from this insight, the study's third prediction is that costly reassurances will be perceived as more credible by liberals compared to conservatives, as liberals are more likely to have lower uncertainty regarding a rival's aggression. Similar to relative power, this reduction in uncertainty may enhance reassurance, leading to a decrease in fear of the rival and fostering a more cooperative attitude.

## Dataset

In order to test the micro-foundations of costly signals of reassurance, this study utilized Kim's dataset[18], which was based on a survey experimental design. Even though experimental methodologies can be limited by concerns of external validity and the applicability of results to the "real world," they complement case studies by isolating the pure effect of variables of interest from other plausible confounders. In other words, they

17) Mearsheimer 2001, op.cit.

18) Kim 2022a, op.cit

can address the issues of collinearity and endogeneity. Furthermore, survey experiments have significant value in directly measuring how state signals are perceived and assessed by individuals. Specifically, they help us understand whether the posited costly signaling mechanisms operate as expected by rationalist theories.[19] Finally, research has demonstrated the importance of public opinion in political leaders' foreign policy decision-making, expecially in democracies, where leaders who do not respond to public preferences can be held accountable at the ballot box.[20] Because of the connection between public opinion and democratic foreign policy decision-making, understanding how the US public interprets costly signals is a valuable enterprise.

Kim's original experiment was conducted by YouGov, fielded to a nationally representative sample of 640 US adults in February 2016. His dataset includes participants' responses to both signals of reassurance and signals of resolve. Since this study focuses on signals of reassurance, responses to signals of resolve were removed from the dataset. The procedure and scenarios presented in his experiment are as follows. Respondents read through a hypothetical scenario in which "the government of the United States needs to take a position on a territorial dispute between Country X and a US ally in the region. The ally is important to US security, has strong diplomatic ties with the US, and is a major

19) For similar experimental tests of signaling see Quek, Kai. "Are Costly Signals More Credible? Evidence of Sender-Receiver Gaps." *The Journal of Politics* 78 (3), 2016, pp.925–940; Quek, Kai, and Alastair Iain Johnston, "Can China Back Down? Crisis De-Escalation in the Shadow of Popular Opposition." *International Security* 42 (3), 2017/18, pp.7-36; Yarhi-Milo, Keren, Joshua D. Kertzer, and Johnathan Renshon. "Tying Hands, Sinking Costs, and Leader Attributes," *Journal of Conflict Resolution* 62 (10), 2018, pp.2150-2179; Kertzer, Joshua D. Jonathan Renshon, and Keren Yarhi-Milo. "How do Observers Assess Resolve?" *British Journal of Political Science*, 2019, pp.1-23; Kertzer, Renshon, and Yarhi-Milo find that the US public and elite decision makers converge in their interpretation of costly signals suggesting that there is little difference between these two populations on this question.

20) Aldrich, John, John Sullivan, and Eugene Borgida, "Foreign Affairs and Issue Voting: Do Presidential Candidates 'Waltz Before A Blind Audience?'" *The American Political Science Review* 83 (1), 1989, pp.123–41; Datta, Monti Narayan, "The Decline of America's Soft Power in the United Nations." *International Studies Perspectives* 10, 2009, pp.265–284; Gelpi, Christopher, Jason Reifler, and Peter Feaver, "Iraq the Vote: Retrospective and Prospective Foreign Policy Judgments on Candidate Choice and Casualty Tolerance." *Political Behavior* 29 (2), 2007, pp.151–174; Goldsmith, Benjamin, and Yusaku Horiuchi, "In Search of Soft Power: Does Foreign Public Opinion Matter for US Foreign Policy?" *World Politics* 64 (3), 2012, pp.555–85. Holsti, Ole, "Public Opinion and Foreign Policy: Challenges to the Almond-Lippmann Consensus Mershon Series: Research Programs and Debates." *International Studies Quarterly* 36 (4), 1992, p.439. Rosenau, James, *Public Opinion and Foreign Policy: An Operational Formulation*. New York: Random House, 1961.

trading partner…" Respondents then received more information on the relationship between Country X and the US ally: "Country X and the US ally are historical rivals in the region. Because of this, they have experienced political and military tension."

The experiment provided a direct test of signaling theory by manipulating relative power and the costs of the signals issued by Country X. First, three types of signals—a costly signal, a less costly cost signal, and an uncostly (or "cheap") signal—were created. In the experiment, this translated into three treatment groups, with the first being told that Country X had withdrawn 75% of its army and weapons from the border in dispute; the second group that Country X had withdrawn 5% of its army and weapons from the border in dispute; and finally, the third group that Country X had issued a public diplomatic statement that it intended to resolve the dispute peacefully with no other supporting action. A control condition was included which did not contain any information about intentions for the purpose of the comparison with other treatment groups. Second, two levels of Country X's relative power were created: strong and weak. These created eight treatment groups in total (Costs of Signals (4) x Power (2)), and all participants were randomly assigned to one of these eight groups.

After reading the background information and hypothetical scenario, participants were asked to answer two attention-check questions to ensure that they paid attention to the survey and understood the scenario. Those who failed to pass the initial attention check had a second opportunity to review the scenario and answer the questions again. Successful participants were then asked, based on their reading of the randomly assigned scenario, to assess the potential threat Country X posed to US security and interests on a five-point Likert scale: no threat, slight threat, moderate threat, serious threat, and extremely high threat. Respondents were then asked to infer the hypothetical state's intentions on a five-point Likert scale from very peaceful to very aggressive. Finally, survey participants were asked how much they supported the deployment of US forces to the disputed region to address the threat posed by Country X. Foreign policy preferences were measured on a five-point Likert scale from strongly oppose to strongly support. At the end of the survey, respondents answered a set of standard demographic questions including political ideology, which is the focus of this study.[21)]

21) For a complete scenario, see Kim 2022a, op.cit.

# Results

〈Table 1〉 Replication of Kim (2022a)'s Analysis

| | Inference about Intentions (DV1) | Threat Assessment (DV2) | Foreign Policy Preferences (DV3) |
|---|---|---|---|
| *Cost of Signals* | | | |
| F Statistic | 3.19 | .29 | .12 |
| Significance | $p < .05$ | $p = .96$ | $p = .95$ |
| N | 370 | 370 | 370 |

Table 1 summarizes the results of analyses of variance (ANOVA), focusing on the main effect of one treatment variable (*Cost of Signals*) on participants' three different responses: inference about intentions (DV1), threat assessment (DV2), and foreign policy preferences (DV3). As shown in Tavle 1 above, participants in the experiment inferred that a state sending costly signals was more likely to be benign than states sending other types of signals ($F=3.19$, $p<.05$; see also Figure 1 in the Appendix). This result aligns with the claims of defensive realists. In the experimental scenario, participants were informed that the signaling state was a rival of a U.S. ally, and observers could only update their prior beliefs when the state's signal was sufficiently costly. Specifically, the signal was extremely costly and risky, such as when the state "has withdrawn most (about 75%) of its army that had been deployed near the border territory" and "substantially decreased the weapons that had been deployed in the same area by about 75%, removing most of its tanks, attack helicopters, and missiles." Only under these significant costs and risks did participants update their prior beliefs compared to when there was no signal. However, even these costly and risky signals did not reduce the observers' fear of the state or alter their attitudes toward it. This suggests that the effects of costly signals may be limited in reducing the observers' fear or encouraging a more conciliatory attitude, contrary to what defensive realists might expect.

What explains this difference? A plausible explanation is that participants may be differentiating between state motives and state intentions. According to Glaser, state

motives are "inherent features of states," while state intentions indicate "what a state intends to do" that "result from the interaction of a state with its international environment."[22] He further suggests that state motives are more useful for distinguishing types of states than state intentions. Thus, participants may not be confident that the signals they are receiving are indicative of a state's true *type*—in this case, a security-seeking state rather than a greedy state. Because of this, conciliatory gestures may lead participants to attribute benign intentions to the state, but uncertainty around its true nature means that they will still fear that state's motives.[23] This uncertainty may also explain why costly signals of reassurance fail to affect policy preferences.

〈Table 2〉 Survey Participants' Response to Different Costs of Signals

| | Costly | Less Costly | Cheap Talk | No Signal | Total |
|---|---|---|---|---|---|
| Very Peaceful | 0 (0%) | 1 (1%) | 2 (2%) | 1 (1%) | 4 (1%) |
| Somewhat Peaceful | 11 (12%) | 9 (9%) | 9 (10%) | 8 (8%) | 37 (10%) |
| Neither Peaceful nor Aggressive | 54 (60%) | 36 (38%) | 34 (38%) | 36 (38%) | 160 (43%) |
| Somewhat Aggressive | 22 (24%) | 38 (40%) | 39 (44%) | 47 (50%) | 146 (39%) |
| Very Aggressive | 3 (3%) | 12 (13%) | 5 (6%) | 3 (3%) | 23 (6%) |
| Total | 90 (100%) | 96 (100%) | 89 (100%) | 95 (100%) | 370(100%) |

Further analysis of participants' responses provides some support for this explanation. Table 2 shows that a state's signals of reassurance alone did not completely change participants' inferences about Country X's intentions, even though these gestures successfully reduced responses of the assessment of aggressiveness. The first row in Table 2 presents the different signal-type conditions: costly signal, less costly signal, cheap talk, and no signal (control). The first column presents survey participants' responses (inference about a hypothetical state's intentions) from "very peaceful" to "very aggressive." Approximately half of the participants in all groups, except the costly signal condition, assessed Country X as somewhat or very aggressive. This result is not surprising given that Country X was

22) Glaser 2010, op.cit., p.38.
23) Ibid.

presented as a rival of a US ally in the experiment scenario. The prior knowledge survey participants had regarding the hypothetical state was a rival. Costly signals of reassurance successfully made the image of the rival neutral. Table 2 shows that the majority of those in the costly signals group (60%) were neutral about Country X's intentions. Only 12% of those in the same group assessed the rival state as "somewhat peaceful" or "very peaceful."

A strong signal of reassurance—withdrawing most (75%) of the troops from the border area in tension—thus did not generate enough certainty for survey participants to infer that Country X had truly benign intentions. The uncertainty shown in Table 2 explains why a state's strong sign of reassurance failed to change the assessment of threat, as well as failing to affect their policy preferences. Some scholars may argue that the belief that a state is "neither peaceful nor aggressive" can be enough to reduce threat or foster cooperation among states. This result, however, suggests that the inferring a state has "neither peaceful nor aggressive" intentions is not enough to reduce threat nor promote cooperation.

〈Table 3〉 The interactive effect of power and cost of signals on signal perception.

| | Inference about Intentions (DV1) | Threat Assessment (DV2) | Foreign Policy Preferences (DV3) |
|---|---|---|---|
| *Power* | | | |
| *F* Statistic | 10.70 | 107.18 | 1.97 |
| Significance | $p < .01$ | $p < .001$ | $p = .16$ |
| *Cost of Signals* | | | |
| *F* Statistic | 3.45 | .31 | .14 |
| Significance | $p < .05$ | $p = .82$ | $p = .94$ |
| *Power x Cost of Signals* | | | |
| *F Statistics* | 0.19 | 0.21 | 1.06 |
| Significance | $p = .90$ | $p = .89$ | $p = .37$ |
| N | 370 | 370 | 370 |

Table 3 summarizes the results of analyses of variance (ANOVA), focusing on the main and interaction effects of two treatment variables (*Power and Cost of Signals*) on participants' perceptions and attitudes. Interestingly, participants tended to infer that a rival state (more precisely, an ally's rival) was less benign when it was strong and more benign when it was weak ($F=10.70$, $p<.01$). This tendency was even more pronounced when assessing the threat posed by the rival state: participants felt greater fear when the rival was strong and less fear when it was weak ($F=107.18$, $p<.001$). However, the power of a rival did not significantly influence participants' attitudes on whether U.S. forces should be deployed at any statistically conventional level. In other words, while participants tended to view a strong rival's intentions as more aggressive, this did not necessarily lead them to support deploying U.S. forces, as they showed a more cautious approach to the use of force.

One of the primary interests of this paper—the interaction effect between power and the cost of signals—was not significant at any conventional level for any dependent variable (see also Figure 2 in the Appendix for details). This study predicted that participants would perceive a state as more benign when a weak state, rather than a strong one, issued costly signals, as the uncertainty surrounding the threat posed by a weak state would decrease, leading to reduced uncertainty about the state's aggressiveness. However, contrary to expectations, the relative power of the rival state did not have a meaningful impact on how observers interpreted costly signals.

Table 4 summarizes the results of analyses of variance (ANOVA), focusing on the main and interaction effects of two treatment variables (Ideology and Cost of Signals) on participants' responses. Contrary to expectations, liberal observers did not rate the rival state as more benign compared to more conservative observers at the .05 level ($F=2.64$, $p=.07$). However, liberal observers were less fearful of a rival state than their conservative counterparts ($F=7.58$, $p<.001$) and were significantly more reluctant to endorse the deployment of force ($F=17.48$, $p<.001$). These findings support the common belief that liberals are less hawkish than conservatives. Nevertheless, contrary to this study's predictions, the interaction effects between political ideology and cost of signals were not statistically significant at any conventional level for any dependent variable. This paper anticipated that politically liberal individuals would be more responsive to costly signals

than conservatives, leading them to update their prior beliefs more readily. However, observers' political ideology did not have a notable effect on inferring the signaler's intentions from costly signals.

〈Table 4〉 The Interactive Effect of Political Ideology and Cost of Signals on Signal Perception

| | Inference about Intentions (DV1) | Threat Assessment (DV2) | Foreign Policy Preferences (DV3) |
|---|---|---|---|
| *Ideology* | | | |
| *F* Statistic | 2.64 | 7.58 | 17.48 |
| Significance | $p = .07$ | $p < .001$ | $p < .001$ |
| *Cost of Signals* | | | |
| *F* Statistic | 3.57 | .16 | .10 |
| Significance | $p < .05$ | $p = .92$ | $p = .96$ |
| *Ideology x Cost of Signals* | | | |
| *F Statistics* | 0.95 | 0.35 | 1.71 |
| Significance | $p = .46$ | $p = .91$ | $p = .12$ |
| N | 370 | 370 | 370 |

## Implications

What do these results tell us about the costly signaling literature and the broader debates that they inform? First, although recent experimental tests of costly signals have shown that they are effective in updating individual assessments of a state's resolve,[24] the results of this study show less support for the effect of costly signals on reassurance. While significant troop withdrawals led respondents to view a state's intentions as less aggressive than less costly measures or cheap talk, individuals still did not perceive the rival state as purely benign. Instead, the majority of individuals updated their assessments

24) Yarhi-Milo, Kertzer, and Renshon, op.cit

to view the rival as neither “aggressive nor benign”—a significant difference compared to the other treatment groups but not a wholesale shift in perceptions of intent. This uncertainty around the state’s true type made observers hesitant to update their threat assessment and policy preferences.

The findings of this study support the claims of defensive realists regarding signals of reassurance while also highlighting their limitations. Consistent with defensive realists' claims, observers of state signals perceived a rival state as more benign when it used costly signals compared to when it did not. However, despite this, the costly signal neither reduced observers' fear nor altered their attitudes toward the potential rival state, indicating that it was not particularly effective at “reassuring” the other side as defensive realists might expect.

Second, the lack of a significant interaction effect between the signaling state’s power and the cost of signals suggests that interpreting a rival state’s intentions through costly signals is relatively independent of the rival's power. Similarly, although liberals tend to assess the threat of a potential rival state as lower than conservatives and take a more dovish stance, they do not necessarily perceive the rival state’s costly signals as significantly more benign or less threatening than conservatives do. These results indicate that while signals of reassurance are interpreted rationally according to the logic of costly signals, as suggested by defensive realists, their effectiveness may be less than what defensive realists claim in reality. That is, costly signals are not interpreted differently based on the rival’s relative strength or weakness or due to the observer's political ideology but rather are processed according to the inherent logic of costly signals.

These results have implications for ongoing IR debates about the importance of costly signals in enabling cooperation in international politics. In particular, the results show how difficult it may be for a state to fully reassure a target through the issuance of costly signals. Even a very costly signal was insufficient in this case to convince survey participants of a state’s peaceful intent. This interpretation accords with offensive realist arguments, which are pessimistic about the utility of costly signals as a means of conveying effective reassurance.[25] Yet while costly troop withdrawals did not affect threat perceptions, they did have some effect on assessments of state intentions. Those in the

25) Rosato, op.cit.

costly signaling group were more likely to view the rival state as neutral than either the less costly signal or cheap talk groups, who were more likely to perceive the adversary as aggressive. This indicates that perceptions *can* change as a result of costly signals, as some scholars argue, but that the conditions under which they can serve to fully reassure a signal receiver might be much more limited than has been traditionally assumed.[26)]

This note provides an initial test of costly signals of reassurance, though much remains to be done. For example, further research is needed to examine which factors reduce uncertainty about intentions and how this reduction in uncertainty affects the credibility of costly signals. It would be also interesting to see how a change in the scenario design—for example, presenting a direct rival to the United States—would impact the results. Overall, I hope this paper to serve as a valuable step forward in addressing this gap in the literature.

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26) On this point see Montgomery, Evan Braden, "Breaking Out of the Security Dilemma: Realism, Reassurance, and the Problem of Uncertainty." *International Security* 31 (2), 2006, pp.151-185.

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Appendix for Reassurance through Costly Signals: An Experimental Analysis

Figure 1

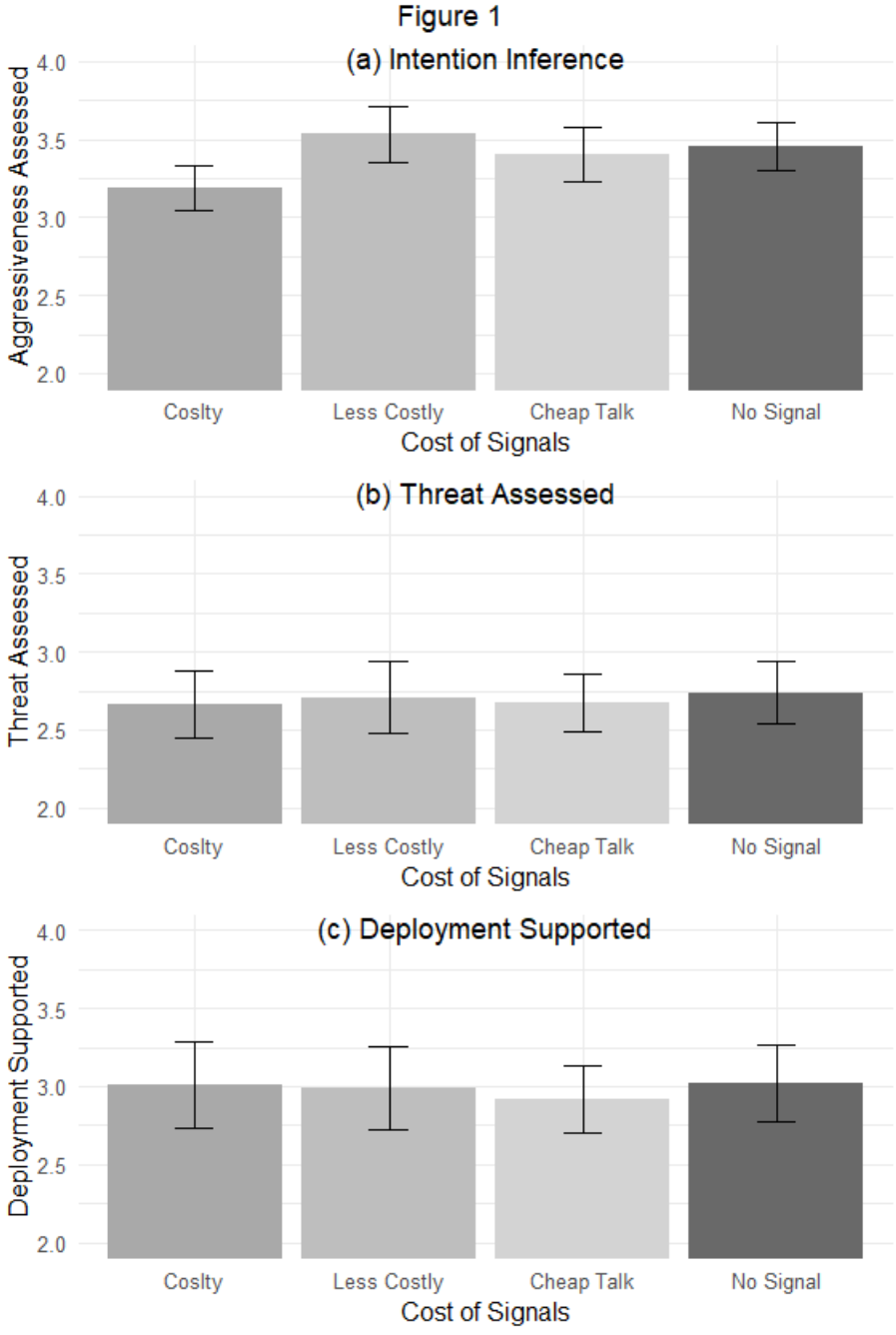


Figure 2: Comparison of Signals by Power

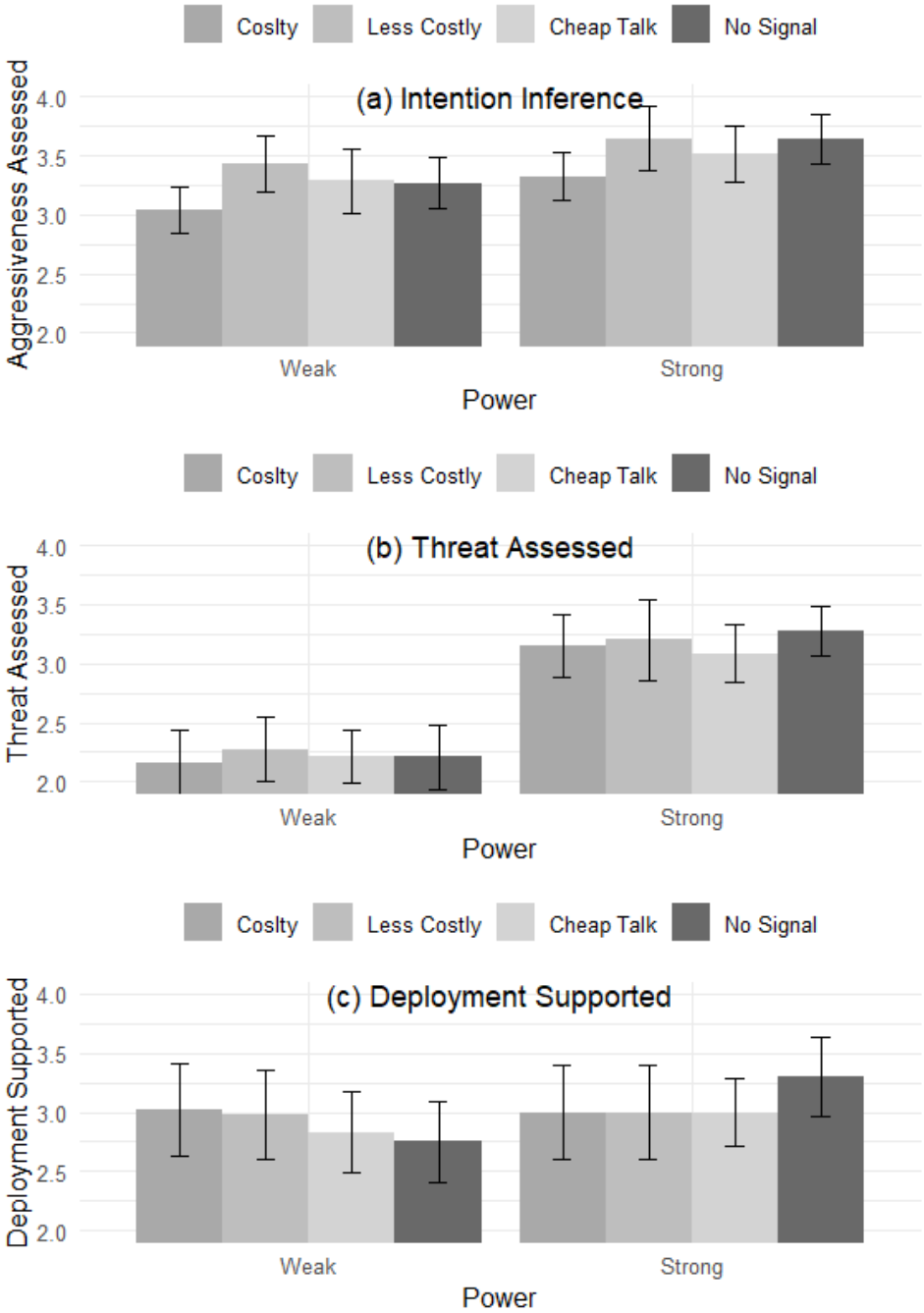
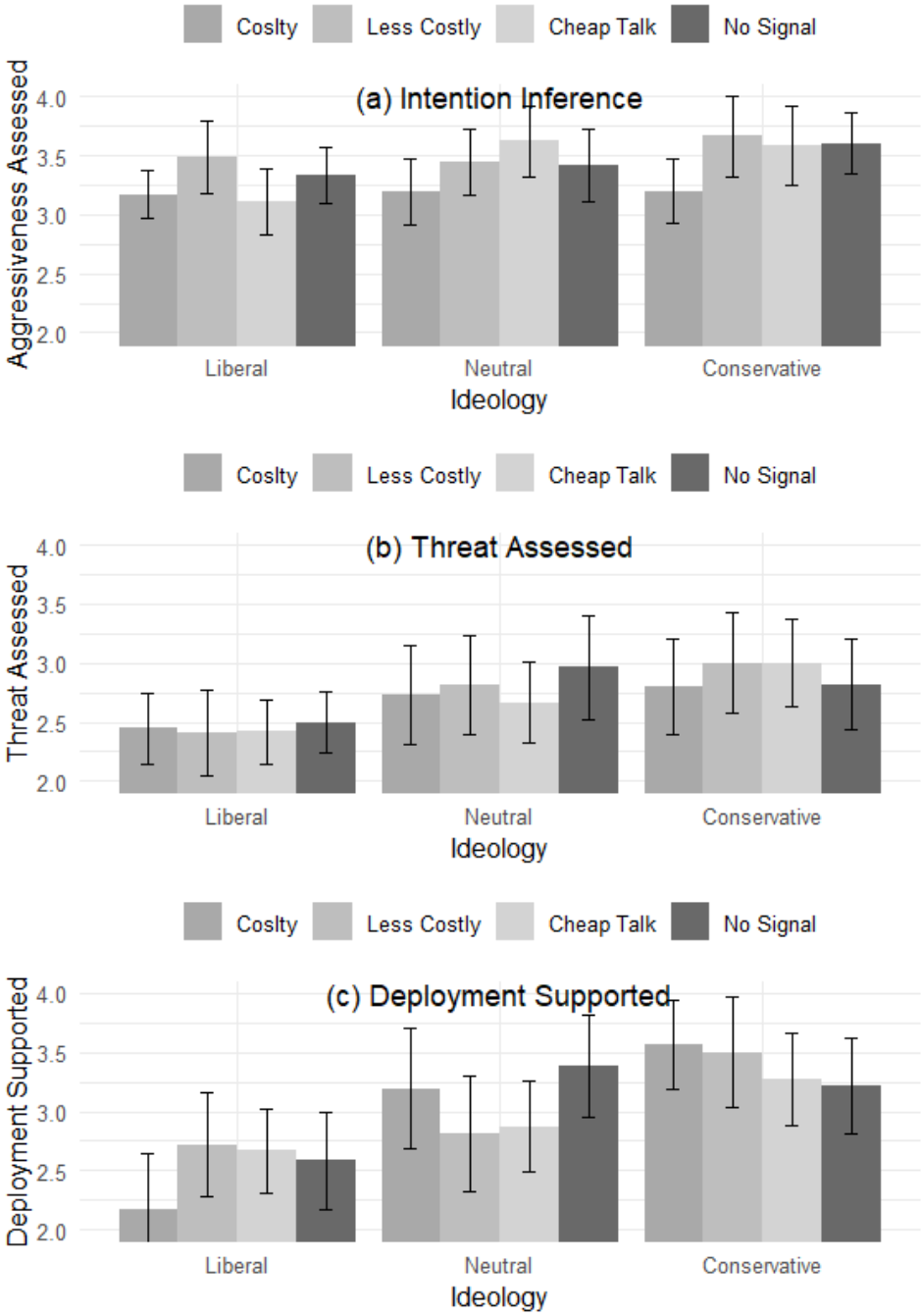


Figure 3: Comparison of Signals by Ideology



【 국문요약 】

# 지각의 정치학: 힘과 이데올로기는 신호지각에 영향을 미치는가?

김 석 준

신호지각에 관한 최근의 연구는 값비싼 신호가 방어적 현실주의의 주장 보다 덜 신뢰받는 것으로 지각된다는 것을 제시한다. 이것이 사실인가? 만약 그렇다면 값비싼 신호는 상대방을 안심시키는데 왜 덜 효과적인가? 동 문제를 해결하기 위해 동 논문은 상대를 안심시키는 데 있어서의 값비싼 신호의 역할에 대한 다소 비관적인 최근의 연구인 Kim (2022)의 실험 데이터셋을 이용하였다. 미어샤이머와 로사토와 같은 공격적 현실주의자의 주장과 마찬가지로, 동 연구는 국가 의도에 관한 불확실성으로 인한 값비싼 신호의 비효과성에 대한 가능성을 탐색한다. 동 연구는 또한 이러한 불확실성을 감소시킬지 모르는 두 가지 잠재적인 요소인 신호를 보내는 측의 상대적 힘과 관찰자의 정치적 이데올로기가 값비싼 신호의 지각에 있어서 중재적 역할을 하는지를 검토한다. 동 연구는 첫째, 값비싼 신호가 어쩌면 국가 의도에 대한 불확실성 때문에 방어적 현실주의자들의 예상보다 더 제한적인 역할을 하는 것을 발견하였다. 더 나아가, 저자의 예상과는 달리, 동 연구는 값비싼 신호가 신호를 보내는 측의 힘이나 관찰자의 정치적 이데올로기가 관찰자의 신호지각에 영향을 미친다는 증거를 발견하지 못하였다. 동 연구 결과는 신호이론에 대한 연구뿐 아니라 값비싼 신호가 국가간 협동을 유도할 수 있는지, 아니면 불확실성 때문에 이러한 국가간 협동이 어려워지는 지에 관한 논쟁에도 중요한 함의를 가진다.

주제어 : 값비싼 신호, 안심, 불확실성, 서베이 실험

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