

Why ‘Cheap’ Propaganda is Meaningful: Threat Perception and Resolve in North Korean Propaganda

Lauren Sukin^{*†}

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Abstract: Threatening propaganda is often used by autocratic regimes and violent non-state organizations. These threats—particularly when extreme and frequent—are often considered “cheap talk.” However, this article argues that systematic and comprehensive analysis of such threats can lend valuable insights. In particular, the aggregate content of threats reveals information about the threat perceptions of the messenger, while the frequency of threats provides information about the messenger’s resolve. To test this theory, this article analyzes a comprehensive dataset of North Korean propaganda between 1996 and 2018, showing that North Korea systematically issues threats to its adversaries when they engage in joint military exercises or when they take steps, such as the development of missile defense, that challenge the security or deterrent capability of the North Korean nuclear program. Additionally, North Korea’s rhetoric signals its resolve. As the volume of North Korean threats increases, so too does the likelihood that North Korea will engage in military provocations, including nuclear and missile tests. These findings suggest the analysis of propaganda could be a largely overlooked strategy for gaining insight into the preferences of insulated leaders.

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[†]Lauren Sukin, Ph.D. Candidate, Department of Political Science, Stanford University, 616 Jane Stanford Way, Stanford CA 94305, (650) 723-1806.

1 Introduction

In a now-infamous speech in 2005, Iranian President Mahmoud Ahmadinejad told a group of several thousand students that Israel should be “wiped off the map” and that “anybody who recognizes Israel will burn in the fire of the Islamic nation’s fury.” The statement fit into a longstanding pattern of aggressive, adversarial rhetoric aimed at Israel. In fact, the Israeli Foreign Ministry responded to the event by saying, “unfortunately, this is not the first time we’ve seen such extreme statements from senior Iranian leaders” (Fathi 2005). Iran’s use of hyperbolic rhetoric has since persisted. For example, amid tensions in 2018 that led to the U.S. withdrawal from the Joint Comprehensive Plan of Action (JCPOA), Iran’s Supreme Leader Ayatollah Ali Khamenei called Israel a “cancerous tumor” that must be “removed and eradicated” (Pileggi 2018). Months earlier, Mohsen Rezaei, the secretary of Iran’s Expediency Council, had remarked that Iran “will level Tel Aviv to the ground and will not give any opportunity to Netanyahu to flee,” saying that “the U.S. and Israeli leaders...continuously face defeat” by Iran (Hemhold 2018).

The use of such inflammatory rhetoric may not be standard in international relations, but it nevertheless persists among a notable set of international actors, particularly authoritarian ones like Russia and China.¹ For example, China has repeatedly used state media to threaten its adversaries, including the United States and Taiwan. In January 2021, a Chinese state news service wrote that, “Taiwan and the U.S. should be sent a message: Do not misjudge or underestimate the Chinese mainland’s determination and will to defend its territorial integrity and to severely punish the reckless acts of ‘Taiwan independence’ forces.” In the article, China threatened war: “If the island of Taiwan and the U.S.,” it said, “continue to promote ‘Taiwan independence,’ it is predictable that military conflicts will be triggered across the Taiwan Straits” (Shinkman 2021).²

1. For work on rhetoric in Russia state-run media, see: Jonsson and Seely 2015; Becker 2004; Zasurski 2004

2. While China does sometimes use this aggressive style of rhetoric in its state media, scholars have also noted that foreign-facing Chinese propaganda has also aimed to promote Chinese soft power and highlight Chinese technological advancements. Even in the context of Taiwan, Chinese propaganda has occasionally

Non-state actors also make use of extreme rhetoric to threaten their adversaries, as the Islamic State of Iraq and the Levant (ISIL) has notoriously done using social media and videos (Awan 2017). Other non-state groups—such as The Taliban, Fuerzas Armadas Revolucionarias de Colombia (FARC), Boko Haram, and al-Shabaab—have produced similar videos (Abrahms, Beauchamp, and Mroszczyk 2017). These productions highlight the violent intentions of these groups, but it's difficult to interpret precisely what is meant by any particular threat. Determining which threats are likely to be followed through upon is no simple matter. As Abrahms, Beauchamp, and Mroszczyk (2017) note, “only a naive observer would accept every utterance of terrorist leaders at face value.” Similar difficulties arise when attempting to interpret many of the threats made by regimes like Iran, China, Russia, or North Korea, where violence and extremism are not uncommon features of outward-facing messaging.

As a result, these threats are often dismissed as unreliable “cheap talk.” While the most extreme threats might make headlines, they are often presented more as evidence of the erratic nature of the entities that issued them than as serious messages in their own right. However, by focusing on the difficulties of interpreting individual messages or individual pieces of threatening propaganda, scholars and other observers have largely missed a critical source of information about these important and otherwise difficult-to-analyze actors. When examining regimes or non-state actors that are largely closed off to external observers, there are few sources of reliable information about internal preferences, intentions, or policies. Outward-facing messaging from these actors, even when hyperbolic, could therefore provide a valuable source of information that should not go overlooked.

What can be gained from the study of extreme threats, especially when they are unreliable, erratic, or frequent? I argue that, rather than focusing on the *content* of particular threats, scholars can instead analyze their overall form in order to garner insights into the preferences and policies of the messenger. In particular, I argue that two features of threats—

emphasized unification using a framing that centers historical ties between China and Taiwan rather than threatening the use of force. See, for example: Brady 2015a; Edney 2012; Brady 2015b

their most frequently mentioned topics and the volume of threats over time—can be crucial indicators of the state of mind and of the intentions of the messenger's leadership.

First, topics that are very frequently mentioned in threats are likely to provide information about the circumstances that the messenger most fears. Actors make threats in response to a wide range of events and circumstances—some of which they may not actually care about. An individual threat, then, may not provide a very strong basis for understanding the threat perceptions of the messenger. Yet, if we examine broad patterns in the rhetoric of threats over time, it should be possible to identify the core issues that the messenger most often responds to and is most concerned about. These broad patterns in the language of threats may provide insight into when and why the actor making the threat feels the most vulnerable.

Second, although it can be very difficult to determine if an *individual* threat is likely to come to fruition, patterns in the overall frequency of threats can illustrate variations in the messenger's level of resolve over time and in response to different challenges. In periods of high resolve, when messengers are willing to endure the risk that their threats may escalate, they should issue threats more frequently. Because high volumes of threats are a product of high levels of resolve, identifying these periods can therefore help determine when crises might escalate or when aggressive military actions might be taken by the messenger. This would suggest that threats might be able to predict when belligerent actions might occur.

I assess these arguments using a difficult test case, that of North Korea. The North Korean regime is perhaps the foremost user of excessive threats. I find that the state-run Korean Central News Agency (KCNA) releases approximately 48 articles that contain threats against North Korea's adversaries every month. It is unsurprising, then, that many analysts don't take these threats seriously and instead view North Korea's rhetoric as unpredictable and largely devoid of meaningful content.

As John Ikenberry and Chung-In Moon note, North Korea has frequently been labelled “with adjectives such as impulsive, eccentric, renegade, erratic, and paranoid” (Ikenberry

and Moon 2007, 146). While this is not the only approach to the study of North Korea, this framing remains very prominent in both news coverage of and academic research on North Korea.³ In this view, neither North Korea's behavior nor its rhetoric should provide much insight into North Korea's strategic priorities or intentions.

The fact that North Korea's use of threats is continuous and extreme has contributed to the view that these threats should have few consequences. For example, Van Jackson explains that, in the late 1960's, "US analysts had difficulty distinguishing Pyongyang's threats from its rhetorical flourishes, typically discounting statements as nothing more than 'cheap talk.' North Korean threats became white noise that even made tracing actions to specific prior threats through post hoc analysis difficult for the United States; their frequency and consistently hostile content... made North Korean statements a poor indicator of North Korean intent" (Jackson 2016, 29). Many analysts continue to view North Korea's threat-making in this light, in part because frequency and hostility have remained key features of North Korea's rhetoric. Similar approaches have clouded the analysis of propaganda and threats from other entities, including other autocratic regimes as well as militarized non-state actors.

By collecting and systematically analyzing the threats made in North Korean state-run media sources between 1996 and 2018, I will show that we can gain insight into the North Korean regime by studying the form of North Korean propaganda.⁴ First, I will identify frequently discussed topics in North Korea's threats and demonstrate that these topics—military exercises and challenges to North Korean nuclear security—represent two major concerns for North Korean leadership. Previous scholarship has debated whether North Korea's responses to military exercises, missile defense, and other such policies were indeed

3. The following provide examples of newspaper stories and commentary which utilize this framework: Smith 2000; Noland 1997; Cha and Kang 2018; Dalton et al. 2016. Papers and books that articulate the irrationality approach to North Korean leadership (or elements of this approach) include: Bracken 1993; French 2007, 2015; Shin 2018; Morgan 2006; Park 2008; Myers 2010.

4. In this paper, I use the term "propaganda" to refer to messaging from any North Korean state-run media source.

genuine.⁵ Second, I will show that surges in threats are precursors to North Korean military actions, reflecting states of heightened agitation and resolve. Together, these results show that—despite the unreliable content of individual threats—the propaganda created by closed-off political actors can be studied systematically in order to learn more about these actors' preferences. This insight is especially beneficial given the limited information otherwise available about such actors. These findings suggest that even the most extreme public declarations that state and non-state actors make have an important, albeit understudied, place in international politics.

2 Interpreting Threatening Rhetoric

2.1 'Cheap Talk' or Meaningful Signals?

Often states' threats have been overlooked as “cheap talk.” While it's simple enough to issue a threat, it's far more costly to take the action that the threat implies. Thus when states issue threats, they may simply be bluffing, hoping that their adversary will acquiesce before they have to endure the cost of follow-through (Press 2005). In response to the “cheap talk” approach, other scholars have sought explanations for why communications from states may sometimes actually be ‘costly,’ thus enabling meaningful messaging. Theories of audience costs, diplomatic reputations, and diplomatic signalling in the bargaining model of war all offer explanations for why threats may not be as ‘inexpensive’ as some scholars have thought (Schultz 2001; Sartori 2013; Trager 2010). Yet the debate over whether threats are ‘cheap’ or ‘costly’ misses an important point. I argue that even when communications are *not* costly, and *individual* rhetoric is not truthful, there is still a signal in the noise.

5. For example, debates on the deployment of THAAD have often focused on Chinese (and sometimes Russian) objections to the system, dismissing North Korean concerns and noting the probable ineffectiveness of THAAD against a North Korean attack. See, for example: Newhouse 2001; Sankaran and Fearey 2017; Khoo and Steff 2017. For a summary of the discussion of debates over North Korean responses to joint military exercises, see Bernhardt and Sukin 2020. The consensus in this literature suggests that military exercises do not pose significant threats to North Korea, largely dismissing North Korea's expressed concerns about these exercises.

The 'cheap talk' approach presents several reasons why state rhetoric may be an unreliable source of information. Numerous incentives to misrepresent information suggest that bluffing should be common and that very few state communications should be seen as revealing true information about a state's capabilities or intentions (Fearon 1995). As a result, those interpreting threats should usually be suspicious about whether there was an intention to be truthful in the first place.

Verifying that a threat is legitimate is also difficult. Persistent biases mean that even messengers that intend to be truthful can misunderstand their own capabilities. Messengers may also be unable or unwilling to offer the transparency needed for the verification of threats. And although states may occasionally be able to assess the veracity of a threat using independent intelligence gathering or by relying on a mediator, this is not always possible, particularly when the threat in question is made by a closed regime or otherwise secretive actor (Kydd 2003).

The inability to trust the veracity of messages is worse when the messages in question are cheap to produce; when messaging has costs attached, bluffing may be able to be distinguished from sincere attempts at communication (Morrow 1994). For example, democracies and some types of autocracies have been theorized to face audience costs if they fail to follow through on their threats (Fearon 1997; Schultz 2001; Weeks 2008). As a result, their threats may be more likely to be truthful; they may reveal more information than those made by actors who don't suffer audience costs because their leaders are personalist, insulated, or otherwise beholden to the preferences of few others.

Relatively closed-off regimes, like Iran, China, Eritrea, Uzbekistan, or Belarus, should therefore have an easier time making threats that they don't intend to follow through on. Insular non-state actors, such as separatist groups, terrorist organizations, and crime syndicates may face similar conditions that allow them to make threats with few consequences. In fact, extremist organizations have been shown to use bluffing strategies (Mahoney 2020). Closed regimes also benefit from centralized control. When state or non-state actors have

partial or full control over their messaging, they can bluff more easily, since there is less likely to be disconfirming information available from other parties.

Another way in which “diplomatic communication” might be costly is that it “shapes states’ perceptions of the threat they pose to each other” (Trager 2010, 362). When a state’s adversary makes a threat during a crisis—even if that threat is costless to produce—the state might update its perceptions of how much of a challenge the adversary poses to its interests. Since “states also tend to adopt more adversarial policies against states they believe are more threatening to their interests,” needless threats may be avoided in order to prevent provoking conflict (362). When threats do materialize, then, they should have some credibility.

Other research has similarly shown that threatening rhetoric can have significant downstream political consequences, such as deterring adversaries, increasing the probability that the state making the threat uses force, or signalling information about the state’s intentions to foreign audiences (Farrell and Rabin 1996; Tingley and Walter 2011; Sukin 2019). Broader work on signalling also suggests that the messaging and behavior of regimes—especially during crises—can provide truthful information about states’ capabilities and their levels of resolve (Geller 1990; Gochman and Leng 1983; Jervis 1978). Thus threats might be ‘costly’ because they could raise the probability that an adversary responds to them with aggression.

Threats may also be costly because they contribute to states’ reputations (Sartori 2013). States that follow through on their threats may have an easier time making future threats credible—thus providing a critical advantage in crisis bargaining. In contrast, states that ‘cry wolf’ could lose their ability to credibly signal their resolve. While states may sometimes have to bluff, they may be cautious about when they do so, since reputations for resolve can be directly and indirectly influential in crisis initiation and resolution (Weisiger and Yarhi-Milo 2015; Clare and Danilovic 2012). Threats are an important component of reputations for resolve. States’ messaging, including their threats, can reveal pertinent information about the regime’s preferences and plans. Threats and other types of messaging from states provide a window into political decision-making, with scholars arguing that analysts can use

these sources to assess how political elites respond to different circumstances (Lasswell 1941; Pion-Berlin 1988; Tetlock 1979; Thrall and Cramer 2009).

While one category of explanations for the tendency to dismiss threats as “cheap talk” center on incentives to misrepresent and the difficulties associated with verification, a second category focuses on the idea that threats are often intended for domestic, rather than international, audiences. Leaders sometimes use incendiary language for diversionary purposes, distracting their domestic public from ongoing issues by rallying support against a foreign adversary (Morgan and Bickers 1992; Carter 2020; Levy 1989). Autocratic regimes may be particularly inclined to use this diversionary strategy. For example, studies have identified diversionary tactics at work in China and post-Soviet Central Asia (Anceschi 2014; King, Pan, and Roberts 2013, 2017). This argument has also been applied in the North Korean context by work suggesting that North Korea’s hostile activities—including the threats it frequently issues in state-run media—are associated with domestic conditions that would produce diversionary incentives or are intended to shore up domestic support for the regime (Hunter 1999; Nakato 2016; Wallace 2014, 2016). Examinations of Syrian media also show the diversionary use of threats; during periods of internal strife, such as prior to the 2011 Arab Uprisings, Syrian media focused on external adversaries including Israel (Blaydes and Alrababa’h, n.d.). This rhetoric had a primarily domestic audience (Scheller 2014).

If the ‘cheap talk’ arguments are right, then outward-facing threats—particular those that are extreme and frequent—should provide little information about the foreign policies and internal workings of those who make them. Threats should often be bluffs, both because they are low-cost and because bluffing can be strategic. Even threats that are intended to be truthful may not be verifiable, and some threats may not even be intended for the foreign audiences that are analyzing them. (Ostrom and Job 1986; Russett 1990) It should be difficult to know, then, whether any individual threat will be followed through upon, whether any threat is made in response to an event that the messenger actually fears, or whether a threat is even intended to deter.

In the North Korean context, this approach suggests that North Korean threats should provide little truthful information and should be largely unrelated to North Korea's strategic actions in an international context. Indeed, North Korea's precarious geopolitical position presents significant reasons for the state to bluff. Its centralized government and state-controlled media make bluffing easy. Verifying any threats from North Korea would be nearly impossible, since North Korea is closed off to much of the world, and there is generally no third-party that could act as a mediator.⁶ North Korea also must maintain tight control of its domestic population, which involves regular use of state media to emphasize North Korea's strength and admonish North Korea's enemies.

On the other hand, if the 'costly signals' arguments are right, then some threats should actually be truthful. Audience costs should cause democracies and some types of autocracies to refrain from drawing 'red lines' that they won't enforce. States' prerogative to establish an 'honest' reputation and concerns that threats might provoke adversarial behavior by their competitors should also temper incentives to bluff. None of these theories, however, provide a compelling explanation for why North Korean threats, specifically, might be meaningful. The North Korean regime should not be subject to audience costs—in fact, North Korea is the 'poster child' for a personalist regime that should have little accountability to its public or a set of elites (Weeks 2008). North Korea should not be very concerned about the signalling power of its threats, since they are largely dismissed by foreign audiences and intelligence communities. North Korea also has no reputation for 'honesty' to preserve. Thus, even if some states' threats are 'costly' and therefore might convey truthful information about the messenger's intentions, existing theories still suggest that the frequent, extreme threats characteristic of actors like North Korea, Iran, or ISIS should not be meaningful signals.

On the surface, this looks to be the case for North Korea. Between December 1996 and February 2018, North Korea's state-run news agency, KCNA, issued approximately 48

6. Although China occasionally serves this role, there are still severe limits to the access that Chinese officials are given to North Korea, and the relationship between China and North Korea is not always friendly (Nanto and Manyin 2011).

articles containing threats every month; during the same period, North Korea engaged in an average of 0.6 military provocations per month.⁷ This means that, on average, one actual provocation occurred for every 78 pieces of threatening propaganda that were produced by the North Korean regime. Each individual threat, then, is very unlikely to be followed through. Yet the inability to rely on the *content* of individual threats does not mean that the study of threats should be sidelined.

2.2 Studying the Form of Propaganda to Find the Signal in the Noise

Instead, I argue that, while the content of individual communications from state and non-state actors with highly insulated leaders may not reveal true information about the actors' capabilities or their specific intentions, the overall form of these communications can reveal underlying strategic preferences. While messengers have incentives to misrepresent, leading to many threats that won't be implemented, messengers should still respond more strongly to issues of greater concern than to issues of lesser concern. In periods where these actors face significant, adverse security conditions, they will either concede, demonstrate resolve, or—on rare occasions—fight.

Should they wish to concede, we would expect state media to issue conciliatory statements or to focus on domestic concerns, since inflammatory rhetoric may make compromise harder to reach. When states aren't willing to back down, they should issue more threats, thereby revealing their heightened states of concern.⁸ While threats have much lower costs than other policy options, they do include a minor risk of escalation, since observers of the threats

7. Military provocations include missile tests, nuclear tests, exchanges of fire, territorial incursions, and other significant actions that heightened tensions between North Korea and its adversaries ("Database: North Korean Provocations" 2019). The author identified which KCNA articles contained threats using a topic model; details follow.

8. Moreover, in the North Korean case, we should expect demonstrations of resolve to be the more common response to threats, as nuclear states in highly asymmetric crises have incentives to demonstrate resolve; doing so may create a significant advantage against even vastly superior adversaries. See Fanlo and Sukin 2021

may preempt the threatened actions or be on higher alert (Trager 2010). Unimplemented threats may also increase distrust over time (Sartori 2013). While these costs may not always be sufficient to induce states to make all (or even most) threats truthful, they may be stronger when more threats are issued. As a result, they should have somewhat of a dampening effect on the overall amount of threats produced during periods of low resolve. Since high volumes of threats should therefore be linked to real perceptions of vulnerability, their timing and overall content should show what the messenger is most concerned about as well as demonstrate the messenger's resolve to respond to particular security concerns.

This approach to studying threats can provide valuable insights into closed regimes and organizations that can be otherwise difficult to study. Such groups may prevent outsiders from observing their internal workings, control their own media sources, or keep only a small number of elites 'in the loop' on sensitive policies like those related to their security. One way in which these actors communicate with outsiders is through propaganda. This rhetoric is often heavily biased; it can be designed to promote particular policies by highlighting or fabricating certain information about or images of the actor that created it.

Consider the case of North Korea: Propaganda is one of very few sources of information available to outsiders. Much of what is known about North Korea has been pieced together from scattered clues like comments from defectors, satellite imagery, or public appearances by North Korean elites. Evidence of these rare events, such as public appearances, are often gleaned from North Korean news sources.⁹ These news reports occur near daily, follow regular patterns, and contain specific details. While they may not individually be reliable, systematic analysis of their form is possible. A serious investigation of the threats North Korea makes in its state-run news could play an important role in understanding North Korea's internal workings. However, comprehensive analysis of North Korean threats—or

9. For example, Mahdavi and Ishiyama (2020) uses reports from KCNA to identify the presence of elites at "inspection tours" or other visits with Kim Jong Un. Such approaches to state media do take North Korean messaging seriously, but they often focus on information about the domestic environment—such as the movement of political elites or updates on technological accomplishments—that are less likely to be biased, false, or speculative than foreign-facing messages, such as threats.

the threats made by other closed regimes and organizations—has occurred very rarely in the academic literature.¹⁰

I suggest that such analyses can provide insight into the workings of closed actors in two main ways. First, scholars can analyze broad patterns in the language of threats. Many threats are little more than noise, but overall patterns in the language of threats can indicate important information. States and other actors can make threats for a number of reasons, not all of which are conducive to having the threats be meaningful. Threats may be made because domestic political conditions necessitate a diversion, because there is an opportune moment for states to advance a policy agenda, because states are legitimately threatened by some external circumstances, or for many other reasons. In the case of any individual threat, it may be difficult to decipher *why* the particular threat has occurred and, in turn, to identify whether the threat carries reliable information about the threat-maker's intentions. However, issues that states care strongly about should repeatedly provoke threats. Over time, then, high volumes of threats about specific topics can reveal which issues are most pressing to the communicating state. Moreover, even highly insulated leaders should face some incentives to issue fewer threats over less-critical topics whether there is lower tolerance for escalation. Aggregate analysis of the rhetoric used in threats can consequently reveal information about which policies most concern the messenger.

Second, scholars can analyze the overall frequency of threats to learn about the messenger's level of situational resolve.¹¹ Although individual threats may or may not be acted upon, periods with high levels of threats should generally be periods where the actor in question has higher levels of resolve.¹² This is because, although threats are generally low-cost,

10. There are a number of studies of other topics that appear in North Korean media sources. For example, see Mahdavi and Ishiyama (2020) on public appearances, Merkel (2014) on sports in North Korea, or Myers (2010) on racial ideology in North Korea.

11. Here, I refer to resolve as time- and issue-dependent, such that a state does not have a single disposition that constitutes its level of resolve, but rather that states are more concerned about or more willing to escalate in response to some situations than others. For a discussion of dispositional vs. situational resolve, see: Kertzer 2017

12. On average, this is likely to be the case, although there are other reasons for states to issue high numbers of threats, including severe domestic problems and strategies that take advantage of vulnerabilities in adversaries, such as issuing significant threats during election periods in order to sway election outcomes.

they still have some small risks. Threats that are taken seriously can result in preemptive action by adversaries or can cause adversaries to place their forces on high alert, risking accidents. Threats can also raise the level of tensions and distrust between adversaries, potentially resulting in tit-for-tat escalation or dangerous miscommunication (Trager 2010). The more threats that are issued, the more these risks compound. Even in cases, then, where these costs are insufficient to prevent states from making frequent and frivolous threats, they should still have a small, but important, effect on the overall volume of threats that are produced. That is, because of these small costs, actors should be most willing to issue high numbers of threats when they are most willing to accept the costs of escalation. As a result, actors should make more threats when they feel the most threatened or have the most at stake in a dispute. This means threats may provide an early indication that the messenger state is willing and prepared to take further actions to deter their adversary.

One empirical implication is that threats should therefore be correlated with other, more costly signals of resolve, such as diplomatic or military provocations. For example, costly actions like territorial incursions or tests of missile and nuclear technologies can deter adversaries by demonstrating capabilities as well as resolve. These actions are costly because they require significant resources and may backfire by provoking a response from adversaries. As a result, these actions should be rare, but they should occur nevertheless when states are most concerned about their security environment—that is, they should occur during the same periods in which we should expect high volumes of threatening rhetoric.

This framework contrasts with the ‘cheap talk’ approach to threats by demonstrating two ways in which threats can provide meaningful information. First, analysis of the aggregate content of threats provides information about the main concerns of the messenger. Second, analysis of patterns in the volume of threats can be used to predict when states will take more costly actions. This approach also differs from existing literature that theorizes various reasons—whether audience costs, reputations, or escalation risks—for threats to be costly. When threats are costly, these theories argue, states will not make threats in vain and, in

turn, the threats that materialize can be taken seriously. In contrast, I argue that these costs are insufficient to prevent highly insular actors, like North Korea or violent non-state actors, from regularly bluffing. These actors will still make many threats that are individually meaningless. Nevertheless, these dynamics do still shape broad patterns in threat-making over time. This approach allows scholars and policymakers to glean information from threats that may be individually difficult to interpret by showing how such threats are, in aggregate, meaningful.

2.3 Case Study: Interpreting North Korean Threats

North Korea presents a difficult test case for the argument that the study of state media can provide valuable insights into states' preferences and policies. Because North Korean media is centralized and state-controlled,¹³ the North Korean leadership is highly insulated, and North Korean messaging is both very frequent and very hostile, this is a 'least likely' case for my theory. If my claim that the volume of threatening rhetoric reveals information about the messenger state's level of resolve is true in the case of North Korea, then despite a high baseline level of threats against its adversaries and despite the highly aggressive nature of those threats, we should observe that increases in the amount of threatening rhetoric are correlated with periods in which North Korea faces stronger challenges to its core interests. Indeed, some scholars have suggested that even seemingly irrational North Korean behaviors, like their frequent use of extreme threats, can often be understood as a set of rational responses to a particularly intense security dilemma (Choi 2015; Kang 1995).

North Korean threats provide an opportunity for the regime to communicate resolve. In fact, many North Korean threats are outward-facing, intended to communicate with an international audience. For example, Whang, Lammbrau, and Joo (2017) argue that KCNA articles occurring before North Korean nuclear tests during the Kim Jong-il era

13. North Korea controls the media, art, literature, etc. produced and distributed in North Korea through the KWP (Korean Workers' Party) Propaganda and Agitation Department (Lim 2015).

“were targeted at an *international* audience” (Whang, Lammbrau, and Joo 2017, 983).¹⁴

While large-scale analyses of North Korean propaganda are rare, a handful of previous studies have taken this approach. Research by Timothy Rich analyzes KCNA articles from 1997-2012 and finds that references to nuclear issues are correlated with references to the United States (Rich 2014b). This result aligns with the fact that the United States is the primary nuclear threat to North Korea and the major actor in negotiations to stop or rollback North Korea's nuclear program. Similarly, Whang, Lammbrau, and Joo (2018) find that, preceding five major North Korean provocations¹⁵ North Korea was more likely to reference the Supreme People's Assembly and past battles against Japanese colonialism. While neither study systematically identifies all threats made by North Korea or examines the effects of those threats, both studies suggest that automated content-analysis of KCNA articles can provide context clues about how foreign policy topics and crisis episodes are conceptualized in North Korea. Both studies also suggest that North Korean media tracks and responds to hostile events.

Research by Mason Richey, however, concludes differently. In an analysis of KCNA articles, Richey finds that “North Korea's provocations did not correlate with increased hostile rhetoric in a statistically significant way” (Richey 2019, 556). Richey's study has a few key flaws. First, Richey's dataset of North Korean rhetoric is incomplete. He collects a dataset of hostile rhetoric between 1997 and 2006 by using the search function on a news site dedicated to aggregating North Korean content (NKNews.org). The list of search terms excludes what Richey calls “the typical boilerplate of other similar revolutionary communist regimes,” such as “fascist,” “puppet,” “imperialist,” and others. Since this language is quite common in North Korean media, this artificially eliminates a significant number of threats made by North Korea. By selecting only articles with particular keywords, Richey also omits

14. Emphasis original. Whang, Lammbrau, and Joo (2017) also suggest that Kim Jong-un, at least between 2011 and 2014, directed North Korean media to focus coverage of nuclear tests more on domestic politics, by connecting the tests to the legacy of Kim Jong-il.

15. These are: the First and Second Battles of Yonpyong in 1999 and 2002, the Battle of Daechong in 2009, the sinking of the Cheonan in 2010, and the shelling of Yongpyong in 2010

threats that use unusual language, threats where key terms are misspelled (a frequent issue in KCNA, as shown by Rich (2014b)), and articles that contain indirect or implicit threats. Most importantly, Richey includes only quoted statements that “originate at the highest official levels of the North Korean state, party, and/or military”—yet the large majority of the threats made in North Korean propaganda are not in attributed quotations (Richey 2019, 547). Second, Richey simply tests the correlation between the existence of a military provocation in a given month and the number of threatening KCNA articles in that month. However, if threats reveal intent, as I anticipate, then they should precede provocations and may decline after those provocations conclude. This pattern would result in a null effect given Richey’s empirical design. A better test would examine the effect of threats on *subsequent* provocations. If North Korean rhetoric communicates important information about North Korean threat perceptions and intentions, then not only should there be systematic patterns in when and why North Korea makes threats, but also, these threats should also be predictive of North Korean provocative actions.

While existing work suggests that North Korean threats are largely “cheap talk,” my theory suggests that examinations of the volume of North Korean propaganda should provide clues into North Korean threat perception. On average, the content of North Korean threats should reveal which policies and circumstances create the most concern among the North Korean leadership. In addition, while any single threat made by the North Korean regime may not come to fruition, periods with frequent threats should be associated with material policies to combat what North Korea sees as significant security challenges. Because threats should be most heavily used during periods of significant concern about North Korea’s security priorities, increases in the use of threats against North Korea’s adversaries should provide warnings that North Korea is prepared to use force or take other provocative actions to further demonstrate its resolve and establish deterrence. These provocations are significant events that risk war. Some examples include: North Korea’s withdrawal from the Nonproliferation Treaty (NPT), territorial incursions into South Korea, exchanges of

fire in the Demilitarized Zone (DMZ), tests of North Korean missile technology, and nuclear testing.¹⁶ Provocations raise the possibility of tit-for-tat crisis escalation as well as war via miscalculation or accident. I show that, while the content of individual threats may be misleading, on the whole, North Korean threats reveal North Korea's resolve and often reference concepts of core importance to North Korean strategic thinking.

3 Identifying North Korean Threats

The first step in this analysis is to systematically identify North Korea's threats across time. This comprehensive effort provides a window into the attitudes of the North Korean regime. In order to identify when North Korea makes threats against its adversaries, I collect all available English-language articles published by KCNA between December 2nd, 1996 and February 4, 2018. This is a total of 124,173 articles.¹⁷

A simple way to distinguish threats with domestic versus international audiences is to look at the language or languages in which the content is released. North Korean's state-run news agency, KCNA, publishes some of its material in English.¹⁸ Although nearly all English-language KCNA articles are translated versions of articles originally written in Korean, not all Korean-language articles are translated into English (although many are).¹⁹ This suggests that there is a selection process whereby KCNA or other government officials

16. This data is from "Database: North Korean Provocations" (2019).

17. KCNA publishes on two main sites: one hosted in North Korea and a mirror hosted in Japan. The sites publish essentially the same content but have a few differences. The North Korean-hosted website is available from the United States, but the Japanese site is designed to be accessible only from Japanese IP addresses. The Japanese-hosted site has no search function, while the North Korean-hosted site has a very limited search capability. The Japanese-hosted site retains archives back to the late 1990's, while the North Korean-hosted site retains very minimal archives, and those are known to have been edited and curated ex-post. As a result, much of the data used in this paper comes from the Japanese-hosted KCNA website rather than the North Korean-hosted one. However, all or nearly all of the articles on the Japanese site were, at one time, on the North Korean site. While the large majority of KCNA publications are included in this dataset, it remains a possibility that some have been purged from both the Korean and Japanese KCNA sites and are therefore missing—although purged articles are most likely to be about discredited North Korean elites rather than foreign affairs and therefore may have minimal effects on the analyses in this paper.

18. KCNA publishes in a number of languages, including Russian and Spanish. However, the most common foreign-language publications from KCNA (and other North Korean publications) are in English.

19. There are instances of articles available in English and not Korean. For example, technical pieces about North Korean scientific accomplishments may be released only in English.

determine which articles should be read by foreigners. Note that only a very small segment of North Korea's population can read English, so while it is possible that some English-language articles are also intended to be read by North Korean elites, the vast majority of readers of English-language articles will be foreign. Since North Koreans would have access to the Korean-language version of any translated articles, translating an article into English makes sense only if the government desires a foreign audience for the article.²⁰ Because of their external-facing nature, it can be presumed that North Korea's English-language publications have some intentional signaling components and are meant to communicate information to international audiences.²¹ This communication may be effective, since even hyperbolic outward-facing propaganda has been shown to affect foreign audiences' perceptions of the states that produced it (Carter and Carter 2021). While there may be multiple international audiences that North Korea is interested in communicating to, the centrality of the United States in North Korea's propaganda suggests that the United States is the primary international audience for North Korean propaganda.²²

Since all information coming from the so-called 'hermit kingdom' is vetted in some way, the fact that the information in a piece of propaganda is published suggests it communicates a message that is approved by regime's leadership. North Korea's propaganda efforts are considered vital to the regime's survival. Positions involved with propaganda production are prestigious. Direction for content often comes from top levels of leadership, and it is instrumental in creating cults of personality for North Korea's leaders (Rich 2014a). This approach allows North Korea to tailor specific messages to its interests and to fully manage its information environment. For example, because of the severe security threats the state faces, North Korea has significant incentives to overstate its military capabilities. Importantly, North Korea also has a greater capacity to do so than many other regimes. Indeed, the

20. Translation into English could also theoretically occur if the the regime wanted to keep the article from being read by non-elites but was willing to allow elites to read it.

21. Importantly, regardless of the regime's intentions for a specific article, in a practical sense, the readership of these articles is largely foreign. The articles are, at least, de facto communicating to foreign audiences.

22. Moreover, many forms of North Korean propaganda are banned in South Korea under the National Security Law.

signals conveyed in North Korean media are not often truthful; the selection process and lack of a domestic audience for English-language communications means that North Korea has quite significant leeway to misrepresent its conditions, capabilities, and intentions.

Which pieces of North Korean propaganda contain threats? What types of topics, other than threats, are routinely covered in KCNA? To answer these questions, I run a topic model on the dataset of English-language KCNA articles. After removing stop words, I use a Latent Dirichlet Allocation (LDA).²³ The LDA develops categories defined by the use of common language. While the words most associated with each topic in **Table 1** are generated by the LDA, the labels for each topic are provided by the author. This paper represents the first use of topic modelling to systematically identify threats made by North Korea against its adversaries.

This method of analysis provides significant advantages over previous approaches to the study of North Korean propaganda. Automated content-analysis allows rapid parsing of a large number of articles in a systematic way. Individual analysis of all 124,173 articles in the KCNA dataset would likely be prohibitive, while analyzing articles only from certain time periods or crises misses broader patterns and context and risks selection on the dependent variable. The large dataset of North Korean propaganda, the diverse topics and language encompassed in these articles, and the fairly regular length and format of the articles make

23. I utilize the LDA from the `topicmodels` package in R. This package requires the user to set a parameter k for how many topics to create. I present the model with $k=10$, because this is the highest number of topics for which a) all topics made sense under clear labels, and b) no topics seem to be repeated. I use the stop words list from the `tidytext` package in R. Note that I do not stem words in order to assess differences between word forms and tenses. This is consistent with the recommendations from Denny and Spirling (2018). I also do not add any stop words to the generic set, although I do remove ‘states’ from the list of stop words in order to make it easier to identify the bigram ‘united states.’ Additionally, there are some words that are frequent but not especially meaningful in this particular dataset. For example, KCNA articles often reference other North Korean publications, like *Minju Joson* and *Rodong Sinmun*. KCNA re-publishes key articles from *Rodong Sinmun* and *Minju Chosun*, so an analysis of KCNA should provide sufficient insight into the broader set of North Korean media outlets. *Rodong Sinmun* is the official publication of the Workers’ Party of Korea; along with KCNA, it is one of the main publications in North Korea. However, analysis of *Rodong Sinmun* is logistically challenging. There is only limited access to *Rodong Sinmun* archives, with select articles and article titles available starting in 2002. *Minju Chosun* is a publication associated with the North Korean cabinet, but it is less frequently used than KCNA or *Rodong Sinmun*, and it has generally not been a focus of scholarship on North Korea. Also note that articles about unrelated topics will often conclude with praise for the current North Korean leader; thus instances of ‘Kim Jong Il’ or ‘Kim Jong Un’ are quite frequent and are not always especially meaningful.

automated content-analysis a particularly good candidate method. This automated approach is superior to dictionary-based and qualitative methods to parse meaning from KCNA articles, because these approaches rely on the researcher's own assumptions about what language will be used to communicate threats. Especially in the context of North Korean propaganda, where misspellings, errors, and unusual language abounds, automated analysis is useful, as it can detect patterns and meaning that may be missed by human readers or may not align with preconceived attitudes about the usual content of threats.

The topic model presented in **Table 1** produces a topic for threats as well as nine additional subjects: historical aggression by North Korea's adversaries, international negotiations, reunification with South Korea, diplomacy with friendly states, North Korean culture, economics, ideology, and bureaucracy, and South Korean domestic politics. Because each article is assigned a gamma value that indicates how closely it aligns with each category, it is possible to use the topic model to identify articles and words that have to do with threats. The threat topic is associated with words like 'nuclear,' 'military,' 'war,' 'joint,' 'exercises,' 'army,' 'weapons,' 'aggression,' and 'imperialists.'²⁴ Such language indicates that the topic focuses on North Korea's security environment. The bellicosity of these terms comports well with scholarship on North Korea's strategic culture, which highlights the regime's perceived need to respond to threats with threats (Jackson 2016).

However, words like 'military' and 'war' could be indicative not only of North Korea *making threats* against its adversaries, but also of North Korea discussing threats that it perceives *from* its adversaries. I expect that in nearly all articles discussing threats *to* North Korea, North Korea will also make threats against its adversaries, meaning that all articles sorted into the 'threat' topic by the LDA will contain direct threats against adversaries—and many will also discuss reasons why North Korea itself feels threatened.²⁵ To validate the assumption that articles in the 'threat' category defined by the LDA do contain identifiable

24. This reiterates the concern that, because Richey (2019) excludes threats using the word 'imperialist,' many threats are excluded from his dataset.

25. This assumption may not work with other sets of propaganda, but the very high hostility level of North Korean rhetoric makes this assumption more plausible in this case than in many others.

Table 1: LDA Topics and Top 20 Words

Threats	Historical Aggression	Negotiations	Reunification	Diplomacy	Culture	Economics	Ideology	Bureaucracy	South Korea
u.s.	japan	dprk	reunification	dprk	kim	production	kim	kim	south
war	japanese	u.s.	national	president	art	province	people	il	korea
korean	korean	countries	south	kim	pyongyang	pyongyang	jong	jong	korean
dprk	korean	international	korean	minister	south	construction	il	sung	people
nuclear	koreans	issue	national	people's	youth	factory	party	president	authorities
military	crimes	world	north	vice	performance	korea	revolutionary	committee	north
south	chongryon	human	joint	message	officials	country	korean	leader	lee
korean	past	rights	declaration	foreign	sports	technology	juche	korean	seoul
forces	reactionaries	policy	june	relations	dprk	farm	country	party	u.s.
peninsula	history	talks	15	delegation	korean	county	songun	chairman	puppet
peace	japan's	relations	peace	countries	national	scientific	army	anniversary	regime
moves	people	sanctions	korea	chariman	school	including	revolution	people	park
aggression	imperialists	hostile	statement	party	festival	built	socialist	secretary	held
north	committed	peace	koreans	committee	ri	people	idea	korean	statement
weapons	overseas	security	unity	yong	students	science	leadership	dprk	national
exercises	government	economic	independent	china	jong	people's	nation	juche	public
puppet	women	united	struggle	assembly	university	power	building	study	forces
army	residents	foreign	country	friendship	yong	complex	korean	idea	party
imperialists	war	political	relations	people	held	city	leadership	revolutionary	press
joint	army	people	independence	friendly	women's	field	wpk	association	myung

threats *against* North Korean adversaries, I use a qualitative approach where I randomly sample some of the articles that are sorted by the LDA into the ‘threat’ topic and then code them for the existence of a threat against a North Korean adversary.²⁶

After randomly sampling articles from the ‘threat’ topic, I code these articles for the presence of a threat.²⁷ I define threats as statements that identify problematic triggers and use negative or threatening language to describe the trigger. Threats also imply or promise action in response to a trigger.²⁸ For example, one threat from the random sample reads: “If the Japanese reactionaries dare ignite a war against Asian countries, holding them in contempt, they will not escape a severe punishment” (KCNA 2000). The threat identifies a specific trigger (Japan igniting a war against Asian countries) as well as a general response (“a severe punishment.”) Because threats contain triggers as well as responses, articles containing threats can often provide information both about North Korean threat-making *and* North Korean threat perception.

I found that all of the randomly sampled articles in the threat topic contained threats. This means that the topic model is reliably identifying articles that contain threats. For example, an article on 8/11/17 contains the following language:

“Now when the situation on the Korean Peninsula is inching close to the outbreak of a war, it was reported that the security think tank of Trump devised a plan for preventive war and makes preparations for its materialization. . . it is ridiculous that the U.S. warmongers are unaware of the fact that even a single shell dropped on the Korean Peninsula might lead to the outbreak of a new world war, a thermonuclear war. ‘We consider the U.S. no more than a lump which we can beat to a jelly any time,’ Ri Chol Ui, an officer of the Korean People’s Army said. The U.S. war drills and muscle flexing targeting our strategic bases have

26. Articles are sorted into the topic for which they have the highest gamma value. The gamma value reflects the probability a document matches a topic. Assigning each article to its closest topic does create complications for articles that may discuss multiple topics. However, the brief and highly focused nature of most articles means that it is rare for articles to discuss multiple topics in any level of detail.

27. I randomly sample 67 articles for this exercise.

28. See appendix for more information about the types of triggers and responses as well as their frequencies. This analysis shows that frequent triggers include joint military exercises and challenges to the North Korean nuclear program, including missile defense and arms racing. It also finds that North Korea’s threatened responses are often severe, with the majority of responses referencing total victory over adversaries, full-scale war, or nuclear strikes.

gone beyond our patience. . . If the U.S. shows even a slightest sign of preventive war, we will immediately reduce its mainland into a field of nuclear war with strategic nuclear attack means. Preventive war is not a privileged option for the U.S.” (KCNA 2017)

This section contains two very specific threats, with the triggers “a single shell dropped on the Korean Peninsula” and “U.S. shows even a slightest sign of preventive war,” and the responses “might lead to the outbreak of a new world war, a thermonuclear war” and “we will immediately reduce its mainland into a field of nuclear war with strategic nuclear attack means,” respectively. Compared to the aforementioned threat made to “Japanese reactionaries,” these threats are much more severe, suggesting that North Korea’s concerns about U.S. preemption are more intense than those about Japan.

The paragraph above also contains several more general threats, such as that “the situation on the Korean Peninsula is inching close to the outbreak of war,” “we consider the U.S. no more than a lump which we can beat to a jelly any time,” “the U.S. war drills and muscle flexing targeting our strategic bases have gone beyond our patience” and “preventive war is not a privileged option for the U.S.” These comments provide further evidence for the seriousness of North Korea’s concern in this instance and point to recurring themes in North Korean threat perception, like fear of military exercises and preventive attacks.

While the tone and timing of the threats is meaningful, note that much of the actual *content* of the threats is fairly meaningless. The implications of threatening to beat an adversary into “jelly” are uncertain, at best, and threats of “thermonuclear war” are not, in and of themselves, credible signals of the intent to use nuclear weapons. The content of individual North Korean communications is therefore not necessarily revealing truthful information about North Korean policy, although broader patterns in the language or frequency of threats could provide critical information about North Korean strategic thinking. That is, even if North Korea’s threats should not be taken literally, they should still be taken seriously.

The threatening articles identified by the LDA topic model indeed contain threats of

military action against North Korea's adversaries. However, it's also important to know how precise the LDA is. Do the articles sorted into *other* topics also contain threats? To answer this question, I randomly sample 25 articles from every remaining topic identified by the LDA to determine which North Korean threats might be missing.²⁹ Of the 225 sampled articles, 16 percent contain threats, usually as a brief addendum to an article focused on a different topic. For example, an article on 7/27/15 reads:

“Banquets were given for the participants in the Fourth National Conference of War Veterans at the People’s Palace of Culture, Okryu Restaurant, Chongryu Restaurant and the April 25 Hotel on Monday, the v-day. Attending the banquets were Kim Yong Nam, Hwang Pyong So and other officials, officials of the party and armed forces organs and officials concerned. The participants in the conference were present on invitation. The speakers warmly congratulated the veterans who took part in the conference thanks to the great trust and solicitude shown by Marshal Kim Jong Un... The army and people of the DPRK will learn from the spirit of defending the country displayed by the war veterans and thus put an end to the confrontation with the U.S. and accomplish at any cost the historic cause of national reunification and build without fail the biggest power and the people’s paradise looked up by the world on this land, they stressed.” (KCNA 2015).

While this article does contain a warning to the United States that North Korea is willing to “accomplish at any cost the historic cause of national reunification and build without fail the biggest power,” the article is primarily about celebrating North Korean veterans, and the included threat is fairly vague.³⁰

Overall, qualitative validation finds that 100 percent of the articles randomly sampled from those identified as threats by the LDA topic model do contain threats. Of the remaining articles, 16 percent contain threats. Though it somewhat under-counts the total set of threats, then, the LDA appears to successfully identify most instances where North Korea

29. The remaining topics are: Diplomacy, Culture, Economy, Historical Aggression, Ideology, Leadership, Negotiations, Reunification, and South Korea.

30. That articles in the other topics produced by the LDA rarely contain threats—and even then, the character of such threats is different from those found in the articles in the threat topic—suggests that sorting articles into the topic for which they have the highest gamma value is a reliable method for identifying threats.

makes threats. Additionally, the threats in the LDA's 'threat' topic appear to be more severe than the threats that were sorted into other topic categories.

North Korea makes threats quite frequently, with an average of 48 KNCA articles per month appearing in the threat topic. The frequency of North Korea's threats has also increased over time, with threats making up the highest proportion of KCNA articles out of all topics dealing with international relations. By 2017, more than 16 percent of all articles in KCNA contained threats against North Korea's adversaries.³¹

4 Threats as a Response to Security Challenges

4.1 Topics in North Korean Threats

Are North Korea's threats reactions to serious security challenges? Or is North Korea lashing out at every opportunity, including in response to events that seemingly pose few real consequences for the North Korean regime? If North Korea were truly issuing threats erratically, then we would expect threats to be made in response to a wide variety of events. The top words occurring in North Korea's threats, then, would span a significant breadth of topics including those which, on their face, would not seem to be especially relevant security concerns for North Korea. While threats that constitute cheap talk might regularly contain aggressive language, it would be difficult to discern from the content of the threats alone which particular events or policies were of importance to North Korea.

Instead, there are clear patterns in **Table 2** that show North Korea's threats are often associated with events and policies that we might predict would cause serious security problems for North Korea. **Table 2** presents several of the unigrams (single words) and bigrams (pairs of words) appearing most frequently in the KCNA articles that contain threats. **Table 2** shows that North Korea's most common threats occur as responses to two types of triggers: military exercises or challenges to North Korea's nuclear program.

31. See appendix for visualization and analysis of trends in topics over time.

For example, North Korean threats often discuss U.S.-South Korean joint military exercises such as the Foal Eagle, Key Resolve, Freedom Guardian, and Focus Lens series. Approximately 36 percent of all threatening articles include the term ‘joint,’ and 33 percent include ‘exercise’ or ‘exercises.’ KCNA has, for example, called U.S.-South Korean military drills “exercises for a nuclear war” that could bring “the situation on Korean Peninsula to the brink of war” (KCNA 2010). North Korea has described the exercises as a “series of dangerous hostile military acts” and called them “acts of perfidy of reciprocating the good faith with evil” that “put the DPRK-U.S. relations on the verge of a breakdown” and should make the United States “ponder over what it can do during the short last hours left” (KCNA 2012).

These severe responses to U.S.-South Korean military exercises may be justified, as the exercises improve military interoperability, can be used as cover for mobilizations or surprise attacks, and demonstrate capability and resolve (Bernhardt and Sukin 2020). That South Korean threats often reference military exercises reinforces the results of empirical work showing that actual occurrence of military exercises increases North Korean threat-making. Bernhardt and Sukin (2020) finds that joint military exercises involving South Korea result both in North Korean provocations as well as increases in negative sentiment in North Korean propaganda. It additionally shows that more dangerous exercises—such as larger exercises or those that occur closer to North Korean territory—elicit larger negative responses from North Korea. This suggests not only that exercises pose a direct threat to North Korea, but also that North Korea is responsive to nuances in that threat. Aggressive reactions to perceived challenges to North Korea’s nuclear program may also be justified, as North Korea sees its nuclear weapons as essential for the survival of its regime.

The majority of the top terms that appear in North Korea’s threats have to do with military exercises. This suggests that the use of threats coalesces around these exercises. For example, 11 of the 30 most frequent unigrams are associated with military exercises. These are: ‘war,’ ‘military,’ ‘forces,’ ‘moves,’ ‘joint,’ ‘puppet,’ ‘aggression,’ ‘exercises,’ ‘army,’

'imperialists,' and 'attack.'³²

Nuclear weapons are also a central focus of KCNA articles. Of the remaining top terms appearing in threats, 7 are associated with nuclear weapons: 'nuclear,' 'force,' 'forces,' 'threat,' 'weapons,' 'missile,' and 'policy.'³³ North Korean threats show significant concern from the regime about the security and deterrent ability of its nuclear program. The threats frequently discuss 'arms buildups,' 'arms races,' and 'missile defense' systems that could reduce the deterrent effect of North Korea's nuclear arsenal. Almost half of the threatening articles in KCNA use the terms 'nuclear,' 'nuke,' or 'nukes,' while 20 percent mention 'missile' technology, and 8 percent mention nuclear deterrence. North Korea frequently makes threats in response to concerns that it will suffer a 'preemptive nuclear' attack or other 'nuclear threats' by the United States.³⁴

Table 2 also shows that North Korea takes steps to justify its own threats, couching them in language such as 'preemptive' or 'hostile' that suggests normative and strategic assessments about foreign military activities. Examples of justifying language that appear frequently in articles where North Korea makes threats against its adversaries include: 'aggression,' 'warmongers,' 'imperialists,' 'preemptive,' 'threat,' 'provocation,' and 'reckless,' among others. These words portray the idea that North Korea's adversaries are actively preparing for all-out war against North Korea. They suggest that North Korea's adversaries might take preemptive or preventative action against North Korea. Interestingly, the focus on preemption provides not only a potential moral basis for North Korean action against

32. 'Puppet' or 'puppet army' is commonly used to reference the South Korean military's relationship with the United States. 'Imperialists' is an insult leveraged primarily against the United States (although it also appears in reference to Japan). It is meant to reference the 'aggression' and intentions for an expansionist 'war' that North Korea argues are behind U.S.-South Korean 'joint military exercises.' Note that 'moves' or 'military moves' is often used interchangeably with '(joint) military exercises.' North Korea also accuses the United States of making 'moves' towards 'war' or using 'exercises' to gear up for an 'attack.' North Korea frequently directly references U.S. and South Korean 'military forces' and 'arm[ies]' as well as its own military.

33. Many of these words can be used in a variety of contexts, such as 'force[s]' and 'policy,' but these terms often appear as modifiers for 'nuclear.' The remaining unigrams are understandably common in that they refer to major actors, places, or concepts relevant to North Korea's security. These are: 'dprk,' 'korean,' 'south,' 'korea,' 'peninsula,' 'north,' 'peace,' 'japan,' 'people,' 'world,' 'situation,' and 'asia.'

34. See appendix for more details on threats dealing with preemption.

its adversaries, but it could also potentially provide a legal one, since preemptive attacks may be considered self-defense and therefore a viable justification for the use of force under Article 51 of the United Nations Charter.³⁵ KCNA also regularly discusses ‘sanctions’ and other ‘hostile policies’ towards the North Korean nuclear program.

Table 2: Percent of Threatening Articles Containing Key Terms

Military Exercises		Nuclear Weapons	
Term	% Articles	Term	% Articles
joint	36.43	nuclear/nuke/nukes	47.02
exercise(s)	32.82	nuclear war(s)	20.49
korean puppet(s)	22.88	missile	20.05
drill(s)	21.52	preemptive/preemption/preempt	17.83
joint military	21.23	nuclear weapon(s)	12.73
military exercise(s)	18.54	test(s)	12.00
operation(s)	17.89	hostile policy/policies	11.30
staged	17.8	preemptive attack(s)	9.90
war exercise(s)	11.87	sanction(s)	8.78
foal eagle	9.43	nuclear threat(s)	8.04
military drill(s)	7.54	nuclear deterrent(s)/deterrence	7.93
key resolve	6.89	nuclear attack(s)	6.65
war move(s)	6.74	arms buildup(s)/build	6.59
war drill(s)	6.26	nuclear issue(s)	6.56
saber rattling	5.70	missile defense/defence	5.85
war maneuver(s)	5.66	preemptive nuclear	5.75
freedom guardian	3.87	nuclear strike(s)	4.39
focus lens	2.19	arms race(s)	4.33

This analysis suggests that North Korean threats are not erratic or devoid of interpretable meaning, as traditional theories might suggest, but instead that North Korea appears to be responding to (or at least regularly discussing) its real security concerns when it makes threats against its adversaries. In particular, I’ve shown that North Korea is sensitive to military exercises run by its adversaries. This relates to a critical and frequent policy debate over whether cancellation of joint military exercises would be a useful concession to North Korea. Some have argued that the United States and South Korea ought to offer to halt their joint military exercises in exchange for North Korean efforts to dismantle their nuclear

³⁵. For a discussion on the use of preemption as a legal justification for the use of force, see Sukin and Weiner 2022.

program (Bernhardt and Sukin 2020; Denmark and Ford 2018; D’Orazio 2012). Other scholars, pundits, and military officials have argued that North Korea wouldn’t actually be willing to alter its behavior in exchange for a cessation of the U.S.-South Korean exercises (Miller 2018; Selegman 2018; Stavridis 2018). Answering this question partially requires knowing whether North Korea truly sees these exercises as dire threats to its security.

North Korea has other potential ways to respond to its security challenges, such re-positioning its military assets, running its own military exercises, or using private diplomatic communications. However, these strategies are not generally not observable and they are used with far less frequency. An analysis of North Korean threats, then, provides a valuable opportunity to weigh in on this debate, demonstrating that North Korean leadership may see joint military exercises as a core security challenge.³⁶

5 Threats Communicate Resolve

While I have shown that North Korea’s threats respond acutely to its security environment, it is nevertheless possible that North Korea’s threats are strategic but do not demonstrate resolve. That is, North Korea could be utilizing major events on the Korean Peninsula in order to bluff about its level of resolve, without actually being significantly concerned about these events and without actually planning to respond to these events. If this is the case, then the issuance of threats should have little to do with North Korea’s costlier actions.

36. If North Korean leaders are concerned about military exercises, there may be alterations to the schedule of U.S.-South Korean joint military exercises—such as re-configuring field exercises as command post exercises or moving some exercises off of the Korean Peninsula—that could be meaningful concessions to North Korea (Sukin 2021). However, even if alterations to the exercise schedule could be useful for bargaining with North Korea, the exercises also have value beyond their purported deterrence role that must be weighed. For example, they serve as signals of commitment to the alliance and, more concretely, they can improve the capabilities of and the interoperability between the U.S. and South Korean militaries. See Bernhardt and Sukin (2020) for more information about which types of exercises North Korea reacts most strongly to. Because North Korea reacts differently to different types of exercises, there may be steps short of exercise cancellation that could alleviate some of North Korea’s concerns. The findings of this paper and Bernhardt and Sukin (2020) suggest that North Korea is indeed sensitive to U.S.-South Korean joint military exercises. However, because neither study can model the security environment if the exercises were to cease altogether, neither study can offer a policy recommendation to this end.

However, I argue that North Korean threats are meaningful signals of resolve. While individual threats may be cheap—and therefore abundant—North Korea should only be willing to pay the costs of taking provocative actions in response to a small number of situations. Individual threats may not indicate a plan for action, but the volume of threats should increase as the state becomes more vulnerable. As a result, periods with high volumes of threats should correlate with real security concerns and the actions designed to resolve those concerns. High volumes of threats can also actively be used to signal resolve, building up to more tangible security strategies.³⁷

In this case, we should expect North Korean threats to be correlated with—and, moreover, to precede—escalatory actions like initiating cross-border violence or testing missile or nuclear technology. These actions can deter adversaries by demonstrating capabilities as well as resolve. They are costly because they require significant resources and may backfire, provoking a response by North Korea's adversaries. As a result, these actions should be rare, but they should occur nevertheless when North Korea is most concerned about its security environment.

To test this argument, I assess the relationship between threats and subsequent provocations. To operationalize provocations, I use the CSIS Beyond Parallel North Korean Provocations database.³⁸ It contains information on 147 provocations occurring between January 1997 and December 2017.³⁹ These provocations include North Korean missile tests, nuclear tests, and other provocations, many of which are instances of cross-border violence. During this period, North Korea conducted 91 missile tests or satellite launches. These include cruise and ballistic missile launches from various platforms and with various ranges, such as two July 2017 intercontinental ballistic missile launches and a March 2003 anti-ship cruise missile launch. North Korea also conducted 8 nuclear tests or other nuclear provocations,

37. While it is possible that threats could sometimes deter on their own, thereby removing the necessity for North Korea to take subsequent actions, the fact that threats are often dismissed by policymakers, particularly in the United States, suggests this may be rare.

38. "Database: North Korean Provocations" 2019.

39. See appendix for details on the frequency of provocations over time.

such as operating nuclear fuel reactors or disclosing their uranium enrichment program. Of the 48 remaining provocations, 4 were non-violent boundary or no-sail-zone declarations, 5 were tests of rocket engine technology, and 39 were cross-border incidents including artillery fire, landmine explosions, offensive naval operations, and ground and maritime territorial incursions. Because many of these provocations are reciprocal responses to actions taken by the South Korean or U.S. militaries (e.g. returning fire) or unplanned (e.g. accidental landmine detonation), I primarily operationalize provocations by subsetting the data to include only 'major' provocations, i.e. nuclear and missile provocations, for which the North Korean government must have planned and intended the event. Such provocations are better indicators of North Korean interests and resolve than lower-level provocations that may be unintentional, unplanned, or reciprocal to adversaries' actions.

I measure threats using the number of articles containing threats that occur in a given week, and I use a linear probability model to assess the relationship between each additional threat that is published and whether a provocation occurs in that same week. More importantly, I also assess the relationship between threats and subsequent provocations that occur in the following week. I predict that North Korea will make threats leading up to and during its provocations; if this is indeed the case, there should be a positive relationship between the volume of threats occurring in a week and a provocation occurring in that week as well as a positive relationship between the volume of threats occurring in a week and a provocation occurring in the following week.

In addition, I control for the weekly volume of articles published by the North Korean regime that focus on topics other than threats. These controls assess other possible reasons North Korean propaganda might be related to provocations. For example, if the volume of articles mentioning a fully domestic topic, such as North Korean culture, leadership, bureaucracy, or ideology, were positively and significantly correlated with provocations, this could be because North Korean provocations were responding to periods of domestic unrest. Similarly, if the volume of articles discussing topics such as international negotiations or

reunification were positively correlated with provocations, this could suggest that provocations were thought to bolster such diplomatic efforts. Finally, a positive correlation between provocations and articles mentioning historical aggression against North Korea or the South Korean regime could occur if provocations were related to regional political concerns, such as influencing South Korean elections or the outcome of Japanese legislative debates. Collectively, these controls also act similarly to a placebo test. If many or all of these topics were positively correlated with provocations, we could conclude that the volume of all North Korean media increases in response to ongoing or planned provocations. This is important to test because, if it were true, it could result in a spurious correlation between threats and provocations.

I additionally include models that assesses the likelihood of a provocation occurring given the volume of threats occurring in the previous week that also control for the presence of a provocation in the previous week. Since provocations may be likely to portend additional provocations, this model checks that threats are indeed indicative of provocations, even when accounting for instances in which a number of provocations occur in quick succession.

Finally, I include models that address variance in threats over time. One model incorporates a linear time trend, and one includes a year fixed effect. Given that both the rates of threats and provocations have increased over time, it is important to account for time-based variation in this analysis.⁴⁰ The linear time trend addresses this concern. The inclusion of a year fixed effect accounts for any factors that might vary across years, such as the leadership of the North Korean, South Korean, and U.S. governments. This model indicates whether—within the same year—increases in the volume of threats are indicative of higher likelihoods of provocations.

Table 3 shows that the number of threats per week is positively and significantly correlated with the likelihood of a missile or nuclear provocation occurring in the same week. Each additional threat that occurs in a week is correlated with an increased likelihood of a

40. See appendix for details on the frequency of threats and provocations over time.

Table 3: Effect of Threats on Missile and Nuclear Provocations

	<i>Provocation Timing:</i>						
	Same Week	Next Week	Same Week	Next Week	Next Week	Next Week	Next Week
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Threats	0.007*** (0.001)	0.006*** (0.001)	0.007*** (0.001)	0.006*** (0.001)	0.004*** (0.001)	0.003*** (0.001)	0.002** (0.001)
Historical Aggression			-0.003* (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.0003 (0.002)	0.001 (0.002)
Negotiations			-0.002** (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.001 (0.002)
Reunification			0.0005 (0.001)	-0.0004 (0.002)	-0.001 (0.001)	-0.001 (0.001)	0.0002 (0.002)
Bureaucracy			-0.002** (0.001)	-0.001* (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.0001 (0.001)
Culture			0.0004 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.003* (0.002)	-0.001 (0.002)
Ideology			0.002 (0.001)	0.0001 (0.001)	-0.0002 (0.001)	-0.002 (0.001)	-0.002 (0.001)
Leadership			0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.001* (0.001)	0.001 (0.001)
South Korea			0.002** (0.001)	0.002** (0.001)	0.002* (0.001)	-0.0001 (0.001)	-0.001 (0.001)
Provocation (Same Week)					0.167*** (0.031)	0.130*** (0.031)	0.086*** (0.031)
Year						0.012*** (0.002)	
Year Fixed Effect	No	No	No	No	No	No	Yes
Constant	-0.002 (0.012)	0.013 (0.012)	-0.010 (0.023)	0.018 (0.024)	0.020 (0.023)	-23.086*** (3.397)	0.017 (0.115)
Observations	1,101	1,101	1,101	1,101	1,101	1,101	1,101
R ²	0.065	0.044	0.103	0.068	0.092	0.129	0.163
Adjusted R ²	0.064	0.043	0.096	0.060	0.084	0.120	0.138
Residual Std. Error	0.258 (df = 1099)	0.264 (df = 1099)	0.254 (df = 1091)	0.262 (df = 1091)	0.258 (df = 1090)	0.253 (df = 1089)	0.251 (df = 1068)

Note:

*p<0.1; **p<0.05; ***p<0.01

nuclear or missile provocation occurring that week by 0.7 percentage points (Models 1 and 3), regardless of whether articles on other topics are accounted for. This indicates a link between North Korean threats and provocations.⁴¹

Importantly, it is not only the case that the number of threats made by North Korea in its state media is correlated with whether or not a provocation takes place that week, but also that threats can be used to predict *future* provocations. In a bivariate regression (Model 2), every additional threatening article that occurs in a week is correlated with an increased likelihood of a missile or nuclear test taking place the following week by 0.6 percentage points. A week that sees an increase of threatening articles by one standard deviation (9.45 articles) results in a 5.7 percentage point increase in the likelihood of a missile or nuclear test occurring the following week.⁴² Given the immense significance of actions such as nuclear and missile tests, this result has important political implications. An improved ability to predict North Korean nuclear activities could help inform U.S. and South Korean responses to high-tension periods and could allow these states to better prepare for North Korean nuclear actions.

The positive correlation between the number of threatening articles in a week and missile or nuclear tests occurring in the following week continues to be significant after controlling for other types of articles (Model 4) as well as the occurrence of a different major provocation in the same week as the threats are released (Model 5). This effect also holds with the inclusion of a linear time trend (Model 6) or year fixed effect (Model 7). One additional threat occurring in a week increases the probability of a missile or nuclear test occurring in the following week by between 0.2 and 0.6 percentage points. This means that an increase of one standard deviation in the number of threatening articles released by KCNA in a week increases the likelihood of a missile or nuclear test occurring the following week by between 1.9 and 5.7 percentage points. Weeks with two standard deviations more threats are between

41. See appendix for more details on the co-occurrence of threats and provocations.

42. The number of threats per week ranges from 0 to 91, with a mean of 11 threats and 5 and 14 threats as the first and third quartiles.

3.8 and 11.3 percentage points more likely to be followed by missile or nuclear tests.⁴³ While these effect sizes are not especially large, the significance and rarity of provocations involving nuclear or missile technology suggests that these effects are nonetheless important.

None of the article topics other than threats have a consistently significant relationship to provocations, and some topics—namely reunification and ideology—are never significantly linked to provocations. This suggests that it is not the volume of North Korean media, but its threatening content, that drives the relationship between threats and provocations. Moreover, there is no consistent evidence suggesting that North Korea's provocations are strongly related to conditions of domestic unrest, international political goals, or regional political concerns.

In some models, articles discussing international negotiations, historical aggression by North Korea's adversaries, North Korean culture, and North Korean bureaucracy are negatively correlated with provocations. Only the correlations between articles on bureaucracy and provocations is significant in more than one model. However, this effect disappears when provocations in the same week or time trends are taken into account.

In some models, articles discussing North Korean leadership and the South Korean government are positively associated with provocations. This could indicate that North Korea praises its leaders to drum up domestic support during provocations or that North Korea uses provocations as opportunities to criticize the South Korean government. However, neither correlation holds when year fixed effects are taken into account (Model 7), and the correlation between provocations and the topic covering the South Korean regime is also not significant when accounting for a linear time trend. Further investigations into these topics would be needed to uncover the precise link between these articles and North Korea's provocative behaviors.

These findings hold when using the full provocation dataset, rather than subsetting to

43. See appendix for predicted probabilities.

missile and nuclear provocations.⁴⁴ They also hold when using Newey-West standard errors,⁴⁵ which help address the serial correlation that occurs in time-series data.⁴⁶ Further robustness tests demonstrate that the number of threatening articles on a given day is also positively correlated with the likelihood of a missile or nuclear test occurring on the following 1, 4, 7, and 10 days.⁴⁷

These tests provide evidence that threats portend provocations. Importantly, threats are not only correlated with provocative actions, but they also precede these actions. North Korea may be using the less expensive tool of threats to indicate resolve in the hopes of deterring adversary behaviors; if this fails, North Korea then has the option of initiating a provocation.

However, this does not mean that threats *cause* provocations. Instead, vulnerability—particularly to external threats—encourages North Korea to seek to establish deterrence by bidding up the risk of conflict. This effort involves escalating aggressive propaganda, and, if that proves insufficient, engaging in escalatory provocations. Although threats are not the cause of provocations, their sequential order has important political implications. It reveals that North Korean propaganda may provide meaningful information about the regime's perceived vulnerability and may indicate that plans are being drawn for potential escalatory behaviors.

For example, **Figure 1** depicts the average number of threats per day at daily distances from a missile or nuclear provocation. The figure illustrates how North Korean threat production ramps up in anticipation of provocations. On average, North Korea issues 3 threats per day, or 28 threats total, in the 10 days prior to a provocation. In comparison, North Korea issues an average of 18 threats in the period between 50 and 60 days prior to a provocation. Within the month prior to a provocation, threat production peaks a few days prior

44. See appendix.

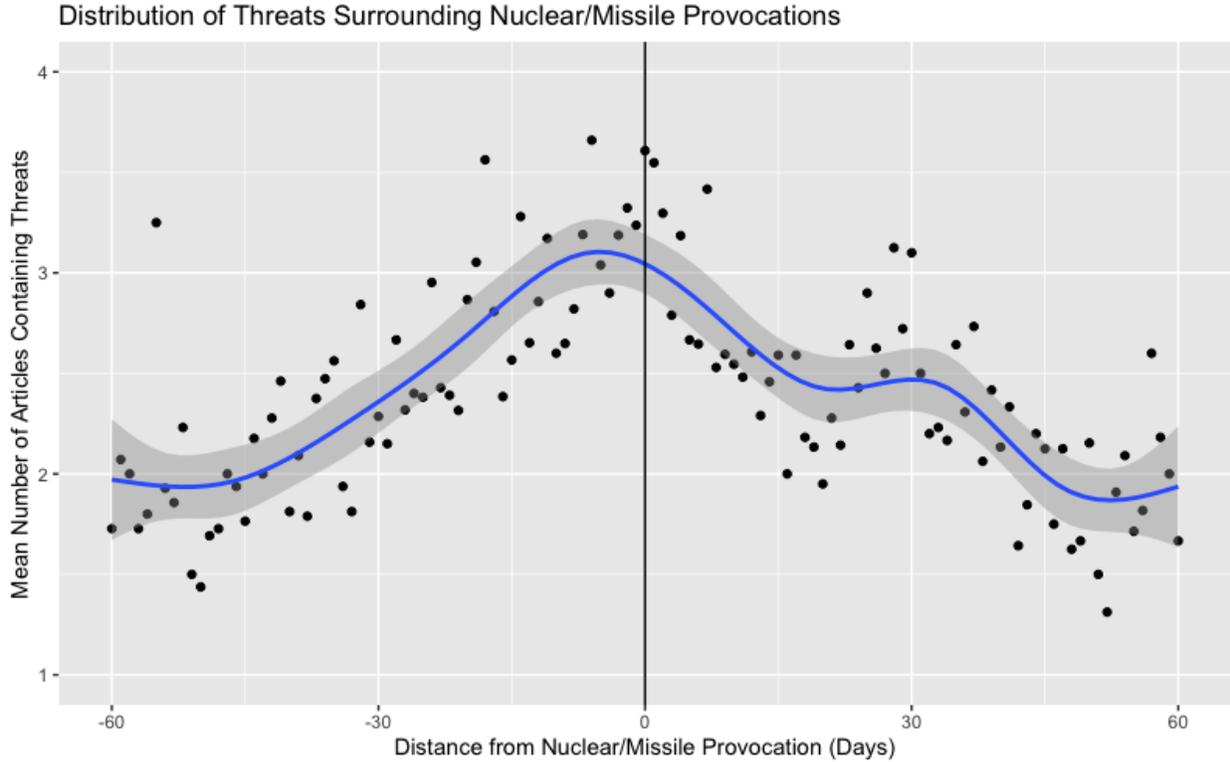
45. The Newey-West standard errors increase the significance of threats in most models, so normal standard errors are presented here, since they pose a harder test for my theory.

46. Because of the inclusion of the year fixed effect, Newey-West standard errors are not applied to Model 7.

47. See appendix.

to a provocation. After provocations, occur, the rate of threats then declines. On average, a second nuclear or missile provocations occurs after 108 days.

Figure 1: An increase in the rate of threats precedes provocations, then threats decline.



The robust finding that threats are correlated with subsequent provocative actions contradicts existing empirical work on this question (Richey 2019). It also provides evidence against both the theoretical consensus that North Korean threats are irrational or uninterpretable *and* the view that individual crisis communications can reveal truthful information about capabilities and resolve. Instead, while individual communications reveal little, patterns in the content and frequency of North Korean threats reveal important information about North Korean preferences.

As the number of threats increases, so too does the likelihood of a provocation. Given the rarity and severity of provocations, this pattern is important and could potentially help policymakers identify when provocations are more or less likely to occur. With this information, policymakers could prepare responses or take proactive steps to dissuade or deter

North Korea. While there is a noisy background of threats, due to North Korea's essentially constant production of threatening propaganda, changes in the volume of threats correlate with subsequent provocations.

6 Conclusion

For many regimes and organizations, outsiders have little information about their internal politics and the preferences of their leaders besides what can be gleaned from messages released by the entities themselves. Often, such messages have been dismissed as unreliable 'cheap talk.' This paper offers a new framework for how such messaging can be understood and analyzed.

Importantly, this approach does not argue that threats are 'costly' but instead recognizes that individual messages may often be intentionally misleading. Threats may actually be bluffs, condemnations may really be distractions from domestic conditions, and expressions of deep concern may simply be opportune ways to advance other policy agendas. Nevertheless, studying the form of propaganda—in particular, by examining propaganda's frequently mentioned topics and determining fluctuations in its volume—can build an understanding of the perceptions and policies of the messenger.

Applying this approach to North Korean propaganda—specifically, the threats made by the North Korean regime—illuminates North Korea's strategic thinking about its security environment. Although specific, individual threats by North Korea are unlikely to be carried out, analysis of broad patterns that occur in the content and frequency of North Korean threats can help identify the logic of North Korean threat perception and point to the factors that represent North Korea's most significant security concerns.

The analysis presented in this paper reveals that North Korea is primarily concerned about two types of threats. The first is the threat of attack that is inherent to military exercises; the second encompasses a variety of potential challenges to the security and effec-

tiveness of the North Korean nuclear deterrent. The systematic use of threats to respond to these high-priority security concerns suggests that North Korean threats provides clues as to what security issues North Korean leaders find most critical.

This paper finds that broad patterns in the content of North Korean threats have real implications for understanding North Korea's threat perception. The analysis of threats provides insights into the policies and circumstances that North Korea perceives as increasing its vulnerability. With few sources of information about the attitudes and inner workings of the North Korean regime, this work suggests that propaganda can play an important role in investigating how North Korea considers its own security environment. In other closed regimes and organizations, systematic studies of messaging—even when 'extreme'—may play a similarly enlightening role.

This research also finds that threats are associated with subsequent provocative actions. This paper finds that increases in the number of threats made by North Korea are correlated with increases in the likelihood that North Korea subsequently undertakes major provocative actions such as missile or nuclear testing. This contradicts the expectations and findings of the "cheap talk" approach, which argues that because rhetoric is not costly, it does not provide real information about preferences, capabilities, or intentions. It also contradicts the opposing view that individual crisis communications (by virtue of audience costs, effects on reputations, or diplomatic signalling) provide reliable information about the messenger's capabilities and plans.

These findings also weigh in on the debate over whether North Korean behavior and rhetoric is rational. This debate has important political implications and has occurred at the highest levels of U.S. policy. For example, recent U.S. presidents' positions on the nature of North Korea have fallen on different sides of this ongoing debate. Jihwan Hwang (2004) writes that the Bush Administration viewed "North Korea as an irrational revisionist state," due to its "rogue behavior," while the Clinton Administration "felt that North Korea could be understood through the security dilemma," and that diplomacy was thus the best way

forward (Hwang 2004). At the time, the Clinton Administration's view was the exception, not the rule. A 1994 *Security Dialogue* article by Denny Roy calls the characterization of North Korea as irrational an "unquestioned assumption among Pyongyang's adversaries" (Roy 1994).

The Obama Administration's stance on the value of negotiations with North Korea has been described as similar to that of the Clinton Administration; the Obama-era 'strategic patience' policy was oriented towards a combination of negotiations and economic sanctions (Olsen 2010). This perspective suggests an underlying view about the rationality of the North Korean regime, as well as a belief that economic instability would crucially threaten North Korean elites. However, some have questioned whether strategic patience was truly a negotiations-forward policy, saying that it more closely matches so-called 'take-it-or-leave-it' diplomacy (Choi 2015). Stephen Walt describes this tactic as "a regrettable tendency to issue demands and make threats but not to engage in genuine diplomacy" (Walt 2014). In this perspective, the Obama Administration did not sufficiently understand North Korean strategic thinking, despite recognizing—on some level—the rationality of its behavior.

The Trump Administration's wavering approach to North Korea reflected the wide variety of arguments made about the nature of the North Korean regime. President Trump alternated between calling North Korea "mad" and, at other times, describing Kim Jong Un as a strong and rational leader interested in economic growth and reintegration with the international order (Dombrowski and Reich 2017). Yet the Trump Administration's negotiations with North Korean leadership floundered, and North Korea continued to develop its missile and nuclear programs. This suggests the United States continues to lack sufficient understanding of North Korean policies and strategic priorities. It remains to be seen whether this pattern will change during the Biden Administration.

This research suggests U.S. policy towards North Korea should keep in mind the rationality of North Korean behavior. In particular, North Korean rhetoric may help analysts predict and understand North Korea's behavior. This may, in turn, allow policymakers to

better prepare for and respond to North Korean provocations as well as to consider what policies might strategically alleviate North Korea's concerns about its security environment.

Policymakers may be able to more deeply understand North Korea's strategic priorities and resolve by looking to previously under-utilized sources of information about North Korea, such as state news. North Korea's rhetoric—in particular, its threatening rhetoric—contains valuable information about when North Korea feels threatened. For example, this paper presents a number of events and policies—including military exercises, the development of missile defense technology, and other challenges to the North Korean nuclear program—that cause North Korea to issue threats to its adversaries. These may be fruitful focus areas for diplomatic strategies with North Korea. Furthermore, not only is North Korea acting rationally in its threat-making, but it also recognizes the interaction between diplomacy and security. In several cases, North Korean media discusses diplomatic options as or in response to security concerns and, overall, its proposals for diplomacy increase when the presence of external threats is low. This suggests that bargaining over activities that North Korea finds threatening may create space for diplomatic engagement.

There are several questions about North Korean threats that remain unanswered and which further work ought to more deeply investigate. For example, future studies could examine how patterns in North Korean threats have changed across different North Korean, South Korean, and American administrations. Researchers could use North Korean propaganda to further examine responses to specific events such as developments in missile defense or U.N. Security Council Resolutions condemning North Korean actions in order to understand in more depth North Korean thinking about these particular issue areas. Future research could also utilize the Korean-language KCNA publications to understand the differences between messaging targeted to domestic versus international audiences, or it could explore other non-English articles such as those in Spanish and Russian.

Additionally, while this paper has laid out a theory regarding how the volume of threats relates to the messenger state's resolve, it has tested this theory only in the North Korean

context. For many other states, particularly those with highly insulated leaders, studying patterns in the issuance of threats may illuminate details about threat-perception, resolve, and policy-making that are be difficult to obtain using other sources. This approach may also be able to shed light on the internal workings of insulated non-state actors that make threats, such as crime syndicates and separatist, militant, and terrorist organizations. Although the study of state and non-state actors' rhetoric has often been sidelined, this research suggests one way in which scholars ought to pay more attention to these sources.

This research suggests the analysis of threats is useful for policy-making because these threats signal resolve, even when they come from states or leaders that are highly insulated. There may therefore be benefits to renewed study of the frequently aggressive rhetoric between Israel and its Arab neighbors, from Iran to Israel and the United States, from Russian state-owned news sources, and from other closed political actors. The threatening rhetoric contained in these sources may reveal important strategic information about the priorities and intentions of major actors on the international stage.

7 References

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