

Ritualization and Escalation in Territorial Disputes*

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Abstract

Why are some territorial provocations more escalatory than others? Territorial disputes are the most likely cause of war. Yet, some reoccurring provocations between states with territorial disputes neither entrapped politicians in wars nor spiraled the situation out of control. While existing literature on dispute escalation has focused on *case-varying* conditions such as regime type, geography, and international institutions, I introduce a new theory that focuses on *time-varying* interactions between the same pair of states, and bring further clarity to the question by studying the stabilizing effect of “ritualization.” Using the Dokdo/Takeshima issue between South Korea and Japan as my primary case, I leverage an event data analysis and a conjoint survey experiment. The results show that if a provocation has been regularly repeated by the actors—a pattern I term “ritualized”—its effect on future conflicts will diminish, and observers will become less likely to feel threatened. The implication of this finding suggests that regions with ostensible hostilities between rivalries might not be as dangerous as they appear to be, and the United States should formulate its policy based on the *pattern* instead of the *presence* of provocations alone.

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Introduction

Since the passage of an ordinance in 2005, the Shimane Prefecture in Japan has held ceremony every February 22 to celebrate the *Takeshima Day*. On this date, Japanese officials and parliamentary members arrive from Tokyo, deliver speeches, and restate their claims over the group of islands effectively controlled by South Korea (known as Takeshima by the former and Dokdo by the latter). These claims are then typically followed by protests and refutations from South Korean diplomats and activists, while South Korean politicians have issued threats to “fight to the end” if Japan ever attempts to take the islands. The political ritual—entering its fourteenth anniversary—marks a recent addition to the recursive pattern of hostilities in a contradictory relationship plagued by a territorial dispute that has remained unsolved for decades. This ritual is not an isolated instance, either. Since 1981, people in Hokkaido, Japan have been commemorating “Northern Territory Day” in February and holding summer meetings at Cape Nosappu denouncing Russia’s occupation of the four northern islands, territory it has held since the end of WWII. More recently, ritual practices reached Ishigaki City at the southern end of the Ryukyu Island chain, where citizens and officials have commemorated “Reclamation Day of Senkaku” since 2010.

These observed hostilities—specifically, sovereign nations provoking territorial disputes with other sovereign nations—are puzzling because researchers and policy makers equivocally assess the danger associated with such provocations. On the one hand, many researchers and policy-makers are deeply concerned about the possibility of escalation. For them, “tit-for-tat escalations” can rapidly deteriorate a bilateral relationship (Pollmann 2015). As nationalist sentiments tend to pressure the leadership into a hawkish position,¹ policy-makers fear that the “unpredictable situation” between Japan and South Korea might escalate into further disputes, and finally spiral out of control.² On the other hand, if provocations

¹ This is particularly the case for South Korea: To many South Koreans, the Takeshima/Dokdo matter is not simply an island dispute, but a national symbol and reminder of Japan's historical aggression (Nakajima 2007, 1).

² Koo (2009) categorizes three waves of escalations of the Dokdo/Takeshima dispute. In 2006, an unpredictable situation of confrontation between two Japan Coast Guard research ships and 20 South Korean Coast Guard ships would have happened without the extra time for diplomacy due to bad weather condition. Right after the event, one Japanese Foreign Ministry official said that: In a situation in which Korean coast guard ships and Japanese research ships might encounter one other in that area, the events could become out of the control of both parties (Nakajima 2007, 4).

take place every year with almost identical patterns and outcomes, they will likely not be seen as provocative. Consider the sequence of events occurring every February in Japan: on Takeshima Day every year, the public ceremony incites South Korean protests, which culminate in Japan's arresting of Korean activists. Although as isolated incidents such events might seem like politically charged "tit-for-tat escalations," their annual repetition renders these incidents as predictable and ceremonial.

In this article, therefore, I argue that ritualized hostilities are in fact part of the maintenance of the relationship between countries with territorial disputes. Instead of being a destabilizer that increases uncertainty and therefore the chance of unintended escalation, these events stabilize adversarial tensions between disputing countries by creating predictable patterns of interaction and generating perceptions of mutual understanding; all the while, the repetition of ritual provocation lowers the audience's perception of threat. As a useful analogy, if one views a territorial dispute as a pot of boiling water on the stove, the argument presented here is that ritualized hostilities are the equivalence of regularly letting the steam off. Although we still observe provocations between countries with territorial disputes, these provocations are qualitatively different from non-ritualized provocations, which are not anticipated by the audience and thus tend to make the situation volatile.

Since ritualization arises through repetition, no provocations are *ex-ante* ritualized before actors bring them into practice. This implies a life cycle of ritualization: while provocations are most destabilizing when they first occur, their effects will gradually diminish through repetition. I test this hypothesis using a dataset of South Korea-Japan bilateral events. While it is challenging to quantify ritualization and study its effect, Takeshima Day—the territorial ceremony which has taken place around on the same day each year with highly similar patterns—provides an opportunity to learn about ritualization by comparing their destabilizing impacts on South Korea-Japan relations as they became more ritualized. While the inaugural Takeshima Day was associated with more future conflictual events between the two countries, I find the effects of later ceremonies to be weaker. To explore the intervening psychological mechanisms, I then

observe ritualization's individual-level impact through a conjoint experiment in Japan. In the experiment, participants were asked to compare the threat level of two territorial provocations against their country with randomized characteristics. All else being equal, participants are less likely to view ritualized provocations as threatening. Together, the findings show how *interaction patterns* can influence state behaviors and individual perceptions in a way that cannot be captured by studying *interactions* alone.

These results are substantively important for several reasons. First, they provide an empirical test for previous work on interaction patterns in the international security literature. Political scientists have long argued that countries with disputes can establish a “normal interaction range” through their interactions (Azar 1972) and that “idioms of military actions” can form even between adversaries (Schelling 2008). However, few research directly tests the effects of such repetitions. The results also expand to the literature on evolutionary cooperation. While cooperation theorists studied the merits of patterned interactions such as “tit-for-tat” as survival strategies (Axelrod 1984), this article shows how these strategies can also influence actors' own understanding of the situation. Finally, the results show the importance to study the temporal dimension of social processes in international politics. While observers might view ritualized hostilities as dangerous, unstable, or volatile when considering it as a frozen moment in time, when we consider the same set of events as part of a process unfolding over time, the same evidence might provide indications of stability (see Pierson 2004).

Theory of Ritualized Hostilities

The clash between states over disputed territory³ is considered by many scholars the most important underlying cause of war (Heldt 1999; Holsti 1991; Vasquez 1993) and is one of the enduring features of international politics (Huth 1996). Following Fearon's (1995) rationalist framework, scholars argue that

³ A territorial dispute involves a disagreement between states over where their common homeland or colonial borders should be fixed or one country contesting the right of another country to exercise sovereignty over some of all of its homeland (Huth 1996, 19). While some scholars differentiate between a “territorial dispute” and a “territorial claim” based on whether active threats and fighting exists (Gibler 2012), this dissertation follows the definition by Huth (1998). For more discussion, see Gibler (2012, 19).

“sacred space” (Hassner 2003) and territorial interests (Toft 2006) can be effectively *indivisible* and subsequently prevent rational state actors from reaching a peaceful bargain to avoid wars (Hensel and Mitchell 2005). Scholars have investigated how baseline conditions such as geographical characteristics (Goertz and Diehl 1996; Hensel 1996), domestic regime type (James, Park, and Choi 2006; Lektzian, Prins, and Souva 2010; Park and James 2015), and international institutions (Schultz 2014; Simmons 2002) can explain territorial dispute outcomes.

This article takes the literature in a new direction by examining the role of ritualization. My argument starts with the observation that in hostile international relationships, actors have sometimes developed particular patterns in their interactions. While such interaction patterns remained understudied in research on rare and long-term outcomes (such as dispute resolution) and rare but highly consequential international events (such as wars), I argue that these patterns have important policy implications because variations in interaction patterns can lead to changes in international tension (O’Neill 1999), impacts on international atmosphere (Wright 1957), and alter friendship between governments (Klingberg 1961). Even without causing wars, territorial provocations has led to flight cancellations, disturbance of economic activities, halts to people-to-people exchange, and threats of an all-out diplomatic war between major allies of the United States. Focusing on ritualization also provides additional insight in cases where baseline conditions do not vary significantly over time.

In the most general sense, ritualization involves making something “into a ritual by following a pattern of actions or behavior”⁴ In a non-religious context, it is most famously developed by sociologist Erving Goffman’s *Interaction Ritual* (1967) and by Murray Edelman in the field of political science. Edelman asserts that the political form of rituals chiefly influences states of mind. “It facilitates social interaction, mutual role-taking, and a sharing of perspectives among leaders; it thereby encourages cooptation” (1971., 22). To him, the dramatic labor-management relations in the U.S. exemplifies “an

⁴ See New Oxford American Dictionary. For the development of “ritualization” as an academic terminology, see Bell (1992, 88).

advanced stage of the ritualization” (ibid., 142) with a tacit cooperation between political adversaries under the guise of antagonism, an interaction he calls the “dramaturgy of conflict”:

Analysts of strikes notice that they often occur when inventories are high; for managements then have added reason to take a strike. In this situation the strike is in substantial measure a substitute for layoffs that would occur anyway. As just noted, it serves important functions for the union leadership as well. Seen now as part of a crisis tactic for winning an economic or status victory rather than as a simple deprivation, the hardship buttresses support for the union even while it helps resolve a management dilemma (ibid., 149).

The example highlights how, instead of aiming at changing the status quo, the particular patterns and regular occurrences of conflictual or even violent event can serve a *performative* and *communicative* purpose. Performative because the strike in this example is not conducted with the ostensive goal of changing management policy, but to maintain support for the union. It is also communicative because the timing of conflicts is decided in such a way that it is difficult for the management officials to misunderstand the performative component of the strike. Hence, through repetitive labor-management conflicts every year, the two adversaries come to a point at which their exchanges of hostilities and tacit mutual understanding coexist. Interestingly, this episode is almost a parallel of the U.S.-Japan annual defense budget debate in the 1960s and 70s. According to Campbell, although growing Japan’s defense budget to 6 or 7 percent in a given year is substantively trivial, the issue is “symbolically important as a demonstration of both the disagreement and the underlying agreement on defense” (1993, 47). Similar to Edelman’s conclusion, Campbell states that the debate become highly ritualized and demonstrate how conflict can be functional for maintenance of stable relations.

Building on earlier discussions of reoccurring hostilities and dispute escalation, I present a theoretical argument that a territorial dispute will not further escalate when the hostilities being exchanged are *ritualized*. To avoid ambiguity, the term ritualized here simply implies that (1) there are multiple reoccurrence of hostilities between disputed parties and (2) the reoccurring hostilities share a similar pattern such as the timing

of events, the content of issued statements, and the outcome of each iteration. In addition to the “military game” in the relatively peaceful U.S.-Japan relations, it is also possible to find some conflicts to be ritualized even in the context of war. For instance, during the Korean War, despite intensive fighting between adversarial troops, as long as the U.S. did not bomb across the Yalu River, the Chinese did not attack American ship at sea, bases in Japan, or the vital area of Pusan (Schelling 2008, 127). Also, during the Second Taiwan Strait Crisis in 1958, the Chinese People’s Liberation Army have developed a pattern of only shelling Quemoy, the offshore island of Taiwan, on odd days. Once again, there was never an agreement in any form between Taipei and Beijing to limit the use of force, lower unnecessary casualties, or allow logistical support to get in and out safely. The pattern had persisted for 20 years until the United States normalized its diplomatic relations with China in 1978 (Chen 2016).

I argue that ritualized hostilities as such are less likely to escalate due to two psychological mechanisms: the development of a perception of “mutual understanding” and the psychological process of habituation in the wake of repetitive shocks.

Perception of “Mutual Understanding”

First, ritualization helps states maintain a stable image of its adversary. Living under anarchy and perennial uncertainty of their adversary’s intention or resolve, states tend to develop an image of others and their intentions (Jervis 1968, 454). As hostilities with similar patterns occur and reoccur, the level of uncertainty and psychological stress of policy-makers and observers decrease and prevent a dispute from unintended spirals. Human beings tend to use heuristics and analogical reasoning to reduce cognitive burdens during complex situations (Khong 1992) and identifying patterns in likely random events (Gilovich 1991). “Bomb once across the Yalu, and the enemy will expect more bombs across the Yalu the next day; keep bombs this side of the Yalu for several months, and the enemy will suppose that, though you may change your mind at any time, the odds are against your bombing north of the Yalu tomorrow” (Schelling 2008, 132). Although this tendency could potentially lead policymakers to draw

faulty comparisons or to ignore critical evidence that defies their cognitive framework, it can stabilize an otherwise hostile stand-off in a ritualized context by *biasing* both sides towards a common understanding. In other words, ritualization can psychologically ease the policymaker's concern over the uncertainty of the adversary's intention or resolve.

Habituation through Repetitive Shocks

As a series of hostilities gradually become *expected*, they are expected to become less escalatory in the long term. Even if some hostilities are initially destabilizing, as similar patterns reoccur, their shocks may become less “surprising” and their escalatory effect diminishing due to the psychological process of “habituation” (Thompson and Spencer 1966). Humans can become habituated to natural stimuli such as heat and cold (Zimny and Miller 1966), or to new information such as in language acquisition. However, we are also able to become habituated with social phenomenon such as violence (Mangelsdorff and Zuckerman 1975) and wars (Ziferstein 1967). Among the ten common characteristics summarized by Rankin (2009), below are five most relevant ones:

1. Repeated application of a stimulus results in a progressive decrease in some parameter of a response to an asymptotic level.
2. If the stimulus is withheld after response decrement, the response recovers at least partially over the observation time.
3. After multiple series of stimulus repetitions and spontaneous recoveries, the response decrement becomes successively more rapid and/or more pronounced
4. Other things being equal, more frequent stimulation results in more rapid and/or more pronounced response decrement, and more rapid spontaneous recovery
5. Within a stimulus modality, the less intense the stimulus, the more rapid and/or more pronounced the behavioral response decrement. Very intense stimuli may yield no significant observable response decrement.

For instance, in the annual diplomatic battle between Japan and South Korea over the “*Takeshima Day*,” even if each commemoration induces the same objective level of instability, the shock of such event

and its perceived threats is expected to diminish due to its repeated performance on the same population.

Overall, two observable implications follow from the theoretical discussion:

H₁ (Bilateral level): the effect of “Takeshima Day” on future Japan-South Korea bilateral conflicts is expected to be negative at first, but gradually diminishes as iteration increases.

H₂ (Individual level): given a territorial provocation, a respondent’s threat perception of the adversary is expected to be lower if the provocation is ritualized.

Research Design

To test the first hypothesis—the escalatory effect of the same territorial ritual diminishes as it becomes ritualized through reoccurrence with a consistent pattern, I use a sub sample of ICEWS event data that contains all bilateral events between South Korea and Japan. In the data set, each row contains a "source country," a “target country” and a CAMEO code that records the event type.⁵ The distribution of event count over year is shown in Figure 2.⁶ While the Japan-South Korea disputes never escalated into a full-scale military conflict, the dispute has a significant impact on the two countries’ conflictual events “short of war.” To capture conflicts on both a low level and a high level, I recode the events to construct two dependent variables: the number of verbal conflicts and material conflicts between Japan and South Korea on a given day as shown in Figure 3.⁷

⁵ The CAMEO (Conflict and Mediation Event Observations) coding scheme is developed by Schrodt (2007). For instance, a code of 030 indicates the source country “expressed intent to cooperate” with the target country whereas 042 indicates the governmental officials in the source country “made a visit” to the target country.

⁶ because ICEWS events were parsed out from English newspapers across the world, it is possible that the huge increase of total events in the 2000s compared to the 1990s is due to the growth of international media and their capability to cover more news rather than the interaction density between the two countries themselves. To alleviate this concern, events that occurred before January 1 of 2000 are dropped.

⁷ To construct the two variables, I recode the CAMEO coding scheme according to the criteria below. This decision rule is consistent with the Phoenix Project’s “QuadClass” approach that allows a researcher to presents a higher level of aggregation for the CAMEO categories (<http://phoenixdata.org/description>). After the recoding, I transform the data so that each row contains the number of verbal and material conflicts that took place between Japan and South Korea on a given date.

Figure 2. Japan-South Korea Bilateral Event Grouped by Year, 1996-2015

Source: World-Wide Integrated Crisis Early Warning System (ICEWS)

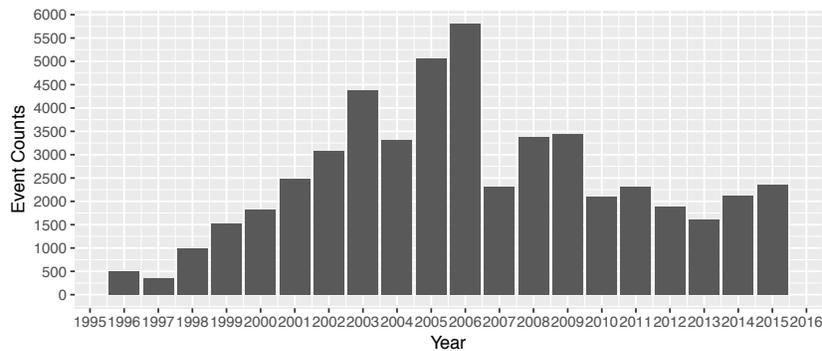
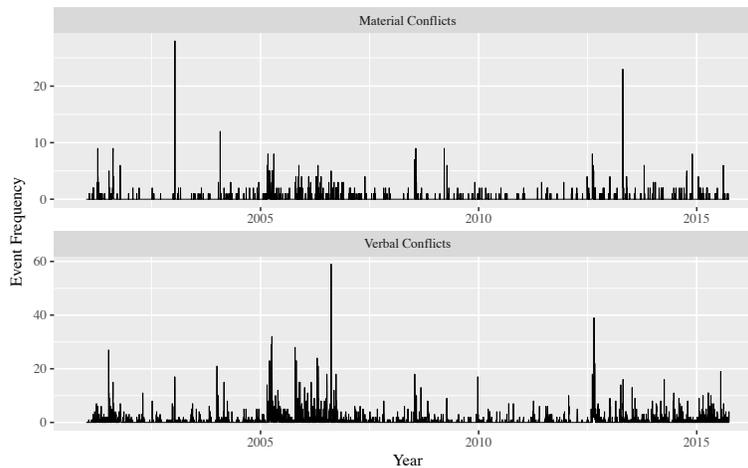


Figure 3. Japan-South Korea Verbal and Material Conflicts, 2000-2015



I test the effect of each “Takeshima Day” separately by treating them as different *shocks* to the bilateral relationship that took place on the same day (February 22) between 2005 and 2015.⁸ Under this setup, it is possible to test whether later commemorations indeed have a smaller escalatory effect and do not lead to more conflicts. In addition, I include a non-ritualized hostile event: South Korean president Lee Myung-Bak’s historical visit to the disputed islets on August 10, 2012 as a base-line comparison. To model time dependency and alleviate the concern that the commemoration simply occurred when the bilateral

⁸ Whereas the first independent variable indicates the passage of the ordinance to commemorate the Takeshima Day in Japan, the rest record the territorial rituals from its inauguration in 2006 to its tenth anniversary in 2015. Each Takeshima Day is a binary variable with values of either 0 or 1. In time series terminology, I specify them as “pulses” with the length of 90 days starting from February 22 of each year to take into account both the events that occurred during the ceremony and the ensuing diplomatic backlash in the following weeks. Technically, it means in a given year after 2005, that every day before February 22 is coded as 0. The first 90 days that begins on February 22 are coded as 1 and the remainder of the same year is coded as 0 again.

relationship of South Korea and Japan also happened to be improving, it is necessary to model time dependency in order to de-trend the data. While I leave most of the technical details such as model selection in the *Appendix*, the time series models I use for this test can be expressed as below.⁹

Verbal Conflicts

ARMA(2,1)

$$y_t = \alpha + \delta_1 y_{t-1} + \delta_2 y_{t-2} + \sum_{i=1}^{12} \beta_i X_{it} + \varepsilon_t$$

$$\delta \in (0,1), \varepsilon_t = \gamma_1 \varepsilon_{t-1} + \nu_t$$

Material Conflicts

ARMA(1,2)

$$y_t = \alpha + \delta y_{t-1} + \sum_{i=1}^{12} \beta_i X_{it} + \varepsilon_t$$

$$\delta \in (0,1), \varepsilon_t = \gamma_1 \varepsilon_{t-1} + \gamma_2 \varepsilon_{t-2} + \nu_t$$

To test the second hypothesis—a territorial provocation is less likely to be perceived as threatening when it is ritualized, I fielded an online survey experiment in the summer of 2018. The experiment is fielded on a sample of 250 Japanese adults who participated voluntarily through the online platform *Yahoo! Crowdsourcing*. An experimental design is useful for this study in two ways. First, it provides additional empirical evidence from an carefully-controlled environment to the event-data approach introduced above. Even if the escalatory effect of *Takeshima Day* is found to be decreasing with each repetition, the comparison is made among provocations taking places at different time and under varying political circumstances and identification of causal effect can be difficult. Moreover, by measuring respondents’ threat perception directly thorough the survey, the psychological assumption that ritualization decreases escalation through lowering threat perception can be tested.

At the beginning of the experiment, respondents are presented with an introduction:

In the following section, please compare a series of situations that Japan might face in the future.

For each pair of situations, you will be asked to provide your opinions. For scientific validity, the

⁹ In both models, y_t is the verbal or material conflicts at time t , which is a function of an intercept, its previous lag(s) and X_t , a vector with 11 independent variables as explained earlier. As both time series are stationary, the term δ_i is constrained to be between 0 and 1. The error term ε_t in both time series has a lagged component(s) specified by γ_i and a white noise component ν_t . The hypothesis $H4$ can be restated as $H_0 = \beta_j < \beta_k \forall j, k \in (1,11), j > k$. Since independent variable 1 to 11 denote the 11 “Takeshima Day” events (the twelfth is a non-ritualized event for reference), the later an event occurred, the smaller its effect on the bilateral conflicts because it has gradually ritualized and become part of the expectation.

situation is general and is not about a specific country in the news today. Some parts of the situation may strike you as important, other parts may seem unimportant. Please read the details very carefully and answer the questions below.

Country B currently exercises effective control over island A which Japan also claims as its territory. Hypothetically speaking, if Japan is confronted with the following two provocations, which one would you describe to be more threatening?

After the introduction, respondents are then presented a pair of hypothetical and randomly generated territorial provocations (the profiles). For a total of five rounds, the respondents are asked to click on the territorial conflict, among of the two provocations, that is more threatening. Following the conjoint survey design developed by Hainmueller, Hopkins, and Yamamoto (2014), the profiles are presented to the respondents as shown in Table 1.

Table 1. Illustration of Profile Format (Translated to English)

Provocation 1		Provocation 2	
Provocation type	B ₁	Provocation type	B ₂
History	C ₁	History	C ₂
Regime type	D ₁	Regime type	D ₂
Trade	E ₁	Trade	E ₂
Culture	F ₁	Culture	F ₂
Security	G ₁	Security	G ₂

[Provocation 1 is more threatening]

[Provocation 2 is more threatening]

A total of six attributes are used in this survey design. Table 2 displays each attribute and all the levels associated with each attribute in this conjoint survey. For the levels of *provocation*, I choose two provocation types of that are both politically salient and plausible for a Japanese audience. The trichotomous attribute “History,” is the main variable for testing *Hypothesis 2*. Whereas the level “This is a first-time provocation” implies a non-ritualized provocation, the remaining two levels “Similar provocations have

occurred multiple times on the same day every year,” and “Similar provocations have occurred multiple times before irregularly” capture the main attributes of ritualization – that a provocation has a fixed pattern (a fixed and meaningful interval in this case) and has been repeated over time. Attributes D, E, F, and G are included to serve as baselines and allow us to understand the empirical implication of ritualization comparing baseline conditions such as democracy, cultural similarity, and regional security partnership.

Table 2. List of Attributes (Translated to English)

Attribute		Level
B	Provocation	The president of country B made an official visit to the disputed territory
		The military of B conducted a shooting exercise on the disputed territory
C	History	This is a first-time provocation
		Similar provocations have occurred multiple times on the same day every year
		Similar provocations have occurred multiple times before irregularly
D	Regime type	B is a democracy
		B is an autocracy
E	Trade	B is a major trade partner of Japan
		B is not a major trade partner of Japan
F	Culture	The cultures between B and Japan are highly similar
		The cultures between B and Japan are highly different
G	Security	B is a regional security partner with Japan
		B is not a regional security partner with Japan

Results

I first present the effects of each Takeshima Day incidents from 2005 to 2015 on future verbal conflicts and future material conflicts between Japan and South Korea in Table 3. Consistent with my theory, while the occurrence of Takeshima Day in 2005 and 2006 significantly increases both verbal and material conflicts, as it reoccurs over time, its escalatory effect gradually diminishes back to zero and even becomes negative in some cases. By contrast, because it is a novel event, the 2012 visit of the South Korean president has a significant escalatory effect. One can also observe a clearer relationship in the visualization of Figure 6 and

Figure 7. One curious feature in the two plots is that after Lee Myung-bak's visit, the effect of Takeshima Day becomes more escalatory again. While this cannot be explained by the theory, the result is not too surprising. As a non- ritualized event breaks into established patterns of interaction, it is possible that the novel event might "throw everything out of whack" before the relationship returns to normal. While additional research design is necessary to test whether this conjecture is correct, the results together provide preliminary support that a process of habituation might exist when a hostile event becomes ritualized through the reoccurrence of similar patterns. This dynamic is in sharp contrast with novel events that brings new shock to the relationship. As can be seen in the coefficients of "Passage of Takeshima Day Ordinance (2005)" and "Lee's Visit to the Islets (2012)", when new events occur, the high uncertainty makes them more escalatory and lead to more conflict in the future.

Table 3. Takeshima Day and Japan-South Korean Bilateral Conflicts: Multivariate Regression with Times Series Processes (ARIMAX)

Independent variables	Verbal Conflicts	Material Conflicts
Ritualized Hostilities		
Passage of Takeshima Day Ordinance (2005)	3.30678* (0.55479)	0.925001* (0.14694)
First Takeshima Day (2006)	1.96035* (0.53789)	0.263410* (0.14689)
Second Takeshima Day (2007)	0.19223 (0.53557)	-0.067641 (0.14690)
Third Takeshima Day (2008)	-0.07784 (0.53672)	-0.126370 (0.14688)
Forth Takeshima Day (2009)	-0.11770 (0.53555)	0.092927 (0.14689)
Fifth Takeshima Day (2010)	-0.26815 (0.53521)	-0.055135 (0.14688)
Sixth Takeshima Day (2011)	-0.29148 (0.53519)	-0.117436 (0.14689)
Seventh Takeshima Day (2012)	-0.36317 (0.53565)	-0.045938 (0.14692)
Eighth Takeshima Day (2013)	0.56631 (0.53514)	0.448953* (0.14720)
Ninth Takeshima Day (2014)	0.16059 (0.53512)	-0.065250 (0.14688)
Tenth Takeshima Day (2015)	1.10405 (0.53546)	0.004875 (0.14693)
Non-Ritualized Hostilities		
Lee's Visit to the Islets (2012)	2.64895* (0.53707)	0.454253* (0.14717)
AR1	1.19265* (0.02748)	0.781367* (0.03764)
AR2	-0.24573* (0.01856)	-
MA1	-0.86162* (0.02271)	-0.574840* (0.04023)
MA2	-	-0.051521* (0.01868)
Intercept	0.63895* (0.08391)	0.146243* (0.02146)

Note: * indicates that the coefficient is statistically significant at the 95% level.

Figure 6. Coefficient Plot of Takeshima Day and Verbal Conflicts

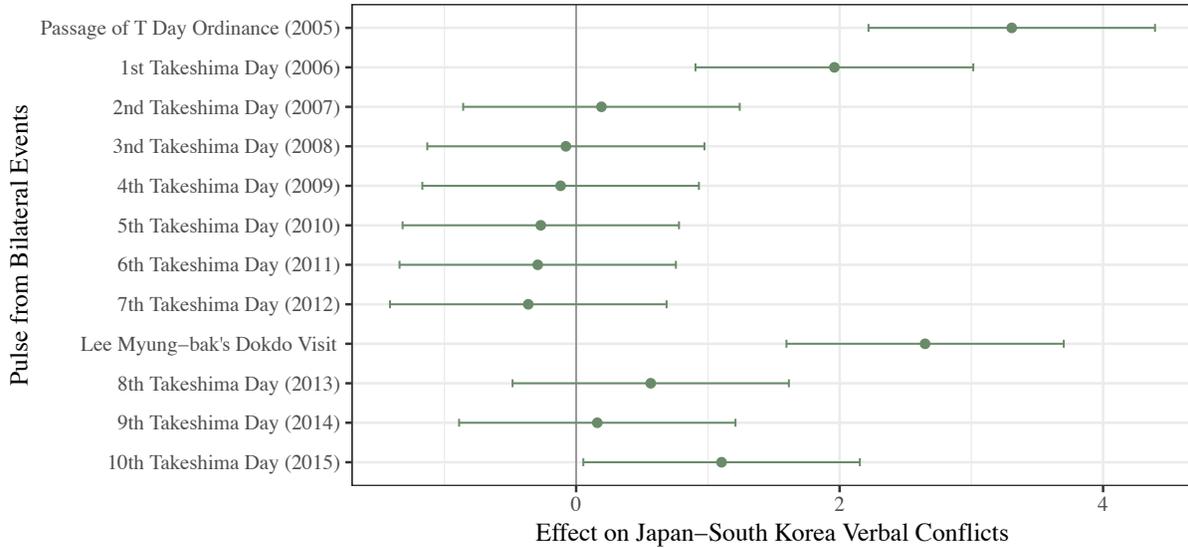
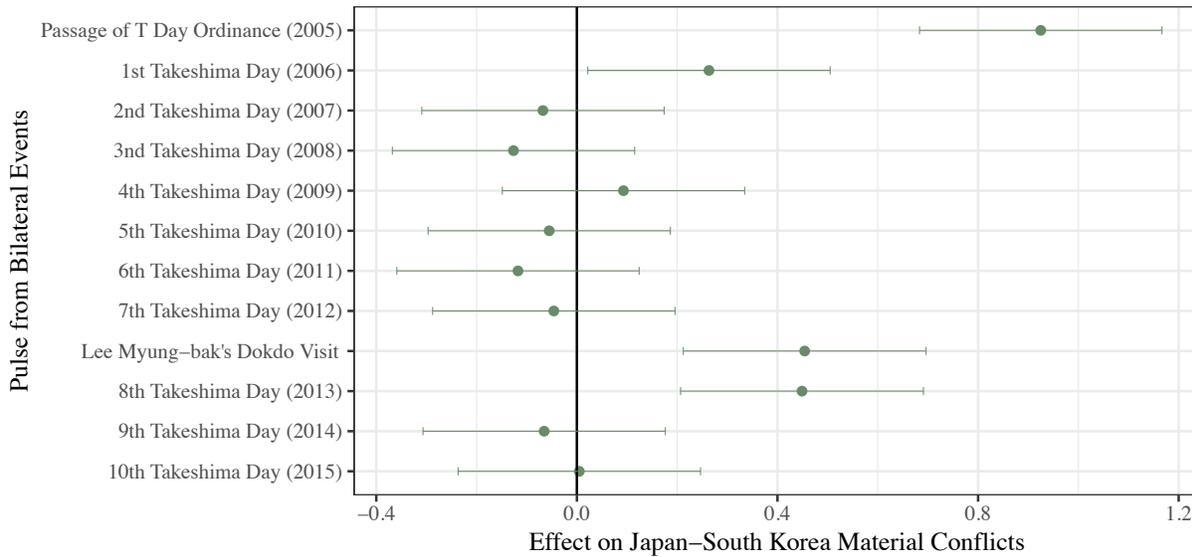


Figure 7. Coefficient Plot of Takeshima Day and Material Conflicts



The results from the conjoint survey experiment is shown in Table 7 and Figure 8. While the first row of Figure 8 shows that trade relations with the provocateur does not affect the respondents' threat perception at the 95% level, security relations and domestic political institution of the provocateur do have a significant effect on whether a territorial provocation is seen as "threatening." Moreover, while presidential visit to the disputed island is highly political, shooting exercise is, on average, seen as more threatening, perhaps because of its military implications. The estimated coefficients for "multiple times

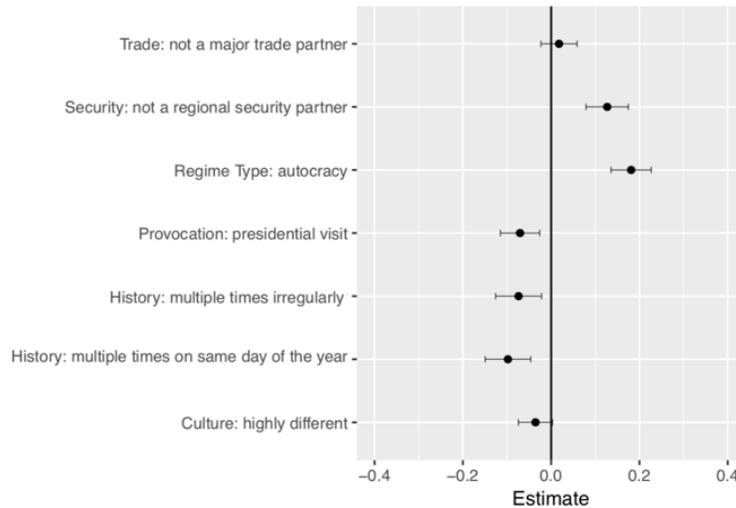
irregularly” and “History: multiple times on the same day of the year,” which directly address ritualization, provide support for my theory and are consistent with the expectation of *Hypothesis 2*: compared to a first-time provocation, a provocation that has been repeated before with pattern are seen as less threatening. Finally, while similar culture with the provocateur seem to have a negative effect on threat perception, the effect is not statistically significant at the 95% level.

Table 7. Average Marginal Component Effects (AMCEs) on Threat Perception

		DV: For a profile to be selected as “threatening” by a respondent
Attribute: Provocation		
	Shooting exercise (base level)	-
	Presidential visit	-0.0704** (0.0227)
Attribute: History		
	First-time provocation (base level)	-
	multiple times on same day of the year	-0.0979*** (0.0263)
	multiple times irregularly	-0.0738** (0.0266)
Attribute: Regime type		
	Provocateur = Democracy (base level)	-
	Provocateur = Autocracy	0.1812*** (0.0232)
Attribute: Trade		
	Provocateur = Major trade partner (base level)	-
	Provocateur = Not major trade partner	0.0179 (0.0209)
Attribute: Culture		
	highly similar (base level)	-
	highly different	-0.0355 (0.0197)
Attribute: Security		
	Regional security partner (base level)	-
	Not a regional security partner	0.1270*** (0.0244)
Respondents		250

(Standard errors in parentheses and clustered by respondent ID)

Figure 8. Coefficient Plot of AMCE on Threat Perception



Conclusion

Since the 1960s, researchers have attempted to theorize the role of ritualization in international conflicts (Azar 1972; Schelling 2008). However, evidence has been anecdotal, and no study has systematically evaluated the patterns of ritualized hostilities, explored their roles in territorial disputes, or examined the psychological source of how “ritualization” can be developed in human perceptions. To fill this research gap, this article proposes a theory of ritualization and tests its implications in the case of Dokdo/Takeshima issue between Japan and South Korea with large scale bilateral event data and a conjoint survey experiment. Together, the empirical results demonstrate that in a territorial dispute, the escalatory effect of a provocation is conditioned on the context of ritualization. A provocation is less likely to provoke new bilateral conflictual events in the future and less likely to be perceived as “threatening” by a domestic audience if the same provocation has been repeated regularly in the past. By contrast, when a non-ritualized provocation enters the bilateral interaction between territorially-disputed states, an increased number of conflictual events and a stronger sense of perceived threat by the audience tend to follow. This can be seen both from the statistical results and the actual interactions between Japan and South Korea. In the entire series of Takeshima Days, the first year is the most escalatory for the two countries’ bilateral relationship.

When South Korean president visited the island in 2012, the non-ritualized shock it created also threw the two countries' relations into disarray. These events, while not as severe as militarized disputes, are highly consequential to policy-makers in the United States and its allies in the region.

Overall, the findings shows how ritualization can reveal aspects of disputed international relationship that are not captured by the standard analyses based on cross-case baseline conditions or on the total number of provocations. Since even identical provocations might trigger different escalations and threat perceptions depending on ritualization, whether a country chooses to follow or deviate from an existing interactions pattern of with its adversaries is substantively important. The findings also have implications for third-party states in the contexts of alliance management and extended deterrence. Since regions with ostensible but ritualized hostilities between rivalries might not be as dangerous as they appear to be, and the United States should formulate its policy based on the pattern instead of the presence of provocations alone.

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Appendix

Aggregation Criteria for CAMEO Coded Events:

CAMEO Code	Selected Categories	QuadClass
090, 100, 101, 102, 105, 106, 107, 111, 112, 113, 114, 115, 120, 124, 125, 127, 128, 130, 131, 133, 134, 138, 139, 1011, 1014, 1031, 1041, 1043, 1213, 1221, 1231, 1232, 1233, 1241, 1312, 1313, 1621	Investigate, Demand, Criticize or denounce, Accuse, Rally opposition against, complain officially, Bring lawsuit against, Reject, Defy norms, law, Threaten, Threaten with military force, Give ultimatum, Reduce relations	Verbal conflict
141, 1412, 142, 143, 145, 150, 151, 153, 160, 161, 162, 163, 164, 170, 172, 173, 174, 175, 180, 181, 182, 183, 185, 186, 190, 191, 192, 193, 194, 202, 1711, 1721, 1821, 1822, 1823, 2042	Demonstrate or rally, protest violently, riot, demonstrate military or police power, coerce, impose administrative sanctions, arrest, detain, or charge with legal action, expel or deport individuals, use conventional military force, impose blockade, restrict movement, occupy territory, fight with small arms and light weapons fight with artillery and tanks, Engage in mass killings	Material conflict

Time series analysis: when both the independent and dependent variables vary across time, the usual approach of using ordinary least squares (OLS) regression will be problematic because as tomorrow's conflicts are likely to be corrected with conflicts today, the unexplained variations (residuals) of this variable can have serial correlations across time, violate the model's assumption, and bias the statistical result. To account for this empirical challenge, time series models take into account two types of serial dependency: Autoregressive (AR) and Moving Average (MA) processes. If the residuals of an ARMA model have a mean of zero and a fixed variance, they are essentially "white noise" without serial correlation and researcher can then conduct usual regression analysis without concerns. However, this approach is only possible when the variable of interest is a stationary time series with a long-term mean. Thus, before presenting the statistical result, I first (1) test the unit-root assumption for both dependent variables, and (2) select appropriate ARMA processes based on Akaike's Information Criteria (AIC).

For the unit-root test, I implement the Dickey-Fuller test¹⁰ on both verbal conflicts and material conflicts. Through reparametrizing the time series equation, the Dicky-Fuller test evaluates the null hypothesis that the time series under analysis has a unit-root. If a unit root is present, the time series is said to be "integrated" and researchers will need to resort to other methods such as taking the first difference of the variable. In the present case, both verbal conflicts and material conflicts are stationary. The test statistics shown in Table 2 indicates that we are confident at 99% level that both time series do not have a unit-root.

¹⁰. This is conducted using the "urca" packages under the R environment

Table 2. Augmented Dickey-Fuller Unit Root Test

Dependent variable	Test Statistics	10pct	5pct	1pct	Integrated at 95% level
Verbal conflicts	-10.39	-3.12	-3.41	-3.96	No (stationary)
Material conflicts	-21.05	-3.12	-3.41	-3.96	No (stationary)

The next task involves specifying the correct Autoregressive and Moving Average process so that the residuals of verbal conflicts and material conflicts are “white noise” without concerns of serial correlation. To do this, I first present both the Autocorrelation Function (ACF) and Partial Autocorrelation Function (PACF) for both variables in Figure 4 and Figure 5 (see Box-Steffensmeier 2014). Both figures imply that current values of verbal and material conflict is significantly correlated at the 95% level with its multiple lagged values in the past. While it is possible to tell simple ARMA processes such as AR(1) or MA(2) from the plot, the present case requires more precise statistical estimates and I use the auto.arima function in R’s “forecast” library. According to the AIC criteria, the model ARMA(2,1) has the best statistical fit for verbal conflicts, whereas for material conflict the best fit model is an ARIMA(1,2).

Figure 4. ACF and PACF for Verbal Conflict

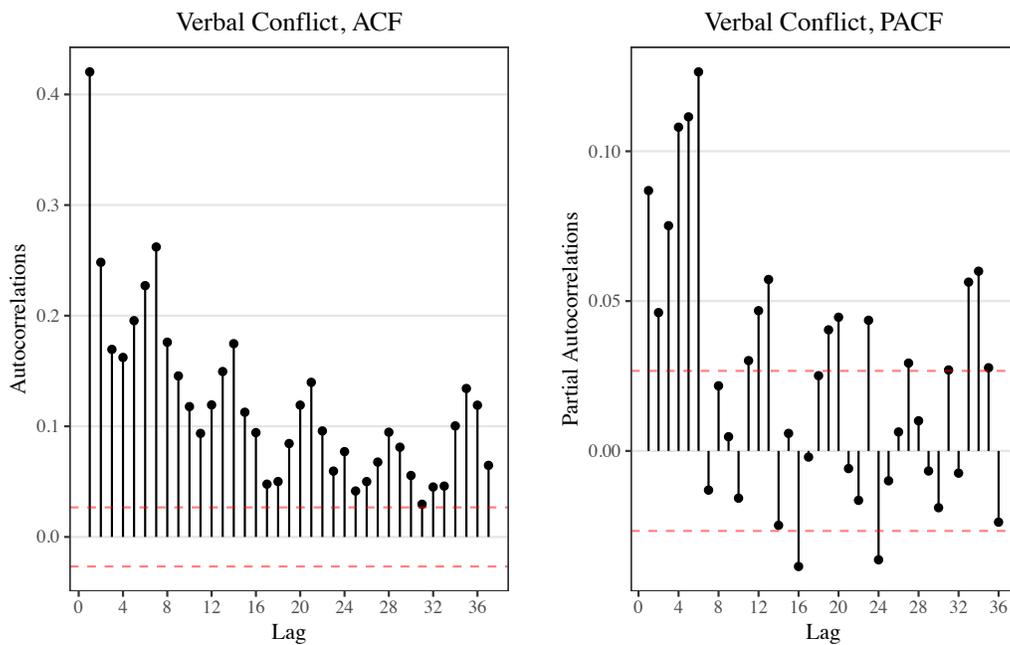


Figure 5. ACF and PACF for Material Conflict

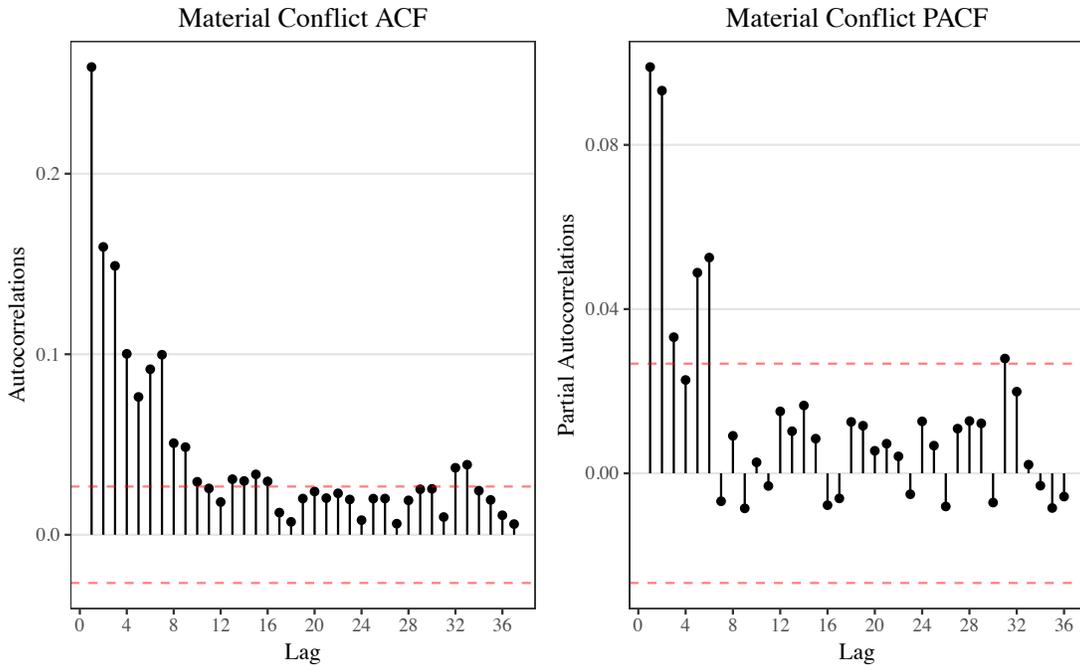


Table 3. ARIMA Selection Based on Akaike’s Information Criteria (AIC)

Verbal Conflicts	Material Conflicts
ARIMA(2,0,1) with non-zero mean	ARIMA(1,0,2) with non-zero mean
Coefficients:	Coefficients:
ar1 ar2 ma1 mean	ar1 ma1 ma2 mean
1.235 -0.262 -0.891 0.785	0.847 -0.629 -0.066 0.175
s.e. 0.022 0.018 0.016 0.119	s.e. 0.027 0.031 0.018 0.023
sigma^2 estimated as 4.76	sigma^2 estimated as 0.696
log likelihood=-11839	log likelihood=-6662
AIC=23688 AICc=23688 BIC=23721	AIC=13334 AICc=13335 BIC=13367

After modeling both time series with their best-fit ARMA processes, it is possible to check whether their residuals indeed resemble white noise. I examine this using the Box-Pierce test, which tests the null hypothesis of whether a time series is independent. In the common practice, the failure to reject the null is used as evidence that a white noise residual might exist. As shown in Table 4, since the p-values are insignificant at 95% level, we cannot reject the null hypotheses, and both variables are likely to have white noise residuals after taking their respective ARMA processes into account.

Table 4. Box-Pierce Test on the Independence in a Given Time Series

Verbal Conflicts	Material Conflicts
X-squared = 0.061, df = 1, p-value = 0.8	X-squared = 6e-04, df = 1, p-value = 1

Estimation: after examining stationarity, specifying the best fit ARMA processes, and testing the presence of “white noise” residuals, I estimate the escalatory effect of a series of “Takeshima Day” on the future verbal and material conflicts using the following models.