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ABSTRACT

In March 2005, riots erupted in South Korea against Japan for claiming sovereignty over some rocky uninhabited islets (0.23 km²). Five weeks earlier, riots did *not* erupt in South Korea when North Korea proved that it has nuclear weapons. How can we explain moral outrage in one case, when the expected net benefit is probably negative, but not in the other, when the expected net benefit is very large? This paper constructs answers using three possible approaches: sociological, evolutionary game, and standard rationality. It shows the limits of each approach and, hence, concludes with a call for a new way to think about emotions and rationality.

Key words: moral outrage, irrationality, threat-or-appease model, South Korea, Japan, North Korea, China, USA

JEL classification: D0

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The Moral Outrage Puzzle

Riots erupted in South Korea on the 18th of March 2005. Some rioters sliced their fingers off, while others set themselves on fire, and one committed suicide by jumping off a bridge. The rioters were venting their outrage at Japan, which had just claimed sovereignty over a cluster of disputed islets known as Dokdo (“solitary” in Korean), Takeshima (“bamboo” in Japanese), or Liancourt Rocks. The islets are actually two large rocks and 33 small ones. The total surface area is about 0.23 km² (i.e., less than 57 acres, or about 1/8 the size of Monaco). They are located 215 km from mainland South Korea and about the same distance from mainland Japan. The islets had been under the control of South Korea since 1953. But the issue of sovereignty was not settled, as the case with other islands, in the 1952 San Francisco Peace Treaty between Japan and the then allied powers.¹ They are uninhabitable, lacking adequate soil, and have no fresh water. However, the South Korean protesters, press, and government officials were, in unison, enraged by what they regarded as Japan’s infringement of their sovereignty—as if Japan was about to re-colonize Korea.²

South Korea’s moral outrage is *prima facie* a puzzle. It is irrational because expected net benefit is zero. The moral outrage could escalate into a costly war unjustified by the meagre expected benefit. What makes the puzzle more curious, as noticed by foreign journalists, is what happened five weeks earlier. On the 10th of February 2005, North Korea announced, with actual proof, that it had built nuclear weapons. What was the reaction of South Korea? There were no riots in South Korea against North Korea. There were certainly no people slicing off their fingers and no one jumping off bridges in the streets of Seoul. In fact, South Korea maintained its “sunshine

¹ See “The Territorial Dispute over Dokdo” at <http://www.geocities.com/mlovmo/page4.html>.

² Some Korean academics have even written book-length popular accounts of the island dispute, directed at

policy,” and thus continuing to provide aid to its northern neighbour. What makes the puzzle even more curious is that there was no moral outrage in Japan against South Korea in reaction to South Korea’s outrage. Also, there was no moral outrage in Japan against North Korea concerning the nuclear threat.

Although the focus is on the Korean-Japan case, moral outrage is ubiquitous. Israeli officials, for example, are puzzled by the moral outrage of the Palestinian people under occupation and a large segment of the Lebanese society, given that they are no match for the Israeli army. Likewise, rebellious agitation against overwhelming superior powers—ranging from the agitation of some Jews against the Assyrians in the 8th to the 6th centuries B.C and, in the first century A., against the Romans to the modern Algerian liberation movement against the French in the 1950s—continue to fascinate historians as being irrational acts, in the sense that expected net benefit is negative.

This paper reviews three major explanations of the puzzle: sociological, evolutionary, and rational. While each addresses a concern regarding this puzzle, it is the contention of this paper that each explanation has, however, a shortcoming of its own. Section 1 discusses three variants of the sociological approach. Section 2 analyses the evolutionary game explanation. Section 3 lays out three variants of the standard rational approach. Section 4 then focuses on one variant of the standard rational approach, called here “strategic” view.

Section 4 is the core of this paper. It develops a “threat-or-appease” model. The model assumes that the expected costs and benefits of war are known, except that they are not known as common knowledge. So, the threatening party expresses moral outrage to make the known facts

commonly known. In this manner, rational agents would reach a settlement, avoiding the unnecessary cost of war. However, if avoidance of the cost of war is the main reason behind the threat, South Korea should have expressed moral outrage at North Korea, and even louder than the outrage expressed against Japan, given that a conflict with North Korea could easily become nuclear. Thus, finally, the concluding section suggests an alternative, fourth way to think about the problem that overcomes the shortcomings of the three previous ones.

1. Sociological Explanations

1.1 Normative Approach: Moral Outrage = Historical Memory

The normative, backward-looking explanation would argue that South Korea reacted against the Japanese move with a huge emotional outburst because of two facts: First, there is a strong nationalist feeling in South Korea that generates a built-in norm in the South Korean psyche which is anti-Japanese [Shin, 2006]. The Japanese colonization of Korea prior to World War II was brutal by any measure [e.g., Kang, 2001]. Thus, the colonization has simply left a deep scar and engendered enormous anti-Japanese resentment among the people of South Korea. Second, Japan has not formally apologized for its war crimes during its occupation of Korea, as the case of modern Germany with regards to its Nazi past. Given the context of the lack of apology, the Japanese announcement of sovereignty claim has added salt to the already existing injury.

The impact of the announcement is made worse given that Japanese officials have approved school textbooks that do not recognize Japan's war crimes. Also, Japanese elected officials have not renounced the annual pilgrimage to the Yasukuni Shrine to pay homage to Japan's almost 2.5

million war dead—among whom are over a thousand people convicted of war crimes by a post World War II court and a total of twelve convicted Class A war criminals [Nelson, 2003]. So the Japanese claim of sovereignty over the islets cannot be taken in isolation: being like the proverbial straw that broke the camel’s back. The Japanese claim ignited a deeply ingrained, collective memory of past injustice.

According to the findings from the ultimatum game [Güth *et al.*, 1982; Güth & Tietz, 1990; Rabin, 1993; Fehr & Schmidt, 1999], injustices prompt “responders” to retaliate and punish the perpetrators, even if it is costly. However, the desire to retaliate cannot explain the moral outrage in this case, because the two parties have concluded a peace treaty in 1952 (The San Francisco Peace Treaty). Japan could thus consider any such exhibition of outrage to historical injustice as a provocation, which may lead to war.

Further, the pain suffered under Japanese colonial rule, as great as it is, cuts both ways. Namely, the historical memory can prompt South Korea to be careful and not bully Japan who could, again, attack, colonize South Korea in self-defense, and repeat the same painful experience of the early 20th century. The past can sharpen South Korea’s desire to appease Japan to avoid a similar experience—as symmetrically as it can sharpen South Korea’s desire to threaten Japan. One cannot determine how the past influences the future unless forward-looking calculations are already clear. In fact, much of the past can be reconstructed in almost equally valid ways. As the cliché states, the victor writes the history of the war. History, as far as the forward-looking self is concerned, is usually reconstructed to suit the self’s forward-looking interest. If so, at the most abstract level of theorizing, the appeal to the past is ultimately tautological.

The rest of the approaches reviewed are forward-looking and, hence, familiar to economists. In fact, they are the basic explanations available to economists, as reviewed with regard to another phenomenon, viz., the explanation of trustworthiness [Khalil, 2003b].

1.2 Multiple-Self Approach: Moral Outrage = National Identity

It was the non-Korean journalists who noticed the moral outrage puzzle. These journalists asked pointed questions to the protestors: Why are you slicing your fingers off for some small specks of islets in a far-away sea, while you did not even move a finger in protest against nuclear weapons pointed at you from a territory adjacent to yours?

The protestors, if we take their pronouncements *prima facie*, did not find their behavior anomalous: They expressed statements, to paraphrase, such as “the nuclear threat can be handled among Koreans”; “we are all Koreans”; “Japan’s sovereignty claim is a threat to Korea”; and “if we allow this, Japan would next colonize Korea.” As put by a journalist, Park Song-Wu:

For many Koreans, Japan's attempts to carry out an “ocean survey” near waters off Dokdo, a group of South Korea's easternmost islets, is a reminder of imperial Japan that colonized the Korean Peninsula from 1910 to 1945.

It is the reason why Dokdo is not just a group of rocky islets for many Koreans. Rather, Dokdo is considered a “holy” entity that instills in them a sense of duty to protect Korea's territorial sovereignty from Japan's attempts to trespass [Song-wu, 2006].

These comments suggest that Japan’s announcement desecrated what Koreans consider to be “holy,” viz., their honor, dignity, or national identity. In contrast, North Korea’s announcement does not threaten national identity. So, moral outrage expresses the moral duty to defend what is holy to one’s identity.

The fact that people need identity, as distinct from interest, is not surprising at all for non-economists. A nation becomes enraged when insulted or degraded. The party that levels the insult, and the party that is enraged, become involved in mutually reinforcing relation that Jonathan Mercer [1996] calls “inter-subjective.” The perception of each party necessitates the contrary perception in order to subsist. The demand for an apology and honor cannot thus be reduced to what Richard Ned Lebow [2006] calls “appetites,” i.e., welfare utility or interest. Lebow borrows the concept of “appetites” from Socrates and Plato and contrasts it with their concept of “spirit”: Behavior premised on “spirit” explains aspiration or self-esteem. For Lebow, modern political theory, and hence modern theory of international relations, misses the importance of “spirit” as distinct from “appetites.” For Lebow, emotions of self-esteem and honor must be at the core of political theory given the fact that modern relations among nations, such as the Cuban missile crisis, are regulated by the demand for respect and standing. This is in contrast to the great majority of modern political theories, starting with Machiavelli’s and Hobbes’s, which have emphasized utility calculations (the “appetites”) to the total neglect honor and identity (“spirit”).

The demand for identity is the “bread and butter” of theories in sociology, psychology, political science, and anthropology. In these disciplines, identity is referred to as “self-esteem,” “ego,” “sacred,” “duty,” “self-integrity,” “moral commitment,” and so on. In contrast, economists have generally, until recently, neglected identity. For economists, agents respond to incentives and identity cannot be a commodity with a price that varies. But once behavioural economists started to show that agents care about fairness, and are even ready to boycott goods on ethical grounds, economists started to pay attention to identity. But to do so, they put a price on identity, i.e., they

made into a taste.

But there is more to the (non-economics) social science account in its advocacy of identity. For the social sciences, identity is not simply a taste. The social science case advances a notion of identity that is non-reducible to the usual benefit function and cost function. The social science case postulates that identity, such as tribalism and nationalism, involves a motivation that differs from the usual welfare calculation—and such a motivation is needed to explain moral outrage. As such, identity is not simply a metric of interest [Khalil, 2000]. While economic theory regards the defense of identity as a continuation of the defense of the usual interest, the social science case regards identity as some special taste that is non-fungible with ordinary tastes.

A few economists have started to adopt the social sciences view and consider identity as different from the usual utility. While they may include it analytically in the utility function, they treat it conceptually as different. For instance, motivated by results from the ultimatum game, Matthew Rabin [1993] calls identity a taste for fairness and Ernst Fehr and Klaus Schmidt [1999; see also Fehr & Gächter, 2000] call such a taste “social preferences.” Such preferences explain why responders in the ultimatum game feel vindicated when they retaliate against unfair offers, even if it means lowering their “normal” utility. Other economists—such as George Akerlof [e.g., Akerlof & Kranton, 2005], Robert Sugden [2004], and Amartya Sen [1977, 1993]—explicitly referred to identity. To reconstruct the Akerlof/Sugden model, agent A tries to maximize the following objective function,

$$U^A = U^A(Q, L, I_c)$$

$$\text{s.t. } Q = Q(h-L)$$

$t, \hat{a}, E(R) > 0 \dots$ given data; I_c is given

U^A is utility function of agent A; Q and L quantity output and leisure, respectively; I_c categorical (i.e., binary) identity; and h hours available in total. In particular, U^A is positive in regards to Q, L, and I_c . So, when I_c is suppressed or denied, U^A declines.³

Such a social science case has been fully elaborated into what is commonly known as the multiple-self approach [e.g., Etzioni, 1986]. The standard critique of the multiple-self approach, as it applies here, is that it begs the question: From where does identity come? It seems to be a case of *deus ex machina*, as it seems it was introduced abruptly to solve a problem.

George Stigler and Gary Becker [1977] criticized the *ad hoc* strategy of many social scientists, including economists, who arbitrarily change the utility function in order to account for some observed change in action. According to the Stigler/Becker warning, this would amount to the lack of what can be called “analytical equality”: One should use a stable utility function in order to explain action. So, does the introduction of “identity” violate the criterion of what is called here “analytical equality”?

It seems that the multiple-self approach escapes the Stigler/Becker critique because the explanatory variable, identity, is not invented for this case—what “*ad hoc*” means. It can be used consistently to explain both South Korea’s moral outrage leveled at Japan and the lack of such outrage leveled at North Korea.

So, the social science case of identity-as-taste is not a “just-so” story. Nonetheless, it is problematic in another respect. The social science case views identity as a given datum, as a deep

³ The first version of this paper also adopted a multiple-self view, which took identity as a given

norm that instructs and forms action in a way that is almost oblivious to incentives, i.e., cost/benefit calculation [Khalil, 2003a]. The multiple-self view amounts to stating that the agent is made up of two selves: one is interested in welfare utility and the other in moral or symbolic utility [see Etzioni, 1986; cf. Khalil, 1996, 2000]. If this conception of the self is promoted at the most abstract level of theorizing, it begs a question: How one can explain the origin of identity? If one conceives identity to be derived from a source totally unrelated to interest (i.e., the multiple-self view), one would have only one option: Namely, one would have to argue that identity is derived from norms posited by history. In this manner, one would have to resort once again to the backward-looking approach and assume as if agents are programmed to behave in a specific way irrespective of incentives.

However, in the greater stretch of history, identities are created and destroyed. For instance, during the 19th century, nationality became an important identity that formed the basis of political organization and even the basis of revolutionary agitation against the old regime. Also, centuries earlier, the warring tribes of the Arabian Peninsula forged a new identity with the emergence of Islam. Identity is not written in stone as suggested by the social science case.

Furthermore, on a more serious issue, if identity is unrelated to interest, agents may develop a moral taste that is disadvantageous to their survival, especially if the environment is competitive. The taste can be lethal, such as having a taste to eat poisonous mushrooms. So, moral outrage, if not related to interest, can provoke war in which agents with such lethal tastes become extinct. If so, the taste for identity, if unrelated to interest, should have gone extinct long ago. What explains then the persistence of potentially lethal emotions such as moral outrage? This leads us to our third

[Khalil, 2006b].

sociological approach.

1.3 *Preference Approach: Moral Outrage = Taste*

According to the preference approach, moral outrage is simply a taste similar to the taste for altruism or spite. So, we can place moral outrage as a good in the normal utility function. Gary Becker [1981, 1993] is the most prominent proponent of this view.

Such an explanation follows the standard rationality approach, with a twist. The utility function includes emotions such as the relief or comfort that comes from the expression of anger. So, following the psychological argument, moral outrage affords psychological comfort and its suppression entails a price such as embarrassment. If one agent spits in the face of the other, the victim would be embarrassed if he or she does not respond and express outrage. So, agents are expected for some reason to express emotional outrage because the failure to do so would be costly in terms of psychological discomfort [e.g., Battigalli & Dufwenberg, 2005; Dufwenberg, 2006].

However, this explanation already assumes what we have to explain. Namely, it assumes that agents are committed to express moral outrage. So, it begs the question: What is the origin of such a commitment? Why would agents feel embarrassed in the first place if they do not execute the commitment?

An additional problem, similar to the sociological/moral approaches, is why would agents hold tastes such as emotional outbursts that would be unhealthy in many circumstances? Such emotions would handicap agents vis-à-vis other agents in the market. Certainly, agents who have unhealthy tastes would not, *ceteris paribus*, survive competition.

2. Evolutionary Game Explanation: Moral Outrage = Irrational Trait

The previous three sociological approaches, where moral outrage might be as a result of irrational emotions, expressing moral self, or indicating unhealthy tastes, face the same challenge: How can agents with such dispositions, tastes, or emotions survive?

One answer is to state that moral outrage is rather a character trait, or what biologists call a “gene.” Such a character-trait, or genetic make up, induces agents to act according to a program that is oblivious to cost-benefit analysis. The program instructs the agent to act “crazy,” i.e., to retaliate to defend “honor” or whatever one deems as a slight to his good name without any regard to future cost or benefit. The problem is to convince opponents that one has the “crazy” character trait, i.e., to demonstrate the character trait in a credible fashion. To be clear, the issue of credibility here has nothing to do with reputational capital as discussed below. It is rather about convincing the opponent that your genetic make up, which can make you act “crazy,” is not a bluff. As shown by David Krep *et al.* [1982], the opponent must believe that the issuer of the threat can be crazy and retaliate despite his best interest not to in order for the opponent to consider the threat to be credible. Thus, an agent’s signal might induce a favorable response from relevant cohorts (and hence be credible) if it is based on the belief that there is sufficient likelihood that the threat is credible.

But why should the opponent come to such a belief? The evolutionary models of Jack Hirshleifer [1987] and Robert Frank [1988] try to answer the question. The opponent upholds such a belief if irrational types are believed to exist at a density above a given probability threshold,

$$P_{SK}^{ir} > P_{SK}^{*ir}$$

where P_{SK}^{ir} is the probability that South Korea is irrational and P_{SK}^{*ir} the threshold. If so, the opponent, given other conditions, may take the non-credible threat as a serious one and reasons that it is not worth provoking the irrational type because the retaliation would exceed the benefit.

Economists have used such an explanation especially in light of the experimental results from the ultimatum game. In one such experiment [e.g., Güth *et al.*, 1982; Güth *et al.*, 1990; Thaler, 1988], agents who are offered a distribution that is seen as unfair usually retaliate *ex post* at a net cost to them. Werner Güth and Menahem Yaari [1992] offered as an explanation a neo-Darwinian mechanism based on fear: Namely, the irrational types, if believed to be sufficiently large, are selected because potential collaborators would be afraid to defect and get punished by the “crazy” agents who have a taste for honor or fairness. So, evolutionary game theory amounts to a self-fulfilling prophecy selection argument.

This explanation is question begging, again. It invokes the assumption that there is a critical frequency of agents who are irrational and hence would carry out a threat even when, *ex post*, it is best to withdraw it. The assumption would beg two questions: First, what is the origin of the irrationality taste, type, or genetic material? Second, why does it arise in the first place? If one argues that it arises from stochastic mutation, then one has to show empirically whether it is the case that stochastic mutation gives rise to irrational types with the required critical frequency. Otherwise, one would be asserting a possibility only because of the lack of a better explanation. Thus, the evolutionary approach begs more questions than the original one.

3. Standard Rationality Explanations

3.1 Public Choice: Moral Outrage = “Moralizing Good”

The public choice approach would stress that moral outrage is a “moralizing good” (analogous to “positional good”): To gain power, an aspirant politician would bid up his or her moral standing by manipulating public emotions and shaming his or her opponents. A moralizing good is drawn from moral capital that is a common good: Users are non-excludable, but the good is rival in consumption. Given that it is rival, it has to be optimally allocated to avoid the “tragedy of the commons.” Optimal allocation assures renewability of the moral capital, very much like any optimal use of renewable common resource such as a lake or a pasture.

Moral capital includes patriotism or any moral principle. It must be used in politics in order to provide moral purpose or constitutions for the community. However, the excessive use of moral capital, which is always informal, leads to the tragedy of the commons: Competing politicians will use moral outrage excessively, leading to the depreciation of moral capital.

One can build a moralistic bidding model along lines similar to the tragedy of the commons: Here, agents are in competition for moral capital. Moral capital can be regarded as a renewable common good: While it is scarce and hence rival, it is non-excludable. So, one cannot prevent an aspirant politician from using moral capital (which can be patriotism, defense of the family, or the church) to expose the supposed moral bankruptcy of opponents. Such exposure, if believed by the public, allows the aspirant politician to gain the upper hand over opponents. It would lead to abuse if the aspirant politician lies; either in exaggerating the moral bankruptcy of the opponents or in covering-up his or her own moral bankruptcy.

If South Korea’s moral outrage is moralistic bidding, i.e., manipulated by some politicians,

why did the Japanese politicians fail to stir the same moral outrage at both South Korea and North Korea? Further, why did the South Korean politicians fail to stir moral outrage at North Korea? First, North Korea poses a more menacing threat than Japan. Also, the announcement of North Korea preceded the announcement of Japan by five weeks, and hence, there was no problem of fatigue. In fact, in this case, the public in South Korea spontaneously erupted and the police had to restrain the enormous anger of South Korean citizens. So, the public choice approach is irrelevant.

What about the most favored problem in collective choice, viz., the free-riding problem. It is irrelevant to this case. It was not that the collective wanted to demonstrate, and agents tried to free-ride. It was the opposite. The collective wanted to demonstrate their anger so much, and police has to be employed to restrain the demonstrators.

The moral outrage was unison: all political parties, civil society groups, the press, and government officials spoke with one voice. So, this paper analyses the issue of moral outrage as an action taken by a single agent, South Korea.

3.2 Post-Walrasian: Moral Outrage = Imperfect Information

This variant of rational approach regards moral outrage as a method used by one player to make the other know its military power. This approach is called “post-Walrasian,” borrowing the term from Samuel Bowes [2004]. The approach emphasizes the importance of imperfect information, as opposed to the Walrasian emphasis on perfect information and other conditions that assure equilibrium. However, the assumption of imperfect information regarding South Korea’s military prowess is questionable, given that, due to modern intelligence, each party actually knows the

military balance. Furthermore, even if it is the case that there is imperfect information, it would be more effective for South Korea to release information about its military prowess than issue moral outrage.

3.3 Strategic Approach: Moral Outrage = Threat

In the case where information regarding military prowess is perfect, this variant emphasizes that information is not common knowledge. As such, moral outrage is a “threat” in the sense of making private knowledge of information common knowledge. That is, while each one knows the power of the other, the other does not know that its opponent has such knowledge. It is important for a power, to avoid unnecessary cost of war, to make the other know that it knows what the other knows, and so on. So, the threat resolves the hurdle of private knowledge, and its infinite regression problem, by making information common knowledge. In this manner, the “top-dog” can be awarded its claim, while both parties can avoid the unnecessary cost of war. Otherwise, if war takes place, the top-dog would be the winner. It would be able to force the loser to pay “war damages” as a penalty for its arrogance, i.e., not accepting a solution that would have avoided the unnecessary cost of war.

Given that this rational approach, called here the strategic view, is the most convincing, we shall now discuss it further in detail.

4. The Strategic Approach

4.1 The Problem

As suggested, a more plausible view of the moral outrage situation, which we will still ultimately

show to be unconvincing, is to treat moral outrage as threat-making. So, such a threat is seen as part of the commitment to protect one's country (nationalism). Three facts seem to support such an explanation: First, it is safe for South Korea to throw a temper tantrum and bully Japan because such emotion is almost free: there is a very small risk that the outrage would provoke Japan, to defend itself, to invade South Korea. Japan simply lacks the political will to attack South Korea as it did at the turn of the 20th century. Japan is dominated by a pacifist constitution and non-militarist political culture. It is also restrained by the US. Second, the current claims and counter-claims of sovereignty were revived recently because of natural gas discoveries in the area and the rising value of local fisheries. Third, South Korea needs to preserve credibility, given that there is a likelihood that Japan might, in case where its self-restraint is removed, revive other claims concerning other territories of South Korea.

The issues of credibility, threat, and reputation are at the center of international politics [e.g., Sartori, 2005; Kydd, 2005]. For instance, Barry O'Neill [1999] studies different kinds of symbolic gestures in international relations, of which threat is one of them. Of particular interest is the connection between threat and credibility. Daryl Press [2004/05, 2005] has studied how Hitler and the German leadership conceived the threats of France and Great Britain to retaliate upon the eve of the German invasion of Poland. Press contrasts two theories of credibility in international politics, of what he calls the "past actions" theory and the "current calculus" theory. The past actions theory holds that credibility depends on one's past record, or of what in short one could call "reputational capital." The current calculus, on the other hand, argues that credibility is forward-looking: "If an adversary issues a threat that it has the power to carry out, and an interest in doing so, the threat will

be believed, even if that country has bluffed in the past” [Press, 2004/05, p. 138]. As such, one’s reputational capital means very little in a strategic model with perfect information. In terms of the case of Germany in 1939, as it is known, Hitler and other leaders believed that the French/British threat was non-credible. Press finds that, contrary to common perceptions, the belief arose more from strategic considerations that support the current calculus theory rather than from the past record (reputational capital) of France and Great Britain of irresolution and worm-like cowardice:

Most significantly, the discussions among German leaders about the credibility of Britain and France focused heavily on the military balance and the interests of both countries, not on their history of breaking commitments [Press, 2004/05, p. 166].

Of course, the German leaders miscalculated. But the point is that *ex ante* their assessment of the threat must have been optimal given the information available to them. Similarly, given available information, is South Korea’s threat (moral outrage) a bluff? Or is it credible?⁴

Using the two criteria of Press (interest and balance of power) for the current calculus theory, the moral outrage of South Korea against Japan seems *ex ante* a non-credible threat (i.e., a bluff). First, the interest at hand, viz., the rocky islets with its rising economic benefits, do not justify the cost of fighting. Second, the balance of power, i.e., probability of winning the war, is definitely in

⁴ Credibility is used here in the sense of announcing one’s forward-looking interest—when there are the interest and the power to pursue it. In this sense, credibility is unrelated to the issues of reputation, precommitment, hostage exchange, or incentive compatibility if they are sunk costs. Hostage exchange and precommitment would be credible only if they can be measured in terms of forward-looking, relevant interests [Elster, 2000; Schelling, 1960; Williamson, 1983].

favor of Japan, given that the US would support Japan given their strategic alliance.⁵

One cannot simply explain the threat of South Korea as the result of imperfect information. The meager value of the islets is obvious even to outsiders. It is also obvious to non-specialists and outsiders that Japan, and not South Korea, is the main pillar of US security blanket in Asia. Further, if South Korea had imperfect information concerning Japan, it would be hard to abandon this reasoning when we try to explain the lack of moral outrage against North Korea. South Korea is perfectly aware of the threats and designs of its neighbor to the north.

So, why would South Korea issue a threat given that information is perfect? One may argue, if one subscribes to the past actions theory, that reputational capital (RC) matters. RC would be more degraded when one runs (r) after issuing a threat (T) rather than when one runs after appeasement (A):

$$RC(r|T) < RC(r|A)$$

But “reputational capital” is an empty concept in a world inhabited by rational, forward-looking agents. Reputation matters only when some agents are irrational in the sense that they act according to a personality type, as discussed earlier. For instance, these irrational agents would have inhibitions, compulsive disorders, or psychological drives not different from Freudian ones. Such drives compel them to behave with a greater likelihood in one way rather than another. Thus, traders will want to know the psychological profiles of the agent and may use past record to make inferences about the psychological type. Only then can the study of past actions be relevant [Mailath & Samuelson, 2006].

⁵ See the web page of the Ministry of Foreign Affairs of Japan: <http://www.mofa.go.jp/region/n-america/us/security/scc/doc0510.html>

However, in a world where agents do not act according to some psychological predispositions, reputation capital, i.e., the past history of the agent, should not matter. In an environment free from personality types, there is no need to issue non-credible threat. The issue of non-credible threats would be simply redundant if not silly.

If the issue of personality type is relevant and hence reputational capital matters, South Korea should have taken the threat of North Korea as an opportunity to enhance its reputational capital. Such a counter-threat by South Korea would be credible for the same two reasons articulated by Press [2004/05, 2005] as discussed above. First, considering the interest at hand, security of South Korea as a whole (threatened by a nuclear strike) is much more vital than the two rocky islets. Second, the balance of power is clearly in favor of South Korea, given its military alliance with the US.

But maybe the lack of moral outrage against North Korea is not puzzling if we include the cost of war with North Korea as opposed to the cost of war with Japan. A war with North Korea might involve *nuclear* weapons—while nuclear weapons would not be part of the conflict with Japan. Also, a war with North Korea would cause a regime collapse with a huge flood of refugees streaming from the north to the south—and into China as well. This would impose enormous costs on the neighboring countries. This explains, at least partially, why South Korea wants to continue a policy of engagement as mentioned at the outset, currently called “Peace and Prosperity,” in disagreement with the U.S. policy of sanctions and pressures on North Korea [Kotch, 2006]. Do these costs, along other variables, explain the moot reaction of South Korea toward North Korea? This need not be the case, as shown below.

The cost of war in general acts as a *double-edged sword*: On one hand, the cost can induce the agent to appease the opponent. On the other hand, it can induce the agent to threaten the opponent. The following model highlights how the double-edged character of cost of war helps us to predict which country will issue moral outrage as a threat.

4.2 The Assumptions

Ethologists have long studied threat-or-appease behavior. A prey has to decide, when attacked by a predator, whether it is better to stand ground and fight (threat) or it is better to flee (appease).⁶ The independent variables, consisting of costs and benefits, are continuous. However, the decision whether to fight or flee is almost binary, similar to abrupt changes captured by catastrophe theory [Zeeman, 1992].

The threat-or-appease model in our context is about war making when information is perfect.

The model consists of two agents, the self and the opponent, with the following assumptions:

- a. Information about the benefit, cost, and probability of winning the war is perfectly available to each party. There is no benefit from bluffing.
- b. However, each party does not know if the other knows that it knows these costs, and so on. To make information common knowledge, a threat thus acts as an announcement.

⁶ The threat-or-appease decision becomes the same as fight-or-flight decision studied by ethologists, if we assume that the threat is a precommitment, i.e., the agent faces same *ex ante* and *ex post* incentives. Incidentally, the fight-or-flight decision, which was first described in 1929 by Walter Cannon [1970], has been extensively studied by biologists and ethologists [e.g., Gray, 1994]. Their focus, though, is on the physiological and emotional systems that accompany

- c. Coordination cost = 0.
- d. The cost of maximum threat (moral outrage) = $\varepsilon \sim 0$
- e. Transaction cost = 0
- f. Altruism cost = 0.
- g. All agents are risk neutral.
- h. The incentives facing the members of each warring agent—if the agent is multi-person—are compatible, i.e., there is no free-riding problem and no rent-seeking.
- i. There is no extra utility derived from participation in collective action. That is, there is no mob-effect diffusion of emotions.
- j. There is no difference between the official posture of the state and the informal posture of the public in the form of emotions.
- k. The body politic is homogenous in each camp. That is, there are no militant- and conservative-leaning factions in each camp. Such factions would have different beliefs or convictions about the ability of the camp as a whole in carrying out a successful war.⁷

Given the first assumption of perfect information, and even if (contrary to the second assumption) information is common, a war can still break out. To rule out unnecessary war, assumption 3 states that coordination between the two parties is costless. This is a useful assumption

stress and response to stress.

⁷ The divergence of belief concerning ability, viz., stamina and tenacity in carrying out a war entails different assessments of the likelihood of winning the war. The divergence of beliefs about ability is probably the main cause of war. But this would be outside the model proposed here.

because, in case the expected benefits from war is equal for both parties, there can be coordination of who will back down (blink) or act as a “chicken.” Otherwise, both parties might attack each other, leading to a disaster. As shown in the game of chicken [Rapoport & Chammah, 1966], or what John Maynard Smith [1982] calls “Hawk-Dove game,” the lack of coordination (what Maynard Smith coins as the lack of “uncorrelated asymmetries”) will lead to the mixed strategy of attacking and retreating, and is the Nash equilibrium evolutionary stable strategy. To rule out the mixed strategy, it is assumed that one party can communicate with zero cost its credible intention to take one strategy (e.g., attack), which will definitely induce the other to retreat.⁸

The communication, in the context of the game of chicken, should not be confused with the term “threat” used here to make information common knowledge. Namely, threat in the proposed model is undertaken not to resolve the issue of who will blink first. The basic idea of the proposed threat-or-appease model is to use threat to win the benefits of war without actually going to war. Threats are Pareto improvements because they make what is known to everyone into common knowledge.⁹

The cost of giving a threat, in the form of moral outrage, is minimal (ϵ) and hence assumed to be zero. Even if the cost of giving the threat rises with intensity of threat, and can reach a maximum, it can thus be ignored. Even in the case at hand, the death of one person and many sliced off fingers amount to a miniscule cost relative to the cost of actual war.

⁸ O’Neill [1999] called such signals of intent “focal symbol” which allows agents to communicate and coordinate, and hence avoid disastrous mixed strategies.

⁹ This function probably corresponds to the concept of the “message symbol” in O’Neill’s [1999] taxonomy of symbolism in international relations.

4.3 A Simple Model

I shall now propose here a simple model with results that are driven by the assumptions. This model concerns a single agent who potentially faces a claim by a relatively powerful state that demands concessions in terms of territory or other resources. The agent gauges the intensity of its threat in proportion to the expected net benefit. In this manner, it makes the private information common knowledge via the threat. Such a threat is credible and hence must exactly gauge the costs and expected benefits of the potential war. In this model, there should not be a reason to go to war, assuming that the two parties can issue threats and both parties understand what the threats indicate. The decision to issue a threat of war is identical to the treat of legal action. An employee, a consumer, or a neighbor who is about to be denied his or her property must decide on the intensity of the threat, given the costs and expected benefits of legal action.

The agent under focus has to decide on whether to express the threat (TR) at time τ , where $\tau = t, \dots, T$. The agent must decide whether it is a positive threat ($TR_{\tau} > 0$), called here simply “threat,” or negative threat ($TR_{\tau} < 0$) called here “appeasement.” The agent also has to decide on the intensity of the threat or appeasement. So, the decision is quasi-binary.

The intensity of the threat must be proportional to the data of the situation. It is not in the interest of the agent to either exaggerate or understate the intensity of the threat: As assumed, the data is perfectly known, and the threat simply tries to make it commonly known. If the agent exaggerates or, to trick an opponent, understates the threat, its reputational capital, discussed below, would suffer. The opponent would know that the threat-maker is unreliable. Also, the intensity of

the threat might be restrained by the cost of the threat. But, given the assumption that even maximum threat, such as moral outrage, is minimal (ϵ), the model here ignores the cost.

The agent's optimum emotional eruption or threat (TR_τ),

$$TR_\tau = f\{ENB_\tau, C_\tau^O \mid ENB_\tau \geq 0\}$$

$$ENB_\tau \equiv P_\tau (C_\tau^a)B_\tau - C_\tau^a$$

$$\text{s.t. } C_\tau^O > 0, C_\tau^a > 0$$

$$\text{where } 1 \geq P_\tau \geq 0$$

(suppressing t) where ENB is expected net benefit of war, C^a and C^O are the costs of war incurred, respectively, by the agent under focus and the opponent (irrespective of who wins), and P_τ probability of winning the war and gaining $B > 0$ (otherwise, one loses B , i.e., gains zero). For simplicity, and given risk neutrality, we suppress the utility function, U , as a way to value the expected net benefit.

The probability of winning a conflict is positive given the current expenditure of resources on war (C_τ^a). In this strategic model, P is assumed not to be a function of previous C .

Also, it is assumed that agents are rational and hence P , on average, is not influenced in a biased way by the fluctuation of benefit (B) from one sequence to the next. That is, agents are not biased in the way they interpret previous outcomes (B) in order to Bayesian update their prior P : If earlier victories make them upgrade P of next encounter, earlier failures should symmetrically prompt them to downgrade P . This non-bias hypothesis entails that the “sequential complementarity of output” is vacant,

$$\partial P_\tau / \partial B_{\tau-1} = 0$$

We take B of the previous period as a proxy of all previous outcomes. This assumption ensures that agents, if they track B, they do so in a rational manner, i.e., as signals to get information about their ability P. In this manner, they factor out the element of luck and can identify how much of the output (B) is related to investment (C).

The assumption that sequential complementarity of output is vacant may sound counter-intuitive because one's chance of gaining B appears to depend on past successes of winning previous conflicts. However, one does not know *ex ante* for certain if one will win the current war. But one knows, on average, whether one will gain B, i.e., whether ENB is positive or not. The risk neutral agent, and especially the risk averse agent, cannot be adventurous and wage wars in the hope of winning when one expects to lose. If one takes chances, there would be an equal chance to lose as much as to win. That is, the agent, in this model, would never wage war in current period knowing that $ENB < 0$. While it might win the war on one occasion, on average it would lose. As such, this would, if P is dependent on previous outcomes, lower the probability of winning in future conflicts. Thus, one cannot base the probability of winning on previous successes because previous successes could have been the product of chance.

In addition, it does not pay to bluff. If an agent issues a threat, when everyone knows that he is going to appease given his negative expected net benefit, the threat is simply a waste of one's breath. Agents cannot accumulate reputational capital on the basis of past actions, given that the world has perfect information and agents are rational. Consequently, there is no point of making a threat.

Given the above assumptions, the proposition here is that the current decision to make a

threat ($T_\tau > 0$) or to appease ($T_\tau < 0$) does not hinge on the present value of future expected net benefits.

To show this, let us define U^t as the present value of all future values (u_τ) of expected net benefit,

$$U^t \begin{cases} < 0 \text{ if } \sum_{\tau=t}^T \delta^\tau u_\tau \{ENB_\tau\} < 0 \\ \geq 0 \text{ if } \sum_{\tau=t}^T \delta^\tau u_\tau \{ENB_\tau\} \geq 0 \end{cases}$$

where δ is the discount rate. As shown in Table 1, if fighting/appeasing all future adversaries is worth

	$U^r \geq 0$	$U^r < 0$
$ENB_\tau > 0$	$T_\tau > 0$	$T_\tau > 0$
$ENB_\tau < 0$	$T_\tau < 0$	$T_\tau < 0$

Table 1: To Make a Threat or Not?

make a threat only if the instantaneous $ENB_\tau > 0$. Otherwise, given that one will appease or run, it would waste one's breath to make a threat. And even if one loves to gamble and fight a losing battle, the gamble would more probably hurt it on average, as discussed above. On the other hand, if fighting/appeasing all future adversaries is not worth it, one can still benefit from making a threat at time τ if instantaneous expected net benefit is positive. Otherwise, it is not worth making a threat.

The cost of war for each party includes lost weapons, destroyed resources, a destroyed labor force, and lost man-hours in fighting the war. The cost amounts to an investment because the agent has foregone the use of these resources for irrigation, building homes, and enjoyment of goods. It is assumed that each party has positive cost. But what makes the threat more effective? It is the cost of the opponent (C^o), given that the agent's ENB is positive. The agent can emphasize the common knowledge by increasing the threat, where such a threat reminds the opponent of the cost that it would incur in the case of war. The agent's cost (C^a) is already calculated in ENB. However, there is a "reflexivity problem": When the agent makes the threat it also avoids cost of war. This should not mean that we should add up both costs in order to determine the intensity of the threat. It would invite double-counting. To keep matters simple, it is assumed that,

$$C^o_\tau = C^a_\tau$$

And hence use only C_t to denote the cost of each party.

The key idea of the threat function is the sudden switch from the threat mode to the appeasing mode. This is afforded in the model because, in the threat function above (suppressing the time subscripts),

$$TR = f\{ENB, C \mid ENB \geq 0\},$$

TR is positive in C if $ENB \geq 0$; otherwise, TR is negative in C. The switch or tipping point (P^*) is defined when $ENB = 0$,

$$P^*B - C = 0$$

$$P^* = C/B.$$

So, when

$$TR = f\{ENB, C \mid P \geq C/B\}$$

we have

$$\partial TR / \partial C > 0.$$

And when

$$TR = f\{ENB, C \mid P < C/B\}$$

we have

$$\partial TR / \partial C < 0.$$

If $C/B > 1$, and P cannot be greater than 1, then $ENB < 0$ and $C < 0$. Thus, threat would be negative (appeasement). Further, in case where $C/B = 0$, there would be no need for threat for any P that is slightly greater than 0. The agent can go to war anytime since war has no cost.

The model assumes that the second derivative of TR with respect to ENB is positive (convexity) when $ENB > 0$. It is negative (concavity), otherwise. This assumption allows us to define the maximum threat (TR^{\max}) and the minimum threat (TR^{\min})

$$ENB \rightarrow \infty \quad \Longrightarrow \quad TR \rightarrow TR^{\max}$$

$$ENB \rightarrow -\infty \quad \Longrightarrow \quad TR \rightarrow TR^{\min}$$

4.4 Illustration of the Model

Figure 1 demonstrates the assumptions of the model. The x-axis denotes the endogenous

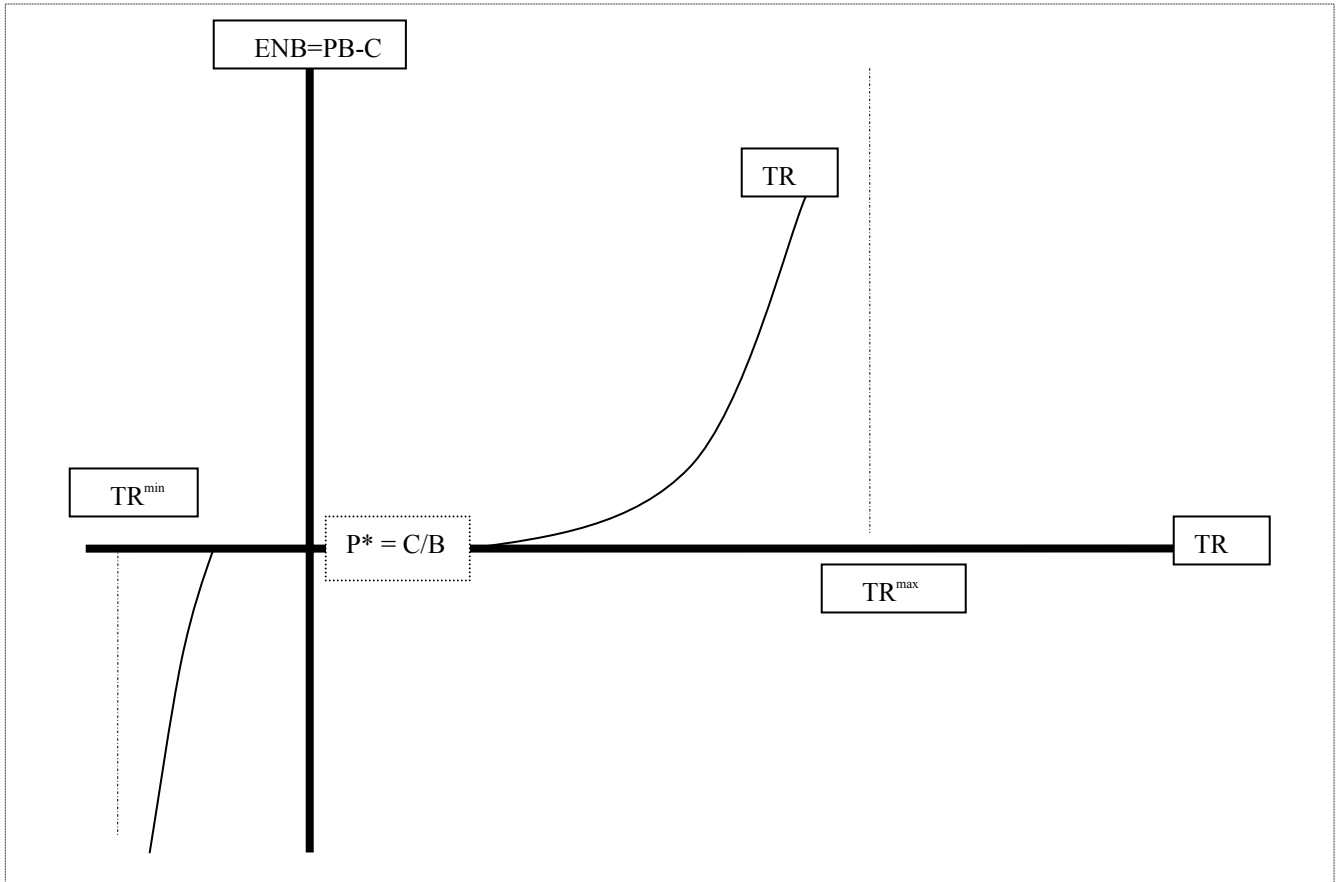


Figure 1: Threat-or-Appease Model

variable, threat, while the y-axis denotes the independent variable, ENB. As the return increases, one increases the intensity of threats. At low intensity, the threat can be simply a statement issued by the foreign minister. A high intensity threat would be a situation of moral outrage where people jump off bridges, slice their fingers off, or set themselves on fire. Changes in P , B and C usually entail movement along the TR curve, while the change of C also causes the shift of the TR curve. But the direction of the shift, which explains the discontinuity of TR , depends on P . If $P > P^*$, the curve shifts to the right when C rises. Otherwise, the curve shifts to the left when C rises.

Put differently, when $P = C/B$, the same (or different) C switches from a positive to a

negative value. The switch also entails the sudden turn-around from the threat posture to the appeasing posture. This is the case because, at the P^* tipping point, $ENB = 0$. $TR = 0$ if it is only a function of $ENB = 0$. If P is slightly above P^* , then threat would be above zero by the magnitude of shift of TR to the right. When P falls slightly below P^* , the curve suddenly shifts to the left of the y -axis. Thus, the agent suddenly switches from the threat frame to the appeasement frame.

4.5 The Limits of the Strategic Approach

Is the threat-or-appease model adequate to explain moral outrage? Is it adequate, at least, in the case of South Korea's provocation of Japan, but appeasement of North Korea?

To examine this question, we need to delve into major and minor episodes of the modern history of the Korean peninsula [see Kim *et al.*, 1997; Jung, 1998; Hamm, 1999; Bleiker, 2005]. However, to keep the examination disciplined and tractable, the facts should be selected in relation to the two incidences in early 2005. These incidences reflect the moral outrage puzzle that has confronted non-Korean journalists. Given the threat-or-appease model, our case study is stylized below to facilitate the validation of the model.

4.5.1 Threat against North Korea

In the case of victory against North Korea, South Korea would reap a huge benefit (B). It would get rid of the long-time threat from the North to take over the South dating to the end of World War II. This entails, among many other things, the permanent lowering of its expenditures on defense. Under the assumptions of the threat-or-appease model, South Korea need not cover the cost of

rebuilding North Korea, in the case of a South Korean victory. At least, South Korea does not have to spend more resources than it already does, in the form of food and economic aid, on North Korea.

What about the probability of winning the war? The probability of victory (P) is almost 100% because the US would side with South Korea, while North Korea cannot rely on Russia or China as was the case was during the Korean War or Cold War [Kim *et al.*, 1997].

Given the high benefit and probability of winning the war, the expected benefit of war against North Korea is high. It could have been higher if there were no nuclear weapons involved. But, with US support, the expected cost of nuclear confrontation would only enhance the level of threat waged by the US given that the expected net benefit is positive.

Given this result, the cost of war should propel the likely winner to threaten North Korea. But this did not happen.¹⁰

4.5.2 Threat against Japan

In a war against Japan, South Korea's benefit (B) would be meager. South Korea would secure some rocky islets with rights to probable natural gas reserves and fisheries. In any case, the territorial claims of Japan are miniscule in comparison to the territorial claims of North Korea.

¹⁰ One may argue that North Korea knows that it will lose the war. Thus, its announcement of possession of nuclear weapons falls on empty ears. The announcement is a non-credible threat and, hence, drew no protests from South Korea. To wit, North Korea is widely seen as unpredictable with an erratic leadership [Kihl & Kim, 2006]. So, North Korea undertakes "crazy" acts of posturing, viz., building nuclear weapons and announcing them, which pose no threat to South Korea. It is expected, then, for South Korea to pay little attention to North Korea's hyperbole. But this argument cuts both ways. Why should South Korea leave a loose canon to the north of its border? Why should it trust the arsenal of weapons to a crazy opponent? It would be better to threaten North Korea to avoid the costs of war.

What about the probability of winning the war, which is the most crucial issue in the model above? At first look, it looks very probable that South Korea would prevail for two reasons. First, China is also interested in curtailing the territorial claims of Japan. Thus, China would ally itself with South Korea—probably in the process invoking the common colonial past of brutal Japanese occupation as the excuse. Second, the US would restrain Japan. Japan will not venture and colonize South Korea as it did at the turn of the 20th century.

However, these two reasons cut in the opposite direction as well. Concerning the first reason, the US would encourage Japan to become more militant—given the concern of the US about the rising power of China. Second, Japan is a strong ally of the US. In fact, given the strategic interests of the US, Japan is more important than South Korea. Given these two considerations, the US may even help Japan against South Korea, fully knowing that such help may alienate South Korea and even may push it closer to North Korea in an anti-US alliance. This view is supported by the fact that the US is now actually encouraging the rise of militarism in Japan, by urging Japan to increase its armaments and take on duties in Iraq and Afghanistan on behalf of US interests. So, Japan cannot be treated any longer as a toothless tiger.

Further, Japan is richer and has greater manpower than South Korea. So, on balance, and given US support, the probability of victory (P) of South Korea is rather low. So, $ENB < 0$ for South Korea. Thus, the cost of war should become a damper on the threat posture. The model above predicts that South Korea should appease Japan. But, once again, it was the opposite that actually took place.

6. Conclusion

This paper shows the different shortcomings of three major views on how to explain emotional outbursts: The sociological, the evolutionary, and the rational. The sociological approach begs the question: Why is the agent predisposed to act according to a particular norm, identity, or taste? The evolutionary game approach is essentially tautological: To explain the stability of an irrational strategy, the approach must assume a critical mass of irrational types. The rational approach most relevant here is the strategic: It explains moral outrage as a threat that attempts to make private information commonly known. This paper develops a model, the threat-or-appease model, which predicts that the “top-dogs” should express moral outrage to save the cost of unnecessary war. However, it was the “underdog” who issued moral outrage in the case of South Korea against Japan.

This leaves us with no choice but to think differently about moral outrage. If it cannot be a threat, it must be a signal of a different kind. Given that it is adopted by the underdog, how could the underdog benefit from moral outrage when it obviously cannot threaten or scare the top-dog? The signal issued by the underdog must be an intra-self communication where the underdog undertakes the signal as a way to buttress its morale. The underdog, such as South Korea vis-à-vis Japan, knows that it cannot confront Japan over the islets, especially given the meager benefit. So, it wants to flee from battle. But it does not want to flee from more important battles in the future. So, the moral outrage acts as a signal to its future self: “While I am fleeing now from this battle, I am not a coward—I will stand my ground in future confrontations for the defense of the country.” But to show how self-signaling exactly works would require another forum.

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