

# Will Threats Against North Korea Achieve US Objectives?

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North Korea is “behaving badly” according to many, and particularly the Trump Administration [1], which is echoing Bush and Obama administration threats against it. The most recent statements may be a bit more strident but are surely not very different. But what are the unintended consequences of those threats? A year ago, the topic of North Korea came up in my conversations with a member of the National Security Council and with the Defense Threat Reduction Agency (the agency responsible for understanding threats and developing strategies against weapons of mass destruction). I consulted with Tom Schelling, the mastermind of deterrence by Mutual Assured Destruction with the Soviet Union (who passed away in December [2]). He was clear: the US should not be concerned about North Korea developing nuclear weapons. This may seem counterintuitive. Here, I would like to discuss a game theory analysis that supports his advice and the counterintuitive consequences of threats increasingly made since the Axis of Evil speech of President G. W. Bush in 2002 [3]. This discussion was presented at DTRA in May 2016 and predates the presidential election.

Much of the discussion about the conflict with North Korea is anchored in the conflict between North and South Korea and local motivations, threats and consequences [4]. However, given the presence of US troops in South Korea and the historical alliance and statements by the US government about direct actions, the geopolitical conditions are better described as a conflict between the US and North Korea. While the local conditions are important for specific considerations they are not essential for the larger picture.

Let us consider first how Mutual Assured Destruction works as a deterrent. For several decades during the Cold War, the US and the Soviet Union were two “superpowers” that had enough nuclear weapons to annihilate each other. There was no way to defend against an attack but they never attacked. Why? One thing was very clear, if one side attacked the other, even though the attacked side would be completely destroyed, it would still be able to launch enough missiles to destroy the attacker. The survivability of nuclear weapons if the other side attacked was a key part of a strategy of Mutual Assured Destruction.

More generally, the way deterrence works is that if one side does something, the other side would do such damage in return that the chances of the first side doing the first action is unlikely to the point of impossibility. Mutual Assured Destruction depends on people being sufficiently reasonable (rational) not to do things that would be self-destructive in the end. It also depends on certain conditions being met, including that the ability to retaliate persists past the initial attack.

For the case of US and North Korea, there is a specific and clear difference compared to the superpower case: North Korea can’t destroy the US. Since the US can destroy North Korea it would make sense that there is no problem as far as the US is concerned. After all, the deterrence of North Korea from attacking is still present. So why should the US worry? A reason-

able strategy would be to state: If you make an attack we will annihilate you. End of problem and we can go on and worry about other things. The message that we shouldn’t worry was clearly stated by Tom Schelling. He went on to say that trying to prevent countries from gaining nuclear weapon capabilities was not helpful—nuclear weapons will become ubiquitous and we should accept this. I might add: Nuclear proliferation is surely a concern, but if we don’t wish to accept that it will happen, we have to inquire what actions would be effective in preventing it.

Schelling did not say much more. In what follows, I will analyze his words in terms of the consequences of doing what he suggests, as well as the alternative (See also Fig. 1).<sup>1</sup>

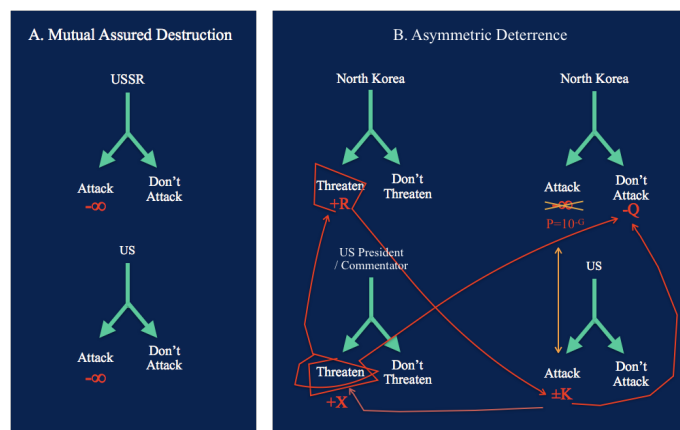


Figure 1: Payoffs for players acting in response to actions of the other player (not the usual game theory where actions are synchronous). A. Mutual Assured Destruction with stable payoffs of negative infinity for attack on both sides. B. Asymmetric confrontation leads to destabilizing ambiguity as any motivation to attack ( $+K$ ) by the superior power motivates threats and counter threats, and when ultimately the expectation of a preemptive attack becomes credible, the payoff of an attack is no longer negative infinity. Incremental changes in motivation destabilize mutual deterrence.

What happens if we follow his advice? Can we rely on deterrence against North Korea if it has nuclear weapons? Here is the scenario. We declare we don’t care what North Korea does to improve its nuclear weapons. We ignore them as they build their capability. At some point they have capability to launch nuclear weapons and even hit Hawaii or the US western coast. Should we be afraid that they will do so? If Kim Jong-un were to launch nuclear weapons we and he can be certain that he would be dead shortly thereafter (whether we chose nuclear or conven-

<sup>1</sup>Schelling was wise not to explain all the consequences, as that explanation itself can motivate concerns that would increase destabilization. I am including an explanation because we are already too far along the path for a pullback based upon the simple statement not to make threats, at least not by me. The explanation given here is the best strategy I know to influence the discussion.

tional retaliation, or chose to hunt him down). Would he want to do so and give up the nice existence he has as a dictator? If he were a fanatic who was ready to sacrifice himself for a cause or a truly crazy person likely to engage in irrational behavior, then we should be worried. Do his actions support this kind of characterization? If news reports are to be believed, he has killed many people and done so using violent means, most recently his half brother, and before that his uncle [5, 6]. But if we consider these actions as to their rationality, and in the face of historical precedent, none of those actions are different from those of other kings and dictators who want to consolidate their power. For a specific source, the Bible could serve. We may not like what he is doing based upon humanitarian or ethical grounds, but that doesn't make him irrational. Moreover, his actions are far from those of an ideologue who would want to sacrifice himself. If anything, they assure us that he is very interested in self-preservation. The assumption of rationality that underlies deterrence seems to be a good assumption in this context.

What happens if we don't follow Schelling's advice? The interesting thing is that in this case the feedback loops in the system destabilize the deterrence.

As long as the US doesn't actually carry out an attack, the effect of a threat is to create uncertainty as to whether an attack might happen. The higher the uncertainty of such an attack, the greater the importance to the leader of North Korea to obtain a deterrence against it. This involves North Korea creating the kind of conventional force and survivability that would deter an attack. It includes secrecy about where and what weapons are present, where the leader is at any time, and any other things that would make a small (special forces) or large scale attack fail. And it drives the imperative for North Korea to build a nuclear capability as soon as possible.

Why doesn't the leader of North Korea simply accept the conditions that the US dictates so that there wouldn't be a reason for the attack? Because as the US popular press articles and movies [7, 8] (which North Korea surely pays attention to) as well as government statements [9] say, it is the very existence of a dictatorship, and the actions of that dictatorship internally, that are repugnant to the US. Since the very existence of the North Korean dictatorship is repugnant, it is rational to infer that an attack might happen regardless of North Korean weaponry and nuclear capability. Indeed, reports indicate attacks were nearly launched by President Clinton [10]. So Kim Jong-un has little incentive to accept the terms dictated, as they are not meaningful reductions in the risk that is present.

What does our analysis say about a preemptive attack against North Korea? In short, there is nothing that we can say against a successful attack. If it could be done with a high success probability, including all side effects, it would solve the current problems. However, if it fails, the consequences would be severe. North Korea has enough military power to cause significant destruction if they were attacked and survived the attack. So if there was good assurance of success, don't threaten attack (the threats cause problems) just do it. But if you can't do it with sufficient certainty, don't threaten. In either case, a threat is, bluntly, a stupid thing to do.

There is a flip side of a successful attack capability. If North Korea becomes convinced that we have such a capability (perhaps because of the threats, or for other reasons), that would motivate a change in policy. Rather than waiting for an attack to occur prior to retaliation, it would adopt an early warning based response as a deterrent: North Korea would not wait to be attacked before attacking, it would wait only for some indication of an impending attack. An early warning system leads to a

much greater risk, because misinformation or misinterpretation can trigger an attack with devastating consequences. Indeed, this is the primary scenario of the asymmetric deterrence that leads to an actual nuclear attack by North Korea.

We see that it is the threats by the US, whether by political observers in the press or by the president and administration that drive the incentives for North Korea to develop nuclear weapons. Counterintuitively, threats do not lead to actions that are desired; they just make it worse. Threats themselves are actions with consequences. More than not threatening, what is needed is to be clear that one is not going to attack, especially given press commentaries. (This last point was also stated by Schelling in our conversations.)

If we abandoned threats, would sanctions by themselves work? Perhaps, but they would have to be accompanied by a clear retreat from threats that motivate escalation of nuclear capabilities. The ability of sanctions themselves to impact policies has not been consistent, consider Cuba and Iran. Economic sanctions reinforce isolation, limiting influence and preventing economic change from achieving advances in human conditions, including government change.

The arguments that I have presented here are far from new, appearing in many articles and commentaries [11, 12, 13].

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