

## **Analysis of North Korea's Nuclear Tests under Prospect Theory**

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### **1. Introduction**

North Korea has sought security maximization since the initial establishment of its political power. In this journey, North Korea has chosen nuclear weapons as the means to protect its sovereignty. Despite international society's endeavors and sanctions to encourage North Korea to abandon its nuclear ambition, North Korea has repeatedly conducted nuclear testing. In this paper, the reason for North Korea's addiction to a nuclear arsenal is addressed within the framework of cognitive psychology.

### **2. Prospect Theory**

The expected utility theory is one of the rational theories for decision making while under risk. Its logic is that one can make a choice that maximizes one's total utility by considering the probability and value of each outcome concurrently. However, in a substantial number of cases, the actual decision making processes of humankind show inconsistencies against this theory. The prospect theory was introduced to address such gaps in human behaviors [1]. Based on the prospect theory, the tendency of risk perception for a nation in its diplomacy changes depending on whether it is located in a beneficial area or in a loss area. When a nation expects certain benefits, it shows a risk aversion attitude. However, if one predicts losses, it turns into a risk-taking attitude, resulting in a high probability of making international society more unstable. In light of this theory, North Korea may also pursue an appeasement policy when it is located in a beneficial area, while choosing a conflict policy when located in a loss area [2].

### **3. Background of North Korea's Nuclear Ambition**

Kenneth Waltz claimed that states coexist under a condition of anarchy, and self-help is the principle of

action in an anarchic order; in addition, the most important way in which states must help themselves is by providing for their own security [3]. Under the Waltzian Neo-realistic approach, North Korea's nuclear development is interpreted as a struggle to maximize its own security. During the Korean War, the United States considered using nuclear weapons against North Korea. This kind of nuclear threat provided a direct motivation to Pyongyang to initiate its nuclear development. Moreover, after the Cold-War era, North Korea realized an adversity in the balance of power by witnessing the collapse of the Soviet Union. To cope with the fear of abandon from its traditional allies, Pyongyang pursued nuclear armament more eagerly. Based on the view of Realists, denuclearization of North Korea seems impossible without removing the security threat to North Korea [4].

### **4. North Korea's Nuclear Test under Prospect Theory**

The deliberate local provocation by North Korea during the Cold War era can be accounted for by the prospect theory. Pyongyang chooses cooperation when it lies in a positive domain. However, when located in a negative domain, as it is defeated in the competition regime, Pyongyang chooses noncooperation and carries out military provocations. Being aware that it lied in the negative domain after the end of the Cold War, North Korea tried to keep a balance of power on the Korean Peninsula and to recover its losses from international affairs. Eventually, Pyongyang has adhered to a tough policy toward nuclear weapons development, whether admitted by the international society or not.

The first North Korean nuclear crisis caused by the declaration of North Korea's withdrawal from the NPT in March 1993 was settled into diplomatic resolution by the Agreed Framework between the United States and North Korea in October 1994. Through the efforts of neighboring countries to resolve North Korea's nuclear

issues in a peaceful manner, the first round of Six-Party Talks was held in August 2003. In addition, at the fourth round of talks in September 2005, a Joint Statement reaffirming the goal of the Six-Party Talks as a verifiable denuclearization of the Korean Peninsula in a peaceful manner was adopted. Unfortunately, discussions on the denuclearization of North Korea were deferred when the United States blocked North Korean financial transactions by freezing the North Korean funds deposited in Banco Delta Asia. Finally, Pyongyang conducted its first nuclear test in October 2006. Under the perspective of prospect theory, Pyongyang's risk-taking decision toward nuclear testing despite its prediction of sanctions by the international community is interpreted as a trial to escape from negative domains such as financial sanctions and the regime threat by forcing the United States to choose either bilateral negotiations or nuclear proliferation [5].

Though the North Korean nuclear issue had reached its worst point after the first nuclear test, the participating countries found a clue to the resolution by agreeing on the initial actions and the next phase for the disablement of all existing nuclear facilities at the fifth round of Talks in February 2007. However as the gap between verification modalities could not be narrowed, the adoption of the verification protocol failed at the heads of the delegation meeting of the Sixth Round of Talks in December 2008. In the end, Pyongyang kicked out the IAEA inspectors and carried out a second nuclear test in May 2009. Under the perspective of prospect theory, the second test was a strategy to recover losses by making a situation to confront directly with the United States rather than continuing negotiations by appealing to Washington.

After the death of Kim Jong-il, the Chairman of the National Defense Commission, Pyongyang selected Kim Jong-eun as a successor. In response to North Korea's long-range missile launch in December 2012, the United Nations condemned the behavior by unanimously adopting the UN Security Council Resolution 2087. Not surrendering to the voices of international society, Pyongyang carried out a third nuclear test in February 2013. It is seen that Pyongyang conducted this test to promote an internal binding and to strengthen its bargaining power against Washington. Under the unique geopolitical situation of the divided Korean Peninsula, the successful implementation of the third nuclear test will worsen the unstableness of the region. It may even move the military balance between the two Koreas. Under the view of the prospect theory, North Korea is trying to strengthen its diplomatic stance at the bilateral

negotiations with Washington and/or the Six-Party Talks by escaping from the existing reference points toward points more beneficial to its own regime.

## **5. Conclusions**

The prospect theory addresses an epistemological approach usually overlooked in rational choice theories. It provides useful implications why North Korea, being under a crisis situation has thrown out a stable choice but taken on a risky one such as nuclear testing. Under the viewpoint of prospect theory, nuclear tests by North Korea can be understood as follows: The first nuclear test in 2006 is seen as a trial to escape from loss areas such as financial sanctions and regime threats; the second test in 2009 was interpreted as a consequence of the strategy to recover losses by making a direct confrontation against the United States; and the third test in 2013 was understood as an attempt to strengthen internal solidarity after Kim Jong-eun inherited the dynasty, as well as to enhance bargaining power against the United States. Thus, it can be summarized that Pyongyang repeated its nuclear tests to escape from a negative domain and to settle into a positive one. In addition, in the future, North Korea may not be willing to readily give up its nuclear capabilities to ensure the survival of its own regime.

## **References**

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