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Inherent Problems With Nuclear Deterrence And The Need Of Disarmament

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Inherent Problems With Nuclear Deterrence And The Need Of Disarmament

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A thesis submitted to The Graduate School at the University of Missouri – St. Louis in partial fulfillment of the requirements for the degree Master of Arts in Political Science

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1. Introduction

The purpose of this paper is to argue that nuclear deterrence does not have enough feasibility and reliability, and extract its limitations. Since nuclear deterrence is not very credible, the conclusion is that the best way we can straighten the problem that nuclear deterrence inherently possesses out is; total abolition of nuclear arms. The second purpose of this paper is to suggest how to proceed to create a world free of nuclear weapon from the current situation.

Nuclear deterrence is one of the most controversial topics because of its power of influence to our lives. Since the first atomic bomb was created by the United States of America, the theory of nuclear deterrence has always been crossing the lips of politicians, military personnel, scholars, industrialists, those civilians who are interested in their lives and others. Especially after two atomic bombs were dropped on Hiroshima and Nagasaki, Japan, a number of articles and books were written by those people. Wilson describes the characteristic of Hiroshima as follows; “Hiroshima is a difficult historical case to work with because most people are unable to resist confusing arguments about whether nuclear weapons were *effective* with arguments about whether their use was *morally justified*.” (Wilson 2008, 426) The question is why does it generate a discussion of morality? Most of the time, wars that were fought by conventional weapons are not judged by morality but the case of nuclear weapon is. (History only has two cases though). This is strange. No matter what means we apply, the results are the same. “[c]ity attacks are, for the most part, city attacks whether you use nuclear weapons, conventional bombs, artillery shells, or catapults hurling earthenware pots of Greek fire.” (Wilson 2008, 427)

Then what is the deference between nuclear weapons and conventional weapons? Nuclear weapons are mass destructive weapons. No humanity or mercy can get into what happens when the weapons are used. Daisaku Ikeda’s words give the clear answer for the

question; “If we split the history of mankind, it can be said that these two are “before nuke era” and “after nuke era.” This is because, on account of the emergence of nuclear weapons, “wipe-out of species” became the down-to-earth problem for the first time ever.” (Rotblat and Ikeda 2006, chap.2; 60) As for conventional weapons, on the one hand, there is some room that human feelings gain entry to the consequences because mercenaries would think something when they use that. They may choose their opponents to kill, or anyway some type of humanistic interaction has to come in. On the other hand, since nuclear weapon is a one-second-devastating weapon, once the weapon is fired, the consequence is mass-death only. Moral is nowhere.

Due to the reason stated above, although most of the people in the world should say using nuclear weapons are morally unacceptable, the theory of nuclear deterrence has been getting support, and it seems like nuclear deterrence is getting more and more support nowadays.

This situation might be because that people are forgetting history as it has been already 69 years since the two bombs were dropped, or this might be because of the drastic changes going on in the world. Even after the cold war, the world has experienced many things. Technologies are developing day by day, many types of conflicts are occurring somewhere in the world on daily basis, especially in about the last decade, new types of violence were born like births of many non-state actors, Middle East problems, tensions between the West and East, economic crisis and wars, and so forth. People are becoming busier and busier, and it is very easy to not look back what we have been through and forget about history.

At the same time, it is easier to support nuclear deterrence theoretically and by humans’ nature. The idea of deterrence is supported by fear. Fear is one the most essential emotions that mankind has. Having nuclear weapons gives people more peace of mind as the

weapon is a kind of insurance. Under the current unpredictable circumstances in the world, it may seem less risky to retain those weapons that may protect states in question from any actors that try to harm, than to give up the weapons. It is difficult to prove that other states have not attacked a nuclear-state or its allied states (yet) because they have nuclear weapons, but at the same time, it is also challenging to explain that there is guarantee that no states will attack nuclear-states or its allied states after they give up nuclear weapons. In that case, since people already have nuclear weapons and no states have attacked their land officially yet, it seems more feasible to keep this status. Compassion, moral, and these kind of lofty emotions comes after the basic emotions and desire –like hunger, fear, etc.-- are fulfilled. A sense of fear has to be solved before a sense of moral is taken into consideration. Nuclear deterrence does solve it to an extent so the theory is more supported, especially in nuclear-weapon states nowadays.

I was born and grew up in Hiroshima, Japan. The incredible number of people were killed by the atomic bomb in a moment at 8.15AM on 6th day of August in 1945. Right after the first bomb was dropped, the residents of Nagasaki, were thrown into the same fate as Hiroshima people were, at 11.02AM on 9th day of August in 1945. Those who are from Hiroshima or Nagasaki certainly have some connection to the two atomic bombs, for example some have relatives who were killed by the bombs, some have experiences of taking care of people who were burned and escaped from the ground zero, those who were passed on the influence of radioactivity by heredity such as the second, third generation, and so on.

Japan has more 2000 years of history, and it has innumerable beautiful historical and traditional wood-made buildings, traditional materials, and everyday things. However, in Hiroshima-city, none of them can be seen because all of them were burned by only one atomic bomb in a blink of an eye. Although more than 200 of other cities had air bombing, some heritages still remain there. This is one of the decisive differences between atomic

bomb and conventional bomb.

Every single school in Hiroshima and Nagasaki has a peace studying day on the day when the atomic bombs were dropped to their places. So 6th of August in Hiroshima, and 9th of August in Nagasaki. Citizens pray for those victims, and for world peace at the exact time when the bombs were dropped, and have many activities to learn about what wars are and how to create world peace at school. For example seeing videos about war, listening to a teacher reading literature, having round-talk table, inviting and listening to the survivors and others. Although most of the survivors never want to even bring back to memory about that time, some of them are actively sharing their experiences all over the world to dissuade people from accepting the existences of nuclear warheads in the world.

Since it's been 70 years after the atomic bomb drop, the number of survivors is decreasing very rapidly. Because of this situation, now there is a movement that young people collect experiences of the survivors and publish to forbid mankind's important history goes away. These two have to be only cases of actual usage of nuclear weapon, otherwise next time there would be no person left to speak history. This possibility is why we accept or deny nuclear deterrence. It is a double-edged theory.

Due to my background, I take a position of opposing the theory of nuclear deterrence. Every single thing that is said to support nuclear deterrence does not have a solid basis. The supporting doctrines for nuclear deterrence might be seeming very reasonable, understandable and have a perfect logic, however its premise that these logics accepts or even admire the existence of massively destructive weapons is not convincing because under the possibility of annihilation, or after annihilation nothing can be making sense. Although those theories that support the existences of nuclear arsenals are also apparently rational to an extent, the credibility of it is open to question.

It is also true that there will be many problems if the entire world gives up and

abolishes those nuclear weapons after once the knowledge about nukes and how to retain the weapons are given to human beings. Especially on the process of reducing and invalidating nuclear weapons, difficult problems may occur. This is hypothetical at the moment though. Sukeyuki Ichimasa, a teacher in the National Institute of Defense Studies points out many probable problems that may occur on the process to a nuclear-free-world, such as;

Accidental incidents, false recognitions, risk modification of using nuclear weapons on account of man-caused and technical factors under Launch-on-warning, nuclear-weapon states' fulfilments of their obligations to negotiate about nuclear disarmament as a bargaining to the non-nuclear-states' obligations of non-proliferation, non-proliferation of Loose Nukes, prevention of the outflow of nuclear weapons and nuclear related goods to non-state actors like international terrorists, etc. (Ichimasa 2011, 25)

There are, however, many things that people could do to avoid these supposed problems. Ichimasa's point of view is still based on the concept of nuclear deterrence. However, logics that support nuclear deterrence are not very reasonable. So the purpose of this paper is to clarify its limitations of nuclear deterrence, and to suggest more constructive way to balance each state's powers in the world.

This paper consists of thirteen parts; 1. Introduction (this part), 2. What nuclear deterrence actually is?, 3. Frictions among countries, 4. Complex and system to generate distrust and fear, 5. What makes deterrence a success of a failure?, 6. Historical cases of success and failure of nuclear deterrence, 7. What leaders fear?, 8. Merits and demerits of nuclear deterrence, 9. Terrorists threat, 10. Why it can be said that nuclear deterrence is not credible?, 11. Is it really possible to give nuclear weapons up?, 12. Conclusion, 13. Bibliography.

2. What Nuclear Deterrence Actually Is?

2-1: Basic Definition

First of all, we need to define a critically ambiguous term, “nuclear deterrence.” What is nuclear deterrence? Actually, what is deterrence in the first place? Robert J. Art selects “four categories that themselves analytically exhaust the functions that force can serve: defence, deterrence, compellence, and “swaggering.”” (Art and Jervis 2012, chap.4) He says,

Deterrence is thus the threat of retaliation. Its purpose is to prevent something undesirable from happening. The threat of punishment is directed at the adversary’s population and/or industrial infrastructure. ... Deterrence therefore employs force peacefully. It is the threat to resort to force in order to punish that is the essence of deterrence. If the threat has to be carried out, deterrence by definition has failed. ... Hence deterrence can be judged successful only if the retaliatory threats have not been implemented. (Art and Jervis 2012, chap.4)

As long as other states do not try to harm a state in question, it does not have to be, and actually may not be military capability which deters. Mishima defines “deterrence” as that it is to make adversaries think that the cost and risk which associate with attacking would be higher than the expected benefit, and thus deterrence is made by efforts to make them not take any actions which oppose home country's benefit. (Mishima 2008, 52)

For this paper, this definition of deterrence will be applied and therefore, 'nuclear' deterrence is the deterrence that the existence of nuclear weapon supplies. To make nuclear deterrence effective, countries need to have an ability to indicate a threat of punishment by nuclear weapons. (Mishima 2008, 53) Recently, North Korea showed the whole world a great example of nuclear deterrence. “If the United States strikes us, we should strike back. We are ready for conventional war with conventional war, we are ready for nuclear war with nuclear

war. We do not want war but we are not afraid of war.” This is a comment of Hyun Hak Bong, North Korean ambassador to Britain, posted on the article “Diplomat: North Korea ready to use nuclear capability.” He says North Korea now has the capability to launch a nuclear missile “[A]ny time, any time, yes.” (Bangor Daily News RSS, March 20, 2015)

Two weeks before this news article was published, “North Korean Foreign Minister Ri Su Yong said on Tuesday (March 3, 2015) that his country had the power to deter an "ever-increasing nuclear threat" by the United States with a pre-emptive strike if necessary.” (Reuters March 3, 2015) It can be seen that North Korea is trying to threaten other states so that those states cannot harm North Korea. Before North Korea acquires nuclear weapons, North Korean leaders were frightened of being attacked by or required many unfavourable things with one of the most destructive military force, nuclear weapons. Now, they also have nuclear weapons so that their fear is alleviated. What was an American authority’s reaction like? “A spokesperson for the US State Department ... said the US remained “fully prepared to deter, defend against, and respond to the threat posed by North Korea”.” (Al Jazeera English, March 21, 2015)

This is a nuclear deterrence. Because a state has nuclear arsenals, other states cannot attack the state in question easily as they know the impact of retaliation associated with nuclear weapons. North Korea wanted nuclear weapons to deter other states, especially the United States from attacking their country because North Korean leaders believed that the power of nuclear weapons could give other states enough fear to rethink harming their country and eliminate their feeling of insecurity just like the other nuclear-weapon states have been doing to North Korea so far. Conventional weapons could not give enough peace of mind because the characteristics of nuclear weapons are very different from conventional ones. It is a weapon of mass destruction, and it can destroy incredibly huge area in a heartbeat. Whereas, conventional weapons need some time to do the same harm and requires

more human hands.

2-2: Idealism and Realism

According to those articles I have read so far, there are two big standpoints for nuclear deterrence; one is idealism, and another is realism. Mizumoto suggests that “idealism is to set up ideal objectives based on some ideal senses of values or philosophy, and does not take its feasibility into consideration.” (Mizumoto 2000, 126) For nuclear deterrence, an ideal is nuclear abolition so people who have an idealistic standpoint deny its theory and value of existence no matter what. On the other hand, “realism is to set up feasible objectives. Although realism shares ideal senses of values and philosophy with idealism, its standpoint is consistently realistic. So when they set up objectives, it tends to be step-by-step method.” (Mizumoto 200, 126) So for nuclear deterrence, although realistic people who support a realistic standpoint recognize the non-humanitarian quality nuclear deterrence contains, they do not negate the feasibility of nuclear deterrence.

Taken “feasibility” into consideration, the idealism sounds like illogical and not persuasive because they do not pursue feasibility. However, this is the trick of a long-running dispute. We need to think about this feasibility from a different point of view. Matsumoto states “nuclear deterrence heritage the contradiction that prevents wars by tools which are only for wars, even worse, it prevents annihilation by nuclear weapons which have a destructive capacity to annihilate human beings. It is obviously inferior to “idealistic view which tries to abolish every single nuclear weapon and create the genuine peace in the world.” (Matsumoto 1986, 6) What he points out illustrates the paradox of nuclear deterrence very well. In the real world, however, the realistic point of view have been keeping more espousals, and those people who stand on the realistic viewpoint proudly insist that it has been because of nuclear weapons, the world have been able to avoid an all-out war so far (because nobody could use nuclear weapons on account of the fear of retaliation of nuclear

weapons), even though there have been many localized wars.

There is a crucial reason why idealistic standpoint cannot be dominant to realistic standpoint. It is because idealism does not suggest the society concrete and tangible procedures to make their ideals come true. On the other hand, nuclear deterrence always gets attentions due to those incidents, such as succeeds in nuclear weapons testing, problems and solutions about deploying nuclear weapons and so forth. These concrete and tangible incidents get peoples' attention in the form of specific political questions. In consequence, nuclear deterrence gets support because a nuclear war has at least not occurred yet and this situation shows us a tangible and strong feasibility of the theory. (Matsumoto 1986, 5)

Kenneth N. Waltz certainly stands on a realistic point since he admires states' retaining nuclear weapons. He says;

Deterrent strategies lower the probability that wars will begin. If wars start nevertheless, deterrent strategies lower the probability that they will be carried very far. ... In a nuclear world, only limited wars can be fought. In a conventional world, states are tempted to strike first to gain an initial advantage and set the course of the war. In a nuclear world, to strike first is pointless because no advantage can be gained against invulnerable forces. In a conventional world, combatants use their best, i.e. their most destructive weapons. (Sagan and Waltz 2012, chap. 1)

Ito is also on the side of realism. He says that “nuclear weapons are a vital deterrence for the security guarantee of Japan.” (Ito 2009, 2) To think about the security guarantee of Japan, he asks three questions; what are the threats which Japan and the US have to deter, what procedures and means are effective for that, and what are the threats which only nuclear weapons are able to deter. If the adversaries do not feel threats from nuclear weapons but

others, there are other things to deter them. (Ito 2009, 2) It is said that Japan has many security problem in East Asia, political relationships with Korea, and with China are not great. North Korea has just announced that they are ready to use nuclear weapons. China is also a nuclear-weapon strong country. It is reasonable to think like to deter nuclear-weapon states; nuclear weapon does work because adversaries do know the impact of nuclear weapons.

Nuclear deterrence theory is a good friend with realism. In other word, nuclear deterrence is a very realistic theory that seems more feasible and logical. On the other hand, idealism is a standpoint that is against nuclear deterrence. In other word, nuclear disarmament/abolition is a great friend with idealism. Some people support nuclear deterrence from realistic point of view (but they know it is not ideal), and some people oppose the theory (but they cannot be concrete to make their ideal realistic).

2-3: Moral Deterrence

Can moral sense be a factor that deters a state in question from attacking other states? Bella mentions about World War I. He says there were a number of people who were deeply touched and morally shocked by the war because their enemies were their neighbours, and very inhuman things were going on in the combat areas. Unfortunately it was too late that the emotional moods start influencing leaders' decisions. However, Bella thinks that "[I]f their moral reservations had surfaced earlier and been more pervasive, persistent, and forceful, the system might have adapted in a less destructive manner. War might have been morally deterred." (Bella 1987, 20)

He suggests two types of deterrence. One is just deterrence and another is moral deterrence. His hypothesis about moral deterrence is interesting;

We do not need to deter a moral opponent (person) because a moral opponent

would never use nuclear weapons. (Because moral deterrence works, hence)

Deterrence must be applied to an opponent who is not morally constrained against the use of nuclear weapons.

Thus, deterrence is directed against the immoral gnome because it is against the gnome, rather than the moral person that deterrence is needed. (Bella 1987, 20)

The uniqueness of his theory is that the emotion that deters war is almost impossible to expect or intentionally create. Basic deterrence is based on fear. If we want to make people feared, there are some ways to do so, such as threatening, blackmailing... Every single human being has a desire to live. People get scared just because they do not want to lose their or their beloved ones' lives. So fear is one of the most primitive emotion, or more precisely a natural human instinct that we have. However, moral is a very different type of sense. It is a very lofty emotion, and it highly depends on each culture, personal backgrounds and even personalities.

A state can predict and expect if opponents get feared by their action to an extent since people can place oneself in the other person's position and think how s/he would feel like. A nuclear weapon is the prime example. Opponents, probably nearly 100 percent, cannot attack a nuclear weapon holder because they are scared of retaliation. Death is promised. However, it is difficult to expect that opponents cannot attack a state in question because they feel it is morally wrong. We would not be able to say that if a certain thing happens, person A feel this way and person B feel this way. Moral deterrence highly rely on adversaries, and it is almost impossible to know that the adversaries think. Hence, moral deterrence is not for actual warfare. If people can be 100 percent confident with moral deterrence, the world would not need nuclear weapons at all. Leaders just need to stimulate opponents' morality. Although it is impossible to be said that a state can deter adversaries based on the adversaries'

sense of moral, however, it may be a factor that deters warfare. A possibility is remained, it is not very credible though.

2-4: What Deters?

The difficulty of the (nuclear) deterrence theory is that nobody can say what deters other states from attacking. The only moment that people would be able to know what had been deterring other states from attacking is when the deterrence is collapsed or get to be invalid. Nuclear deterrence is supported by the thought of that it is nuclear weapons which deter other states from attacking. So if anybody seriously wants to prove that nuclear weapon is deterring other states from targeting a nuclear-weapon state, this state needs to give all the nuclear weapons up. (But if a state will try this method, it will not be an experiment but an actual political tactic.) Without the actual proof, nobody can declare that nuclear deterrence is valid anyway.

It probably is economic relationship which is deterring, or it might be a moral sense of majority of citizens who do not want wars (moral deterrence), or policy makers just do not want to take any actions as military actions impose a lot of economic burdens to a government, and it is also very energy consuming for a country. One of the top authorities' beloved daughter might have her fiancé in the adverse country and he does not want mess their marriage, or there could be any factors that influence leaders' decisions.

According to the interview about "What Would Happen if Iran Had Nuclear Weapons," William H. Tobey, Senior Fellow at Harvard's Belfer Center for Science and International Affairs at Harvard, answers the question, "what would a nuclear strike (by Iran) actually do to Israel?;"

The primary effects that people are talking about would be political and economic. It would create a belief on the part of the people who remained that

they aren't safe. It's not literally a one-bomb country. One nuclear weapon can't destroy Israel literally, but if you sap the economic and political viability of the place by essentially eliminating any sense of security, Israel might succumb. (VICE United States, March 17, 2015)

In his point of view, in the relationship between Iran and Israel, it is not a nuclear weapon itself but economic and political problems that the weapon causes is what have the strongest influence to Israel. In that case, even though Iran does not have nuclear arsenals, if they are very much stronger in political and economic field, Iran can deter Israel from attacking their land. In other word, it does not have to be nuclear weapon to deter.

Russett examined eleven historical cases (from "a comparative study of 17 instances in the period 1935-1962 where a potential attacker threatened a smaller state that was to some degree under the protection of another power." (Russett 1967, 92)) to see what factors decide the success of deterrence if there are three players in the game, attacker, defender and pawn. He sees the bonds between defender and pawn, and how much probability of that the defender would fight.

He hypothesizes that there are three factors that affects the success of deterrence. These three are military interdependence, political interdependence, and economic interdependence. In his eyes, not only military field but also other fields also have influences to deterrence. Coincidentally, politic and economic are what Tobey mentioned in the interview as well. Russet concludes;

High military interdependence was the least powerful of the three, it being found in seven of the eleven cases where the attack was not deterred, as well as in each of the six instances where it was. Political interdependence was also twice as common in cases of successful as unsuccessful deterrence, and

economic interdependence almost four times as common – present to some degree in all of the ‘successes’. (Russett 1967, 93)

Although most of the cases are not of ‘nuclear deterrence’ but of conventional deterrence, we still can see that it is not only military-related factors but also politic- and economic-related factors that affect deterrence. Same question again, does it really have to be nuclear weapons to deter other states? Things are not always what they seem. There might be no correlation between nuclear weapon and deterrence.

3. Frictions Among Countries

3-1: Situation

There is no reason that one country can have the right to retain nuclear arsenals and another cannot. There is no such thing that one side is 100% justice and another is 100% injustice. A concept of nuclear deterrence is that those states are permitted to retain nuclear warheads to deter other nuclear or non-nuclear states, and it was created by specialists in nuclear weapon states so they can justify retaining nuclear weapons. On the other hand, however, the Non-Proliferation Treaty was also made and strongly asked to sign by those countries which already had nuclear weapons in 1970. ("Treaty on the Non-Proliferation" 2015)

It is not surprising that not all the countries in the world agreed or were satisfied with the treaty. India, Israel and Pakistan have never signed the treaty because they could not see enough merits to sign. North Korea withdrew from the treaty in 2003. Iran signed the NPT but later, it was found out that they had extremely suspicious nuclear programs and unregistered facilities. South Africa is the only country that examined and created nuclear weapons by itself, and dismantled their apartheid-era bomb program. Libya signed the treaty

but violated it as they had a nuclear program as well.

From American point of view, Charles D. Ferguson categorizes these nuclear-weapon states that are not in friendly relationship with the United States in three. “Three types of states fit into this category (Those states that do not benefit from any great power’s nuclear umbrella): U.S. enemies, such as Iran and North Korea; U.S. rivals that share Washington’s interest in curbing proliferation, such as China and Russia; and U.S. allies that have nuclear weapon but have not signed that NPT, such as India, Israel, and Pakistan.” (Ferguson 2010, 90) In general, in the field of international politics, nuclear weapon problems are talked from Western point of view. Like Ferguson, the United States is the basis of comparison as it has the largest number of nuclear weapons. People may get confused that; since the United States and those allied states are strong and always main actors in the international nuclear field, they have the right to retain nuclear weapons, or at least compared to the states Ferguson categorized, the United States and its friends can be more justified of their retaining the weapons than other non-friend states. Ferguson continues his analysis; “The fact that every permanent member of the UN Security Council possesses nuclear weapons has led many nations to believe that international clout is dependent on having a nuclear capability.” (Ferguson 2010, 91) His argument is just what it is. In history, after all, those who have the strongest physical power have the right to take a leadership.

It is impossible for those states which have nuclear arsenals to force other states which do not have nuclear arsenals to give them up. Waltz, the strong nuclear deterrence supporter, states that “[D]eterrence does not depend on rationality. It depends on fear. To create fear, nuclear weapons are the best possible means.” (Sagan and Waltz 2012, 110-111) Deterrence is basically based on fear. There is an argument about morality, but fear is the only solid and credible decision-making source. It is the safest to make strategies based on a premise that there is no relationship of mutual trust among players in the game of

international politics. In that case, of course every country, especially those countries which are not getting along well with stronger countries want some securements of their safety. Having nuclear weapon is an ultimate implication of distrust. Since those countries which retain nuclear weapons do not believe other countries, it is impossible to require other countries to believe the nuclear weapon holders and give up their pursuing nuclear weapons. This distorted situation has been causing frictions among states in the world.

3-2: What Other Non-Friendly States Say?

Minty, 75, a South Africa's ambassador's words clearly indicate the friction and their aversion. He says that "The problem is you can't have nuclear-weapons states who feel they can have nuclear weapons and have as many as they want." He continues "Stocks of fissile materials held by countries outside the small club of nuclear-weapons states, ... are just "not that important" a threat, compared with the thousands of nuclear weapons held by the bigger powers." (The Washington Post, March 14, 2015)

Minty also accused that those states' not fulfilling the Non-Proliferation Treaty--in which the members of the U.N. Security Council agreed to disarm their nuclear arsenals if the rest of the world promised not to acquire them. The U.S. official's response is also full of distrust and aversion. "U.S. officials reject this reasoning. "Nuclear disarmament is not going to happen," Samore said he told Minty, and waiting for it is a dangerous excuse for inaction. "It's a fantasy. We need our weapons for our safety, and we're not going to give them up." (The Washington Post, March 14, 2015)

This is a fantasy that the U.S. has the right to have nuclear weapons to protect their country, but other states do not. Even though the Article VI of the Non-Proliferation Treaty, that the US also signed and even required other countries to ask, enshrines that "Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and

on a Treaty on general and complete disarmament under strict and effective international control.” (UN News Center, 2005) In their book “A Quest for Global Peace,” Daisaku Ikeda points out that overall; the center core of NPT is that those non-nuclear states disclaim working on nuclear development in exchange for the promise of those nuclear states that they will ultimately abolish all of their nuclear weapons. Because of this statement, “Non-proliferation” and “Nuclear Disarmament” should be together. (Rotblat and Ikeda 2006, chap 7, 174) However, under present circumstances, the situation is pictured by Minty’s words, in sum the responsibility enshrined in Article VI has not been respected well enough by nuclear-weapon states. Not only South Africa, but also other states feel the same for this problem. “Iran, which has been charged with violating the statute of the International Atomic Energy Agency (IAEA) and pursuing a nuclear weapon program, has repeatedly reminded the international community that the Security Council’s permanent members have not lived up to their own NPT commitment to pursue nuclear disarmament.” (Ferguson 2010, 91)

On their archives, Bureau of Arms Control of America addresses that “A gradual, step-by-step process toward nuclear disarmament is the proper and most effective course to pursue. The United States is on that course, and is making real strides toward that end.” (U.S. DEPARTMENT of STATE- ARCHIVE. February 10, 2005) This is actually true. The United States made a clear progress to nuclear weapon reduction. At least as for the number of weapons has been becoming smaller, but it cannot be set aside the fact that quality of weapons is also important. The destructive capabilities of each weapon are stronger than the old nuclear weapons, even though number is smaller. (Stockholm International Peace Research Institute, 2015) They also did not forget to prepare excuses for a slow movement.

However, the NPT is under growing stress from violations of the Treaty by states parties that are seeking to develop nuclear weapons in violation of their

solemn nonproliferation commitments, as well as the growing concern that terrorists will acquire WMD. These developments make it all the more vital that all NPT parties insist on full compliance with the nonproliferation obligations of the Treaty. (U.S. DEPARTMENT of STATE- ARCHIVE. February 10, 2005)

In the last part of address, after all, the government insists that other states follow the treaty as if it is an exchange for their nuclear disarmament. According to Federation of American Scientists, the United States still has estimated 7,100 inventories and Russia has estimated 7,500 inventories. (FEDERATION OF AMERICAN SIENTISTS, March 1, 2015) That is a pretty large amount of massively destructive weapons. How much mess they would be able to create? It is difficult to counter-argue the opinion that those nuclear-weapon states behave as if like they have the right to punish those states that do not obey the U.S. and other powerful countries under their military strength.

Israel took a pretty considerable strategy. They neither affirmed nor denied that they retain nuclear weapons. Even though if it is not clarified that Israel retains nuclear weapons, nuclear deterrence might not work well. However, in case that they unfold the information about nuclear weapon, there is a probability that they will lose a friendly relationship with the United States as the US might try to do something to punish, for example sanctions. (India and Pakistan did not have any sanctions because they are enough strong states that it may not be wise to stimulate these states. For example, when India had its first nuclear testing, “[A] 1994 law, the Nuclear Proliferation Prevention Act, made it all but inevitable Washington would impose wide-ranging sanctions against India. But the Clinton administration, which has been seeking a new "strategic partnership" with India, initially indicated that India could escape sanctions, if it immediately agreed to sign an international treaty banning nuclear tests. Delhi's response was to detonate two more nuclear devices.” (Jones May 16, 1998) But

India still could get a “strategic partnership” as there were more merits for the US to be close to India than becoming an adversary. On the other hand, Israel is a weaker state than other nuclear-weapon states so there is higher probability of being imposed sanctions.)

Furthermore, it may promote those other Arab countries to put efforts on nuclear development. For diplomacy, their strategy has been working, but inside the country it is not going very well. Since their retaining nuclear weapons are a secret, they do not have any official inspecting systems. Consequently, Israeli “nuclear coalition” (military, technology, industry) has no restriction for nuclear development and making nuclear-related policy, even though the power of nuclear weapons they have are considerably “overkill.” (Tachikawa 2007, 59) The power of strong countries influences a lot to relatively weaker countries. The only hope is that the nuclear coalition will not become out of control of the center government.

Situation that Iran was put in has been very instable and there is a very high probability that this situation made Iran want to develop nuclear weapons secretly. Tachikawa lists up those dangers Iran has been being facing. A hostile relationship against Israel and the United States, having a warfare for eight years with Iraq, occasional frictions against Pakistan that retains nuclear arsenals... Especially after 9.11, since America attacked Saddam Hussein regime and have the regime collapsed, Iran is actually almost perfectly surrounded by American armed troops. (Tachikawa 2007, 63) Iran does not really have good friends who could support their country, so it is not difficult to imagine that they have been felt insecure. It could be said that their primary purpose of retaining nuclear warheads is to deter other states from hurting their county, not to do harm other states. Even if it is just its secondary purpose to have nuclear warheads, it is still impossible to blame them as other states also have nuclear warheads. Nuclear-weapon states have been giving Iran a good excuse for nuclear development.

Ayatollah Ali Khamenei, a leader of Iran is very angry with the sanctions from the west. On March 21, 2015, he made a speech; “[A]merica is the original source of this pressure. They insist on putting pressure on our dear people’s economy. What’s their goal? Their goal is to put the people against the system.” He also “attacked the penalties, saying ‘arrogant powers’ had brought about the fall in oil prices by more than 50 percent in recent months.” (Euronews.com, March 21, 2015) Trita Parsi describes Khamenei’s personality by a word, “skeptic.” According to her analysis in her article “Why Iran’s Supreme Leader Wants a Nuclear Deal,” Khamenei is worried about what other states will do after the agreement with nuclear deal. He does not have any good impression about what the United States has done to Iran especially after the revolution, and how they did it. “Khamenei seems far less fearful of negotiating with an ideological adversary than of entering those negotiations from a position of weakness.” (The Atlantic March 26, 2015) From the beginning, Iran’s standpoint was weaker, they were the one who had to ask and beg so it may not be very comfortable to talk with this nuclear deal in a Western country.

Because of sanctions, the Iranian suffer a lot. In “I Talked To Young Iranians About Nuclear Negotiations and the Future,” Anderson introduces some voices of ordinary citizens in Iran.

“I don’t know why the government is insisting on this issue,” Bahman (a 27 year-old ordinary man) says. “Some of us are really fed up with it because it might be really bad for us... This is something totally strategic for them. I think they gain a kind of power or strength if they’re successful. Besides, [Rouhani] should be focusing on making our lives less difficult in terms of social restrictions.” (VICE United Kingdom, March 17, 2015)

What this young man sees is not a nuclear deal anymore. His focus is on the influence of those sanctions to Iran. It seems like he is not worrying about if his country’s security

problem is caused by having nuclear warheads or not at all. In other word, their life may be too harsh to even think about national security. The first thing they have to worry about is how to make their living.

Khamenei described sanctions from the west as a bullying. "During his discourse in the Imam Reza Shrine, he accused Washington of 'bullying' and trying to turn Iranians against Islamic rule." (Euronews.com, March 21, 2015)

It is not only Iran that had sanctions. North Korea also has been the target for decades now. "The United States has a long history of imposing sanctions against North Korea. A major source of contention is that the United States considers nuclear testing by North Korea to be a threat to U.S. security." It is interesting that for North Korea, sanctions seem to have the opposite effect of what it did to Iran. Those sanctions nurtured its aversion and urged North Korea up, and now it has got nuclear weapons. North Korea so used to having sanctions. Furthermore, those who suffer from the sanctions are basically ordinary citizens, not the authorities. So the U.S. could not get what they wanted from the sanctions against North Korea. Thangavelu concludes that it was because the North Korean authorities believed having nuclear weapons could protect their country even though North Korea was not getting along well with any countries. "The North Koreans say that their nuclear weapons are not a source of economic gain but more of a defense against U.S. nuclear threats." (Investopedia, March 18, 2015)

Very obvious and strong distrust has been lying among states so that states cannot help but intimidating each other, and this is why there are tons of nuclear deterrence supporters. Nuclear deterrence is a theory based distrust and fear. This Iranian's attitude presents the current situation very well; "In Tehran Monday, an Iranian nuclear negotiator urged world powers to find a "common position" to achieve a "balanced" final nuclear deal." (The Huffington Post, March 23, 2015) Those so-called rogue states also want fairness. From

Western point of view, fairness would have a huge impact on national securities and world peace as they do not know what those rogue countries really want and what they would do with the equal rights as westerners”. However even so, each state’s right should be respected and treated in the same way. Otherwise these countries in the weaker side cannot help but aggravate a grievance. A Korean ambassador, Hyun’s word represents their frustrated feeling; “It is not the United States that has a monopoly on nuclear weapons strikes.” (Bangor Daily News RSS, March 20, 2015)

Joseph Rotblat, the only physicist to leave the Manhattan Project and the Nobel Peace Prize holder for his efforts toward nuclear disarmament, attaches much value on this ‘fairness.’ He says; “[t]he long-term alternative to a nuclear-weapon-free world is not the present world but a world where a large number of states have accepted the argument – now used by the nuclear states – that any nation that feels threatened in any way is entitled its own nuclear deterrent.” (Rotblat 1995, 74) By this word, he wanted to bring up the distortion that the society had (and still has) at the moment.

4. Complex and System to Generate Distrust

Bella argues that “Self-deception, the distortion of perceptions, arises from the selective use of language, imagery, symbols, and examples; the selective involvement in tasks, questions, and practices; the selective association in groups, communities, and programs; and the selective interpretation and distribution of information” (Bella 1987, 19) can create the imagery that justifies attacking adversaries. This imagery can even give state more adversaries than it actually has. If the state changes their perspective and behaviour, their adversaries may just disappear, and good political or/and economic rivals may appear. In his article, Bella quoted two commanders’ speeches; one is of Lieutenant General James A.

Abrahamson and another is of Marshall of the Soviet Union D. F. Ustinov. From Abrahamson's point of view, what U.S.S.R. was doing made the U.S. suspicious and protective, and vice versa for U.S.S.R. (Bella 1987, 21)

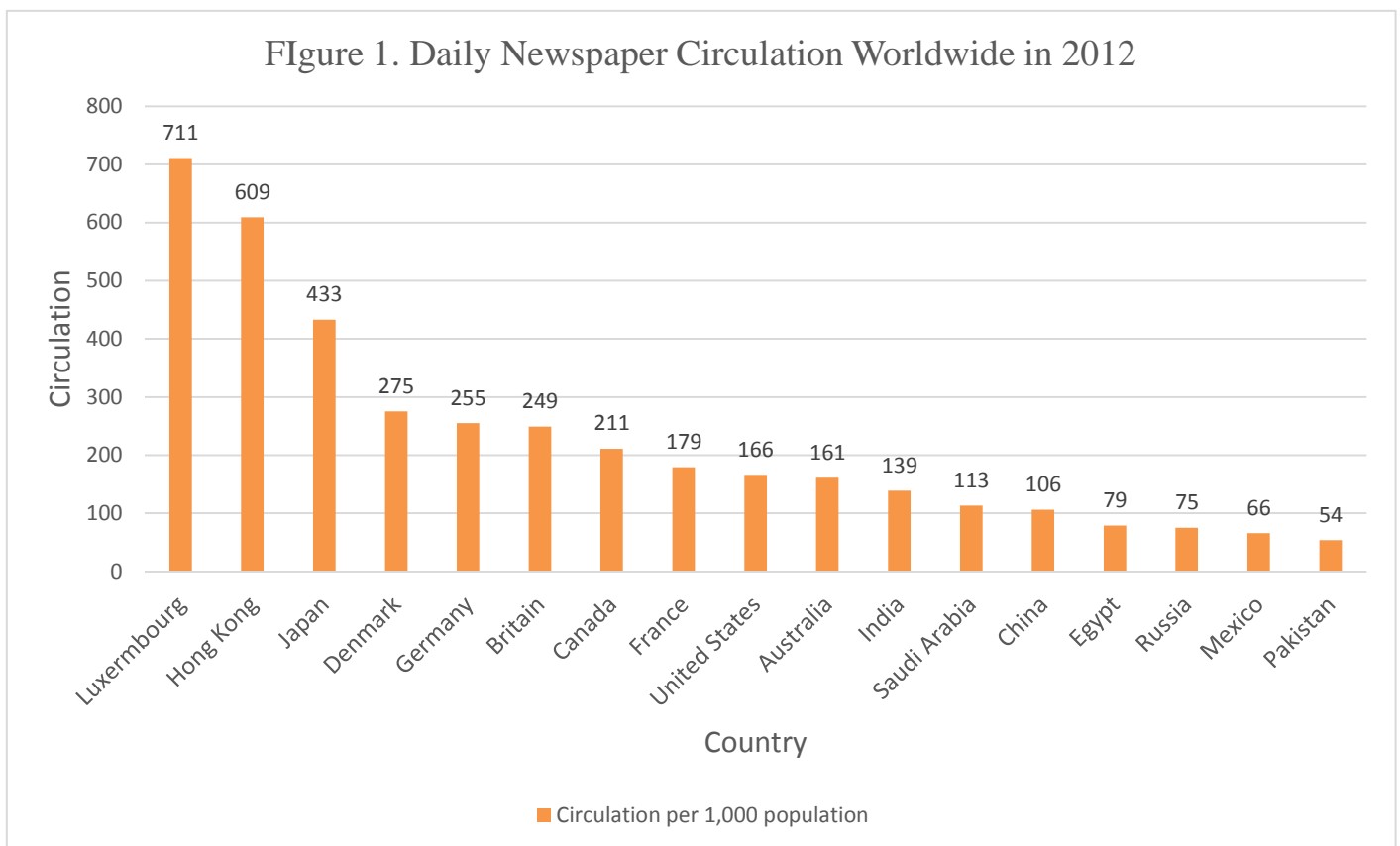
It is very much easier to distrust others, or set one absolute enemy to unite with the other states to make groups so the collective power becomes stronger than the enemy's. To avoid risks, pursuing collective power probably is the best way for leaders. People can regenerate or decorate those information they have as they like, and make themselves believe that dressed-up information. Fear is one of the most distinctive emotions so that it is the easiest for state leaders to control their people by creating this emotion that comes from human nature in the people by the dressed-up information, especially when people do not have other ways to gain suffice information. Thought about the United States and Russia now, it is easier to get information about the United States than seeking information about Russia, if people do not live in Russia. It is also easier to get bad information than good information.

For example, on the one hand, some articles from the US side: "Russia Threatens Nuclear Response If West Targets Crimea" (Chastain, April 2, 2015), "Russian Politician Urges Obama: 'Don't Be Like George Bush, Forget Ukraine'" (The Moscow Times, March 24, 2015), "From Students to Lawmakers, Eastern Europeans Take up Military Training against Russia Threat." (Scislowska April 6, 2015), "'As Tensions With West Rise, Russia Increasingly Rattles Nuclear Saber.'" (Sonne, April 5, 2015). All of the articles see Russia as an adversary.

On the other hand, some articles from Russian side: ". "U.S. Should Think Twice Before Criticizing Russia" (Asomanis, April 6, 2015), "Russian Fear of U.S. Hypersonic Missiles Threatens New Arms Race" (Bodner February 12, 2015), "Moscow Expresses Outrage Over U.S. 'Anti-Russia' Campaign" (The Moscow Times, April 3, 2015), "Russia Is

Americans' Biggest Enemy, Poll Shows” (Nechepurenko, February 16, 2015), “New EU Sanctions Target Top Russian Defense Official” (The Moscow Times, February 8, 2015), “U.S Forces Building In Eastern Europe To Counter Russia.” (Rego, April 6, 2015). All of the articles describes the US as an enemy of Russia.

Media loves catchy materials, and it is more certain to get public attentions by those information which probably have some bad influences on citizens’ lives so that they need to be aware. It makes people think the United States is more credible than Russia as they do not know what Russia is thinking. Here are some percentages of daily newspaper circulation worldwide in 2012.



(Source: Statista Inc. 2015)

The circulation rates of Western states are higher than the one of Russia. It would mean that the information from Western side is more spread abroad than Russian one. The number of

English speaker is bigger than of Russian speaker. It is easier to get information written in English than in Russian.

Even worse, Russia has one of the strongest military troops and weapons in the world so Russia can easily become an object of fear. However, wide availability of American information does not mean that the United States is proposing the true or essential information. They might have even worse cabals under the surface. Nobody just knows.

Just nobody knows, but if people started suspecting everything, they will lose an object to believe. In his speech titled “REASSURANCE AND DETERRENCE: WESTERN DEFENSE IN THE 1980S,” Michael Howard briefly states about the history in Europe. One of his main conclusions is that after those states started making military agreements with the United States, the balance between European countries and Russia became instable. Before that although the other countries and Russia were not in the friendliest relationship, they still could be more understandable to each other, and national security problems were less stressful. (Howard 1982, 309-324) Due to the imageries given to each state by other strong actor’s emergence, severer distrusting were generated. This tensed situation is one of the factors that have been being justifying nuclear deterrence. Even though the United States may just have wanted to protect those allied European countries, the fact that they obtain many nuclear warheads threatened Russia and has them very alert. Scared people tend to have thicker bias to protect them, so it should have made Russian government sceptical, even though the United States and other countries did not mean so.

Seeds of distrust are everywhere. Kawai’s analysis about two American atomic bomb drops is very shocking.

It is obvious that American atomic bomb drops were to deal with USSR.

Moreover, atomic bomb drops as a strong connection with RACISM. President

Truman called Japanese savage animals, and in the top part of the government and military, there were many who had no hesitation in declaring that “there is no ordinary citizen in Japan. We should wipe the Japanese off the face of the earth.” Very possibly, if atomic bombs were invented before Germany surrendered unconditionally, American government would not drop them on the same White’s land. We can assume so on account of the fact that, during wartime, all the Japanese were isolated in concentration camps, although German and Italian were not isolated even though they belong to the same adversarial countries. (Kawai 2002)

The Problem is not if it is true or not, but if people read this, there is a very high probability that those who read have some aversion to the United States. It generated an aversion in me, for example. Because there were many Americans who sympathized for Japanese citizens as well, but these disadvantageous information cannot be seen anywhere around this part. This is also an example of misleading the public.

Currently, Poland is very worried about Russia. Polish general says “Russia is trying to wage hybrid war” in his country. This hybrid war would not develop to a direct military conflict so that it will not trigger NATO’s collective defense obligation. His words clearly represents the system of distrust; “There is a negative image of Poland being created in Russian society, ... An example of such pressure was the recent declaration of moving Iskander rockets to Kaliningrad region, that is to the Polish borders. A few days ago a Russian document on annexation of Crimea stated that Poland backed up Maidan revolution by training Ukrainian fighters, which naturally is not true, but has built a certain image of Poland in Russian Society.” (Bender “Business Insider,” March 25, 2015) Now created information might help people in Russia to unite tightly by making them feared. Russia could even unite to other adversary states of Poland.

Howard brings up a very understandable point; “we must stop being frightened, and trying to frighten each other, with spectres either of Soviet “windows of opportunity” or of the prospect of the proposal of inevitable, self-generating nuclear war.” (Howard 1982, 324)

It is obviously the best that all the states in the world cooperate together, and compete in healthy ways. Distrust solves nothing but just creates suspicion and fear, and nuclear arsenals are one of the biggest sources of these problematic senses. Those authorities have been being do it on purpose, and see what we have now-limitless aversion and endless conflicts in the world. The biggest worldwide war ended, but under the surface wars are still continued in other shapes, for example, proxy wars, (nuclear) arms race and so forth. Why cannot they see the more constructive ways?

5. What Makes Deterrence A Success or A Failure?

5-1: Characterization of the Strategies Followed by Defenders

In “Deterrence Failure and Crisis Escalation,” Huth and Russett characterize the strategies that are applied by defenders to make their deterrence successful, and have attacker states choke off their plans.

In diplomatic action, the defender may consistently pursue firm, uncompromising behaviour (a bullying strategy), or early signal a willingness to seek a solution appeasing the attacker (a conciliatory strategy), or follow a strategy of firm-but-flexible bargaining (that is, refusing to yield to repeated demands but offering compromise proposals based on mutual concessions). ...

[i]n military action the defender can escalate quickly and consistently (a policy of strength), or systematically underrespond to the attacker’s escalation so as to avoid provocation (a policy of caution), or pursue a strategy well understood

in the gaming literature as tit-for-tat (that is, matching but not exceeding the adversary's level of escalation). (Huth and Russett 1988, 36-37)

What strategy was the most efficient? They examined all the case they prepared for their study by a statistical method (probit regression analysis). "Deterrence was likely to succeed if the defender followed a firm-but-flexible diplomatic strategy, and to fail for those defenders who tried either conciliation or bullying. Bullying sometimes succeeded against a much weaker attacker." (Huth and Russett 1988, 39)

Based on their analysis, it can be said those countries that have nuclear weapons can use the strategy of bullying to those countries that do not have them, because nuclear weapons are extremely destructive weapons. The bullying strategy has been actually being used by those big, strong countries in many ways. For example, those sanctions to Iran and North Korea could be regarded as one way of bullying. For Iran, it succeeded, and for North Korea it failed (but no fight has occurred so far).

If one state has an extremely strong military, they basically do not have to apply other strategies but bullying. Only when their addressees also have nuclear arsenals, for example the United States and Russia, they are in need to think about applying other strategy. Like Huth and Russett say, bullying becomes "a very risky strategy to try against another power of similar military capabilities." (Huth and Russett 1988, 39)

5-2: Famous Failure of Deterrence during the World War II

"The Japanese attack on Pearl Harbor represents one of the most conspicuous and costly failures of deterrence in history." (Russett 1967, 91) No matter what advantageous things that Japan thought it had at that time, it was just a miracle that Japanese government attacked Pearl Harbor, the territory of the United States. At that time, Isoroku Yamamoto was leading the navy. Japan had nine carrier vessels, and the United States had seven. Japan had

more than the US. Furthermore, it was said that America placed their main naval systems and war crafts in Pearl Harbor. So he thought it was a good opportunity for Yamamoto to crush their main naval power. He had two purposes to do so. One is to desperate American people so that they would be discouraged to join the war. Another is to get hold of the prerogative in Japanese government, and have an advantage against army. (Yamada, Accessed March 24, 2015)

He knew that it was not the best way to break the deadlock of war. He also knew that the United States had stronger military than Japanese one. But his knowledge did not stop attacking the stronger country. America's deterrence collapsed. Why? Because Japan had no other way to choose. To attack America with a little change to discourage them, or attack and have a retaliation, or just wait for being attacked (it was just a matter of time). "America's deterrent policy failed not because Japan's leaders really expected to win, but because they saw no alternative to war." (Russett 1967, 102)

This type of situations can be duplicated at the present day in more dangerous ways. What if those states against nuclear-weapon states get in a desperate situation and see no alternative but attack the nuclear-weapon states? Nuclear deterrence would collapse, if nuclear weapon was the source of deterrence. Even if the source was not nuclear weapon, anyway deterrence would collapse. Some scholars mentions about Germany controlled by Hitler during the Second World War. Hitler and some around him would have fired nuclear weapons at their adversaries no matter what consequences would be brought to Germany. (Sagan and Waltz, 2012) It seems to be a common perception among scientists nowadays that no matter what weapons (even nuclear weapons) coalition troops had, a mentally-troubled person like Hitler could have used nuclear weapons. (Rotblat and Ikeda, 2006) In fact, a secret underground Nazi factory for weapons of massive destruction was found in an Austrian town. (Gidman "newser," December 30, 2014)

Japanese government also was secretly processing nuclear weapon project. (Central Daily News, August 3, 2006) Like earlier stated, Yamamoto would not have hesitated to use the weapon if Japan had it when he attacked Pearl Harbor.

It is good that, at least until now, Iran and North Korea had some choices to survive. It was great that Iran decided to deal with their nuclear program, instead of choosing a violent way. Although those sanctions made Iranian suffer in their countries and they have strong aversions to the states that put them in the situation, Iranian government still tries to seek a way to balance their power. If the leader had the similar mindset as Yamamoto's and the circumstance was similar to the one he had, situation and consequence would have been different.

5-3: Brinkmanship Tactics

Nuclear-weapon states have been being adopting nuclear brinkmanship tactics. "In sum, brinkmanship provides a model of the way that states can exert coercive pressure on each other if both have secure, second-strike capabilities." (Powell 2003, 91) Powell likens the tactics to auction. For example a so-called English auction--the highest bidder gets the item for the price he bid, a second-price auction--the highest bidder wins but pays the second-highest bid, and all-pay auction--the highest bidder gets the item but all the participants have to pay the price they bid. "Brinkmanship can be seen as a variant of an all-pay, second-price auction in which bids are measured, not in terms of money, but in terms of the risk that events will go out of control. During a crisis, each state bid up the risk until one of the states finds the risk too high and quits." (Powell 2003, 95)

For example, Crimea annexation by Russia. Russia invaded Crimea with military troops. "After invading Crimea in late February (2014), Russia has launched a full-scale invasion of Ukraine. According to NATO, over a 1,000 Russian soldiers have been deployed

in Ukraine. The Russian Committee of Soldiers' Mothers puts the number at 15,000. A well-informed Ukrainian journalist estimates it at no fewer than 10,000 and possibly as high as 20,000. Naturally, Russian officials continue to deny that there are any Russian soldiers in Ukraine, but their credibility is nil and no one takes them seriously anymore.” (Motyl, October 29, 2014) Russia bid very much risk for the auction, (eventually they declared that they were ready to use nuclear forces), and won the auction.

How much risk those states try to bid? What makes them bid the risk or decide to give up bidding up? Above all factors, the strength of each state's resolve does decide how much risk they want to bid up for the auction. A resolve means that the one “in which each state attempted to demonstrate that it was more willing to inflict and endure punishment in order to have its way than was its adversary.” (Powell 1989, 506) The less resolute state cannot win the auction, and even though they cannot win they still have to pay the price they bid. Such an adventure, if a state is poor and reckless, it has to go into debt for nothing but risk of conflicts. The state would better back down earlier or it is the best not to take part in any auctions.

Then how to see adversaries' resolution or hide intention of a state? Actually “[u]ncertainty and incomplete information play a crucial role in enhancing deterrence. Doubts about the defender's resolve may deter a state from making a challenge that it would have been certain to make had it been completely confident about the defender's resolve.” (Powell 1989, 517) If one can see how much resolution an adversary has, crisis would never develop to a conflict and eventually out of control. However, each state wants to win, of course, so it is very difficult to see how strong resolve each state has. It can be worse; even a state in question would not know how much resolve they have, or more precisely how much ability it has to support its resolve until an auction actually happens. It is Pandora's box. It can be opened but everybody knows that the consequence is a disaster for the world.

6. Cases of Success and Failure of Nuclear Deterrence

6-1: Cases

According to Huth and Russett, after World War II, there were many cases that those states attacked the states that retained nuclear arsenals. Table 1 is highlights of the history of deterrence. Most of the cases are successes, but among those successful cases, there are some failure cases. That means even though a state has nuclear warheads, it does not guarantee that no state attack the nuclear holders. Then what did make deterrence successful? **Table 1.**

Cases of deterrence, 1946-1984

year	Attacker	Protégé	Defender	Outcome	
1946	Soviet Union	Iran	United States	Success	
1946	Soviet Union	Turkey	United States	Success	
1948	Soviet Union	West Berlin	United States/UK	Success	
1950	China	Taiwan	United States	Success	
1950	United States	North Korea	China	Failure	Fight
1954-55	China	Quemoy-Matsu	United States	Success	
1957	Turkey	Syria	Soviet Union	Success	
1961	Iraq	Kuwait	Britain	Success	
1961	North Vietnam	Laos	United States	Success	
1964-65	Indonesia	Malaysia	Britain	Failure	Fight
1964-65	North Vietnam	South Vietnam	United States	Failure	Fight
1964-65	United States	North Vietnam	China	Failure	Fight
1967	Israel	Syria	Egypt	Failure	Fight
1967	Syria	Jordan	Israel	Success	
1971	India	Pakistan Kashmir	China	Success	
1975	Guatemala	Belize	Britain	Success	
1977	Guatemala	Belize	Britain	Success	
1979	China	Vietnam	Soviet Union	Failure	No Fight
1983	Libya	Chad	France	Success	

(Source: Huth and Russett 1988)

6-2: Success of Nuclear Deterrent

What went well and what did not go well? Kenneth Waltz lists up three essential

points for a success of nuclear deterrence. “To be effective, deterrent forces, whether big or small ones, must meet three requirements. First, at least a part of a state’s nuclear forces must appear to be able to survive an attack and launch one of its own. Second, survival of forces must not require early firing in response to what may be false alarms. Third, command and control must be reliably maintained; weapons must not be susceptible to accidental or unauthorized use.” (Sagan and Waltz 2012, Chap. 1; 20) So reliable second-strike force and well-organized system in military are vital to be successful in nuclear deterrence. In other word, if a nuclear-weapon state does not have these, solid second-strike force and well-governed system, their nuclear deterrence will possibly fail. There should be more factors that bring nuclear deterrence failure, and that will be pointed out in the next part of this paper.

As earlier stated, after 1945, we have so many cases that we can use for case studies. The biggest case is, of course, the Cold War between The Soviet Union and the United States. It went really close to warfare; however nuclear war did not occur after all. Many people proposed their thoughts about why it did not occur. One of what the most said was nuclear deterrence. Joseph S. Nye. JR. and David A. Welch concludes the cold war with the word, “In part, they feared that using any nuclear weapon, no matter how small, would open the window to using other nuclear weapons, and that risk was simply unacceptable....The very terror of nuclear weapons may have helped produce stability through the “crystal ball effect”... It was not the ratio of nuclear weapons that mattered so much as the fear that even a few nuclear weapons could wreak such devastation” (Nye, JR. and Welch 2012, chap. 5) According to their conclusion, nuclear deterrence worked. But since this nuclear deterrence worked, leaders of the United States and the Soviet Union at that time came to a conclusion of a total abolition of nuclear weapons. More detail is in chapter eight.

6-3: Failure of Nuclear Deterrent

This is an example which shows that nuclear deterrence is not working,

actually making conflicts more likely to happen. There are conflicts between India and Pakistan. Both India and Pakistan have nuclear weapons, but the existence of nuclear weapons is making conflicts tend to take place more often and more easily. Kurita uses the nuclearization of India and Pakistan, and Kashmir conflict as examples to think about “stability-instability paradox,” which is proposed by Glenn Snyder. Due to existence of nuclear weapons, Pakistan can wage small conflicts on India. Kurita explains this by categorizing wars in three; nuclear war, normal war, and comparatively small conflicts. He says that Pakistan cannot be afraid of small conflicts because it cannot develop to a normal war since if once a normal war occurs, it will very likely to develop to a nuclear war. So in the level of nuclear and normal war, it is stable as it cannot be happened. (At least, Pakistan deems so.) In consequence, in the lower level, a comparatively small conflict level, it is instable. This is a good example of harmful effect of retaining nuclear weapon. (Kurita 2012, 29-39) Actually these two countries even had real wars. This is even worse than Kurita’s analysis. There are more failed cases of nuclear deterrence held by other nuclear-weapon states, the Soviet Union, the United States and Israel. Ward Wilson says; “The Soviet Union found that its nuclear arsenal could not prevent failure in its own guerrilla war in Afghanistan. Since Vietnam, the United States has fought in the Persian Gulf, Kosovo, Afghanistan, and Iraq. In none of these wars were its opponents intimidated into surrendering, nor could a practical use for nuclear weapons be devised. ... [n]uclear weapons failed Israel. They did not deter. In fact, they failed ... Hafez al-Assad, the leader of Syria ” (Wilson 2008, 434) could not be deterred. Nuclear weapons are the weapons that are basically unusable, and these states could not use the weapon even in wartime because of the danger those weapons naturally have.

Although these cases were so close to development toward nuclear war, I see a very high hope here. Except the case of India-Pakistan (It is an exception because each state has

nuclear weapons), those non-nuclear states that waged wars against nuclear-weapon states knew that their opponents have nuclear weapons and there were high probability of their using the weapons because there was no reason that should have stopped these nuclear-weapon states. After all, if those who won are justice like the history has been consistently proving, e.g. the Second World War. However, these non-nuclear states still attacked their adversaries. Which means that non-nuclear actors thought that nuclear weapon would not be used, even if they fought. In other word, to an extent, humanity of the nuclear-weapon states was believed. Of course, there were many factors that had non-nuclear actors let go the supposed possibility of nuclear attacks, but a belief in ultimate humanity of adversary's is absolutely one of the factors.

Those nuclear-states that failed nuclear deterrence has to be honoured that their nuclear strategy failed. Their human natures were believed under the ultimate pressure. It is not the wisest way to keep sticking to nuclear deterrence that is failed many times and keep disappointing non-nuclear states. Nuclear-weapon states have to know that their common sense and human qualities are valued and believed (so that nuclear deterrence is not perfectly working), so they could also return some trust on other states. If one wants to change others, then one has to change first. ABOLITION OF NUCLEAR WEAPONS is a magic word. This word is for nuclear-weapon states and by fulfilling the meaning of the word, they can solve very many problems!

7. What Do Leaders Fear?

By a drop of nuclear weapon, what leaders get feared actually? Since it is a weapon of mass destruction, losing a large number of their citizens and lands by retaliation are what they fear? Although the reason of military's existence is to protect a country (that means to protect

people who consists of the country), a question comes up: do leaders really care about their citizens' lives? Especially when wartime?

In "Psychological Perspectives On Nuclear Deterrence," Philip E. Tetlock et al analyse about the relationship between public opinions and governments' reaction. They say "[O]ne consistent finding is that only 5-10% of the American public closely follows foreign affairs. Although aware of major controversies, the public is poorly informed about both arms control and nuclear strategy," and they concludes "[T]he public believes attempts to regain American nuclear superiority are misguided, that substantial "overkill" exists in nuclear arsenals, and that negotiations to achieve mutual and verifiable reductions in nuclear weapons are wise." (Philip E. Tetlock et al 1991, 265) This does not directly connect with that those authorities do not care about civilians, however it at least could be seen that authorities do not respect public opinions very much as well.

One can hardly believe that in a certain stressful situation, citizens' lives are really taken into authorities' consideration, and that leaders are really influenced in decisions about war and surrender by the death of non-combatants. It is a human nature that in a competition, everybody does not want to lose. In military field, competition is war, and their purpose of existence is for war, among military leaders, who wants to lose? Winning the competition seems more likely to be military leaders' first priority, unless their place is specifically targeted. Wilson says that "It is difficult to argue, from history, that military leaders, in wartime, put a high value on civilian lives. "(Wilson 2008, 429) Well, if civilian lives are not military's priority, people may have to ask the fundamental reason for its existence though. Life is full of mystery.

Recently secret Nazi hideouts were found in a deep Argentina jungle. "Apparently, halfway through the Second World War, the Nazis had a secret project of building shelters for top leaders in the event of defeat — inaccessible sites, in the middle of deserts, in the

mountains, on a cliff or in the middle of the jungle like this.” (The Washington Post March 23, 2015) It is surprising that the leaders were able to think about saving themselves while having 3,810,000 civilian casualties in their country. The number is even larger than German military casualties, 3,250,000. (Truman 2014, Accessed on March 27, 2015) Adolf Eichmann, German Nazi lieutenant colonel and one of the major organizers of the Holocaust, is one of the most notorious escapees in history. This is a great what-if question, but it might have been possible that after two atomic bombs, he still did not want to surrender, or just leave citizens and escape to their hideouts. It is sad to use my country as another example but people can find many facts that citizens’ lives were not the first priority for Japan. For example, during World War II, more than 200 cities were bombed from the sky, approximately one million people were killed by the city bombings, and about ten million people were directly affected by the city bombings. (Japan-main-land-aerial attacks, Last modified, March 20, 2015) What Japanese government did when their people were suffering? They kept distributing red papers which were for military conscription, arrested sane civilians for violations of Public Peace Preservation Act., organized suicide attack units (Of course those who attacked were conscripted citizens) and they kept fighting. Japan could capitulate earlier if they seriously considered about civilian lives. Instead of valuing their people’s lives, only what was said at that time was “Long live the Emperor! God Save the Emperor!” Our mantra was “We won’t ask for it. Until we win.” (This mantra is still used when people face challenges as a joke.) It is obvious that the government’s priority was not their ordinary people.

Soon after two atomic bombs were dropped, Japan surrendered. Outwardly it looks like these two nuclear weapons brought the surrender, however before the two bombs Japan already knew that they would never win. There was a strong disagreement between political people and military people. There were always risks of assassination in the government. (Takeharu Kimihira “the Window of the World History.” Last modified March 21, 2015) As

for the reason of the surrender of Japan, Wilson's summary can be very close to the truth.

"Consider: would it be better to say, "We made mistakes, we weren't brave enough, we were foolish," or, "Our enemies made an unimaginable scientific breakthrough that no one could have predicted, and that's why we lost"? It was, literally, a heaven-sent, face-saving excuse to blame defeat on the bomb." (Wilson 2008, 426) and he continues "It now seems likely that U.S. strategists have for many years misinterpreted Hiroshima and Nagasaki, and as a result they have overstressed the decisiveness of destroying cities with nuclear weapons. It seems likely they have overvalued the *threat* to destroy cities with nuclear weapons as well."

(Wilson 2008, 427) Destruction very probably causes fear, when it is mass destruction, fear should be worse. It is not that "they have overvalued the threat to destroy cities with nuclear weapons," but their targets are not efficient. If they say "it has a power to kill you or cause you tremendous suffering" to those authorities, the threat of nuclear weapon drop must be doubtlessly determinant.

After all, it can be safely said that dropping nuclear weapons on non-central/major cities would not work very well because civilian lives are not the leaders' first priority when wartime and hence nuclear weapon drop to non-major cities does not have very much impact on their decisions. Only when the bomb is targeted to the city where leaders live, nuclear deterrence would shed lustre. However, if central cities are destructed, nothing would be left so that a nuclear-state would lose their reason to attack the country. So the threat that nuclear weapons can create in leaders' minds is very limited. Fear is the centre core of the theory of nuclear deterrence or any other deterrence. If that fear created by nuclear weapons is limited, then would nuclear deterrence strategy be the best option to deter other states?

8. Merits and Demerits of Nuclear Deterrence.

8-1: Nuclear Deterrence since the Cold War

After the world got into the Cold War era, the meaning of nuclear deterrence has changed. Before the Cold War, nuclear deterrence was unilateral deterrence of the United States. However, once the Soviet Union conducted a nuclear-weapons test (and sadly, it went successful), nuclear deterrence became mutual deterrence. At first, it was to depress other states by fear of being attacked by a massively destructive weapon. After the Soviet Union became equivalent to the United States, the usage of nuclear weapon came to mean annihilations of human beings. So at that point, people thought that offense and defence came to mean almost nothing, which means the effect of deterrence was stronger than the one of conventional weapons because nuclear deterrence prevents a war itself. (Matsumoto 1986, 6)

The last word is from a very realistic point of view. But it is not true. There are many cases that have already introduced in earlier part of this paper. It is not that the effect of nuclear deterrence was stronger than the one of conventional weapons, but that the characteristics of each deterrence is totally different. How about cases in the Middle East? Tachikawa says; “[T]he difficulty of nuclear problem in the Middle East is that their conflicts are complicated and their adversarial relationships are not like the one-dimensional relationship between the United States and the Soviet Union.” (Tachikawa 2007, 66) In relatively small country like those states in the Middle East, offence and defence still mean something. Those who have nuclear weapons also fight. Then what are merits and demerits of supporting nuclear deterrence?

8-2: Merits

There are more merits that many propose than demerits because it is easier to put forward reasonable reasons, outwardly. Wilson introduces that; “[t]he conventional wisdom also holds that nuclear deterrence provides three specific benefits: 1) protection against attacks with nuclear weapons, 2) protection against attacks with conventional forces, and 3)

indefinable additional diplomatic clout.” (Wilson 2008, 421) In addition to Wilson’s proposing security benefits, Yano states that conventional weaponry impose states very high economic burden. So at first, as a state, the first priority is retaining nuclear weapon because it guarantees states the strongest security. After retaining enough nuclear weapons, states can allocate a reasonable budget for conventional weaponry, and this is the strategy which the United States, the Soviet Union and China used before. If it were effective for those countries, there is no reason that other states do not follow the antecedents. (Yano 2008, 1-2)

It is also very possible that if a state retains nuclear weapons, their security guarantees are already promised (at least, they think so), so it would not try to make biological and chemical weapons. They are also extremely non-humanitarian weapons. Realists would say that if retaining nuclear-weapons keep states from making those biological and chemical weapons, and nuclear-weapons will not be used, it is very plausible to make and retain nuclear weapons instead of biological and chemical weapons.

The theory of extended deterrence is also said that it is one of the merits of nuclear deterrence, and it is highly accepted nowadays. Comparatively weaker and smaller states can choose to be under the U.S. or Russian nuclear umbrellas so that the states themselves do not have to retain nuclear weapons. Weaker and smaller states can be protected by those friendly or alliance states, such as the U.S., Russia, the U.K. and so on, in exchange for a very costly reward though. Sweden and Taiwan chose to put themselves under the U.S. Umbrella, and CIS countries, such as Ukraine, Belarus and Kazakhstan returned their nuclear weapons to Russia even though they had financial stability and technical ability to create nuclear weapons. Each state had different backgrounds and reasons but all of them gave nuclear weapon up after all. (Tsukamoto, Kudo and Sue 2009, 1-43)

8-3: Demerits

Demerits of nuclear deterrence are, the very first of all, the risk of bungles and human error. As is well known, it is said that during the Cold War, Mikhail Sergeyevich Gorbachev decided to have a dialogue with Ronald Reagan because he realized the very high probability of a human error.

Ronald Reagan called for the abolishment of “all nuclear weapons,” which he considered to be “totally irrational, totally inhumane, good for nothing but kicking, possibly destructive of life on earth and civilization. ... Although Reagan and Mr. Gorbachev failed at Reykjavik to achieve the goal of an agreement to get rid of all nuclear weapons, they did succeed in turning the arms race on its head. (Shultz et al. 2007)

China holds the strategy of minimum deterrence, and it is keeping its nuclear weapons in the condition of unusable. China keeps fuels and warheads separately to avoid firing mistakenly. It sacrifices combat readiness, but Chinese leaders dare to choose to keep the weapons so. It says how careful China is, and it can be said that China retain nuclear weapons only for retaliation and deterrence. (Abe 2007, 4-24)

Nuclear weapon is a massively destructive weapon. If one city is targeted, a death is doubtless to those who live in the city. A nuclear-weapon state probably fire the second one, even third one could be fired. What is trying to be said is that mega death and a total destruction are promised, once nuclear weapon/s is/are used to a state. Then what is the point of surrender? Whatever the case may be, the targeted state loses their land and people. It is more plausible to think, then, that the state will try to kill as many enemies as they can to bear as many companies as possible to the nether world. Who wants to die alone with no reason? In his article “Myth of nuclear deterrence,” Wilson tries to persuade you, a pro forma nuclear holder; “[T]he reason that the possibility of your opponent misreading any attack as an extermination attack is so important is that having extermination as a goal ensures that your

opponent will fight to the death. After all, if your enemy intends to exterminate you under any circumstances, then there is no incentive to surrender. It may well be that—far from motivating nations to concede—nuclear attacks drive nations to fight to the death.” (Wilson 2008, 431-432)

Because it contains a very high risk to use even one nuclear weapon, nuclear weapons are weapons that are almost unusable if more than two states retain them. Or even there were only one nuclear-weapon state in the world; this state would not try to use the weapons. Because they would be strongly morally deterred in this case, and all of other states would do everything to stop this state. They exist only to intimidate other states so that they do not want to do harm to nuclear-weapon states. Since it is impossible to check which state is the strongest physically, we have no choice but simulate the entire power of nuclear weapons. This is how to fight in the nuclear deterrence field. Neil Ramsey summarizes the characteristic of preceding studies done by a number of people about nuclear and conventional deterrence. “[T]heir analysis of nuclear weapons focuses simply on the strategy of deterrence that such weapons impose upon the world, a strategy of mutually assured destruction that is significant, they argue, in so far as it prevents nation-states from seeking to resolve international territorial disputes through military force. ... In its place has emerged a globalised world order in which a balance of power is no longer established through war, but through the deterrence from war.” (Ramsey 2014, 69-70)

Because wars are fought by simulations, nuclear-weapon states have to keep inventing stronger ones to virtually win. It is like a chicken game, and there is no end point unless they have ‘an accident,’ and this accident might mean the end of human beings (and plants and animals, and all creatures that exist on earth). There is a dilemma that as long as a state wants to deter other states attacking their state by a theory of nuclear deterrence, this state in question has to keep creating more and more nuclear weapons to have more power than

adversaries, and it is the same as using their hands to strangle themselves. That is because they will impose themselves risk and economic burden. Even though it is said that the cost for nuclear warheads is cheaper than maintaining conventional weapons, nuclear weapons are unusable first of all.

For military specialists, is it really refusable to try nuclear weapons that have very strong power? If its temptation is too attractive to military, there are always dangers of being used. So far, all militaries have not used nuclear weapons. However, as the seconds tick away, those service officers who lived in the World War and Cold War era retire, and new generations start taking leaderships. These leaders perfectly do not know what happens if nuclear weapons are dropped. So the factors that kill a temptation of trying nuclear weapons might be weaker. In a documentary called “The Path To The Motherland,” Russian president Putin declared that in the crisis in Ukraine and Crimea, he was “ready for nuclear alert.” He said “[Crimea is our historical territory. Russian people live there. They were in danger. We cannot abandon them.” (BBC News, March 15, 2015) He cannot abandon his people in Ukraine but if he fired a nuclear weapon to Ukraine land, he could have killed these Russian people as well as Ukrainian people. Was he really serious? Russia even keeps raising a danger of nuclear firing. They warned “Denmark that if it joins NATO’s missile defense shield, its navy will be a legitimate target for a Russian nuclear attack.” Danish Foreign minister was upset because of Russian requirement and unaccepted it. In addition to Ukraine, around Russia, especially the Baltic is now “one of the most unpredictable in the world.” (Isherwood, March 21, 2015) Under crisis, or unstable situation, if states’ resolutions were not very apparent, accuracy of nuclear deterrence would decrease and a risk of nuclear firings would increase. At least those nuclear-weapon states should have done a lot of simulations and have forecast of probable consequences in cases that they get into conflicts and eventually using nuclear weapons.

According to Stockholm International Peace Research Institute, “Over the next decade, the USA plans to spend up to \$350 billion on modernizing and maintaining its nuclear forces.” (Stockholm International Peace Research Institute Accessed March 26, 2015) That is actually a great amount of budget. Security burden and psychological burden are also imposed by retaining nuclear weapons. Leaders always have to worry about many things just by retaining nuclear arsenals, since leaders are responsible for the weapons’ existences. Those virtual wars would even give leaders more headaches, because no matter what results they get, some kind of burdens just increases.

It is not only nuclear-weapon states that enjoy virtual war, but non-nuclear states also engage in this virtual war, and of course they get curious and worried. “The mere prospect of American missile defense promotes the vertical proliferation of nuclear weapons. It also encourages the horizontal spread of nuclear weapons from one country to another. ... North Korea, Iran, and others believe that America can be held at bay only by deterrence. Iraq believed this too. Weapons of mass destruction are the only means by which they can hope to deter the United States. They cannot hope to do so by relying on conventional weapons.” (Sagan and Waltz 2012, 106) Like Waltz says, a theory of nuclear deterrence has a high potential of nuclear proliferation.

These virtual war-fightings’ are normally done by service members. Civil servants are supposed to be given the result of examinations. That means military is the one that is able to hold an initiative because they have more knowledge. Even in a country, there is a balance of power. As for nuclear weapon, military people should not have an advantage but because they are professionals, those who belong to military are more advantaged than government people. From a nuclear usage’s point of view, it is very risky. Sagan points out how risky it is; “officers are trained to focus on pure, military logic, and are given strict operational goals to meet, when addressing security problems. ... military officers, like most members of large

organizations, focus of their narrow job. Managing the post-war world is the politicians' job, not part of military officers' operational responsibility, and officers are therefore likely to be shortsighted, not examining the long-term political and diplomatic consequences of preventive war.” (Sagan and Waltz 2012, 49-50) There is actually historical evidences that military does not always listen to other people in other fields. Joseph Rotblat thinks back on his experience when the United States first used Little Boy, the atomic bomb. “As well as Einstein, those scientists and many people supplicated the president of the time not to use nuclear weapons to ordinary citizens. Notwithstanding, however, atomic bombs were used toward ordinary people. Once military get hold of bombs, no matter how intently scientists supplicate, it becomes powerless.” (Rotblat and Ikeda 2006, chap 1; 46)

Nation sovereignty is decreasing, and at the same moment, military power is increasing. “The most striking proof of the decline of the nation-state is the dramatically growing power of mercenary armies. Some countries — notably, the United States — now contract out much war-fighting to private corporations. Global charities like World Vision and Save the Children routinely hire “security contractors” to protect their enclaves. German mercenaries are reportedly fighting alongside pro-Russian separatists in Ukraine. Nigeria has hired South African mercenaries to fight the terror group Boko Haram. Private armies are the wave of the future.” (The Boston Globe, March 26, 2015) If the legal system becomes that those private corporations can also get involved in nuclear weapons, what would happen? It would become less hard for conspirators, for example terrorists, to get close to nuclear weapons, and the risk of nuclear steeling may increase.

One of the biggest controversies about nuclear deterrence is how to deal with terrorism. A concern about terrorists' seeking nuclear weapons is becoming severer. After 9.11, the United States government seems to care about terrorists very much. On Wall Street Journal, many about terrorists were mentioned. Asai says “the most horrible thing about

terrorists is that nuclear deterrence does not work for them because they can kill themselves for what they think is the most important. “(Asai 2010, 9) An article, “A world Free of Nuclear Weapon” was run in the Wall Street Journal. The authors are the authorities for U.S. Military political actions; Gerge P. Shultzm William J. Perry, Henry A. Kissinger, Sam Nunn, and they also insisted that the theory of deterrence does not work for terrorists. As long as nuclear weapons exist in the world, there is always a risk that terrorists get them. (Kurosawa 2008, 8)

9. Terrorists Threat.

Terrorism is a new threat that has to be dealt well for world peace. In the very famous article “A World Free of Nuclear Weapons,” American leaders, Gerge P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn states that; “In today’s war waged on world order by terrorists, nuclear weapons are the ultimate means of mass devastation. And non-state terrorist groups with nuclear weapons are conceptually outside the bounds of a deterrent strategy and present difficult new security challenges.” (Shultz et al. 2007)

Distinguished by their objects, Waltz categorizes those terrorists into three. 1) Terrorists who threaten to use force to compel a particular performance. 2) Terrorists who want to punish. 3) Terrorists who kill and destroy for the sake of doing so—nihilists, they used to be called, or millenarians, who expect to reap their rewards in another world. (Sagan and Waltz 2014, Chap.3; 84) For terrorists of the first type, since their purpose is to compel other people, these targeted people have to be alive, so it is difficult to assume that they try to obtain nuclear weapons and use. For terrorists of the second type, it is totally up to how strict punishments they want to administer. If it is a capital one, and the number of their targets is large, there is a high possibility of their trying to steal nuclear weapons. For the terrorists of

the third type, there is even a higher possibility of their trying to get nuclear warheads just to destroy this world and kill as many people as they can. Nuclear weapon protectors can never get bored of the intellectual fighting to protect nuclear weapons.

According to Helfand, Russia's security system of nuclear arsenals is not as good as Western states' ones. Hence, it is more reasonable for those terrorists to have designs against Russian or Pakistani arsenals. Due to this circumstance, he suggests; "The United States and other Western states urgently need to expand their efforts to help the Russian government secure these nuclear weapons and materials." (Helfand 2002, 357) Most of the terrorists do not really scare of dying. So once they get an opportunity to steal or use nuclear weapons, they would not hesitate. A nature of terrorists is totally different from the one of rogue countries. It is also true that once they get a nuclear weapon, it becomes impossible to use nuclear weapons for retaliation because they would try to sacrifice not only civilians but also leaders. If those terrorists belong to the first type, they might have some understandable strategies to compel others, but if they belong to other two, then only disaster can be prospected. Rotblat describes this risk by a simple sentence; "Should a terrorist group acquire an atomic bomb, place it somewhere in a city, and then demand a ransom, all the thousands of nuclear warheads in the world's arsenals will be useless to deal with the threat." (Rotblat 1995, 74)

Then how about a possibility of their generating nuclear weapons by themselves? Actually there are cases that terrorists try to steal nuclear materials from nuclear plants in South Africa. (Washington Post, March 14, 2015) Helfand worries about their obtaining nuclear materials. "The efforts of the al-Qaeda network to obtain nuclear weapons or weapons grade nuclear materials are particularly worrying. Al-Qaeda agents have tried to buy uranium from South Africa, and have made repeated trips to three central Asian states to try to buy weapons grade material or complete nuclear weapons." (Helfand 2002, 357) It is

natural to consider that getting materials is much realistic than stealing actual weapons. Since know-how of nuclear weapons is already going around the world, terrorists could create the bombs if they have proper institutes. Waltz counters this argument. "Terrorists work in small groups. Secrecy is safety, yet to obtain and maintain nuclear weapons would require enlarging the terrorist band to include suppliers, transporters, technicians, and guardians. Inspiring devotion, instilling discipline, and ensuring secrecy become harder tasks to accomplish as numbers grow." (Sagan and Waltz 2012, Chap.3 ; 86) His argument is pertinent and sound. However, it is impossible to make what happened un-happened. There are facts that some terrorist groups tried to obtain nuclear materials, and that means they, at least, have places to keep the materials.

One of the problematic facts about terrorists is that they are non-state actors. Which means they do not have a place that states can lock on for retaliations. States leaders even do not know where they are hiding and keeping their weapons. Leaders also cannot randomly fire missiles to possible places because that means thousands of millions of innocent people's deaths. Even worse, even though leaders find out where their hide-outs are, they are very probably surrounded by ordinary people's homes. Of course it is impossible to use nuclear missiles to destroy the hide-outs. So for retaliation, nuclear weapon is no use at all as well.

It seems like nuclear deterrence has no efficiency against terrorists. They do not have to fear retaliation because they know nuclear-weapon states cannot retaliate against them. Then how can avoid the risk of their accruing nuclear weapons? Helfand's conclusion is very simple and clear; As long as there are stockpiles of nuclear weapons or nuclear plants in the world, the possibility of nuclear terrorism remains. Ultimately, the only way to eliminate this danger is to eliminate these weapons and establish strict international control of all fissile materials that could be used to make new weapons. (Helfand 2002, 357)

In an aspect of terrorism, nuclear deterrence does not work at all, and there are only

risks of weapons' being stolen and nuclear reactors' being targeted. There is no advantage of having nuclear weapons but a huge disadvantage like stealing. Then discarding should be the best choice. Magic word again, ABOLITION OF NUCLER WEAPONS is the best choice.

In their dialogue about terrorism, Rotblat and Ikeda bring up some very crucial viewpoints. Rotblat says:

The relationship between terrorism and nuclear weapons, I regard it as like this; terrorism by nukes is an extension of policy of nuclear deterrence. This is because, the idea of "nuclear deterrence" is the ultimate shape of terrorism. That is to say, the idea is that to maintain one's own political ideology or thought, one would not hesitate to attack with nuclear weapons, and it is exactly the very "terrorism." (Rotblat and Ikeda, 2006, Chap. 7; 176)

Ikeda develop their analysis about terrorists:

The human dignity of those people in the third world have been got stomped on by direct violence such as colonial occupation, and indirect so-called "structural violence" such as poverty and inequality. Aversion and frustration caused by the situation are also the background of the birth of modern world's terrorism. ... an international framework to prevent terrorism is also necessary. However, they are just a half-counterterrorism, and it cannot be the fundamental solution. At the same time, we have to cope with a motive of generating terrorism. That is a construction of global community that is on the basis of "fairness" and "harmonious coexistence." (Rotblat and Ikeda, 2006, Chap. 7; 178)

If big states keep retaining nuclear weapons, and try to control those who are weaker, dangers of terrorism would not be eliminated. After all, fairness is very important. Hence there are only two ways to change the current unstable situation; one is allow every single

states to have its own nuclear weapons, or another is do not allow any single state to have its own nuclear weapons.

10. Why It can Be Said That Nuclear Deterrence Is Not Credible?

The theory of nuclear deterrence is not credible because, first, the existence of nuclear weapons is the very one which is collapsing the balance of power in the world, and it creates security dilemma. Second, nobody can say what deters others from attacking their homelands, and nuclear umbrellas are not reliable at all. Third, the theory of deterrence works only when those states in question think and act logically and reasonably because the theory of deterrence itself is based on the calculation of “gain and loss.” Fourth, it cannot be applied to those who do not value their land and lives. Fifth, it always has a risk of human error.

As for the first reason, it always creates security dilemma and affect the balance of power in the world. As long as states try to balance their powers by nuclear weapons, “[T]here is no way for the state to increase its security without menacing, or even attacking, the other.” (Art and Jervis 2012, chap.3) States have to keep creating and developing to guarantee their land and people. It will be not for deterrence anymore. More than two states which cannot believe each other can start wars because of the competition of power of deterrence.

The second reason, nobody can say what deters. It is absolutely based on each person's calculation. So there is no reason that we can justify nuclear deterrence. Even worse, we cannot rely on nuclear umbrellas. If states change their minds, it is just over.

The third reason, the theory of deterrence works only when those states in question think and act logically and reasonably because the theory of deterrence itself is based on the calculation of “gain and loss.” Mishima says “benefit,” “honour” and “fear” can be the reason

of war. In conclusion, he says “the war is what human beings do, so the human beings' psychology and emotion should be studied, and if one wants to deter war, those human beings' psychology and emotion also should be enough considered.” (Mishima 2008, 60-61)

Fourth reason, it cannot be applied to those who do not value their land and lives. So terrorists, they would not care about how many nuclear weapons states have. For those people, nuclear deterrence means nothing and even worse we always have the risk of their stealing some nuclear weapons. Deterring by violence does not work, and it just escalates terrorists' hatred.

Fifth reason, it always has a risk of human error. Since we are human beings, we can never avoid making mistakes or errors perfectly. So it is wiser to be prepared for the errors.

11. Is It really Possible to Give Nuclear Weapons Up?

11-1: Industry

In their article, “This GIF shows how China’s arms exports have exploded since 2000,” Bender and Gould show the actual values of China’s military exports. In 2000, it was 302 million dollars. In 2009, the value exceeds one billion dollars; they exported military supplies that have a value of 1,138 million dollars. In 2013, the value even exceeds two billion dollars; 2,068 million dollars. (Bender and Gould “Business Insider,” March 25, 2015)

American Non-Profit Organization, Natural Resource Defense Council says;

Hundreds of companies, large and small, are involved in nuclear weapons research, development, production and support. Each DOE facility is managed and operated by a corporate contractor. And nuclear weapons components and delivery systems are manufactured by hundreds of prime and subcontractors.

(NRDC “Nuclear Weapon Contractors” May 1, 1997)

Only in the United States, there are plenty of companies that have some connection with nuclear weapons. Chart 2 is top 10 arms-producing companies in 2013. Among a huge arm industry, only 10 companies can make sales of 202. 39 billion US dollars. Some companies are nearly pure arm-specialized companies. Furthermore, all of them have critical roles in nuclear development. (NRDC “Nuclear Weapon Contractors” May 1, 1997, Facing Finance “EADS: Production of Nuclear Weapons” Last Modified March 23, 2015, Thales group “Rafale Transformation Squadron increases training capacity with Thales simulators” July 9, 2012) Arm industry is incredibly a huge industry, and that means it has a strong influence in other fields because it is financially strong. It is not difficult at all to imagine what happens when state leaders start thinking about nuclear disarmament. Thousands of millions of people will be affected.

Chart 2. Top 10 Arms-producing companies in 2013

Rank	Company	Country	Arms sales (US\$ m.)	Arms sales as a % of total sales	Total employment
1	Lockheed Martin	USA	35,490	78	115,000
2	Boeing	USA	30,700	35	168,400
3	BAE Systems	UK	26,820	94	84,600
4	Raytheon	USA	21,950	93	63,000
5	Northrop Grumman	USA	20,200	82	65,300
6	General Dynamics	USA	18,660	60	96,000
7	EADS	Trans- European	15,740	20	144,060
8	United Technologies (UTC)	USA	11,900	19	212,000
9	Finmeccanica	Italy	10,560	50	63,840
10	Thales	France	10,370	55	65,190

(Source: Stockholm International Peace Research Institute)

Is it possible to give up developing and generating nuclear weapons? Answer: yes.

There are two reasons. First, invalidating nuclear weapons also costs and require a lot of

human hand work, and second, conventional weapons are more costly than nuclear weapons. (Yano 2008, 1-2) Although arm industry loses current financial sources, other financial sources will be created (and it may be bigger than current one). So state leaders can balance their contributions to arm industry so that it would not affect desperately to those who engage in the field.

11-2: Can Nuclear Weapon and Knowledge About It Be Disinvented?

Can nuclear weapon and knowledge about it be disinvented? No, of course not. It is the same as that people cannot erase what have already happened. Then even if nations agree to eliminate all nuclear weapons that exist in their nations, rogue states and may not follow them or still try to build a new nuclear arsenal at some time in the future. Terrorists also already have enough knowledge about the weapon. They may then blackmail other states or even the entire world.

Rotblat wrote a hopeful article about this concern; “a recent study of this problem (nuclear breakout by rogue states and terrorists) by Pugwash, an international group of scientists who meet regularly to address security issues and other global concerns, concluded that preventing breakout, while not easy, is possible with the aid of two verification systems: one technological and the other social/political.” (Rotblat 1995, 73) He has a more detailed suggestion;

An important feature of the treaty to eliminate nuclear weapons will be a clause that mandates all states to pass laws making it the right and duty of every citizen to notify an international authority of any suspected attempt to violate the treaty. This will make every citizen – each of us – the treaty’s custodian. The scientific community will play a special role in monitoring the activities of scientists and the purchase of specialized equipment for making

nuclear weapons. Whistleblowing will be encouraged and immunity will have to be assured. (Rotblat 1995, 74)

This carries persuasive weight. If all of people become a custodian, it will become very difficult for conspirators to secretly conduct nuclear development.

Ferguson's worry about proliferation will also become unnecessary; "the proliferation risk that inevitably arises whenever nuclear supplier states offer to build civilian reactors for nonnuclear states." (Ferguson 2010, 86) This is because "Peaceful nuclear energy has, however, been a double-edged sword. ...agreements on nuclear cooperation have often been a precursor to the development of nuclear weapons programs because such deals provide ready access to technologies useful for developing weapons." (Ferguson 2010, 93) This situation will not change after nuclear weapon is eradicated. People still have knowledge about how to create nuclear weapons. But if nuclear weapons are abolished and there are plenty of custodies, people do not concern about a re-creation of nuclear weapons. States can become more cooperative to each other as they will not have an ultimate cause of anxiety.

It is impossible to eradicate the fact that nuclear weapon was generated and there are plenty of knowledge about the weapon. Because of this circumstance, the risk of breakout cannot be perfectly hedged. However, once people make a determination for the total abolition of nuclear arms, there are plausible things we can do to prevent apocalypse.

11-3: Step by Step

There is no magic fantasy that all nuclear weapons can be abolished in the next breath. Then suppose that whole world (means a big majority, because it is impossible to gain a perfect consensus in any case) decided to move to the total abolition of nuclear deterrence, with changes in situations, balance of power would temporarily become unstable. At that time, the risk of apocalypse would increase because weaker states would still not be able to

trust big states and may get more advantages than before with auctions so that they may want to bid a lot (e.g. conducting provocative actions) even if it means they are violating the world rules. And what if strong nuclear-weapon states change their mind? Time of change is always unpredictable and unstable.

So what have to be done to avoid the worst scenario? The Canberra Commission on the Elimination of Nuclear Weapons suggests many useful ideas. The commission “was established as an independent commission by the then Australian Government in November 1995 to propose practical steps towards a nuclear weapon free world -- including the related problem of maintaining stability and security during the transitional period and after this goal is achieved.” (The Canberra Commission on the Elimination of Nuclear Weapons. March 27, 1996) There is a long list of individuals and organizations that work for nuclear abolition in many ways. These people’s voices should be more spiritually-nourishing than those theories that justify nuclear deterrence as the former basically comes from morality, and the latter comes from fear.

The Canberra Commission on the Elimination of Nuclear Weapons recommends six steps to nuclear-weapon states; “ • Taking nuclear forces off alert • Removal of warheads from delivery vehicles • Ending deployment of non-strategic nuclear weapons • Ending nuclear testing • Initiating negotiations to further reduce reduce United States and Russian nuclear arsenals • Agreement amongst the nuclear weapon states of reciprocal no first use undertakings, and of a non-use undertaking by them in retaliation to the non-nuclear weapon states.” (The Canberra Commission on the Elimination of Nuclear Weapons. March 27, 1996)

Among these six, the last one is the most crucial, because if this agreement comes true, it brings current nuclear tactics fundamental changes. Current nuclear tactics are based on the idea of that to deter non-nuclear states attacking, nuclear weapons are necessary. If they make

the agreement and other states still would not attack those countries, the logic of nuclear deterrence will be collapsed, and break through current situation toward a new situation. A study conducted by Tetlock, McGuire and Mitchell could support this idea; “[F]ew Americans, and even fewer Europeans, believe the United States should be the first to use nuclear weapons, and a substantial majority believe any use of nuclear weapons will lead to an all-out war.” (Tetlock, McGuire and Michelle 1991, 265)

Gandhi said that “[G]ood travels at a snail's pace. Those who want to do good ... know that to impregnate people with good requires a long time.” (Homer A. Jack 2005, Chap.3; 47) To do worthwhile things take time. What is important is that to accomplish these things, people need to be considerable. Slowly but firmly, states need to make progress to avoid catastrophe.

12. Conclusion

As I earlier stated, I strongly oppose nuclear deterrence. Of course, my personal background can never allow me to accept the idea of anything that justify the existence of nuclear weapons, but in addition to personal background, there are reasons that cannot excuse the existence of nuclear weapons; nuclear deterrence does not have enough reasonable and solid foundations. One big reason that this non-humanitarian weapon is accepted in the world is because it was the United States, the state which won the world war two, which used this atomic bombs. Since in the field of international politics, the United States is the strongest country and it was just that other states could say nothing as they were weaker than the US. For example, if it was Japan which used the atomic bombs, and lost the war, what would happen? Most of the states would hate and blame Japan, and using atomic bombs should have been forbidden under the guise of justice. (Matsumoto 1986, 9) Even the United States, this

big strong country could not make a decision to drop atomic bombs on the earth alone. They asked the agreement of the UK. (Chiyo "THE HUFFINGTON POST," August 6, 2013)

Actually retaining nuclear weapons tend to limit states' choices. In their practical guide book of "On War (Karl Von Clausewitz),"VARIETY ART WORKS states that "in wars before the Second World War, since invading produced national profits, those states that have the military muscle to invade actively attacked other states. However, in the modern age that there is a probability of nuclear weapon drops, not waging war produces more national profits than initiating wars. Because of that, big states tend to hesitate starting wars. On the flip side, those small states attack their adversaries with masterly terror strikes." (VARIETY ART WORKS 2011)

Speaking about nuclear deterrence always provokes a feeling of strangeness, a feeling of absence of something crucial. It is people, those who will suffer if nuclear weapons are dropped. It has to be impossible to talk, or even think about nuclear deterrence without existences of those who will suffer.

Thomas C. Schelling says;

The political target of the bomb was not the dead of Hiroshima or the factories they worked in, but the survivors of Tokyo. ... we can at least perceive that the bomb on Hiroshima and Nagasaki represented violence against the country itself and not mainly an attack on Japan's material strength. The effect of the bombs, and their purpose, was not mainly destruction they accomplished but the pain and the shock and the promise of more. (Art and Jervis 2012, chap.4)

He sees nuclear weapon as just means of war. There is no room to see human beings. Weapon does not have emotion but those who use the weapon are human beings, and those who are targeted will also be human beings. Intrinsically, any political talk should accompany

with peoples' existence.

Daisaku Ikeda introduces his experience of being a bridge between the Soviet Union and China in 1974, which was when there was a much tensed tension between the Soviet Union and China. He asked the Prime Minister of the Soviet Union if he had intentions to attack China, and he said not. Ikeda also asked if it was no problem for him to tell it to the leader of China, and got approval. Right after the meeting, he fled to China and told the leader about the meeting in the Soviet Union. It became one of the reasons why the tension between the countries was relaxed a little. (Seikyo Newspaper, September 8, 2009)

There is a voice from a young Iranian man;

“I am hopeful to see there is a movement toward peace between Iran and the West,” writes Parihan, 27, in an email. “It’s not because I think the United States is right, but because there is no win-win way out of this dead end other than nuclear talks. I do think that some sort of consensus will be reached. I am hopeful that it will be to the benefit of my country both politically and economically. But I think the most important change will be the hope people would have for a brighter future.” (VICE United Kingdom, March 17, 2015)

I agree with him. As for having nuclear weapons, in my point of view, no matter what reasons are offered, nobody cannot justify its' existence. It does not matter if the country is big or small, strong or weak, has many supporter/friends or not. This is because no matter what is said, the fact that those innocent people's lives are twenty four-seven at a few persons' mercy, even if there are not have any connections between those authorities and citizens who would suffer by the authorities' decision.

Nakasato suggests that, although all the actions Iran took for their nuclear development program were adequate, if we seriously want to avoid Iran's nuclear armament,

The United States and those big countries should rethink how to treat Iran. (Nakasato 2009, 77) So far, one-way diplomatic strategies like sanctions have been taken. However, efforts to seek exhaustive provisions that eliminate the danger and insecurity Iran is probably feeling are also required. An eye for an eye, a tooth for a tooth tactic does never solve the problems, but at the moment those strong countries have Iran take the tactic as they have strong aversions. How Iran behaves at the moment might not be proper, but even so nuclear-weapon states and those states under the nuclear umbrella have no right to blame Iran as long as they rely on nuclear weapons for their security. Schelling, a Nobel Prize winner economist's words make us more confident with believing those who are in the world; "The most significant event of the past 60 years is the one that did not happen: the use of a nuclear weapon in conflict. ...the fact that nuclear weapons have not been used is rather spectacular. ... The many peril-filled years in which nuclear weapons were not used had actually become an asset of global diplomacy to be treasured, preserved, and maintained." (Schelling 2006, 50-51)

So it is "the most significant event of the past" 70 years, and it is "spectacular," and it is even "an asset of global diplomacy to be treasured." This is one of the very positive proofs that it is also feasible to trust some more that people would not use nuclear warheads easily, and advance toward a more constructive direction. It is not that those states have to believe in other states 100 percent, but as for the probability of their using mass destructive weapons, they can or have to believe that it is zero. One of the reasons why people can believe that is because the decision is not made by one leader, so even if the leader is insane, there should be more straight thinkers, more conservative thinkers, and many other people who have different mindsets from this leader's.

Bella states that "[D]eterrence is based upon the rational theory of decision," and there are those players or groups that calculates costs and benefits. He continues, however, that;

It is mistaken to imagine strategic opponents as individual persons or small groups of persons. The threat of war arises from large organizational complexes involving many people in many different roles. ... A complex encompasses many interests and groups (political, military, industrial, economic, and so forth). What constitutes a complex are formal and informal relationships of mutual dependency. (Bella 1987, 18)

There is an argument that this complex actually could lead to accidental nuclear war. However, it is more possible to think that if there were various opinions, it could be difficult to decide things and take actions. Hence these complicated bonds among many fields would make it difficult for one person to make a decision, especially a decision that affects thousands of millions of people's lives. So at least this one point that the button of shooting a nuclear missile cannot be pushed is commonly reliable.

It is more constructive to use those budgets for citizens' convenience than for military. Retaining nuclear and conventional arsenals is a huge financial burden for states. If they can allocate fewer budgets for those weapons and military, the surplus can be sent those things that are more directly connected to citizens' lives. Costa Rica is now running their country without burning a fossil fuel for 75 straight days. (From January 8 to March 23, 2015 now) Their hydropower plants generated very much electricity to cover the usages in the entire country. Costa Rica "has already been able to spend so much on renewable energy because it doesn't need to spend anything on defense. The country hasn't had a military since 1948." (Quartz, March 23, 2015) Even a little reduction of military should generate a certain amount of budget, and they can be used for more peaceful and constructive purpose. As earlier mentioned, "Over the next decade, the USA plans to spend up to \$350 billion on modernizing and maintaining its nuclear forces." (Stockholm International Peace Research Institute Accessed March 26, 2015) That is not a huge budget but still pretty a lot, compared to the

Japan's military budget, \$4 million. (Ministry of Defense, Japan, February 27, 2015) If split the budget and allocate some for inventing clean energy, they might not even have to rely on nuclear energy to generate electricity. It will also eliminate the risk of terrorists' attack to nuclear plants.

There are many factors that support the plausibility of nuclear deterrence theory. However, the centre core of the theory is 'fear.' Fear creates distrust, and excess distrust makes people want to feel enough secure by arming. That status created a race of armament, and it now involves more actors, for example military industries which make profits by selling nuclear weapons or non-state actors like terrorists. To solve the complicated problem, Michael Howard suggests; "both to eliminate unnecessary causes of tension and to keep the costs of defense on both sides down to socially acceptable levels. ... To deal with the dilemma arising from these twin evils we need clear heads, moral courage, human compassion, and above all, a sense of proportion." (Howard 1982, 324) One of the biggest unnecessary causes of tension is, of course, nuclear weapons. Nuclear-weapon states need to eliminate these weapons, and they still can deter other states by different means. They impose too much economic burden, and worse, they are not usable but only for virtual fighting with extremely high risk of an accident that can annihilate human beings. A sense of proportion is required. People need to seek a point that can maintain balance of power among states in more humanistic ways.

At the same time, it is true that it is impossible to prove that nuclear deterrence does not work, and so far those nuclear-weapon states have not been attacked by other states. So it is easier to support nuclear deterrence as it is at least more visible. However, even though, by any remote chance, nuclear deterrence does work, there are more demerits than merits. That is why Shultz et al. reminded people and emphasized that "Reagan and General Secretary Gorbachev aspired to accomplish more at their meeting in Reykjavik 20 years ago – the

elimination of nuclear weapons altogether. Their vision shocked experts in the doctrine of nuclear deterrence, but galvanized the hopes of people around the world.” (Shultz et al. 2007) What these leaders of the two biggest states in the world were seeking is that nuclear abolishment because it gives us the biggest profit than retaining nuclear weapons. What the point of making a retrograde move to nuclear development again then.

Before threatening each other, to begin with the effort to know each other is much more reasonable. As earlier mentioned, nuclear deterrence is not very credible and it has more risks and burdens than profit. Nuclear weapon puts every single person's life in the world in danger. It is always challenging to change status quo, however from my standpoint, I argue the limitations of nuclear deterrence, and the best and most profitable way to make the world better is to abolish nuclear weapons totally, slowly but firmly.

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