

Empirical Analysis of the Impact of Nuclear Threat, Fear, and Norm on Public Opinion*

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1. Research Objective

This study aims to elucidate the correlation between the perceived military threat to a nation and public sentiment regarding the possession of nuclear weapons. Previous studies have highlighted that citizens of countries facing strong military threats, especially nuclear threats, tend to express greater support for the possession of nuclear weapons because of the security effect of nuclear deterrence (Fuhrmann, 2009; Jo and Gartzke, 2007; Singh and Way, 2004). Some public opinion polls confirm this tendency (ICRC, 2019, 17; Spektor, 2022). Furthermore, the experiences of Hiroshima and Nagasaki led people to believe that nuclear first strikes were taboo (Tannenwald, 1999). However, it is also clear that ethical constraints are not an absolute value criterion, as people tend to show greater support for nuclear attacks if there is no fear of nuclear retaliation (Dill, Sagan, and Valentino, 2022; Horschig, 2022; Press, Sagan, and Valentino, 2013; Sagan and Valentino, 2017). It is generally recognized that the Japanese have different values than other nations on the issue of nuclear weapons and have strong anti-nuclear sentiments because of their national memory of the atomic bombings during World War II. However, the deterioration of the security environment is expected to affect Japanese anti-nuclear sentiments, as the media and academic institutions have discussed the changing tone of the Japanese regarding nuclear weapons¹.

It is highly likely that attitudes toward nuclear weapons depend on the status of the state. To measure the correlation between military threats and support for nuclear weapons, this study classified states into four categories based on their positions on the security environment and nuclear weapons (Table 1) and selected states and regions from each group to obtain data: Japan ($n = 1000$), Hiroshima and Nagasaki prefectures ($n = 800$), the United States ($n = 1000$), South Korea ($n = 1000$), and Australia ($n = 1000$). I conducted web surveys in Hiroshima and Nagasaki, Japan, and the US from January to February 2022, and in South Korea and Australia in February 2023. The subjects of the web surveys were voters 18 years of age or older residing in each area.

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¹ “Japan’s shift in the nuclear debate explained.” Center for International Security and Cooperation, Stanford University (May 16, 2017). <https://cisac.fsi.stanford.edu/news/japans-shift-nuclear-debate-explained> (accessed 21 December 2023); “Is Japan’s ‘Nuclear Allergy’ Being Cured?” *The Diplomat* (December 2, 2017). <https://thediplomat.com/2017/12/is-japans-nuclear-allergy-being-cured/> (accessed 21 December 2023)

To include people who experienced the atomic bombing of Japan in the survey, voters aged 80 and older were also included. However, they were allocated to other age groups due to difficulties in recruiting a sample of older voters, especially those in their 80s and above, as planned. The deviations in the sampling numbers due to the rounding of decimal points when calculating the allocations were adjusted accordingly (Shibai, 2022a, 2022b, 2024)². The following abbreviations are used for the countries and regions studied: Japan = jp, Hiroshima and Nagasaki = hn, the US = us, Korea = kr, and Australia = au.

The survey items were designed to obtain responses to a variety of questions related to nuclear weapons, specifically, the evaluation of nuclear disarmament, nuclear abolition, nuclear deterrence, justification of nuclear attacks, anxiety about military conflict, security issues in Northeast Asia, IAEA inspections, and nuclear power plants, on an ordinal scale of four to six, for use in statistical analysis. The complex correlations and interactions among items are revealed, as is the nature of the relationship between nuclear deterrence and nuclear disarmament.

Table 1. Four Classifications of States According to the Nuclear Issue

Country to have ever suffered atomic bombings	Nation that has experienced a nuclear attack: Japan.
Nuclear power	States with nuclear weapons: U.S., U.K., France, Russia, China, India, Pakistan, Israel, and North Korea.
Potential nuclear power	Non-nuclear weapon states that face a strong military threat, especially nuclear threat, and have an incentive to possess nuclear weapons: South Korea, Taiwan, Iran, etc.
Non-nuclear power	States that have no strong military threat, especially nuclear threat, and no incentive to possess nuclear weapons: Australia, Canada, etc.

The order of the severity of military threats to the surveyed countries is Japan \approx South Korea > United States > Australia.

Japan and South Korea face nuclear threats from North Korea and China. The US, along with China, Russia, and North Korea, has the largest number of military confrontations. However, the US is the world's largest military and nuclear power, and its threat level is relatively lower than those of Japan and South Korea, which face military threats from states that they cannot oppose on their own. Australia does not face serious military threats, and is the least threatened of the four countries. If previous studies are correct, serious military threats strengthen public support

² For more information and tabulations of the surveys, see Shibai (2022a, 2024): https://www.ism.ac.jp/editsec/kenripo/contents_e.html.

for nuclear possession because the security effect of nuclear deterrence is needed.

2. Hypotheses

To examine the correlation between the severity of a country's security issues and public support for nuclear weapons, we tested the following hypotheses:

Hypothesis 1: The stronger the concerns about security issues, the higher the public's evaluation of the security effects of nuclear deterrence.

Hypothesis 2: If nations that perceive a military threat do not trust the security effects of nuclear deterrence, their support for nuclear disarmament and abolition increases.

Hypothesis 3. Trust in nuclear deterrence does not increase support for nuclear possession in the absence of a military threat.

Hypothesis 1 proposes that the variable connecting military threats and support for nuclear possession is the security effect of nuclear deterrence. If the general population, who may not necessarily be familiar with the nuclear deterrence theory developed by Schelling (1960), is aware of the security effects of nuclear deterrence, they should feel more positive about nuclear deterrence as their anxiety about military threats increases. If nuclear deterrence is not a reason to support the possession of nuclear weapons, Hypothesis 1 is rejected.

Hypothesis 2 verifies the effect of nuclear disarmament, another policy to decrease the possibility of nuclear war, especially the correlation between trust in nuclear deterrence and disarmament. Nuclear deterrence and disarmament are fundamentally opposing security policies. While greater reliance on nuclear deterrence will make it more difficult for non-nuclear states to support nuclear disarmament, states that do not want to possess nuclear weapons will want the nuclear threat to be reduced through nuclear disarmament. From a neorealist perspective, nuclear deterrence and disarmament are not completely opposed. A security policy that balances these two issues would be a more rational choice. Two arguments exist in the study of nuclear disarmament and arms control aimed at preventing nuclear war. One is the neorealist theory that nuclear arms control and disarmament are means to ensure the stability of nuclear deterrence (Brenann, 1961; Bull, 1965; Schelling and Halperin, 1961), and nuclear deterrence and disarmament can be compatible from a neorealist perspective. The other is normative theory, which criticizes the inhumanity of nuclear weapons and the necessity of nuclear abolition. Reliance on imperfect nuclear deterrence increases the risk of nuclear war. Nuclear disarmament, and ultimately nuclear abolition, should be promoted to eliminate the danger of nuclear war³. In

³ Governor of Hiroshima Prefecture, "Peace Message (August 6, 2023)." <https://www.pref.hiroshima.lg.jp/soshiki/52/05heiwakinensikitentijiaisatu.html> (accessed 21 December 2023); The City of Hiroshima, "Peace Declaration (2023)." <https://www.city.hiroshima.lg.jp/site/english/348500.html> (accessed

this argument, nuclear deterrence, disarmament, and arms control are regarded as being opposites. Anti-nuclear sentiment among the Japanese, for example, is clearly a value consistent with the latter argument and is thought to strengthen support for nuclear disarmament, which would free Japan from the threat of nuclear weapons⁴. Therefore, since trust on the security effect of nuclear disarmament can be a variable that negatively influences trust in nuclear deterrence and support for nuclear possession, the variable “nuclear disarmament” must also be incorporated into the analysis of the correlation between trust in nuclear deterrence and support for nuclear possession.

Hypothesis 3 examines the synergistic effects of trust on nuclear deterrence and military threats. If confidence in nuclear deterrence alone, independent of military threats, strengthens support for nuclear possession, this support will always be based on the effectiveness of nuclear deterrence. If that is true, it indicates that nuclear disarmament and abolition are very unlikely to be feasible as long as nuclear deterrence has a security effect, regardless of the security environment and nationality. However, if the effect of reliance on nuclear deterrence varies based on the strength of the military threat, public opinion would no longer support nuclear possession if the military threat was no longer present. If this is true, it shows that nuclear disarmament and nuclear abolition are feasible, even if nuclear deterrence maintains the security effect. The purpose of this hypothesis is to more accurately depict the structure of the correlation among security issues, the effects of nuclear deterrence, and public support for nuclear possession.

3. Analysis

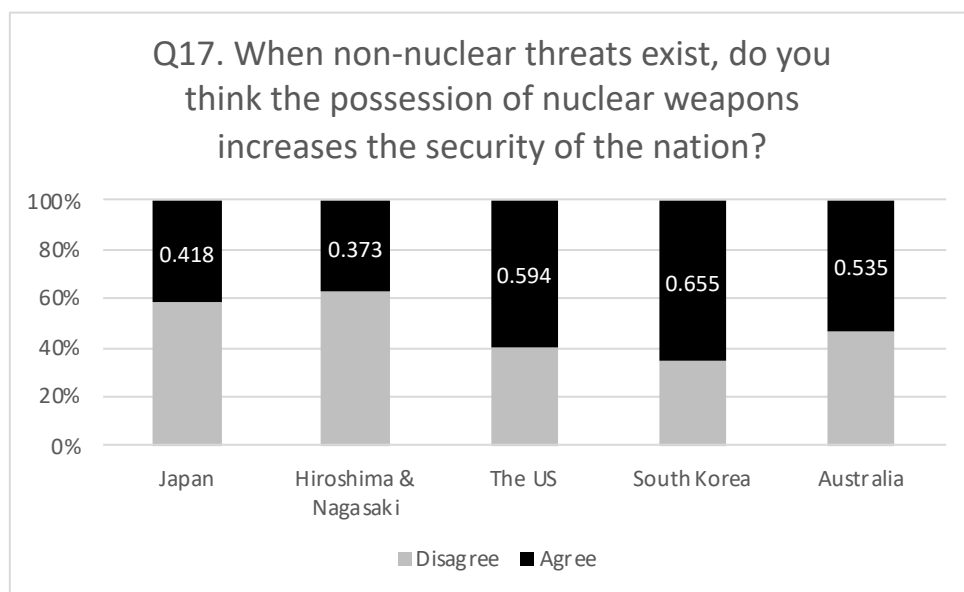
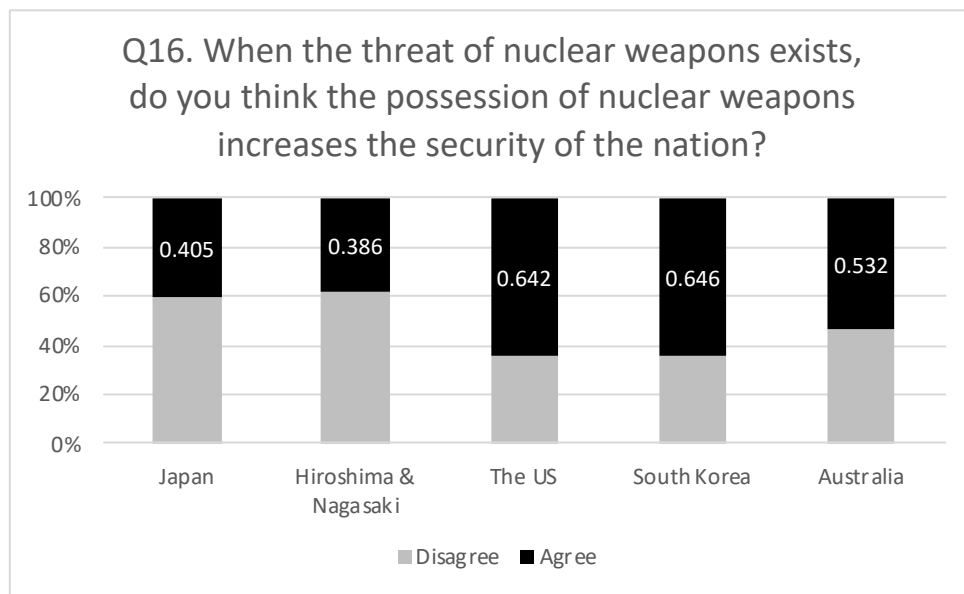
To measure the evaluations on nuclear deterrence, this study used the survey results of Q16 “When the threat of nuclear weapons exists, do you think the possession of nuclear weapons increases the security of the nation?,” Q17 “When the threat of nuclear weapons exists, do you think the possession of nuclear weapons increases the security of the nation?,” Q18 “Do you think that alliances with a nuclear power to counter nuclear threats enhance national security?,” and Q19 “Do you think that alliances with a nuclear power to counter non-nuclear threats enhance national security?.” The fear of military threat was measured with Q33 “To what extent do you

21 December 2023); International Campaign to Abolish Nuclear Weapons, “Nobel Lecture.” <https://www.nobelprize.org/prizes/peace/2017/ican/lecture/> (accessed 21 December 2023); Joseph Rotblat, “Nobel Lecture.” <https://www.nobelprize.org/prizes/peace/1995/rotblat/lecture/> (accessed 21 December 2023); Mayor of Nagasaki, “Nagasaki Peace Declaration (August 9, 2023).” https://www.city.nagasaki.lg.jp/heiwa/3070000/307100/p036998_d/fil/en.pdf; “Statement: The Russell-Einstein Manifesto.” <https://pugwash.org/1955/07/09/statement-manifesto/> (accessed 21 December 2023).

⁴ The term “nuclear allergy” is used to describe the particular anti-nuclear sentiment of the Japanese, which is said to have spread after the approval of the port call of a US nuclear submarine in Yokosuka in January 1963, with a focus on the anxiety of citizens regarding the introduction of nuclear weapons. The strong sense of rejection of nuclear weapons that preceded the atomic bombings of Hiroshima and Nagasaki and the Daigo Fukuryu Maru accident in 1954, the radioactive contamination of the US nuclear submarine Sasebo in 1968, and the intertwining of security issues and political considerations such as the nuclear umbrella have led to a strong psychological rejection of nuclear weapons and radiation danger among the Japanese (Doyle II, 2015; Hook, 1984; Imai, 1970; Samuels and Schoff, 2015).

worry about serious conflict around the Korean Peninsula?” and Q34 “To what extent do you worry about serious conflict around the South China Sea?.” All participants were surveyed on a six-point Likert scale.

Figures 1 and 2 show the graphs of positive and negative opinions, respectively. Respondents were more likely to agree on the security effects of nuclear possession and the nuclear umbrella when there was a nuclear threat than when there was any other military threat. However, the independence test showed no significant difference between Q16 and Q17 and between Q18 and Q19 in each country at the 5% level. Figure 2 show that all nations, especially Japanese, worry about military conflicts.



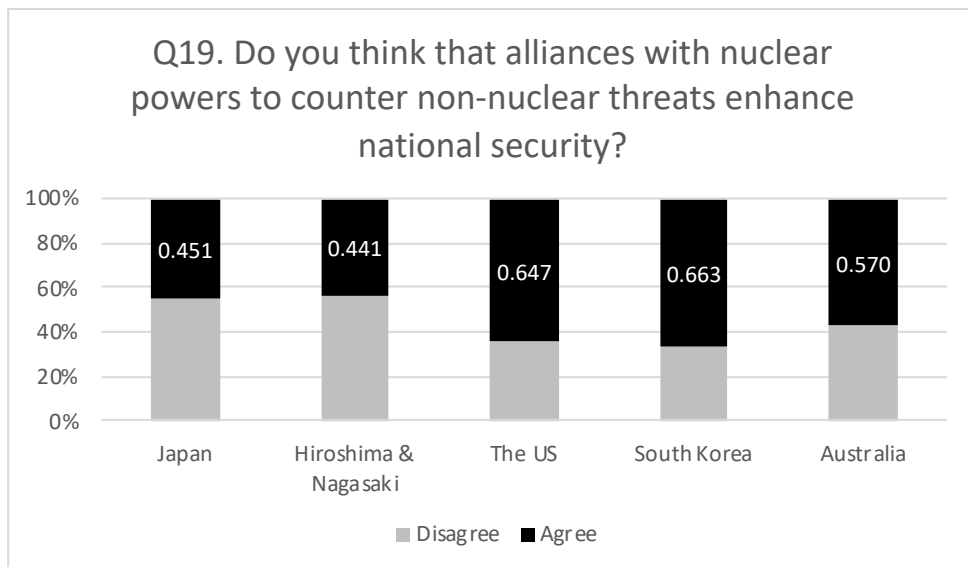
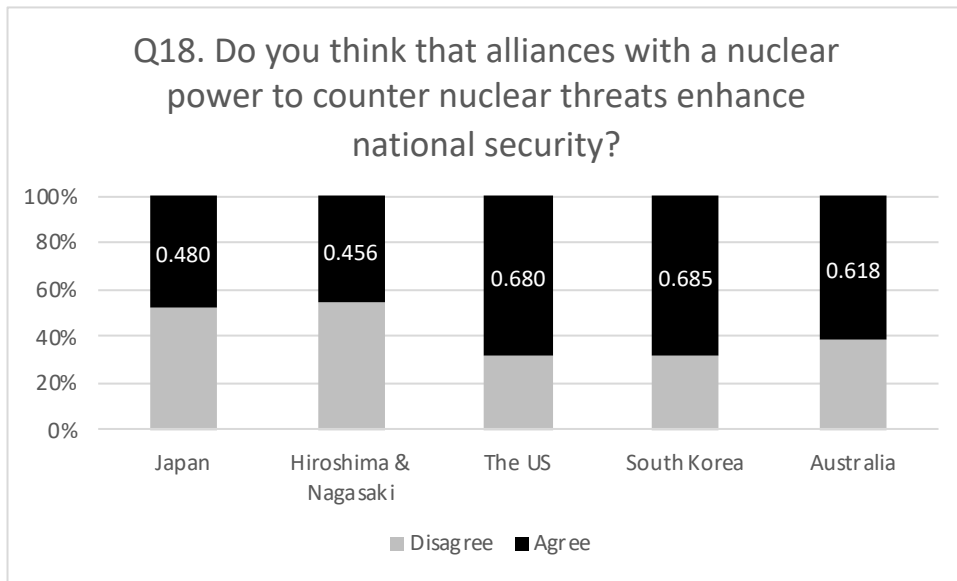


Figure 1. Evaluations on nuclear possession and the nuclear umbrella

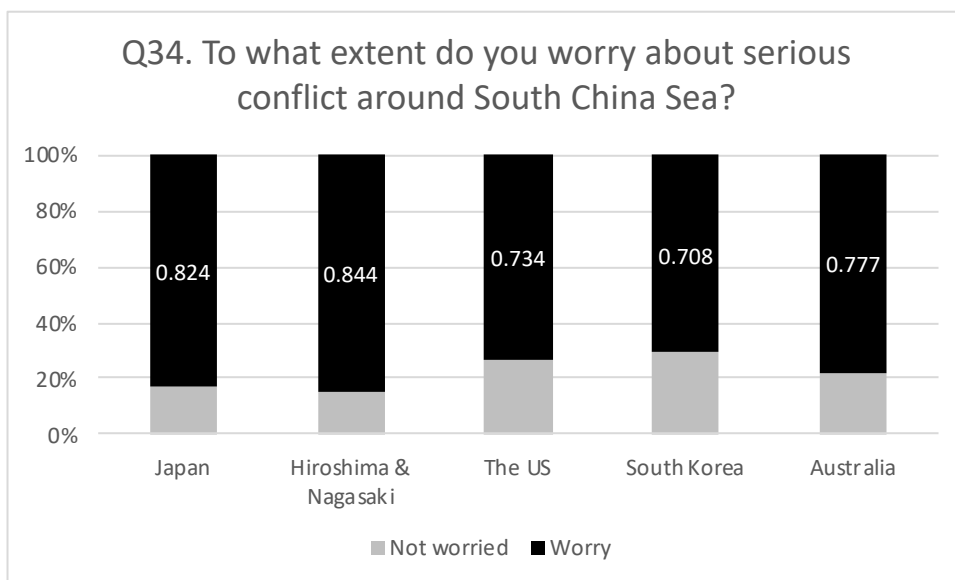


Figure 2. Fear of actual military conflict

When ordered based on the response rates of “agree” in Figure 1, the order of the four questionnaires is South Korea > the US > Australia > Japan, and Potential nuclear power > Nuclear power > Non-nuclear power > Atomic bombed state.

Figure 3 shows the response rates for why the possession of nuclear weapons was justified in the international community after the Nuclear Non-Proliferation Treaty. The response rate for “When a nation is under nuclear threat” is also South Korea > the US > Australia > Japan. The response rate for “When a nation is under military threat” was lower for Australia than for Japan, and almost the same for Japan and the US. Only South Korea, a potential nuclear power,

maintained a high response rate, which was an exceptional result. The response rate for “There is no reason to justify the possession of nuclear weapons” was remarkably high among the Japanese, and the order was Japan > Australia > the US > South Korea. The results of the simple tabulation thus far support Hypothesis 1, with the exception of Japan.

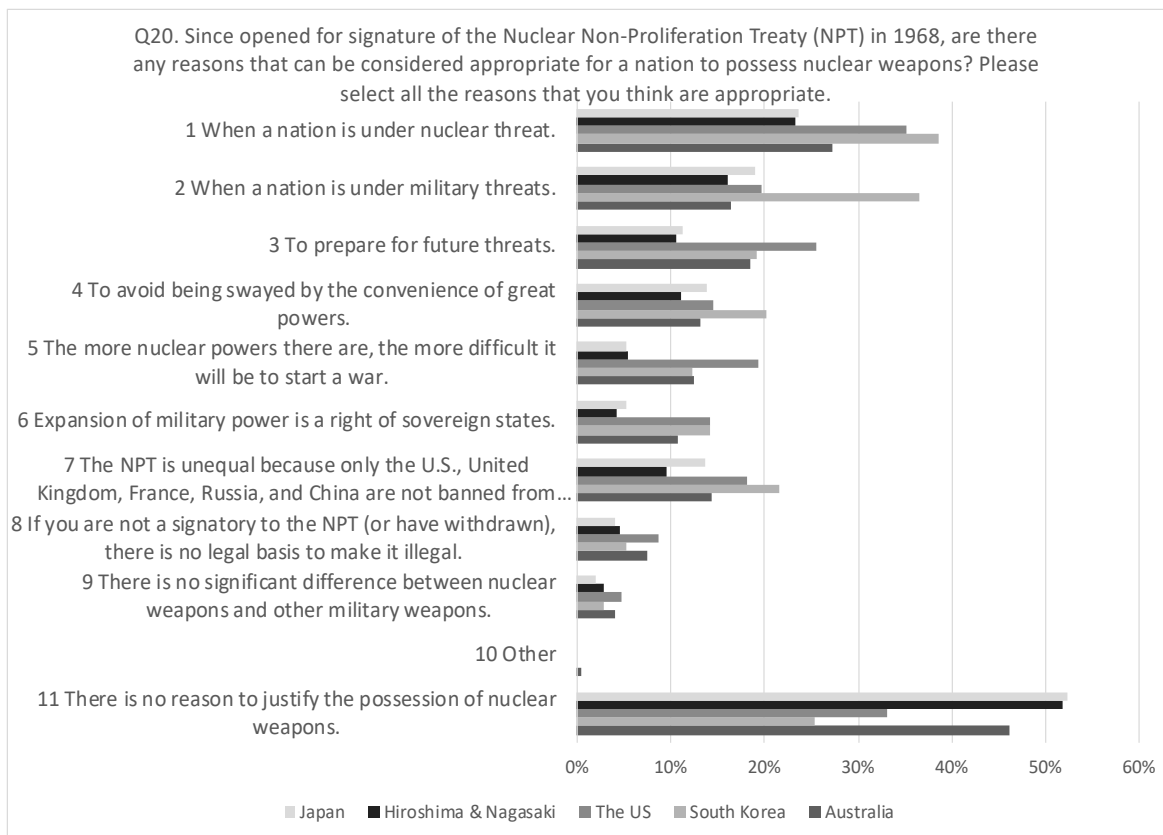



Figure 3. Reasons to justify the possession of nuclear weapons

The correlation coefficients between the level of anxiety about military conflict and the level of confidence in the security effects of nuclear deterrence and the nuclear umbrella were measured and showed clear differences for each national category. Japan and Hiroshima/Nagasaki showed negative correlations, Australia showed no correlations, the US showed positive and no correlations, and South Korea showed positive correlations (Table 1). While trust in the security effects of nuclear deterrence and the nuclear umbrella strengthened as anxiety about military conflict increased in potential nuclear powers and nuclear powers, the opposite was true for Japan, where anxiety about military conflict led to distrust of nuclear deterrence.

Table 2. Correlation coefficients between the level of anxiety about military conflict and the level of confidence in the security effects of nuclear deterrence and the nuclear umbrella

		q16	q17	q18	q19	Trust in nuclear deterrence
Atomic bombed	jp_q33	-0.105 **	-0.141 **	-0.099 **	-0.124 **	 weak strong
state	jp_q34	-0.044	-0.083 **	-0.002	-0.026	
	hn_q33	-0.098 **	-0.134 **	-0.122 **	-0.107 **	
	hn_q34	-0.054	-0.080 *	-0.102 **	-0.080 *	
Non-nuclear	au_q33	-0.052	-0.050	-0.008	-0.070 *	
power	au_q34	-0.040	-0.060	0.003	-0.050	
Nuclear	us_q33	0.049	0.000	0.068 *	0.049	
power	us_q34	0.080 *	0.011	0.089 **	0.092 **	
Potential nuclear	kr_q33	0.138 **	0.127 **	0.100 **	0.131 **	
power	kr_q34	0.123 **	0.108 **	0.096 **	0.132 **	

** $p < 0.01$, * $p < 0.05$

If the seriousness of the military threat determines the strength of support for nuclear possession, the order of positive evaluations of nuclear possession should be Japan > South Korea > the US > Australia. However, only the Japanese are incompatible with this hypothesis. Koreans and Americans are more likely to believe that nuclear deterrence is useful for their security as they become more anxious, whereas the Japanese are less likely to rely on nuclear deterrence as they become more anxious. This characteristic is also unique to the Japanese. The uniqueness of the Japanese and the fact that the correlation is not negative even among Australians, a non-nuclear power not threatened by nuclear weapons, indicate that the Japanese are the only ones who hold clear negative opinions about nuclear possession and the nuclear umbrella.

Hypothesis 2 is tested next. Q7 “Nuclear disarmament contributes to international security” and Q8 “Nuclear disarmament contributes to your nation’s security” (six-point Likert scale, the higher the score, the more positive) are summarized as positive and negative opinions, respectively, in Figure 4.

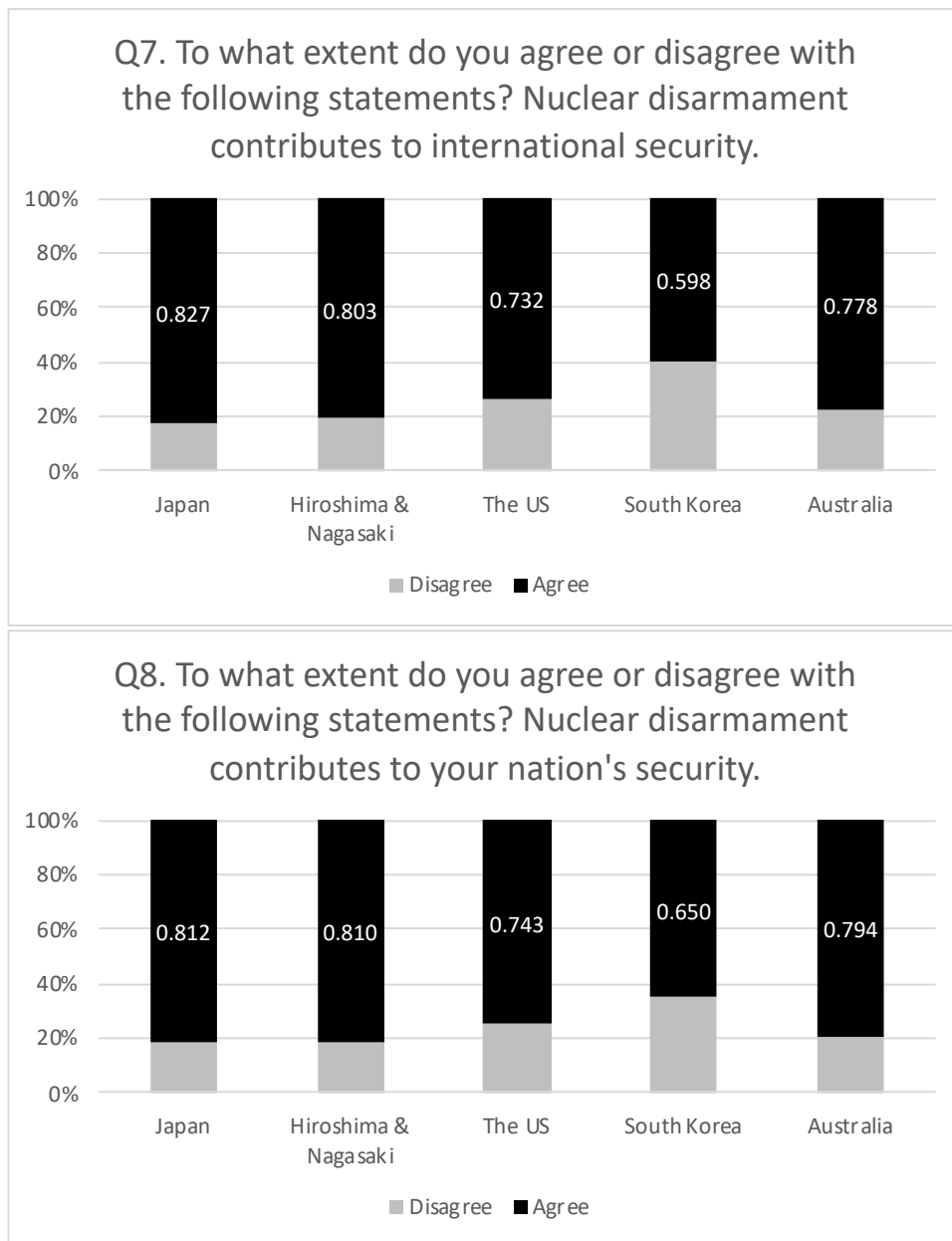



Figure 4. Evaluation of nuclear disarmament

The response rates of agreement with both Q7 and Q8 were in the order of Japan > Australia > the US > South Korea. The Japanese were the most positive about the security effects of nuclear disarmament. Furthermore, the correlation coefficients between the evaluations of nuclear disarmament and the levels of confidence in nuclear deterrence showed significant negative correlations for the Japanese, no correlations and slightly negative correlations for the Australians, no correlations and slightly positive correlations for the Americans, and positive correlations for the Koreans (Table 2). The results indicate that nuclear power and potential nuclear power have values that are consistent with the neorealist perspective, whereas only the Japanese clearly hold

opinions that are consistent with the normative disarmament theory.

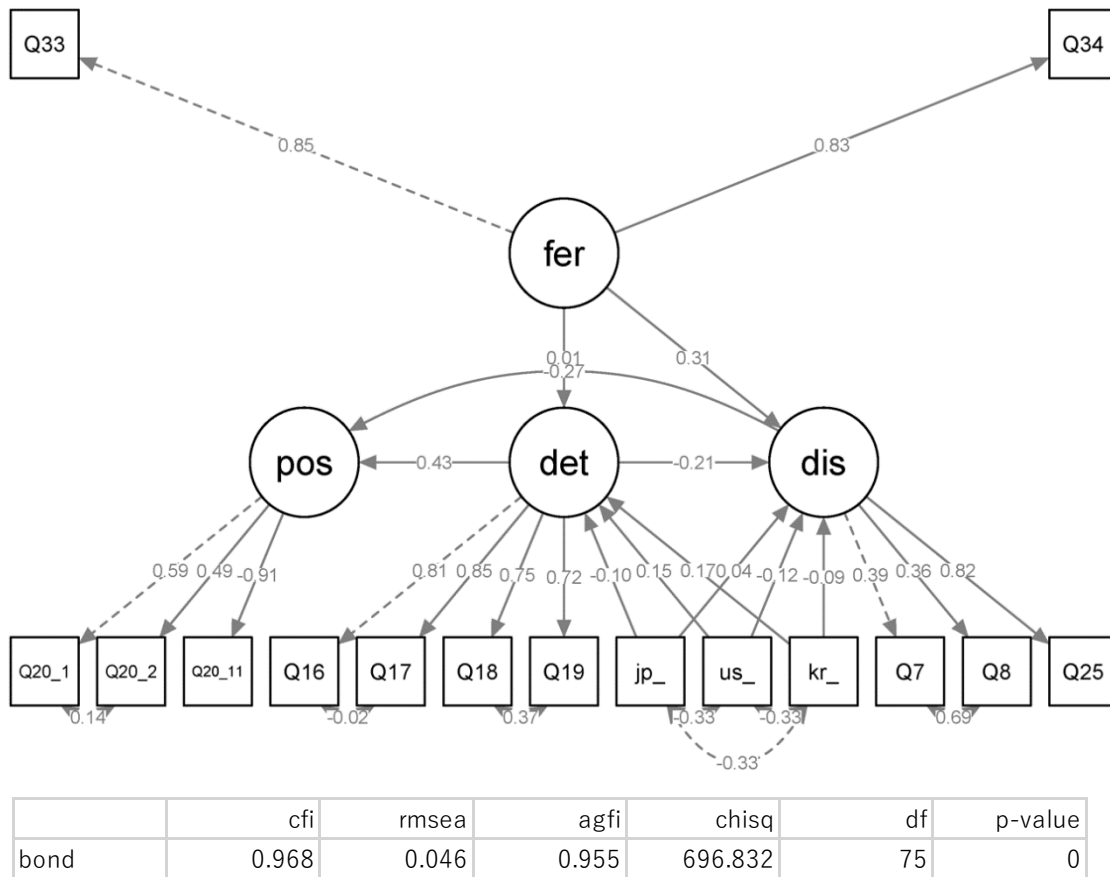
Table 3. Correlation coefficients between the level of confidence in the security effects of nuclear disarmament and the level of confidence in the security effects of nuclear deterrence

		q16	q17	q18	q19	Opinion on nuclear disarmament
Atomic bombed	jp_q7	-0.225 **	-0.257 **	-0.164 **	-0.174 **	 Normative
state	jp_q8	-0.273 **	-0.294 **	-0.210 **	-0.225 **	
	hn_q7	-0.151 **	-0.175 **	-0.163 **	-0.118 **	
	hn_q8	-0.246 **	-0.225 **	-0.207 **	-0.168 **	
Non-nuclear	au_q7	0.006	-0.089 **	-0.008	-0.033	
power	au_q8	-0.031	-0.061	-0.006	-0.065 *	
Nuclear	us_q7	0.054	-0.013	0.109 **	0.057	
power	us_q8	0.061	-0.002	0.105 **	0.083 **	
Potential nuclear	kr_q7	0.323 **	0.283 **	0.341 **	0.313 **	
power	kr_q8	0.372 **	0.353 **	0.362 **	0.347 **	

** $p < 0.01$, * $p < 0.05$

Hypothesis 3 was tested based on the results of Hypotheses 1 and 2. Structural Equation Modeling (SEM) was used to measure the correlations between four variables: anxiety about military threats, trust in nuclear deterrence, trust in nuclear disarmament, and support for nuclear possession. The influence of each variable and differences among nations were measured. The dependent variables were Q20's option 1 "When a nation is under nuclear threat" (Yes = 1, No = 0), option 2 "When a nation is under military threat" (Yes = 1, No = 0), and option 11 "There is no reason to justify the possession of nuclear weapons" (Yes = 1, No = 0) in Figure 3. The independent variables were Q7 and Q8, which measured trust in nuclear disarmament, anxiety about military conflict in Q33 and Q34, and trust in nuclear deterrence and the nuclear umbrella in Q16, Q17, Q18, and Q19. The latent variables were fear of conflict (Q33 and Q34) and trust in nuclear disarmament (Q7 and Q8). The latent variables were fear of conflict (fer), trust in deterrence (det), trust in disarmament (dis), and support for nuclear possession (pos). If the values of the uniquely Japanese differed from the perspectives of previous studies, the effect of $det \rightarrow pos$ should be lower than that of other nations, regardless of the effect of $fer \rightarrow det$, and a negative effect of $dis \rightarrow pos$ should appear.

Figure 5 shows the path diagram of SEM using bond data for the four countries ($n = 4000$, excluding Hiroshima and Nagasaki, to match the sample size by category) (coefficients are standardized values). The dummy variable for nationality is $au = 0$.



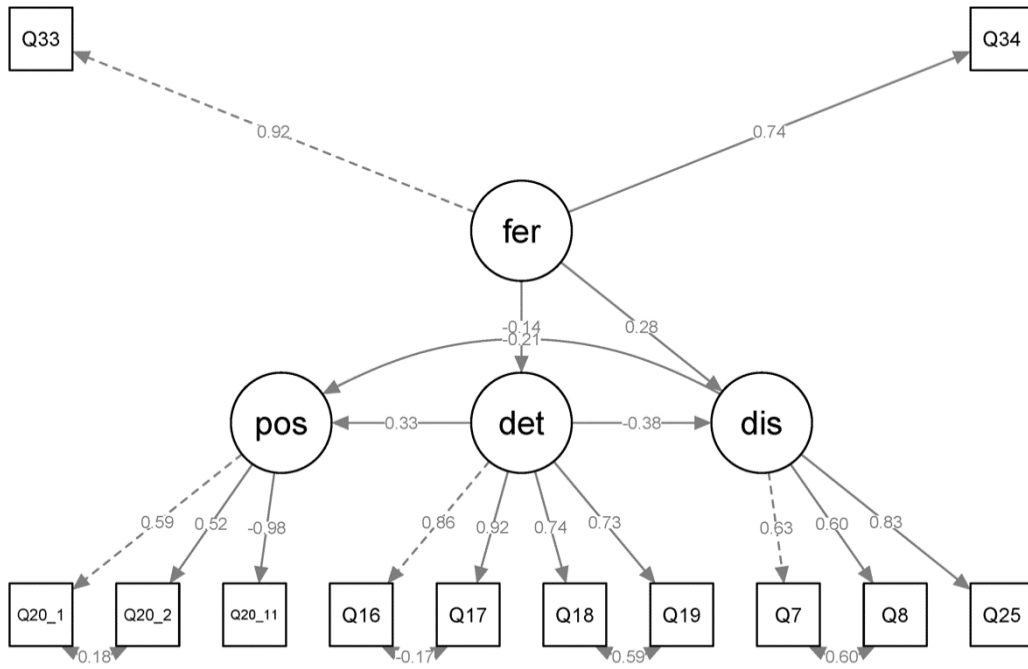
R ver 4.3.2. Package: lavaan, semPlot.

Figure 5. Path diagram of SEM with bond data

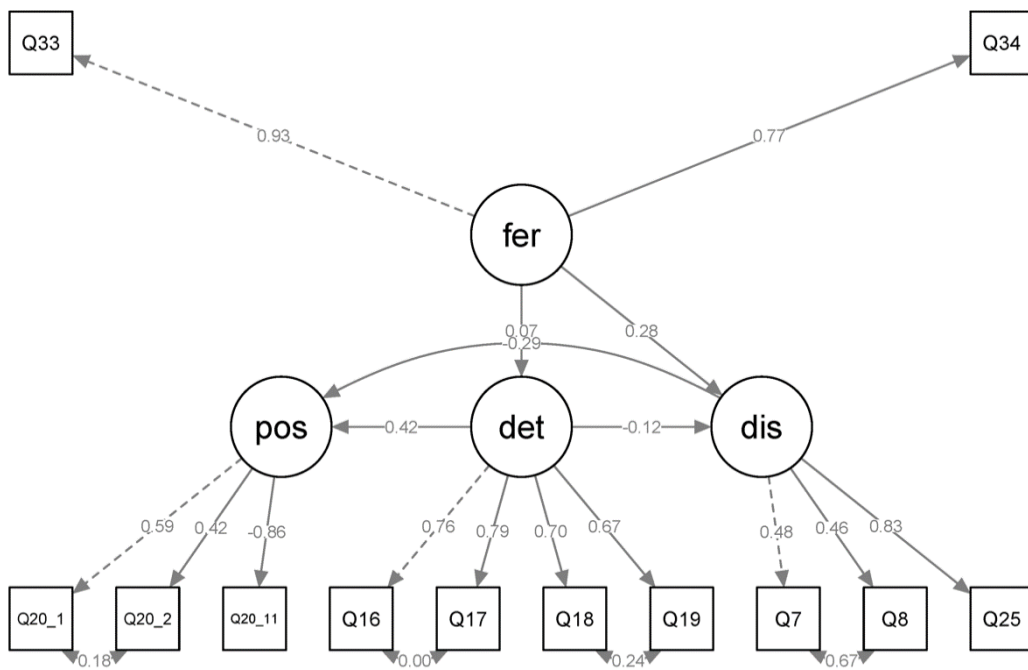
The coefficient of $fer \rightarrow det$ is not significant at the 5% level ($p = 0.438$) and does not support Hypothesis 1. However, the coefficient of $det \rightarrow dis$ is -0.214 , supporting Hypothesis 2, and the coefficient of $det \rightarrow pos$ is 0.43 . The results indicate that the effect of nuclear deterrence strengthened support for nuclear possession. Looking at the nationality dummy variables, coefficients $jp \rightarrow det$, $us \rightarrow det$, and $kr \rightarrow det$ are -0.099 , 0.148 , and 0.174 , respectively. These values indicate that only the Japanese have a negative effect on the evaluation of nuclear deterrence compared to other nationalities. Furthermore, $jp \rightarrow dis$ is 0.034 , $us \rightarrow dis$ is -0.122 , and $kr \rightarrow dis$ is -0.086 . The results indicate that the Japanese indeed hold negative values for nuclear deterrence and positive values for nuclear disarmament, and that the influence of identity in terms of anti-nuclear sentiments will be strong.

Figure 6 shows the SEM results for each country to clarify the differences between them.

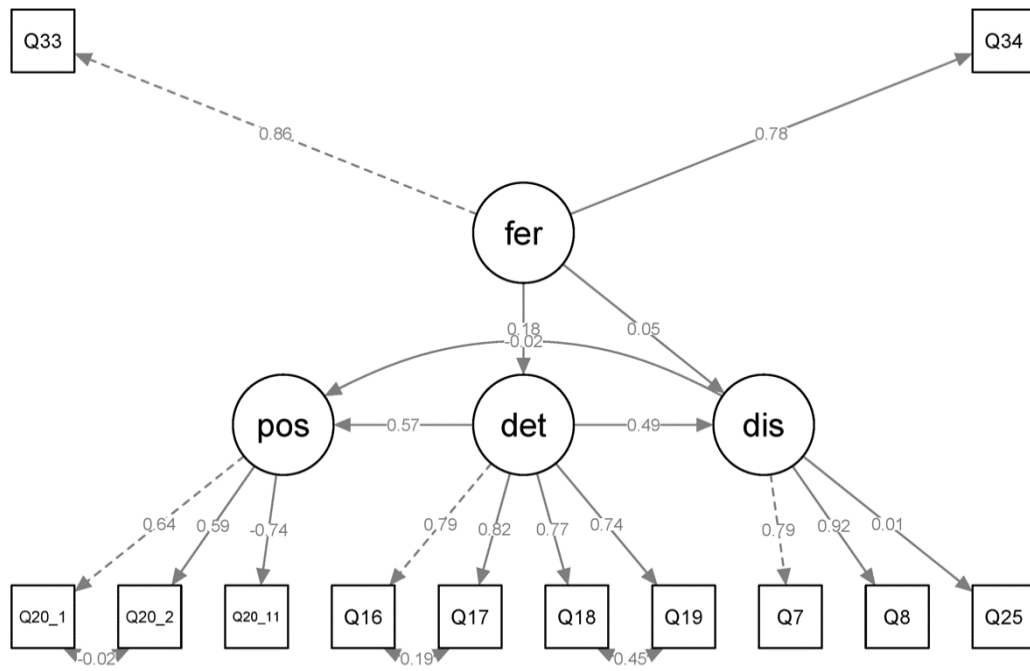
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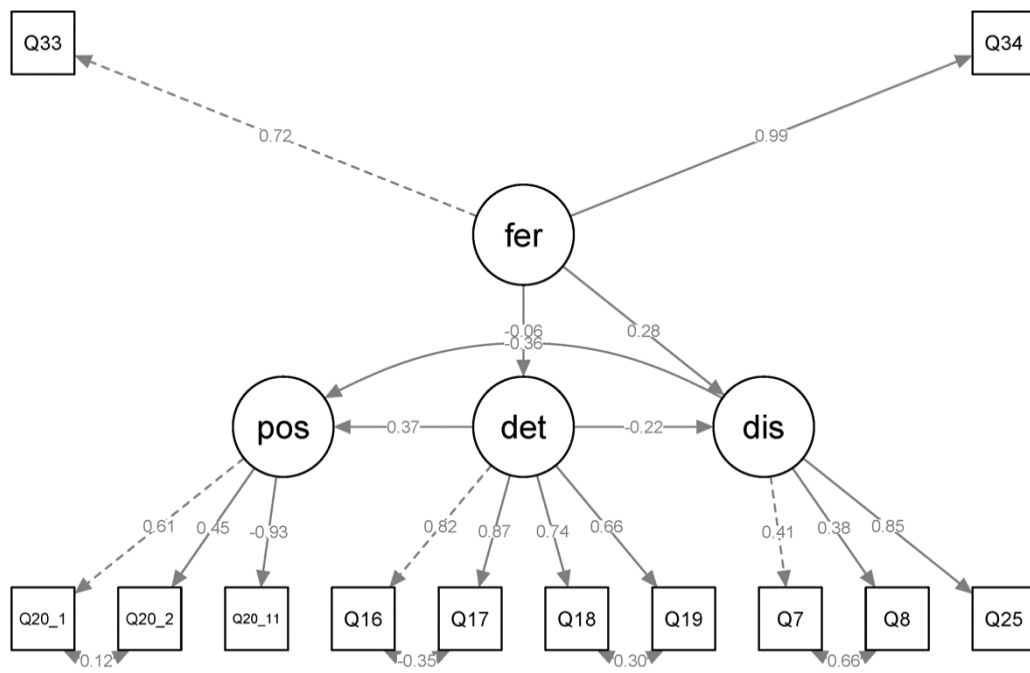
us



kr



au



	cfi	rmsea	agfi	chisq	df	p-value
jp	0.989	0.037	0.969	105.794	45	0
us	0.982	0.041	0.969	118.901	45	0
kr	0.962	0.062	0.939	224.411	46	0
au	0.988	0.034	0.972	97.109	45	0

R ver 4.3.2. Package: lavaan, semPlot.

Figure 6. Path diagram of SEM for each country

The coefficient $fer \rightarrow det$ is negative for Japan, not significant at the 5% level for the US ($p = 0.08$) and Australia ($p = 0.09$), and positive for South Korea. Only the Japanese have a propensity to decrease their trust in nuclear deterrence as their anxiety about military conflict increases. Thus, Hypothesis 1 is supported only for nuclear power and potential nuclear power. The coefficient of $det \rightarrow dis$ is negative for Japan, the US, and Australia, supporting Hypothesis 2 for the most part. The order of values is $kr > us > au > jp$, and trust in nuclear deterrence and disarmament is most strongly in conflict among the Japanese. In South Korea, trust in nuclear deterrence is linked uniquely to trust in the event of nuclear disasters.

The coefficient of $det \rightarrow pos$ is positive and significant in all countries regardless of the coefficient of $fer \rightarrow det$. The results support Hypothesis 3. The standardized coefficients are 0.335 (jp), 0.424 (us), 0.571 (kr), and 0.366 (au) for each country. The order of the values is $kr > us > au > jp$. The effect of nuclear deterrence is weakest for the Japanese. The effect of nuclear deterrence is lower for the Japanese than for non-nuclear powers. Contrary to this hypothesis, it is difficult for the Japanese to support nuclear possession regardless of the seriousness of the military threat.

The analyses showed a correlation between the degree of military threat and support for nuclear deterrence and possession. The more threatened a nation is, the stronger its support for nuclear deterrence and possession. However, the correlation is exceptionally different only for Japan, an atomically bombed nation. Anxiety about military conflict leads to distrust of nuclear deterrence, which in turn leads to trust in nuclear disarmament. The causal relationship between trust in nuclear deterrence and support for nuclear weapons was weak in Japan.

4. Conclusion

Regarding the correlation between military threats and support for nuclear possession, the results show that trust in nuclear deterrence itself generally affects support for nuclear possession, but the effect of anxiety about military conflict differs across nations. Trust in nuclear disarmament negatively affects support for nuclear possession, and trust in nuclear deterrence weakens the effect of trust on nuclear disarmament. The effect of trust on nuclear disarmament

differs across nations.

The analyses show that it is difficult to stop the increasing public support for nuclear possession amid concerns about military threats, especially nuclear threats. However, the analyses also showed that cause and effect are never eternal laws. The strength of this correlation varies depending on the security environment and national identity. The effect of trust on nuclear deterrence is always positive; however, the SEM results show that the coefficient can be weakened by the security environment and national identity.

Further data collection is required for a more accurate group analysis because multiple types of samples are needed within a group. The results indicate that the Japanese are exceptional in that they are the most negative about nuclear possession and nuclear deterrence, even though their level of military threat, especially from nuclear powers, is the same or higher than that of South Korea. Fear of military threat can negatively affect trust in nuclear deterrence only in Japan. If variables that change the effect of fear of military threats on trust in nuclear deterrence to the negative are found, support for nuclear possession will be weakened in all four categories. It is difficult to determine that the negative correlation between trust in nuclear deterrence and fear of military threat is a general value solely based on the Japanese analyses in this study because Japanese people only have a national memory of atomic bombings from the war. If other nations of potential nuclear powers or nuclear powers have the same value, nuclear possession can be prevented without the experience of nuclear attack. Furthermore, it is essential to empirically establish that the causes of the Japanese exceptional values are not from specific national memories but from other general variables that could also be present in other nations.

An analysis of Japanese public opinion revealed that anxiety about serious military conflicts can lead to distrust in nuclear deterrence and trust in nuclear disarmament, which can weaken support for nuclear possession. Thus, the security effect of nuclear deterrence on public values is not immutable. This study shows that security issues, especially nuclear threats, can be solved by means other than nuclear possession, even if the security problems become more serious. Furthermore, the analysis shows that nuclear disarmament can be an alternative to nuclear deterrence because the effect of trust on nuclear disarmament changes depending on the security environment, and they are negatively correlated. This study indicates that nuclear nonproliferation is possible with normative perspectives related to nuclear disarmament, even if nuclear deterrence positively works. Finding the means and variables to strengthen the negative effect of $fer \rightarrow det$ and positive effect of $dis \rightarrow pos$ is the next task.

As nuclear deterrence theory has shown, nuclear deterrence would be a perfect security policy if all nations and people acted based on rational thought. If this is true, an extreme security argument could be made that war would cease to occur if all nations became nuclear powers (Sagan and Waltz, 2003, Ch. 1; Waltz, 1990). However, as Japanese distrust of nuclear deterrence

shows, there is no guarantee that everyone will make decisions in accordance with nuclear deterrence theory. If unprincipled trust in nuclear deterrence, which is never perfect, can be reduced, security policies based on nuclear deterrence theory will become unstable. Public opinion can contribute to both national security and nuclear nonproliferation with normative values.

Reference

- Brenann, Donald G., ed. 1961. *Arms Control, Disarmament and National Security*. New York: George Braziller, Inc.
- Bull, Hedley. 1965. *The Control of the Arms Race: Disarmament and Arms Control in the Missile Age*. Second edition. New York: Frederick A. Praeger, Publishers.
- Dill, Janina, Scott D. Sagan, and Benjamin A. Valentino. 2022. "Kettles of Hawks: Public Opinion on the Nuclear Taboo and Noncombatant Immunity in the United States, United Kingdom, France, and Israel." *Security Studies* 31 (1): 1-31.
- Doyle II, Thomas E. 2015. "Hiroshima and Two Paradoxes of Japanese Nuclear Perplexity." *Critical Military Studies* 1 (2): 160-173.
- Fuhrmann, Matthew. 2009. "Spreading Temptation: Proliferation and Peaceful Nuclear Cooperation Agreements." *International Security* 34 (1): 7-41.
- Hook, Glenn D. 1984. "The Nuclearization of Language: Nuclear Allergy as Political Metaphor." *Journal of Peace Research* 21 (3): 259-275.
- Horschig, Doreen. 2022. "Israeli Public Opinion on the Use of Nuclear Weapons: Lessons from Terror Management Theory." *Journal of Global Security Studies* 7 (2): 1-18.
- ICRC. 2019. Millennials on War: Topline Report for the International Committee of the Red Cross. <https://www.icrc.org/en/millennials-on-war>
- Imai, Ryukichi. 1970. "Japan and the Nuclear Age." *Bulletin of Atomic Scientists* 26 (6): 35-39.
- Jo, Dong-Joon and Erik Gartzke. 2007. "Determinants of Nuclear Weapons Proliferation." *Journal of Conflict Resolution* 51 (1): 167-194.
- Sagan, Scott. D. and Kenneth N. Waltz. 2003. *The Spread of Nuclear Weapons: A Debate Renewed*. New York: W. W. Norton.
- Samuels, Richard J. and James L. Schoff. 2015. "Japan's Nuclear Hedge: Beyond Allergy and Breakout." *Political Science Quarterly* 130 (3): 475-503.
- Schelling, Thomas C. 1960. *The Strategy of Conflict*. Massachusetts: Harvard University Press.
- Schelling, Thomas C. and Morton H. Halperin. 1961. *Strategy and Arms Control*. New York: The Twentieth Century Fund.
- Shibai, Kiyohisa. 2022a. *Cross-National Survey on Nuclear Disarmament Issues: Japan,*

- Hiroshima, Nagasaki, and the U.S. 2022 Web Survey*. Tokyo: The Institute of Statistical Mathematics.
- Shibai, Kiyohisa. 2022b. "A Note on Meta Research Design for International Survey and Data Analysis of Nuclear Disarmament." *Bulletin of Data Analysis of Japanese Classification Society* 11 (1): 37–50.
- Shibai, Kiyohisa. 2024. *Cross-National Survey on Nuclear Disarmament Issues: South Korea and Australia 2023 Web Survey*. Tokyo: The Institute of Statistical Mathematics.
- Singh, Sonali and Christopher Way. 2004. "The Correlates of Nuclear Proliferation: A Quantitative Test." *Journal of Conflict Resolution* 48 (6): 859-885.
- Spektor, Matias, Guilherme N. Fasolin, and Juliana Camargo. 2022. "Public Support for Nuclear Proliferation: Experimental Evidence from Brazil." *Journal of Global Security Studies* 7 (4): 1-11.
- Sukin, Lauren. 2020. "Credible Nuclear Security Commitments Can Backfire: Explaining Domestic Support for Nuclear Weapons Acquisition in South Korea." *Journal of Conflict Resolution* 64 (6): 1011-1042.
- Tannenwald, Nina. 1999. "Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use." *International Organization* 53 (3): 433-468.
- Waltz, Kenneth. N. 1990. "Nuclear Myth and Political Realities." *American Political Science Review* 84 (3): 731-745.