Fukushima's Invisible War

The interactive process of dominant discourses and divergent risk perceptions of the population in post-Fukushima, Japan

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Abstract

On 11 March 2011, a magnitude-9 earthquake shook northeastern Japan, unleashing a savage tsunami. It was called "The Great East Japan Earthquake," and the ensuing tsunami struck the nuclear power plants in Fukushima. It led the worst nuclear disaster in the world after Chernobyl and collectively resulted in 18,500 dead and missing as well as 160,000 evacuees.

Despite the massive and continuous radiation release in the ocean and in the air for more than nine years, the Japanese government has not taken any definitive measures to alleviate the crisis and has instead deployed various dominant discourses and rhetorics, that downplayed and minimized the radiation risk and led to the emergence of widely divergent risk perceptions among the local population.

This thesis aims to understand *how* these dominant discourses influenced people's diverse risk perceptions by applying "de-securitization" as a main analytical frame. In other words, this thesis focuses on the interactive process between the "de-securitizing actors' speech acts" and "audience." Through this research, I propose three categories of the dominant discourses in post-Fukushima Japan: 1) "the safe discourses," 2) "the counter-discourses," and 3) "the cutting discourses." Furthermore, by applying three more sub-concepts, "media control," "denialism," and "intersubjectivity of active audience," I generated the model of the "de-securitization" process in the post-Fukushima situation.

Keywords: audience, denialism, de-securitization, discursive formation, Fukushima, intersubjectivity, media control, speech act

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Figure 1. Map of Japan with highlight on Fukushima-ken

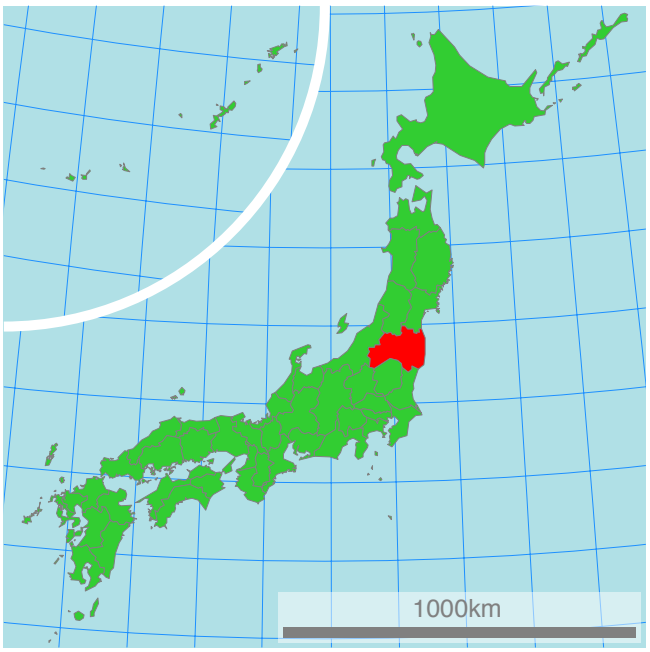

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Figure 2. Transition of evacuation designated zones

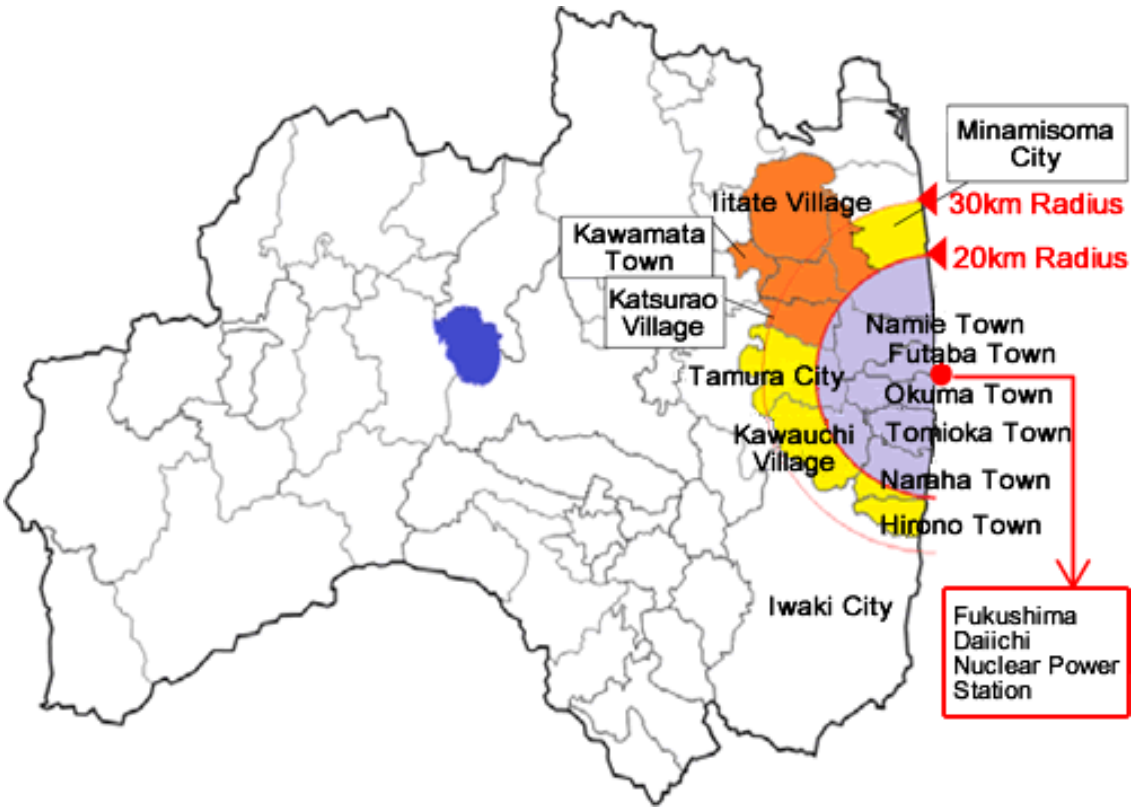

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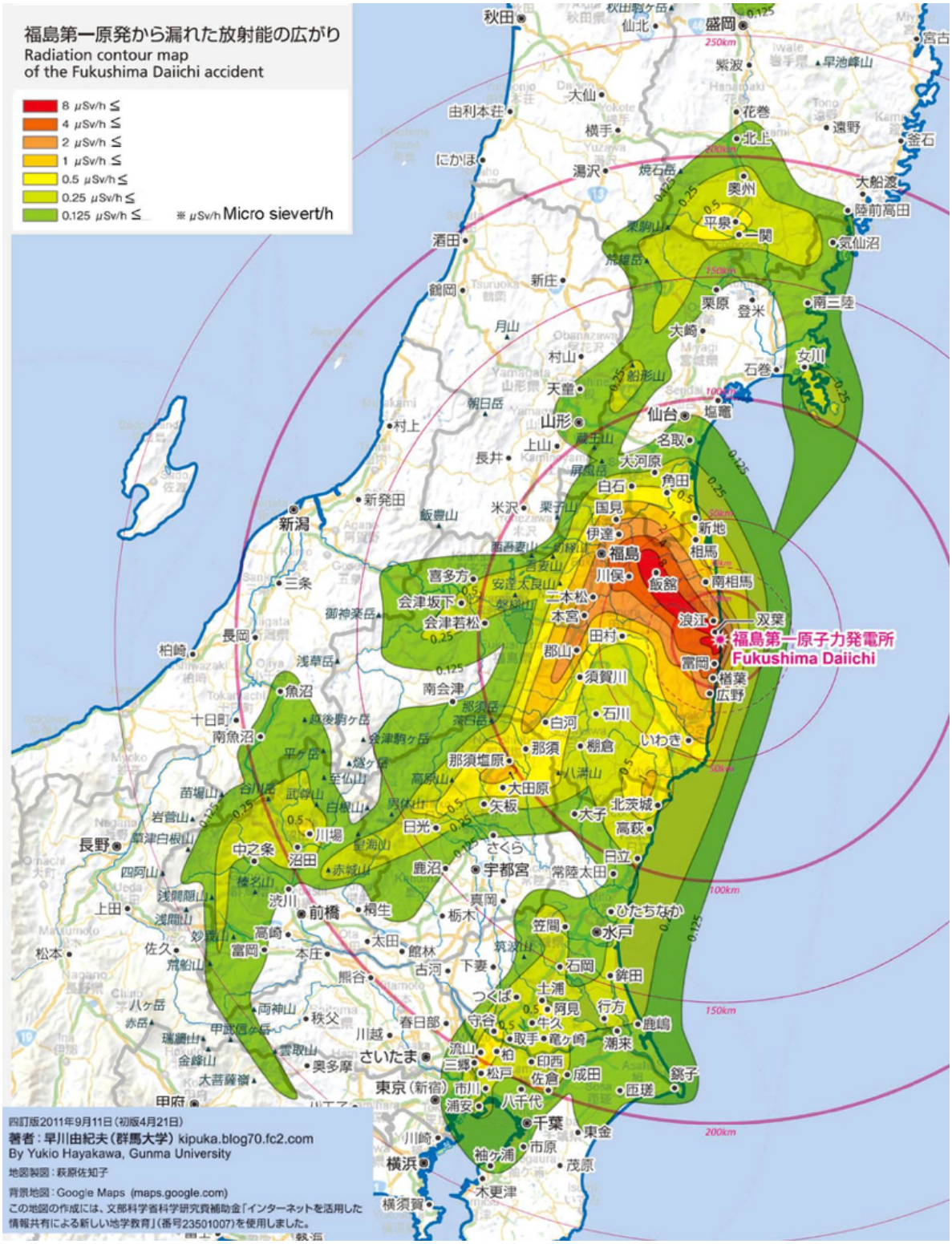
Figure 3. Radiation contour map of the Fukushima Daiichi Accident



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arranged with permission of base map author, Yukio Hayakawa 早川由紀夫, Gunma University, "Radiation contour map of the Fukushima Daiichi Accident," 4th edition, (http://www.hayakawayukio.jp/)

List of Abbreviations

FDNP…Fukushima Daiichi Nuclear Power Plant

TEPCO…Tokyo Electric Power Company Holdings

ICRP…International Commission on Radiological Protection

UNACEAR …the U.N. Scientific Committee on the Effects of Atomic Radiation

WHO…The World Health Organization

SPEEDI …System for Prediction of Environmental Emergency Dose Information

MEXT …Ministry of Education, Culture, Sports, Science and Technology

[…] Radiation rains here. A quiet night.

Why hurt us like this? What does it mean?

The meanings of all things, all events, come afterwards.
But afterwards itself means what? What meaning lies within it?

What does this earthquake, this disaster want to tell us?
If they have nothing to tell, what can we believe in?

Radiation rains here. The night is so quiet, so serene.

Some determine to live, and others, full of regret, dies.
Countless words are scattered among the rubbles in our minds.

Me and you, why do we live in this world? Me and you, why were we born in this world? Me and you are in this world believing what?

Breezes blowing in and out, this way and that. Tears falling, falling. The earth spreading, spreading to the horizon. And I walk on, walk on to the sea.

And I believe in the sparkles of the sea, the breath in the wind, the pungent smell of grass, the twinkle in the stars, the force in the flowers, the history of stones, an intimacy with the soil, a break in the clouds—such a hometown as this, our hometown.

My watch that stopped at 2:46—I'd like to tell it the time.
There is no night that doesn't find the dawn.

From the poem of Ryoichi Wago, "Kanashimi [Sadness]," 2012,
translated by Koichiro Yamauchi and Steve Redford, (https://wago2828.com/translation/3578.html)

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1. Introduction

On March 11, 2011, a magnitude-9 earthquake shook northeastern Japan, unleashing a savage tsunami (*BBC,* March 11, 2011). It was called "The Great East Japan Earthquake," and the ensuing tsunami struck the Fukushima Daiichi Nuclear Power Plant (FDNP). It led to the worst nuclear disaster in the world after Chernobyl and collectively resulted in 18,500 dead and missing as well as 160,000 evacuees (*BBC*, April 12, 2011; *BBC*, March 11, 2012).

It was the very moment of life and death for Japan. On March 14, at 11: 01 a.m., two days after the first explosion of the No. 1 reactor, the No. 3 reactor exploded. Simultaneously, a cooling system breakdown began in the No. 2 reactor (*BBC,* March 14, 2011; TEPCO website; Yoshida 2016). Masao Yoshida, the plant manager of the FDNP during the crisis, later testified to a government panel, "I thought we were really dead," and confessed that the No. 2 reactor's situation was imagined to be critical: "our image was the end of eastern Japan" (*The Japan Times,* August 31, 2014; Miyazaki and Kimura 2014; *Waseda Chronicle,* April 23, 2020). Amid the water-bombing to cool the reactors from helicopters, TEPCO recognized that three core meltdowns had happened immediately after the accident. However, they repeatedly denied this and did not admit the truth of it for more than two months (*NHK Special* "Meltdown" Investigative Reporting Team, September 20, 2017).

Western governments, such as France and Germany, recommended that their citizens in Japan leave the northern and metropolitan areas and on March 16, and the US disseminated the evacuation advisory to American citizens in Japan who had stayed within a 50mile (80-kilometre) radius of the FDNP (Yoshida 2016, 14). In contrast, Japan's evacuation order was issued within a 20-kilometer radius on March 12. Finally, on April 22, the designated evacuation zone was revised and expanded to a 30-kilometer range, including some extensions (Fukushima Prefectural Government 2019).

Figure 4. Destruction wrought by tsunami in Miyagi region, March 12, 2011.

Source: Keystone 2011 in (Hagmann 2012).

Figure 5. Destruction at reactor 3 of Fukushima-Daiichi power station, March 15, 2011.

Source: TEPCO, 2011, in (Hagmann 2012)

Nine years later, despite the continuous release of massive amounts of radioactive materials in the ocean (*BBC,* September 10, 2019) and the air (*The Guardian*, Mars 11, 2019), the Japanese government has not taken any definitive measures to remedy the crisis. This ceaseless leak of radioactive materials is factual (Greenpeace International 2020). However, the risk of radiation exposure for human health has been a target of fierce debates among scientists and experts in the world. At the international level, the UN Scientific Committee report on the Effects of Atomic Radiation (UNACEAR) claims that a discernible increase of severe diseases by radiation exposure from the Fukushima accident is not expected (UNACEAR 2013). UNACEAR continued to support the view of the 2013 report in its follow-up White Papers (UNACEAR 2015; 2016; 2017).

The Japanese authorities shared similar views from the beginning of the crisis. Since April 2011, the Japanese government has raised the upper limit of safe radiation exposure for children from 1 millisievert a year to 20mSv (*The Guardian*, June 1, 2011). This disposition held regardless of the ICRP's official report on the existence of a low-dose threshold, noting that, "The report concludes that while the existence of a low-dose threshold does not seem to be unlikely for radiation-related cancers of certain tissues, the evidence does not favor the existence of a universal threshold" (ICRP 2005). Consequently, it led to a fierce debate over rates of thyroid cancer among Fukushima's children (*The Guardian*, Mars 9, 2014). Furthermore, the government's evacuation orders were recently even lifted in order to encourage over 40,000 remaining evacuees to settle back to the contaminated areas (*Aljazeera,* April 10, 2019; Fukushima Prefectural Government 2019), despite the grave concern expressed

by the UN human rights expert (UN Office of the High Commissioner for Human Rights 2018).

The authorities' implementation of risk-downplaying policies against radiation exposure in the post-Fukushima situation was expressed through various dominant discourses. I investigated some dominant media discourses through the textual data analysis and used data to show their presence in post-Fukushima, Japan. Then, I supported the data by qualitative research and hypothetically categorized them into three groups along with their functions: 1) reinforcing safeness, 2) attacking the population's risk perceptions, and 3) widening disparities among the population. I renamed each type of discourses as 1) "safe discourses," 2) "counter-discourses," and 3) "cutting discourses." These various dominant discourses influenced widely divergent health risk perceptions of radiation and risk-taking behaviors among the local population. While some Japanese decided to flee from Japan and never return, some people still keep living within 20 kilometers of the exploded nuclear reactors in Fukushima, including young infants.

Thus, this research aims to investigate *how* these dominant discourses influenced disparities in people's risk perceptions with regard to the security risks posed by the Fukushima catastrophe. To this end, I will apply "de-securitization" as this thesis's principal analytical frame. This concept describes the process by which certain actors downplay individuals' health security risk to radiation exposure. In other words, this concept helps to understand the interactive process between the de-securitizing actors' speech acts and the resonance of the audience. I will present my research question connecting with the analytical frame of the thesis in the next section.

1.1. Research Question and Analytical Frame

I apply "de-securitization" as the primary analytical frame of my thesis. An analytical frame is a detailed sketch or outline of a theoretical idea about some phenomena and constitutes ways of seeing the social world (Ragin and Amoroso 2019, 53). I choose "de-securitization" as a theoretical lens to understand the downplay process of security discourses in the post-Fukushima situation.

The model of "securitization," which was invented by the Copenhagen School, is as such: "securitizing actors" articulate a politicized issue as an "existential threat" to the survival of specific "referent objects," and they use "speech acts" to persuade a "relevant audience" (Emmers 2007, 112−113). It is often accompanied by applying the use of "extraordinary measures" (ibid.). I argue that in contrast to a process of "securitization," what happened in the

post-Fukushima situation in Japan was "de-securitization," meaning the reverse process of "securitization." Emmers defines this process as such that, "(T)he de-securitizing actors reconstitute an issue as no longer an existential threat, thereby moving it from the securitized realm into the ordinary public arena," (ibid.). In short, "de-securitization" means a deconstructing process of a constructed crisis by "securitization."

Therefore, by using "de-securitization" as an analytical frame, this thesis seeks to shed light on the interaction between dominant discourses and the divergent risk perceptions of the local population that emerged in post-Fukushima Japan through the deconstruction of the current crisis. Consequently, my research question is:

> *How has a process of "de-securitization," led by de-securitizing actors' dominant discourses and their rhetoric, influenced the divergent risk perceptions and disparities among the local population regarding exposure to radiation in post-Fukushima Japan from 2011 until the present?*

The time frame of this research covers the multiple dominant discourses and the responses of the population to them over time. Rather than investigating the physical effect of radiation exposure on human health and offering the judgment whether it is safe or dangerous, this thesis attempts to reveal the local population's experiences to understand *how* their perceptions have been influenced and constructed in response to dominant discourses.

1.2. Ontological and Epistemological Stance of the Research Puzzle

Demmers states that "By thinking about these (*why* and *how)* questions, we cannot escape entering into a more fundamental debate on 'being' (ontology) and 'knowing' (epistemology)" (Demmers 2017, 16). Regarding the ontological stance of my research puzzle, the focus is on the interaction between the structure, namely the "rules and resources recursively implicated in the reproduction of social systems" (Giddens 1979, 64), and individuals. Additionally, I will take a discursive approach to explore "de-securitization," which is consistent with the fact "securitization" analysis (from which de-securitization is derived) begins by looking at a securitizing actors' speech act. Thus, I take an ontological stance of "Relational Interactions," stemming from Giddens' idea of "the duality of structure" (Giddens 1984), seeing structure and agency as mutually constitutive entities.

Demmers also argues about the epistemological divide in the social science: some think the social world can best be examined from *without* (explanation) and others think from *within* (understanding) (ibid., 17). Turning the attention to my research question, I interpret the phenomenon from within the structure; that is, that individuals are also constitutive factors of the society, and their experiences and perceptions cannot be an entirely objective, standing-alone phenomenon to be "explained." Instead, every individual, including myself, are influenced by their discursive environment and re-construct their reality through their intersubjectivity.

Upon further reflection, my epistemological position presented above can be categorized as "Symbolic Interactionist," in which, "meaning is found in situations and interactions," (Mason 2018, 8). Its function is assumed to be "generative," signifying that "knowledge is constructed rather than straightforwardly excavated, " (ibid., 117). Therefore, this thesis aims to "understand" the population's experiences and perceptions by seeking the interactions of dominant discourses and aims to generate the proposal model of the "de-securitization" process in post-Fukushima.

1.3. Sub-Questions

Here, I break my research question down into the three following sub-questions for guiding my theoretical framework in Chapter 2:

1) How has the "de-securitization," which was led by dominant discourses and their rhetoric, shifted by each phase?
2) What kinds of rhetoric was deployed by dominant discourses?
3) How have dominant discourses influenced and constructed divergent risk perceptions and disparities among the local population?

1.4. Thesis Outline

In Chapter 1, I explained the core ideas and the goal of this thesis. Firstly, I drew an empirical overview of the Fukushima Daiichi nuclear accident based on my observations of this specific and concrete social phenomenon. I found that my focus is on *the interaction between dominant discourses and the divergent risk perceptions among the local population under the crisis,* and that is one of the general patterns in the social studies (Lund 2014). Then,

I constructed my research question, presenting my ontological and epistemological stance. Furthermore, I broke it down into three sub-questions for guiding the research of the thesis.

Chapter 2 discusses the theoretical framework of the thesis, including the definitions of related analytical concepts to bring the general pattern in Chapter 1 to the abstract and theoretical realm (ibid.). First, I inquire about the meaning of "nuclear" as a theoretical concept of "structural violence." Then, I present the "securitization" and the "de-securitization" theory in the academic literature as an analytical frame to tackle the "structural violence," which is an academic, conceptual term. I also briefly present previous research that applies "de-securitization" to analyze the Fukushima accident.

Additionally, to understand the "securitization," examining the "discursive formation" theory is indispensable due to its discursive character. I argue the definition of the "dominant discourses" in this thesis, and present alternative concepts and sub-concepts relevant to my research question. Finally, three additional analytical sub-concepts were decided — 1. "media control," 2. "denialism," and 3. "intersubjectivity of active audience" — to further examine the "de-securitization" process. At the end of this chapter, along with the "de-securitization" theory in abstract level, I break my research question down into three sub-questions by linking my three sub-concepts to design a tentative model of the "de-securitization" in order to generate the in-depth knowledge of the interactive mechanism between the dominant discourses and audiences.

In Chapter 3, I explain the methodology and design of my research. I conducted a textual data analysis and a qualitative social research, including questionnaires and interviews. Both results are examined by triangulation. Then, I also explain how I determined my sampling and selection of the qualitative research as a research design.

In Chapter 4, I present relevant data gathered from questionnaires and interviews, which are provided with respondents' permission. Here, I categorize three types of dominant discourses: 1) The "safe discourses," 2) The "counter-discourses," and 3) The "cutting discourses," and each of their rhetoric. I argue how they are related to my sub-concepts of the theoretical framework and analyze them through examples. I also attempt to answer my sub-questions through the analysis. Then, I support the argument by triangulating the interview and questionnaire evidence with the textual data analysis.

In Chapter 5, I present a theoretical reflection on the data analysis. Considering the findings and remarks in Chapter 4, I intend to develop the tentative model of "de-securitization" that I introduced in Chapter 2.

In the final chapter, I present my conclusion by reflecting on the whole process of this research, including theoretical framework, the textual and qualitative data analysis. It elucidates the interaction between de-securitizing actors' dominant discourses and responses of active audiences as a new development of the "de-securitization" model in post-Fukushima. Then, I illustrate the research limitations of the thesis and suggest three more aspects to be further investigated. Lastly, I clarify the research contributions of this thesis.

2. Theoretical Framework

This chapter discusses the theoretical framework of the thesis, presenting the definitions of relevant theories and analytical concepts. Additionally, I clarify the purpose and contribution of this thesis among the academic literature in security studies and construct a tentative model of "de-securitization" in the post -Fukushima situation.

2.1. "Nuclear" as a Form of Structural Violence

For the concept of violence, Bufacchi points out that there are "two ways of thinking about violence: in terms of an act of force or a violation" (Bufacchi 2005, 193). The former concept relates to the "Minimalist Conception of Violence" (ibid., 197). Demmers defines it as "manifest violence," namely, an "act of physical hurt" (Demmers 2017, 59). However, the concept of violence encompasses not only physical factors but also further aspects such as psychological or structural abuses. They lead to Bufacchi's latter consideration of violence, which is named "the Comprehensive Conception of Violence" (CCV) (Bufacchi 2005, 198). It calls for a broader understanding of violence, and at times, their effect can be more destructive than physical violence.

Galtung, one of the most prominent authors among the CCV scholars, founded the concept of "structural violence." He defines violence as "avoidable insults to basic human needs, and more generally life, lowering the real levels of needs satisfaction below what is potentially possible" (Galtung 1996, 197). Based on this insight, he describes violence, which is "built into the structure, and shows up as unequal power and consequently as unequal life chances" (Bufacchi 2005, 198). Moreover, Demmers argues that when "structural violence" becomes "the commonsense values of all," it becomes "cultural violence" (Demmers 2017, 63). At this stage, violence is legitimized and seen "as normal, or, rather, not see it at all" (ibid.).

For now, nuclear power is the most physically destructive force in the world. Nevertheless, nowadays, it principally exerts its power through the structure of security or governance. Thus, we can see nuclear power as a form of structural violence. Here, some authors who wrote about the Fukushima accident explained the historical context of the Japanese nuclear policies to reveal its background. They investigate the influence of the United States' atomic policies along with the global security governance system.

For example, Suzuki's work illustrates how Japanese nuclear policy has negotiated with the U.S. to promote fast-breeder reactors as dream technology due to their ambition to free Japan from resource dependency and become a nuclear-capable country (Suzuki 2017). Ohta

claims the U.S.'s nuclear umbrella, which promised Japan security through deterrence, enabled Japan to avert their radiophobia tendencies, caused by the trauma of atomic bombs. Despite the Japanese pacifist constitution, the Japanese population accepted to be protected by the destructive arms, and the peaceful use of nuclear power has become a bilateral and national project as an entity of national-civic, political, industrial, and economic conglomerate (Ohta 2014).

Kingston researches a giant nuclear conglomerate in Japan which is called the "nuclear village" (Kingston 2012) and describes its privileged power structure of stakeholders. In fact, TEPCO's executives were found not guilty for the Fukushima nuclear accident by the Tokyo court in 2019 (*BBC*, September 19, 2019). Another report uncovered the long-term patron-client networks between the government and the atomic industries (*Kyodo,* October 3, 2019). Those examples show that nuclear has already become a part of the global and national security system and even culture in Japanese society, threatening people's lives and affecting their ways of living without being clearly aware.

Meanwhile, on the site of the nuclear crisis, radiation can also physically affect people's health, and this harm is amplified within the structural administration of "nuclear" because of its risk downplaying effect. Perrow created the term "nuclear denial" (2013) and criticized the attitudes of the states and scientists who deny the harmful effect of radiation, notably low-level radiation, on human health. By examining the events throughout the history of nuclear disasters (e.g., atomic bombings at Hiroshima and Nagasaki in Japan, Chernobyl in Ukraine, and Fukushima), he identifies that this "nuclear denial" is a typical pattern. "Nuclear denial" attempts to minimize the radioactive damage to humans and attribute evidence of declines in life expectancy mostly to stress and social dislocation rather than radiation. Most nuclear "deniers" claim that "low-level health effects may exist, but they are too small" to prove a clear causal link (Perrow 2013, 57). This scientific ambiguity blocks the status quo's change, contributes to covering for governmental and commercial interests, and allows nuclear power's reproduction.

Nadesan advocated the concept of the "nuclear governmentality," which enables the state to deem "national security" as more predominant over "human security." She argues the minimum standard of doses is not absolute, but the politically constructed disposition. Nowadays, nuclear power is an essential constituent element of global governance. The justification of atomic power is derived from this indispensability as a destructive force and the historical context as protection of democracy through World War II and the Cold War. The legitimacy allowed nuclear-security states to take initiatives to administrate all aspects of

nuclear power, especially "in articulating the characteristics, measurement, and extrapolated effects of the permissible dose," (Nadesan 2019, 9). Nadesan criticizes these states' power to decide "safeness," which appeals to the national economy and security more than the population's health risks.

Fearfully, radiation is invisible, odorless, silent, and, thus, unavoidable. Living nearby radioactive pollution means unceasingly expose to unavoidable radiation risk. According to Galtung's definition, the post-Fukushima situation in Japan, where exposure to radioactivity has threatened people, should be considered "structural violence." Due to authorities' policies, such as evacuation, returning, or insufficient de-contamination so forth, the population is forced to face the *avoidable* risk which has not existed initially before the accident. In this context, the concept of "nuclear" can be seen linking to the idea of "indiscriminate structural and physical violence," and it is the fundamental root problem of the post-Fukushima situation.

2.2. Securitization/De-securitization Theory

I apply "de-securitization" as an analytical frame to tackle this structural and physical violence in post-Fukushima. Mainstream modern security studies consist of the Aberystwyth School, Paris School, and Copenhagen School. The Aberystwyth School states that international security can be achieved by remedying global, economic, and relational power inequality, creating collective grievances (Booth 1991). Their approach resembles the Marxist approach. The Paris School approach calls for "empirical investigations of actual practices by various agencies – practices that often reveal patterns and processes different from those one finds by studying official discourse," (Wæver 2004, 10). In other words, the Paris school spotlights the "techniques of government" (Balzacq et al. 2016, 504). Besides that, it advanced the concept of "human security," which claims people's freedom from fear, want, and indignity (UNDP 1994).

The Copenhagen School widened the definition of security beyond military issues, including the range of environmental, economic, societal, and political security. While they put the concept of "national security," meaning "the security of the state" (Wæver 1995, 45), as the central idea of securitization, they linked this concept to the dynamics and political processes of various kinds at other levels, such as "individual security" and "international security" (ibid., 46). Based on these ideas, they established the model of "securitization": "securitizing actors" articulate a politicized issue as an "existential threat" to the survival of specific "referent objects," and they use "speech acts" to persuade a "relevant audience." It is often accompanied by the use of "extraordinary measures" (Emmers 2007, 112-113). Balzacq

also claims that "an articulated assemblage of practices whereby heuristic artifacts (metaphors, policy tools, image repertoires, analogies, stereotypes, emotions, etc.) are contextually mobilized by a securitizing actor, who works to prompt an audience to build a coherent network of implications (feelings, sensations, thoughts, and intuitions) about the critical vulnerability of a referent object, that concurs with the securitizing actor's reasons for choices and actions, by investing the referent subject with such an aura of unprecedented threatening complexion that a customized policy must be immediately undertaken to block it," (Balzacq et al. 2016, 495). The Copenhagen School scholars conclude that security is a socially constructed concept, and as Buzan mentioned in his interview, there are no objective threats. All securitizations are politicized and subjective (Emmers 2007, 113; Balzacq et al. 2016, 496; Buzan 2010).

As I briefly mentioned in Chapter 1, what happened in Japan's post-Fukushima situation was "de-securitization." De-securitization defines a "reverse process," which involves the "shifting issues out of emergency mode and into normal bargaining process of the political sphere." (Buzan, Wæver, de Wilde 1998, 36), namely a deconstructing process of a constructed crisis by "securitization." Emmers describes this process as such: "the de-securitizing actors reconstitute an issue as no longer an existential threat, thereby moving it from the securitized realm into the ordinary public arena," (Emmers 2007, 113).

In 1995, Wæver presented the term "nonsecurity," a similar but different idea from de-securitization. That is, "to take on the problems, but leave them unsecuritized" (Wæver 1995, 57). In this case, a crisis is not identified as a crisis for national security. Thus, securitization does not occur.

Recently, Wæver advanced these frames and advocates a new form of "securitization," namely, "non-change securitization." While conventional securitization has been understood as a concept dealing with changing dynamics of continuity, non-change mode of "securitization" is politically produced. It defines "what is not allowed to happen," in other words, it triggers "the *selection* of non-change" (Salter et al. 2019). It does not block the phenomenon itself but the *action* of people. Wæver suggests investing this new inverted form of "securitization" to reveal "how some changes that are highly possible become impossible" (ibid.).

The concept of "nonsecurity" is not applicable to the post-Fukushima situation because securitization did occur immediately after the accident, which included the explosions of reactors and their image distribution. While "non-change mode securitization" is a fascinating concept for me, my focus is not on the role of blockage of action but mitigation of risk perception.

What was the most problematic in post-Fukushima, Japan, were the nationwide implementations of "safe discourses," instead of transparent, accountable discussions on radiation risk. These discourses deconstructed the politicized emergency mode of the crisis and moved it into the ordinary public arena. The focus of this thesis is the interaction between these dominant discourses and the population's risk perception. Hence, it is essential to elucidate how the population experienced this "de-securitization process" in the public arena. Consequently, I deem that "de-securitization" is the most appropriate concept for this thesis's analytical frame.

2.2.1. Previous Research on "De-securitization" in Fukushima

Among academic literature, I found only one article in Spanish, which precisely applied "de-securitization" to the analysis of the Fukushima nuclear accident. Casado Claro reviewed the literature on various types of "de-securitization" and observed the Fukushima accident as an empirical example of the return to ordinary politics of nuclear energy treatment in Japan (Casado Claro 2018). Traditionally, the Copenhagen School considered that "de-securitization" provides positive effects on society (Emmers 2007, 115). However, Casado Claro claimed the concept "negative de-securitization," pointing out that "de-securitization" turned out to be not always positive in the situation where real existential threat jeopardizes a referent object.

She referred to mainly Hansen's four categorizations of "de-securitizations": 1) change through stabilization, 2) replacement, 3) rearticulation, and 4) silencing.

Hansen (2011) explains that:

1. Change through stabilization: the first form of "de-securitization" for which the concept was initially designed, namely that of detente during the Cold War. It relies on the change through system-stabilization.
2. Replacement: "de-securitization" as the combination of one issue moving out of security while another is simultaneously securitized.
3. Rearticulation: it refers to "de-securitization" that remove an issue from the securitized by actively offering a political solution to the threats, dangers, and grievances in question. It means the fundamental transformations of the public sphere, including a move out of the friend-enemy distinction, namely the identity and interests of Selves and Others.
4. Silencing: that is when an issue disappears or fails to register in security discourse.

Casado Claro analyzes that the transmitted images and narratives of the earthquake, tsunami, and the explosions of the reactors through the TV functioned as speech acts and

triggered "securitization" in the Fukushima disaster. However, over time the topic occupies less space in national/international news in order to deal again with the daily broadcasting of ordinary politics. Additionally, she deems the domestic/international pro-nuclear lobbies, who obtain benefit from nuclear power, as "de-securitizing actors." She attempted to understand the "de-securitization" strategies through constructed images and public opinions by applying Hansen's four categorizations.

Casado Claro's focus is close to my research topic. She presented remarkable points: Japanese historical and economic background of the disaster, namely, the "nuclear village" and the international pro-nuclear power structure, media control, and the applications of Hansen's four forms of "de-securitization." Nevertheless, she mainly views this "de-securitization" process from the international/national level, relying on only English based textual sources, which prevents her from understanding the in-depth local context.

Therefore, this thesis seems to be the first case in the academic literature, which investigates the detailed local context of the "de-securitization" process in the post-Fukushima situation. This particularity of the thesis creates a space where I can academically contribute to finding a new aspect of the "securitization" mechanism in the field of conflict studies.

2.3. Discursive Formation Theory and Dominant Discourses

To analyze the process of "de-securitization" requires researchers to investigate the speech act of de-securitizing actors. These authorities' implementation of risk-downplaying policies against radiation exposure in the post-Fukushima situation was expressed through various dominant discourses. Then, what are the "dominant discourses"? How are they dominant? Demmers defines discourses as "stories about social reality," nothing that, "These stories are stated in relational terms and give a representation of what is considered the 'social truth,'" (Demmers 2017, 133). Thus, dominant discourses are some discourses come to the mainstream in the society, and are considered truthful, normal, and right. This definition was drawn from Michel Foucault's argument of the "regime of truth":

> "Each society has its regime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true," (Foucault 1980, 131).

Foss and Gill argue "discursive formation theory" based on this Foucault's notion, claiming that discourses — regardless of verbal or non-verbal — are meaning generating systems that create reality by mutually constitutive five primary units: "discursive practices, rules, roles, power, and knowledge" (Foss and Gill 1987, 387). They additionally claim that these units interact with one another, and they are mutually constitutive.

Referring to these reflections, I define dominant discourses as a product of powerful cultures that can be considered as important and legitimate for society. Thus, to identify the predominance of discourses, this research principally relied on the respondents' *beliefs* through the qualitative research, meaning that I see certain discourses as dominant because people considered them as dominant and "true." I will further explain the meaning of this *belief* in Chapter 2.4.3.

Based on the "discursive foundation theory," many influential analytical concepts spawned. For example, according to Bhatia, "politics of naming" is as such:

> "Discourse is thus a tool for armed movements and a battleground and contested space in contemporary conflicts. 'The politics of naming' is about this contest, examining how names are made, assigned and disputed, and how this contest is affected by a series of global dynamics and events," (Bhatia 2005, 6).

This concept can be used to analyze the naming creation process during the government's propaganda against the anti-nuclear movement. This analytical lens illuminates the mechanism of the name creation process and power structure backed by the authorities' political strategy to silence criticism against the radiation risk, create disputes, and divide the population.

Benford and Snow's "collective action frame" is also remarkable in that they analyze the framing process of social movements by identifying diagnostic frame, prognostic frame, and motivational frame. The most intriguing part of their argument is the participants' degree of resonance, stating, "Two sets of interacting factors account for variation in degree of frame resonance: credibility of the proffered frame and its relative salience," (Benford and Snow 2000, 619). According to Buzan, the success of "securitization" is determined whether the arguments of existential threat gain "enough resonance for a platform" to legitimize emergency measures or other steps that would not have been possible (Buzan, Wæver, de Wilde 1998, 25). Thus, combining these factors can approach the process of justification of discourses to audiences.

However, these concepts are partial to examine the whole process of "de-securitization." To understand the interaction between discourses and local population in the post-Fukushima situation, I needed a strategic combination of some analytical concepts, reflecting on the "facet methodology" by Mason:

> "In facet methodology, the facets in the gemstone are conceived as different methodological-substantive planes and surfaces, which are designed to be capable of casting and refracting light in a variety of ways that help to define the overall object of concern. […] What we see or come to know or understand through the facets, individually and together, is thus always a combination of what we are looking at (the thing itself, the ontology) and how we are looking (how we use our methods to perceive it, the epistemology)," (Mason 2018, 42, 43).

2.4. Sub-concepts

Consequently, I choose three sub-concepts to exert the function of my research question fully and to address the theoretical gap of Casado Claro's previous research. The background issue of the accident is out of this thesis' scope. The rest of what Casado Claro remarked was the emergence of media control and Hansen's four categories of "de-securitization." Furthermore, she missed out on the detailed local context.

As I mentioned in chapter 1, I identified three types of dominant discourses through the textual and qualitative research data analysis: 1) "safe discourses," 2) "counter-discourses," and 3) "cutting discourses." Regarding Hansen's four categorizations of "de-securitizations" (stabilization, replacement, rearticulation, and silencing), only rearticulation can bring the fundamental resolution and positive result of "de-securitization." However, it has not happened in the post-Fukushima situation. Thus, I excluded rearticulation and sought the relevancy between three of them and my categorization of dominant discourses. I consider linking stabilization to "safe discourses," and replacement and silencing to "counter-discourses." "Cutting discourses" relates to the matter of the local context, which the prior research missed out. Then, to observe these discourses, I choose three sub-concepts as follows: 1) "media control" among "safe discourses," 2) "denialism" among "counter-discourses," and 3) "intersubjectivity of active audience" related to "cutting discourses."

Firstly, as "safe discourses" directly relate to "media control," I applied the conceptualized idea of "media control" by Gutsche (2015). "Counter-discourses" related to the function of replacement and silencing derives from the desire to avert facing "inconvenient truths." Therefore, I selected "denialism" as conceived by Diethelm and McKee (2009). Third, it is

necessary to have a closer look at the local population's role as the audience in the "de-securitization" process. So, I choose to use the "intersubjectivity of active audience" by Côté (2016). These three sub-concepts are helpful to address the previous work's gap. Finally, I considered linking these sub-frames to each phase of the "de-securitization" process and each of sub-questions, which are gradually overlapping.

2.4.1. Media control

At the beginning of the "de-securitization," de-securitizing actors' speech acts initiated the process. In the post-Fukushima situation, political elites, high officials, TEPCO, radiation experts, and medical authorities repeatedly played down and minimized the health risk of radiation, through media, TV broadcasting, in particular. So, they were the subjects of the phenomenon, the so-called "de-securitizing actors."

Gutsche defines "media control" as "the common practices of news construction, institutions, and representations that occur across media outlets and mediums as a means to justify and enforce elements of social control, " (Gutsche 2015, 3). Generally, "de-securitizing actors" spread their speech through media, justifying the meaning of the phenomenon, and it even leads to social control. He explains this mechanism regarding the concept of "power," claiming the press itself is "its own power system and one that is of dominant power systems that are focused on control" (ibid., 4). He emphasizes that, "Power lives in ideology and in the ability we each have to interpret, to accept, or to diminish dominant interpretations of life."

This view echoes Foucault's argument of power in "discursive formation theory." According to Foss and Gill, Foucault defines power as "the overall system, process, or network of force relations spread through the entire discursive formation" (Foss and Gill 1987, 389). Gutsche follows this idea and defines power as "a fluid and inherent ability to influence individuals and social situations through force, ideology, and/or information."

Nowadays, diffusion of information occurs in various ways, through print media, TV, radio, events, and internet platforms, including influential SNS accounts, and all of these can be called "media" in a broad sense. They conduct social control at multiple levels through the dominant discursive formation process encompassing power. Therefore, "media control" in the "de-securitization" process brings a significant impact on the audiences' perceptions. Through this analytical lens, I will examine how "media control" has influenced the "de-securitization" process in the post-Fukushima situation.

2.4.2. Denialism

The essential second concept to look through the "securitization" process is "denialism," which is the process by which the manufactured dominant discourses through "media control" escalate and become aggressive to attack critical voices. Diethelm and McKee developed the definition of "denialism" as "the employment of rhetorical arguments to give the appearance of legitimate debate where there is none, an approach that has the ultimate goal of rejecting a proposition on which a scientific consensus exists" (Diethelm and McKee 2009, 2). They argue the recent rise of "denialism" which frequently appears in the field of various causal discourses, such as HIV and AIDS, smoking and cancer, CO2 and climate change, and so forth, and present five characteristic methods which denialism employs: 1) the identification of conspiracies, 2) the use of fake experts, 3) selectivity drawing on isolated papers that challenge the dominant consensus or highlighting the flaws in the weakest papers, 4) the creation of impossible expectations of what research can deliver, and 5) the use of misrepresentation and logical fallacies. To recognize the existence of "denialism," we need to learn the techniques of "literacy." Otherwise, "denialism" easily slips into the discursive formation process and disseminates itself in unobservable form.

The concept of "denial" was presented as an initial invention by Freud, as a psychological defense mechanism of human beings, and Milburn and Conrad developed the idea, providing a detailed explanation of the political aspect of this psychological mechanism in their book *The Politics of Denial* (1998). They claim that "denial" happens in the political sphere when we fail to "confront the pain and evil within us" (Milburn and Conrad 1998, 2). This denial justifies our actions, is supported by fantasy to transform reality into a more pleasant sub-reality, and attempts to seduce others into a shared denial realm. Consequently, people's recognition of a problem or crisis is delayed until it becomes too severe to bear. Furthermore, Milburn and Conrad conclude the degree of individuals' denial is deeply related to the degree of repressive history, family culture, or society in which they were brought up (e.g., authoritarianism, conservative Christianity, child abuse, army training, torture), which results in the punitive tendencies against heterogeneous people (Milburn and Conrad 1998, 227-231).

In the post-Fukushima situation, the lives of the Japanese population were threatened by the unprecedented catastrophe and the ensuing worst nuclear disaster in history. Furthermore, the nuclear issue is a highly political and scientific field that is exclusively governed by authorities who attempt to minimize the damage of their responsibility and economic interest. It means the breeding ground of "denial" was ready, and it led to the rise of "denialism." I

propose viewing the emergence of aggressive, dominant discourses that attack dissenters through the lens of "denialism."

2.4.3. Intersubjectivity of Active Audience

The "securitization" model has been criticized as too theoretical and its lack of empirical research on the ground, especially with respect to its ambiguity of the mechanism of persuading "relevant audience" for success (Emmers 2007, 117). In short, it is subject-centric and overlooks the accurate role of the securitization audience. Côté claims that "the empirical literature suggests securitization is a highly intersubjective process involving active audiences, securitization theory characterizes audiences as agents without agency, thereby marginalizing the theory's intersubjective nature," (Côté 2016, 541). He defines the securitization audience as "the individual(s) or group(s) that has the capability to authorize the view of the issue presented by the securitizing actor and legitimize the treatment of the issue through security practice," (ibid., 548) and concludes that the framework of securitization theory should focus on "the processes of deliberative interaction between securitizing actor(s) and audience(s), in which the mobilization of multiple security discourses enables securitizing actors and audiences to contribute shared perceptions of 'security,'" (ibid., 553).

Côté also refers to Guzzini's argumentation, claiming that,

> "Intersubjective beliefs are a product of social and group interaction and provide meaning to the social and material world through the creation of shared meanings, norms, values, and identities. These shared beliefs not only facilitate our interpretation of objective reality but also construct our interests and inform our behavior," (ibid., 542).

This is the reason why I focus on the population's beliefs of dominant discourses.

Notably, Côté's argument includes the very point I am addressing in this thesis: namely, the interaction between de-securitizing actor's speech acts and the response of local audiences. The de-securitization audiences are not merely obedient actors without agency, but rather they are intersubjectively active agencies. As Demmers says, structure and agency are mutually constitutive (Demmers 2017, 127). Therefore, the de-securitization process involves audiences' intersubjective influence from the beginning, and it also escalates by taking forms of discrimination, resistance, segregation, etc. I deem this as a source of disparities among the population.

2.5. Concluding Remarks – Tentative Model of "De-securitization"

The "de-securitization" process is initiated by the de-securitizing actor's speech act, meaning the mechanism functions within the realm of the "discursive formation theory," involving power relations (Foss and Gill 1987). Thus, my first sub-question: *1) How has the "de-securitization," which was led by dominant discourses and their rhetoric, shifted by each phase?* — addresses the subjects of speech actors, such as many political elites and high officials in the government and local government, TEPCO, radiation experts, and medical authorities who appeared on TV, radio, events, and SNS platforms.

Regarding the phases, I relied on the figure of the Copenhagen School's securitization spectrum (Emmers 2007, 112). It divides the "securitization" process into three continuous phases, naming them "non-politicized," "politicized," and "securitized." I view "de-securitization" as a reverse process to it. Hence, in the first phase, "de-securitization" begins with "securitized" status, then, "politicized," and finally "de-securitized (non-politicized)."

The process-based first sub-question coincides with the second sub-question: *2) What kinds of rhetoric was deployed by dominant discourses?* The three types of dominant discourses were accompanied by various rhetoric, and they influenced the population's risk perceptions in different ways. Here, I refer to the definition of rhetoric by Leff: "rhetoric is a practical discipline, that it operates mainly in the context of concrete problems, and that it calls for decisions leading to action," (Leff 1978, 90). Through the research, I attempt to illuminate each rhetoric that was operated by dominant discourses.

At the first "securitized" stage, the dominant discourses can be hypothetically categorized as "safe discourses," which reinforce safeness. The concept of "media control" is indispensable in analyzing the "de-securitization" process at its starting phase.

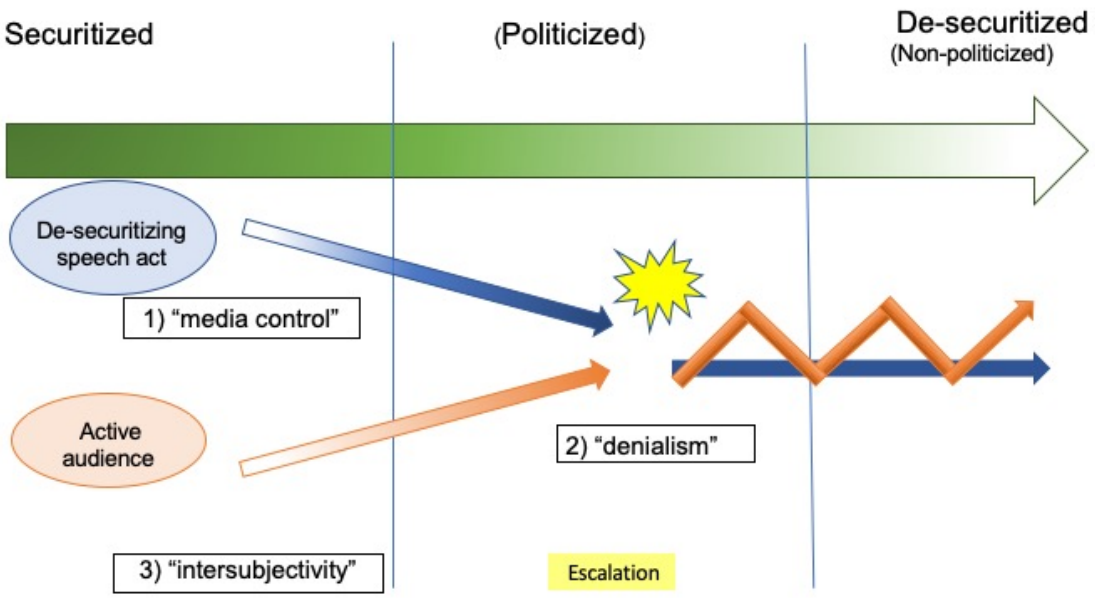
At the next phase of "politicized" status, the second type of dominant discourse emerged — "counter-discourses," which escalate and become more aggressive, attacking dissents and silencing criticism. To describe the character of these discourses, I apply "denialism" as the most relevant concept, that rejects "a proposition on which a scientific consensus exists," (Diethelm and McKee 2009, 2) and creates collective fantasy to obscure painful reality triggered by their lives-threatening repressive experiences (Milburn and Conrad 1998).

Thirdly, the most crucial point of this research is to take account of "intersubjectivity of active audience" (Côté 2016) into "securitization" model, in line with the third sub-question: *3) How have dominant discourses influenced and constructed divergent risk perceptions and disparities among the local population?* While conventional "securitization" (and "de-

securitization") theory has been deemed as a top-down linear process of (de)-securitizing actor's speech act and it characterized audiences as "agents without agency," Côté claimed that empirical literature has frequently shown "intersubjectivity of active audiences" in the process. Côté's approach seems to bridge the theoretical "securitization" model of the Copenhagen School to the empirical approach of the Paris School, calling for "a dialogue of ideas ("theory") and evidence ("data")" (Ragin and Amoroso 2019). Finally, the third type of dominant discourse — "cutting discourses," which widen disparities among the population — plays a key role in this interaction throughout the "de-securitization" process.

Overall, the image of the theoretical framework of this thesis resembles **Figure 6** below and allows me to answer the research question at the conclusion, reflecting on the argument built on the sub-questions and sub-concepts above. This thesis seeks to address the development of the "de-securitization" model's gap by combining the theoretical framework in this chapter and the textual research and the local qualitative research of the post-Fukushima situation.

Figure 6. **Tentative model of the "de-securitization" process in post-Fukushima**



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3. Methodology and Research Design

3.1. Methodology

In this section, I explain how I constructed the research to tackle the research question. The ontological stance of my research puzzle is "Relational Interactions," and my epistemological position takes a stance of "Symbolic interactionist." Thus, I seek the meaning of interactions between dominant discourses of de-securitizing actors and the resonance of audiences, through the combination of some research methods, along with Mason's claim: it is important "thinking through the ontological and epistemological logic and contribution of each of the different methods/sources, and of these in combination" (Mason 2018, 38).

Textual data analysis: First, I carried out a textual data analysis through journalistic sources, TEPCO, the government, and the prefectural government's press releases to examine dominant discourses as the speech acts of de-securitizing actors. It was essential to know key terms, stories, and images that were factually deployed by the mainstream media in the post-Fukushima situation. Additionally, I investigated the frequency of each discursive term appearing in search of the journalistic database in Japan, NIKKEI TELECOM 21, from 11 March 2011 until 30 June 2020. That is the Nihon Keizai Shimbun's (Japan's largest economic newspaper) database platform of media publications, which deals with 50 national and local newspapers and over 750 mediums, including foreign media outlets. This research allows me to measure the tendency of nationally constructed dominant media discourses on society.

Qualitative research: Next, I backed the result of the textual data analysis with the qualitative research data to be accountable as a triangulation. The dominant discourses for this thesis signify what discourses the local population considers as dominant. Thus, to qualitatively research the influence of these discourses on the audiences, I conducted questionnaires and semi-structured interviews to reveal the local population's personal experiences of these dominant discourses during the "de-securitization" process. In short, I aimed to understand, by collecting their personal experiences as data, how the local population's perceptions became so widely divided under the influence of these dominant discourses. The identification of dominant discourses relied on the response of Q7 and Q8 in the questionnaire (in Appendix 2-1).

The semi-structured interview is "sufficiently structured to address specific topics related to the phenomenon of study, while leaving space for participants to offer new meanings to the study focus," (Galletta 2013, 24). So, while I conducted interviews along with the fixed

questions on questionnaires, I sometimes changed the directions of conversations to obtain further information on the specific experiences of each individual.

Moreover, I also analyzed the interview data of Fukushima inhabitants in Nanasawa's and Yoshida's journalistic reports (Nanasawa 2016; Yoshida 2016) and referred to some documentary films and TV programs. I will explain my qualitative research design in the following section.

3.2. Research Design

For designing qualitative research, it is necessary to conduct sampling and selection adequately. Mason proposes answering 'when,' 'what,' 'who,' 'where,' and 'how' questions of data collection on sampling and its selection (Mason 2018, 53).

The data collection of this thesis highly depended on the feasibility. Due to the border control issue along with the coronavirus pandemic situation, I could not go to Fukushima to conduct field research or collect data. Thus, I took full advantage of my Japanese nationality, language skills, and the journalistic contacts I had owing to my former career in Japan and the internship position at the East Asia bureau of Reporters Without Borders. Makiko Segawa and Chiho Sato, my journalist colleagues who covered the Fukushima accident, helped to build my data collection from February to June in 2020.

They offered me first contacts who have specific experiences in the post-Fukushima situation, who are inhabitants in/out of the restricted zone in the Fukushima prefecture, refugees, volunteer evacuees, and Fukushima covering journalists. Then, to expand contacts for the research, I applied the "snowball" sampling method, meaning "to begin with one sampling unit – usually a person – and ask them to put you in touch with others of a similar or know type" (ibid., 78).

We received completed questionnaires from 26 people (13 females and 13 males), who live(d) in Fukushima, Tokyo, or elsewhere. They belong to a dispersed age group of 25-76 years. Successively, we conducted secondary interviews with seven of them by using video chat or telephones. Finally, I selected 20 accounts who had experienced the "de-securitization" process in Fukushima, including evacuees who left their home at the start of the accident, to construct my data analysis. I added the personal data of my respondents and interviewees in Appendix 3, and some further examples of questionnaire responses and interview data in Appendix 4.

The entity of my data collection was constituted of 15 people who think the radiation

exposure in Fukushima is dangerous, and five people who think it is safe. Their perceptions were briefly judged by the answer to question number five on the questionnaire (in Appendix 2-1). Due to the limited access and resources for this research, I had difficulties conducting further data collections of the "safe faction" people for this time. However, these five respondents showed essential insights into the research.

4. Presentation of Data & Data Analysis

4.1. Data Analysis by Three Sub-questions

My research question is:

How has a process of "de-securitization," led by de-securitizing actors' dominant discourses and their rhetoric, influenced the divergent risk perceptions and disparities among the local population regarding exposure to radiation in post-Fukushima Japan from 2011 until the present?

To think about my research question, I divided it into three sub-questions. Analyzing the collected data, I will answer these questions in the following sections.

4.2. Information Sources/ Three Types of Dominant Discourses

1) How has the "de-securitization," which was led by dominant discourses and their rhetoric, shifted by each phase?

In considering the first sub-question, it is necessary to identify who/what was *the subject of the "de-securitization."* For audiences, who did minimize the population's risk perception as the "de-securitizing actors"? Then, I investigated the Fukushima population's information sources.

4.2.1. Information Sources

Surprisingly, there were no respondents who accepted only the mainstream media's information in this research. Regarding respondents' answers on questionnaires, more than two−thirds of respondents used more than three sources to get information, including not only big news media outlets (TV, radio, newspapers), but also internet platforms, foreign media, independent NGOs, government press releases, expert websites, and so forth. Particularly, there was a common tendency for respondents to choose information sources based on the radiation-related expertise of family or acquaintances around the FDNP whom they trusted. This result tallies with the quantitative research of Hiroi, who conducted the mass survey on evacuation moves of the Fukushima population finding that 53.3% of respondents presented "recommendation of families and relatives" as the reason for their evacuation actions compared with 14.2% who made their decisions based on "TV information" (Hiroi 2014). Face to face communication seems to be the most influential, although further research is required. Therefore, in this case, "de-securitizing actors" were varied, encompassing governmental

organizations and elites down to ordinary individuals with some local influence. This result endorses Côté's view that "securitization" is not a top-down linear process (Côté 2016, 553).

4.2.2. Three Types of Dominant Discourses

Through the textual data analysis, I identified key terms, stories, and images that were factually deployed by the mainstream media in the post-Fukushima situation. Additionally, I conducted a search of specific discursive terms in the nationwide journalistic database to understand a more general tendency of Fukushima-related information circulation at the national level, focusing on the period from 11 March 2011 until 30 June 2020. Finally, I created three categories of dominant discourses, combining the result of the textual data analysis with the respondents' beliefs in the qualitative research, and named them: 1) "safe discourses" which claims safeness of the region, 2) "counter-discourses" which attacks risk-avoiding actions and people, and 3) "cutting discourses" which widens disparities and generates discriminations in the population.

Aside from analyzing the phased aspect in the "de-securitization" process through the qualitative research data, I adopted the three sub-concepts of my theoretical framework to each of the discourses according to their relevancy. I applied 1) "media control" (Gutsche 2015) to "safe discourses," 2) "denialism" (Diethelm and McKee 2009) to "counter-discourses," and 3) "intersubjectivity of active audience" (Côté 2016) to "cutting discourses."

4.3. Dominant Discourses and their Rhetoric

2) What kinds of rhetoric was deployed by dominant discourses?

Next, to think about this second sub-question, I examined the *dominant discourses* for the population and *by which kind of rhetoric* they were accompanied. Through the textual data analysis, I first identified each discourse's characteristic rhetoric.

4.3.1. Textual Data Analysis

One of the most prominent examples of "safe discourses" was the repeated phrase of Yukio Edano, Japan's former cabinet spokesman, "There is no immediate health risk" (*The Guardian*, March 13, 2011; Yoshida 2016, 7, 8, 11, 18). It emerged amid the nuclear crisis and through media, and TV broadcasting, in particular. Yukio Edano had appeared 39 times in press conferences during the two weeks since 11 March and had used this phrase seven times (Shiozaki 2012). According to the search of the journalistic database, Edano's phrase appeared

208 times in newspapers and amplified to 1,195 times by many political elites, high officials, TEPCO, radiation experts, and medical authorities. They repeatedly played down and minimized the health risk of radiation.

There is another example: the Japanese Prime Minister, Shinzo Abe's famous declaration in 2013 that, "Fukushima is under control," in front of the international public, which enabled the government to win the bid to host the 2020 Summer Olympics Games in Tokyo (*Reuters*, September 7, 2013). Although this notion considerably impacted the international sphere, this term has only been deployed 440 times in Japan's news articles.

Instead of this, the terms "*kizuna* [the bond]" or "*fukkou* [reconstruction]" had a significant impact. "*Kizuna*" has appeared 22,499 times, and "*fukkou*" has appeared 267,280 times in newspapers during these nine years.

Mihic argues the word "*kizuna*" as follows:

> "As psychiatrist and critic Saitō Tamaki (2011) argued, the term *kizuna* was originally used to describe various types of intimate and personal bonds involving people and places, such as the love for one's family or hometown, rather than public relationships. Conversely, following 3/11, *kizuna* has also been used to sentimentalize and standardize positive and heart-warming bonds or relationships between Japanese people today—an attitude that may be summed up simply as 'caring for others and working together,' which is almost synonymous with Nihonjinron keywords such as 'group-oriented' and 'community,'" (Mihic 2020, 13).

She points out that the Japanese authorities spread these terms connected with facilitating the "beautiful story" to unify the national identity and emotion in the pretext of the Tokyo Olympics. The massive implementations of these terms significantly impacted people's perceptions.

Next, the example of "counter-discourses" demonstrated the escalation and shift of their rhetoric to attack the population's risk perceptions. For instance, new terms and movements such as "*fuhyouhigai* [harmful rumor]" (Sekiya 2014; *The Washington Post,* February 20, 2019) and celebrity-led "*tabete ouen* [eat and support] movement" (Field 2016) emerged in the society. "*Fuhyouhigai"* has been issued about 51,000 times and "*tabete ouen*" movement appeared 466 times in Japanese newspapers. Thus, we can understand the significant impact of the term "*fuhyohigai.*" The government, mass media, and many pro-nuclear actors promoted these terms and blamed people who worry about radiation risk and try to avoid contaminated food and water. Notably, "*fuhyouhigai*" has been used to criticize people who avoid Fukushima's products by their unsupportive moral to victims.

Lastly, "cutting discourses" emerged as a source of disparities inside/outside the Fukushima population. Fukushima refugees were often targeted by harassment or bullying from their refuge communities due to radioactive contamination of Fukushima and deemed as spreaders of radiation (Yoshida 2016). This sometimes even triggered the suicide of young refugee children (*The Mainichi*, November 1, 2018). To further complicated matters, in Fukushima, non-evacuees deployed perverse discourses connecting with local identity and even called volunteer evacuees "betrayers" (Nanasawa 2016, 54). These Fukushima bullying-related topics were reported 8,707 times in newspapers.

In the following section, I will analyze the qualitative research data regarging these results of the textual data analysis on the rhetoric of the dominant discourses.

4.3.2. Safe Discourses and Rhetoric (with "media control")

Of the respondents of the qualitative research, 16 of the 20 believed that they experienced "media control" in the post-Fukushima situation. This is the predominant reason why people have tried to obtain information from multiple sources. Almost every account was skeptical about TEPCO's official information because of its cover-up of the meltdowns and its attitude to avoid compensations so forth. They believed that these information biases derived from the economic networks between the government, TEPCO, and media outlets. Below are examples highlighting the respondents' skepticism of the media.

- Mr. Ito, a 76-year-old inhabitant in Iitate-mura, which has been a designated evacuation zone, accused media outlets for defusing governmental information without criticism.
- Interviewee H, a 47-year-old housewife who lives in Minami Soma-Shi, expressed her doubts about scientific experts and high officials on TV from her ex-husband's perspective, who was a nuclear plant worker.

(Further examples are in Appendix 4-VII)

What is essential here is that it was not my focus to reveal the existence of "media control." Actually, through my internship work with Reporters Without Borders, I conducted interviews with seven prominent journalists in Japan who covered the Fukushima accident and wrote an advocacy statement, providing strong evidence that the Japanese government's censorship and violations of press freedom (in Appendix 5). However, this thesis's essential point is not providing strong evidence of the existence of "media control," but people's beliefs in "media control." In other words, the population's belief in "media control" influenced

people's risk perceptions and actions, and it was one of the constructing factors of "intersubjectivity of active audience."

According to the data collected from the qualitative research, the influential rhetoric of "safe discourses" that further impacted the perceptions of respondents was:

1)The threshold of minimum doses

2) "There is no immediate health risk," the former cabinet spokesman's repeated phrase

3)Fake news and information hidings of experts

Among 16 respondents who mentioned "media control," eight respondents pointed out the rhetoric 1. Seven people each expressed their opinions on rhetoric 2 and 3. Rhetoric 1 appeared 7,987 times during these nine years in journalistic database, and rhetoric 2 appeared 1,195 times. While the patterns of rhetoric 3 were various, search by terms "Fukushima" and "information hidings" in the database hit 1,331 cases.

Furthermore, instead of Shinzo Abe's "under control" notion, 12 respondents pointed out 4) "kizuna [the bond]" or "fukkou [reconstruction]," including "decontamination" and "returning" mostly related to the context of the Tokyo Olympics, as the influential rhetoric of "safe discourses." These terms were massively used in Japanese newspapers during these nine years.

Rhetoric 1-1: The threshold of minimum doses:

- Mr. Konno, a 56-year-old former plant worker who is an evacuee from Namie-Cho, blamed the rise of the upper limit of safe radiation exposure from (1 millisievert a year to 20 mSv a year) on the Japanese government.
- Mr. Ito showed me the radiation measurement data of the contaminated forest soil in Iitate-mura (restricted residence zone) as 20,000～150,00 Bq/kg, which was originally measured as 10～20 Bq/kg before the accident.
- Mr. Moriyama, a 33-year-old small business owner in Minami Soma-Shi, said that he often checked actual radiation data measured by local acquaintances and judges its safety. "In general, detected radiation level here is no problem."

(Further examples are in Appendix 4-V,VI,VIII)

Remarks on Rhetoric 1-1:

These testimonies are related to Nadesan's argument of "nuclear governmentality." The government authorities decide the safe range of radiation exposure, and people act in response to the bases of official standards. It signifies that radiation safeness is a socially constructed

and politicized issue by the "de-securitization" process through "media control." Regardless of belonging to safe or dangerous factions, they act in line with their own risk perceptions, which have been influenced and constructed by the official minimum standard of radiation exposure. This rhetoric of "safe discourses" of "de-securitizing actors" within the "discursive formation" process exerts power through "media control." It incorporates into people's risk perceptions and become a constructing factor of "intersubjectivity of active audience."

Rhetoric 1-2: "There is no immediate health risk":

The former spokesman, Yukio Edano had appeared 39 times in press conferences during the two weeks since 11 March and used the phrase, "There is no immediate health risk," seven times (Shiozaki 2012). This phrase was said to be made to avoid panic (Nanasawa 2016, 29).

- Mr. Fukase, a 59-year-old high school teacher, criticized this notion: "It was the typical minimization of radiation risk, regardless of long-term effect." Six other respondents in this research have shared this view.

Remarks on Rhetoric 1-2:

In this case, people were trapped by the expression that there was "no immediate risk." While some people relieved by this phrase and let their guard down, others have worried about the long-term effect of radiation exposure. It resulted in discrediting the government's information and divided people's perceptions. Consequently, this rhetoric has also contributed to heightening people's "intersubjectivity" through "media control."

Rhetoric 1-3: Fake news and information hidings of experts

- Mr. Konno blamed Dr. Yamashita, the vice president of the Fukushima Medical University, for spreading the notion that "less than 100 mSv is safe" without scientific consensus.
- Ms. Yokota, a freelancer in Tamura-Cho, criticized the covered-up information of the System for Prediction of Environmental Emergency Dose Information (SPEEDI). The Ministry of Education, Culture, Sports, Science, and Technology (MEXT) estimated SPEEDI on 15 March about the spread of high radioactive contamination. Nevertheless, the government did not publicize it or warn the population. Consequently, many of the locals were struck by a highly radioactive plume (Nanasawa 2016, 24).
- Mr. Takeda, a 65-year-old former high school teacher, wrote about Ryugo Hayano's academic article's falsification, which actively promoted the safety of radioactivity. Hayano's article "miscalculated" and significantly minimized the individual exposure levels of inhabitants in Date-Shi, Fukushima, as one-third (BUZZAP! 2018).

(Further example is in Appendix 4-XI)

Remarks on Rhetoric 1-3:

The examples of this safe discourse rhetoric highlight the attempts to exaggerate the safeness of the situation through "de-securitizing actors' speech acts." TEPCO's cover-up and denial of the meltdowns can be classified here, as well. These safe discourse rhetoric ties into Hansen's two of four categories of the "de-securitization": the function of *replacement* and *silencing*. These functions are analyzed by Diethelm and McKee's (2009, 2) definition of "denialism," mentioned in Chapter 2. Diethelm and McKee also presented five characteristics of denialism: "the use of fake experts" and "the use of misrepresentation and logical fallacies." Here, I can elucidate that this rhetoric is seen as "safe discourses" diffused by "media control," and it is also included in the broader scope of "denialism."

Rhetoric 1-4: "*Kizuna* [the bond]" or "*Fukkou* [reconstruction]"

As I presented the argument of Mihic in the textual data analysis, the word "*kizuna*" was spread by the Japanese authorities, and these terms were connected with facilitating the "beautiful story" to unify the national identity and emotion in the pretext of the Tokyo Olympics. Thus, these terms have been propagated to emphasize the safeness of Fukushima, sending the message that "the Fukushima accident was over." Many of the respondents have found these discourses as hypocritical since they forced people to agree with a "beautiful, safe story," covered up real damage to Fukushima, and required the "oneness" of the nation.

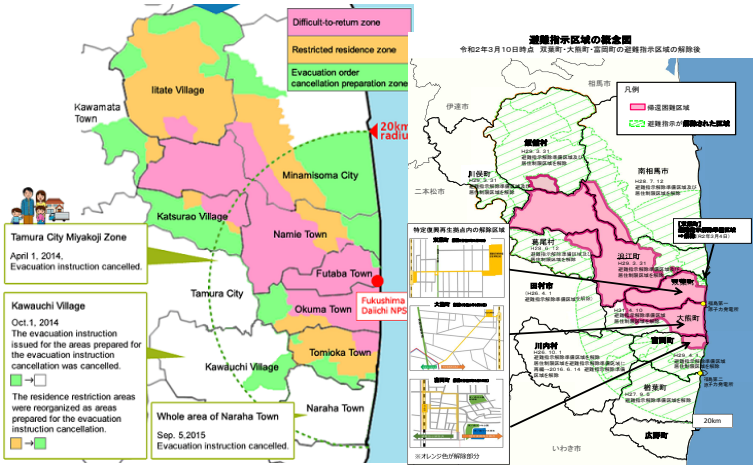
For example, Mr. Nakamura wrote to the questionnaire:

> • "If we could overcome the radiation through "*kizuna*," we wouldn't have had any problem until now. Although the Fukushima nuclear accident forced us to reconsider our society's fundamental flaws, it is clear to me that this term seduces people to stay in the simple-minded "beautiful story." […] This word pretends that nothing had happened as the accident, disguises that "*fukkou*" had been done and let people forget everything in pretext to the Olympic games. I feel strong pressure is working behind it to abandon victims who are truly suffering and struggling."

Mr. Ito, who has continued to live in Iitate-mura, a designated evacuation zone since 22 April 2011, because of the high contamination, casts doubts on "*fukkou.*" I show the evacuation order map in Fukushima prefecture on 5 September 2015 and the version of on 10 March 2020, below (Fukushima Prefectural Government 2019). The evacuation order of Iitate-mura was lifted on

31 March 2017, except the small southern part of the village. Mr. Ito expressed his harsh feelings against the government's returning and decontamination policies (in Appendix 4-Ⅲ).

Figure 7. The transition of evacuation designated zones
(5 September 2015 ver.) (10 March 2020 ver.)



Source: Fukushima Prefectural Government, "Transition of evacuation designated zones," in *Fukushima Revitalization Station,* (https://www.pref.fukushima.lg.jp/site/portal-english/en03-08.html)

As we see in these responses, the discourses of "*kizuna*" or "*fukkou*," including "decontamination" and "returning" in pretext to hold the Tokyo Olympics, are exploited to send a message that the Fukushima nuclear accident is over. However, it is actually not true for most of the victims.

At the same time, this nationalistic fantasy refers to the mechanism of "politics of denial":

> "Nations, in fact, operate on the basis of such shared reconstructions of reality much of the time. This collective fantasy life is both revealed in politics and supported and maintained by it; our official life as a nation is built on a shared denial of painful realities and the suffering they engender," (Milburn and Conrad 1998, 3).

Remarks on Rhetoric 1-4:

This "safe discourses" simultaneously includes the factor of "denial." Furthermore, depending on local people's resonance to this story, this rhetoric of "safe discourses" influenced people's risk perceptions based on their "intersubjectivity" through massive media coverage.

4.3.3. Counter-discourses (with "denialism")

The next category is named "counter-discourses" because these discourses aim to criticize and silence people who worry about radiation risk and try to avoid contaminated food and

water. The most famous examples of these discourses were newly created terms and movements, such as "*fuhyouhigai* [harmful rumor]" (*The Washington Post,* February 20, 2019; Sekiya 2014) and the celebrity-led "*tabete ouen* [eat and support] movement" (Field 2016). These terms helped to create intense pressure to conform in the Japanese society (Nanasawa 2016, 97) and forcibly silenced opposing voices by practicing the typical Japanese act of "Ku-ki wo yomu [reading the air]." Among those terms, more than half of my respondents replied that "*fuhyouhigai*" was the most influential term. "*Fuhyouhigai"* has been issued about 51,000 times in Japanese newspapers during these nine years.

Rhetoric 2-1: "*Fuhyohigai* [harmful rumor]"

Twelve of my respondents identified "*fuhyohigai* [harmful rumor]" as misleading.

- Ms. Nihei, a 69-year-old university part-time lecturer in Fukushima-Shi, stated that "it is not a harmful rumor. It is a real harm." This view was common for eight accounts of my respondents, regardless of their safe/dangerous factions.
- Junichi Inoue's documentary film (2015), "大地を受け継ぐ [To Inherit the Earth]" depicts the distress of the farmer's son in Fukushima, whose father victimized and committed suicide for the Fukushima nuclear accident. The son also criticizes the term "*fuhyouhigai*" because the radioactive contamination that triggered his father's death was not a rumor, but fact.

These data show that some people in Fukushima consider dangerous radioactive contamination as true and undeniable.

In the first place, according to Sekiya, "*fuhyouhigai*" is defined as:

> "The economic damages which are triggered by people's risk perception of something (food, products, land, companies), which is originally deemed to be "safe." It is caused by reports of specific social problems (event, accident, environmental pollution, natural disaster, recession) and ensuing cancellation of consumption, tourism or transactions, etc.," (Sekiya 2014).

Therefore, initially, "*fuhyohigai*" was meant to be "the economic damages." However, Sekiya points out that there was a shift in the use of this term that expanded in significance to cover the mental damages that are triggered by people's risk perception. In consequence, the certain local population started to use this term to criticize and silence others' voices that worry about the radiation risk. It is because these voices charge them some mental and emotional distress by hearing them. For instance, a volunteer refugee mother testified:

- She was accused of being a "walking *fuhyouhigai*" from local residents who do not worry about radiation risk (Yoshida 2016, 81).

For certain people, it hurts to hear the voices that worry about radiation risks, despite the undeniable existence of radiation. According to Milburn and Conrad (1998, 1), "Denial, a psychological defense mechanism, is an unconscious mental maneuver that cancels out or obscures painful reality." Thus, as a rhetoric of "counter-discourses," "*fuhyohigai*" deploys "denialism," arisen from a psychological "denial." In summary, people deploy psychological "denial" to avoid facing the painful reality that they had canceled out, and this triggers criticism against others' risk perceptions, namely "denialism"-based "counter-discourses."

"*Fuhyohigai*" and "denialism"

I encountered another example of "denialism" during the research. Mr. Moriyama, a self-employed new settler to designated evacuation zone in Minami Soma from Tokyo, first wrote in the questionnaire that he felt his answers to the influential terms among the Fukushima accident were meaningless, so he chose not to answer Q7 and Q8. I conducted a secondary interview with him. He was an open-minded, friendly, and intellectual person who has scientific and statistics backgrounds. I asked why he felt answering these questions were meaningless, and he said, "I felt very uncomfortable to answer to them." He shares the view of "*fuhyouhigai*" as real harm. Generally, he measures radiation level (whether they are lower than minimum standards) in order to prevent his family from being overly exposed to radioactivity. Then, what was the reason making him feel uncomfortable answering the questions?

- ***Moriyama***: In general, I try not to be influenced by labels. About the term "*fuhyouhigai*," the phenomenon itself has not changed because of the word. This term was sensational, but it did not trigger the phenomenon itself…
- ***I***: Nothing has changed by this word. Is that why you thought it was meaningless to answer the questions?
- ***Moriyama***: Yes, actually, what I told you was meant like that. But now I feel that what I said was inappropriate. It was indeed an influential term. […] I am usually conscious of avoiding labels and biases, not to radicalize arguments. That is why I deemed them as uninfluential, I think. As extreme ways of thinking without science-based data prevent sound information circulation, I got *a feeling of rejection* to put an easy label on the indecisive, unclear situation like right now: not that dangerous as (people) assume, but not totally safe.

What he talked about was an insight close to the "politics of naming" (Bhatia 2005, 6), which I referred to in Chapter 2. His sensibility is so valuable that he resists giving a name to a specific phenomenon for not getting involved in the politicized discursive formation process.

Yet, my point here is that during the interview, he recognized the feeling of rejection inside of him when he thought about the term "*fuhyouhigai*" as influential. I consider this feeling "denial." He deployed "denialism" about "*fuhyouhigai*" along with his inside "denial." Then, how was this "denial" was generated?

In my opinion, this feeling of rejection is linked to his "intersubjectivity," which relate to the daily fact of radiation in their lives. Mr. Moriyama and his wife decided to move a designated evacuation zone from Tokyo after the Fukushima disaster and accepted to live with a certain amount of radiation, which he referred to as "risk ambiguity." Thus, during the process, they have prioritized something different than radiation risk and constructed the view of seeing radiation as normal. I see, therefore, this rejection as a result of the legitimized normality of daily radiation exposure. This everyday-based rejection can be found in others' accounts, as well. This tendency is natural and common for people who decide to live with radiation every day.

"Counter-discourses" with "denialism" and "everyday nuclearity":

In his interview, Mr. Nanasawa, a prominent nuclear documentarist of Japan's public broadcaster (NHK) said:

> "Although people tried to avoid radioactive contamination at the period of the Fukushima accident, the long-term effect of radiation is invisible. […] Over time, people have let down their guard. Once they determined to stay in the region, it was more comfortable to think to be safe. It does not mean that they do not feel the anxiety of radiation. While they are wary of nuclear power, they do not feel like speaking about radiation."

These feelings of rejection offer me an idea about the involvement of the new concept, namely "everyday nuclearity" (Sklyar 2019):

> "Everyday nuclearity refers to the decisions and contestations that were pushed into the realm of family and the everyday in the immediate moment of nuclear disaster; the continued contestations and disagreements that were worked out and experienced within families, communities, and individuals as no single answer about safety and danger reigned; and the residual personal, familial, and community effects and meanings of those disagreements and navigating those disagreements. Everyday nuclearity includes the shifts in the materialities of

> everyday life, social relations, and sense of morality within one's role and identity that accompanied the deployment of nuclear knowledge by ordinary citizens within their own lives," (ibid., 113).

I deem this everydayness as a source of "denialism" linking to "intersubjectivity" of "counter-discourses." Sometimes these discourses escalate to reach the level to attack dissents like the example of "walking *fuhyouhigai*" (Yoshida 2016, 81). While media mainly used "*fuhyouhigai*" at first, nowadays, the local population has become users of it to express their frustration against worrying voices of radiation exposure. They are victimized by others' risk perceptions, and it hurts to hear the worrying voices. Why? Because they have already decided to live with radiation risk and unconsciously attempt to avoid facing this painful reality along with their inside "denial."

Remarks on "Counter-discourses":

All of my respondents have their own reasons and priorities in their lives to keep living in Fukushima, and these individualistic conditions are one of the core factors of the emergence of the "counter-discourses" accompanied by "denialism." In other words, amid the "everyday nuclearity," people in Fukushima have constructed their own risk perceptions in line with various degrees of "denial" and "intersubjectivity of active audience" in the "de-securitization" process. Therefore, I hypothesize that the "counter-discourses" such as "*fuhyohigai*" deploy "denialism" derived from "denial" and "intersubjectivity of active audience" based on "everyday nuclearity," rejecting and countering criticisms against the safeness of radiation. This aspect is also a significant topic for further investigation in unraveling a more detailed "de-securitization" process in Fukushima.

4.3.4. Cutting Discourses (with "intersubjectivity"):

The "cutting discourses" cut the Fukushima population's shared reality and directly mobilized the population's risk perceptions and divergent risk-taking actions, which widen and often polarize disparities and generate discriminations between them. This local-targeting, mobilizational character is the element that differs the "cutting discourses" from other dominant discourses. For example, the Fukushima bullying-related topics, one of the main "counter-discourses," were reported 8,707 times in newspapers during these nine years.

Rhetoric 3: Discriminations among "*Fukushima*"

There are two conflicting trends regarding these discriminative "cutting discourses": 1) discrimination against the Fukushima population from outsiders, and 2) inner-Fukushima discrimination against volunteer evacuees from non-evacuees. The former notion focuses on Fukushima refugees targeted by harassment or bullying from outsiders caused by radioactively contaminated "福島 [Fukushima]," and this impression created a new writing expression in Japanese as "フクシマ [*Fukushima*]." Here, Fukushima refugees were deemed as spreaders of radiation (Yoshida 2016, 111). This phenomenon can be seen as the failure of nationwide "de-securitization," caused by wrongly diffused images of radiation.

The respondents of this research shared their experiences of "cutting discourses." For example, half of my respondents pointed out the discourses of the damaged reputation of "*Fukushima"* by radioactive contamination. This label trigged bullying and discrimination against the Fukushima population from outsiders. Conversely, in Fukushima, non-evacuees deployed perverse discourses and attacked volunteer evacuees as "betrayers" (Nanasawa 2016, 54). Some of the non-evacuated respondents also expressed their mixed feelings on volunteer evacuees.

Rhetoric 3-1: Outsiders against *Fukushima*:

- Mr. Ikarashi, a 42-year-old association manager who has lived in Iwaki-shi, heard the two or three discriminative stories against the Fukushima population from outsiders, particularly for Fukushima women. It was said that they would lose the capability of giving birth to a healthy child. The term "disaster divorce" emerged, and outside people said, "Do not marry with the Fukushima population," or "Do not have a child with them," etc.
- Respondent H wrote that radiation was said to be transferred human to human, and people who moved to Tokyo were bullied. If someone says that he/she is from Fukushima, outsiders react like, "Oh, Fukushima..." But, in fact, inside of Fukushima also there were discriminations. People from highly contaminated areas such as Hamadori were discriminated against by Nakadori people.
- Nationally, many cases of hate pranks targeting cars with Fukushima's license plates were reported (Yoshida 2016, 111).

This securitized bad image of "*Fukushima"* cut the unity of the Fukushima population from both outside and inside and influenced their risk-taking actions. However, this "securitization" occurred by non-science-based information on radiation and distrust of information sources. Therefore, this can be interpreted as a failure of "securitization," which

did not offer accountable information on radiation risks to the population. As a result, ambiguously securitized "existential threat" by "securitizing actors" created wrong images of "*Fukushima"* and triggered these bullying and harassments against victims. This phenomenon influenced the population's acts of evacuation on the ground.

- Respondent I testified that although she wanted to evacuate because of the fear of radioactive effects, she was afraid of being bullied and gave up changing her lifestyle.

Rhetoric 3-2: Non-evacuees against evacuees:

Ms. Nihei expressed her conflicting feelings when she talked about the tendency of people who evacuated (especially volunteer evacuees) to be seen as heroes. She wrote to the questionnaire:

> "In order to justify their self-estimated evacuation choices by the volunteer evacuees, the hero narratives created the rude stories against the people who did not (or could not) evacuate and led to divisions among the population. […] The advice or messages like "Flee!" or "Do not stay there!" fueled the remaining local population's sufferings for those prepared and determined to live in the region."

(in Appendix 4-XII)

In another case, Mr. Ikarashi pointed out the economic compensation gap from the government and TEPCO to victims.

- He said, "People, who could evacuate, evacuated. People who had economic and social capabilities for protecting themselves could flee."

When I seek for the reasons which tore non-evacuees and volunteer evacuees' risk perceptions and risk-taking actions in the local context, I found various factors through qualitative research. They are related to the disparities of information, financial issues, age, numbers of children, and resources of personal networks (in Appendix 4- Ⅰ, Ⅱ, Ⅳ, Ⅵ, Ⅸ, Ⅹ, Ⅺ). These disparities emerged from each individual's different background in responding to the "de-securitization" process and sometimes radicalized to take a resentful form of discrimination, along with their "intersubjectivity." This phenomenon likely originated from frustration produced by a sense of the unfairness of their lives. In the post-Fukushima situation, some were saved, others not. The unfairly drawn lines between people seemed to be a source of this type of rhetoric.

Remarks on "Cutting discourses":

For "cutting discourses," "intersubjectivity" definitely mattered. The former rhetoric of "cutting discourses" is related to the failure of "securitization." The latter seemed to happen in response to "everyday nuclearity," meaning "the continued contestations and disagreements that were worked out and experienced within families, communities, and individuals" in the realm of daily lives (Sklyar 2019, 113).

Furthermore, both rhetoric includes the aspects of "denialism," as well. They attacked dissents to deny the painful realities of their safety, as is the case of "*Fuhyohigai.*" Therefore, I conclude that "cutting discourses" relate to "intersubjectivity" and "denialism," and it directly influenced and even mobilized local people's risk perceptions and risk-taking actions.

4.4. Intersubjectivity and Rationality

3) How have dominant discourses influenced and constructed divergent risk perceptions and disparities among the local population?

For the third sub-question, I claim that the key is the "intersubjectivity of active audiences." Côté claims that "(de-)securitization" is not a top-down linear process, but interactions between "(de-)securitizing actors" and "audience." As we see now, divergent risk perceptions and disparities among the local population were influenced by dominant discourses, which are accompanied by various rhetoric. However, at the point of construction of their perceptions, they individually prioritized their choices and actions. They are not just obeying the institutional rules and roles (Jabri 1996, 70), but rationally interacting with the process as individuals. That is why I propose seeing this perception constructing process along with the "rational action theory," viewing actors as rational who pursue their own interests on every level through negotiations (Kalyvas 2003, 475).

This view offers some insights into the character of the "intersubjectivity" in the "securitization/de-securitization" process. During the qualitative research, it was surprising for me to find that most of my respondents stayed in the Fukushima region despite their uncertainty of radiation safety. Although more than half of them mentioned their fear of radiation, which was triggered by the images of the explosions or the Japanese evacuation policies, they chose to stay there for reasons such as works, families, and love of their home province. This can be explained as the "intersubjectivity of active audience" based on their "rationality." Before the research, I expected to find some relevance between evacuations and risk perceptions.

Nevertheless, through this research, I understood the phenomenon as the result of their rational determinations derived from their own agendas or priorities of their lives.

The "intersubjectivity" in the "securitization/de-securitization" process is influenced by "media control," "denialism," and "everyday nuclearity," and active audiences rationally reconstruct their own realities. These realities are sometimes shared with others, conflict with others, and reinforced the self-referencing character of information. It seems to contribute to widening disparities and polarization of the population's risk perceptions. Thus, unraveling the mechanism of "intersubjectivity" based on the "rational action theory" should be sought in the future.

5. Theoretical Reflection on the Data Analysis

Through the research, at the level of information sources, I found that face to face communication seems to be the most influential. Furthermore, "de-securitizing actors" were various, encompassing from governmental organizations and elites until influential local individuals. Therefore, Côté's view that "securitization" is not a top-down linear process (Côté 2016, 553) is convincing.

I identified three types of dominant discourses and named them as 1) "safe discourses," 2) "counter-discourses," and 3) "cutting discourses," and adopted three sub-concepts (media control, denialism, and intersubjectivity of active audience) to analyze them.

The "safe discourses," constitute rhetoric such as:

1. The threshold of minimum doses,
2. The repeated phrase "There is no immediate health risk,"
3. Fake news and information hidings of experts, and
4. The beautiful story of "*kizuna*" or "*fukkou.*"

The rhetoric of the "safe discourses" aimed to cover-up the real damage of Fukushima. They are socially constructed and politicized by "de-securitizing actors."

There were no respondents who simply believe the information of "securitizing actors." Yet, audiences are influenced by their perceptions byways of accepting or averting biases of "media control." In consequence, through "media control" within the "discursive formation" process, dominant discourses have contributed to dividing people's risk perceptions and heightening people's "intersubjectivity" and tore the Fukushima population's shared reality. Through the research, I found that certain rhetoric of the "safe discourses" also included "denialism," and it influences "intersubjectivity" of the local population.

The "counter-discourses" is represented as the term "*fuhyohigai*," which is used to attack and silence the critical voices against radiation risk. These discourses are accompanied by "denialism" derived from various degrees of "denial" and "intersubjectivity of active audience," which are often related to the "everyday nuclearity" of the local population. They have their own reasons and priorities in their lives to keep living in Fukushima with radiation, and these individualistic conditions are one of the sources of aggression within the "counter-discourses." In short, I assumed that the "counter-discourses" such as the term "*fuhyohigai*," which rejects and attacks its dissents by "denialism," were derived from "denial" and "intersubjectivity of active audience" based on the rationality of actors, involving "everyday nuclearity."

I referred to two types of "cutting discourses," referring to discriminations among "*Fukushima."* This rhetoric mobilized different risk-taking actions of the local population and widened the disparities among them. The prominent two examples of these discourses are 1) the discriminations against the Fukushima population from outsiders related to the failure of "securitization," and 2) the internal discrimination against evacuees from non-evacuees, seemed to happen in response to "everyday nuclearity." The latter is based on various forms of disparities caused by the Fukushima accident. They both also include the aspects of "media control" and "counter-discourses" within their reality reconstructing process.

All in all, the construction of the local population's divergent risk perceptions and disparities are all matters of "intersubjectivity," which were influenced by the three dominant discourses — "safe discourses," "counter-discourses," "cutting discourses." People developed their "intersubjectivity" in line with their rational decisions on their lives' priorities from the beginning of the "de-securitization" process.

During the research, I added the fourth analytical concept, "everyday nuclearity" (Sklyar 2019), to better understand the phenomenon. Although I applied these analytical concepts — "media control," "denialism," and "everyday nuclearity" — to analyze dominant discourses, they have a broader scope of adaptation. Therefore, it was not necessary to link each sub-concept to each type of discourses. These three dominant discourses encompass each factor of sub-concepts, and I propose viewing these sub-concepts as constructing factors of "intersubjectivity of active audiences" in the "de-securitization" process.

Importantly, while I had imagined these three types of discourses would emerge by successive phases of the "de-securitization" process, I found they overlap in gradation, and permeate gradually from top to local society, rather than phased typical escalation.

6. Conclusion

On 11 March 2011, I was in Paris, glued to the TV next to my Swiss house owner. I vividly remember the fear at the moment when the No. 3 reactor exploded, listening to Swiss radio's severe criticism of Japan's evacuation policy going as far as to call it "genocide." Japan is the only country in the world that has experienced three nuclear disasters; namely: Hiroshima, Nagasaki, and Fukushima. Despite the two experiences of being a victim of atomic bombings, the Japanese government had promoted the construction of fifty-four nuclear reactors in the post-World War II period due to the influence of the U.S.'s nuclear policies under the name of "deterrence" and "peaceful use" of nuclear power. Growing up in Japan, I was taught that "nuclear power plants are safe unlike nuclear bombs" until the very day that the safety myth was destroyed. On the next day, at the French language school, many foreign friends asked me how and why the Fukushima nuclear accident happened. But I could not answer anything. That was the starting point of this research.

6.1. Research Findings

I present my research question again:

How has a process of "de-securitization," led by de-securitizing actors' dominant discourses and their rhetoric, influenced the divergent risk perceptions and disparities among the local population regarding exposure to radiation in post-Fukushima Japan from 2011 until the present?

To answer this question, I developed the final model of the "de-securitization" process in the post-Fukushima (**Figure 8**), which was created based on the tentative model of the "de-securitization" (**Figure 6**) in Chapter 2, referring to the result and findings of the qualitative and textual data analysis in Chapter 4.

The "de-securitization" process in the post-Fukushima situation deployed dominant discourses accompanied by divergent rhetoric. These de-securitizing actor's speech acts — the three types of dominant discourses (safe discourses, counter-discourses, and cutting discourses) — downplayed and minimized the population's risk perceptions and let the population's guard down against radiation exposure.

As Casado Claro's previous research concluded that this phenomenon was a "negative de-securitization," these dominant discourses prevented from tackling the fundamental resolution of the crisis by rearticulation (Hansen 2011). Rather, the authorities' implementations of

unaccountable and non-transparent crisis management policies confused the population's risk perceptions and enhanced quarrels and disparities among the populations by stabilization, replacement, and silencing (ibid.). It was a form of indiscriminate structural and physical violence for local people.

During the research, I attempted to shed light on this invisible mechanism by the lenses of my analytical framework ("media control," "denialism," and newly added forth concept "everyday nuclearity" to understand the role of "intersubjectivity of active audience." All these four analytical concepts function within the realm of the discursive formation process by initiating the "de-securitization" process, and they influence the construction of the population's divergent risk perceptions. Therefore, these concepts should be seen as constructing factors of "intersubjectivity of active audiences" based on their rationality, in the "de-securitization" process.

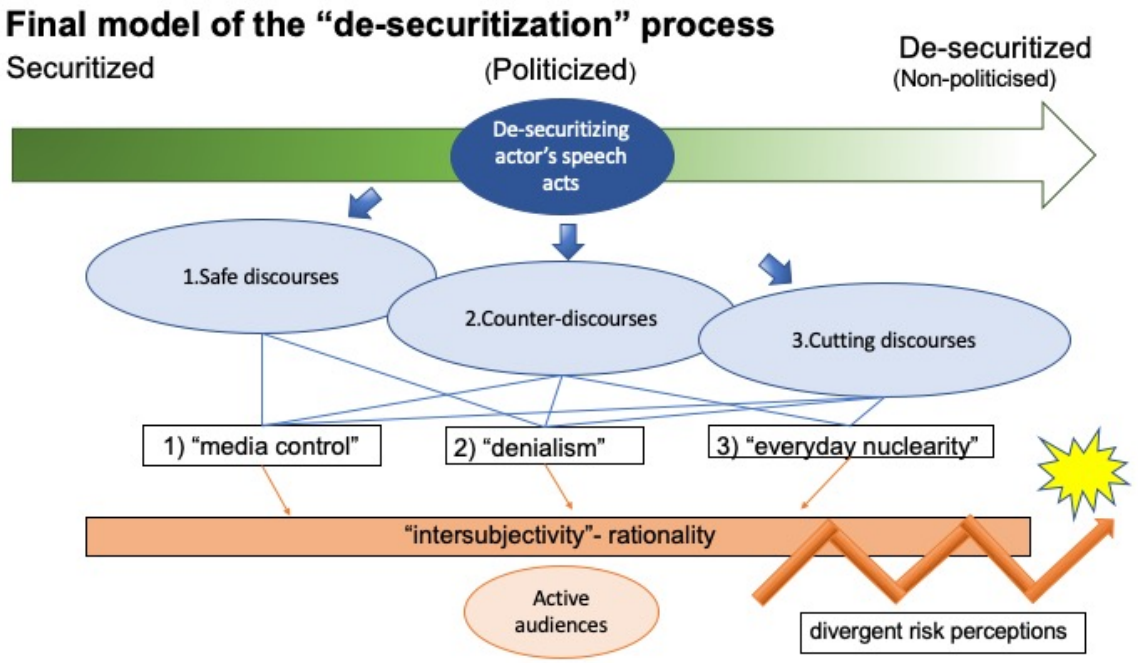
Before the research, I imagined that the top-down dominant discourses escalate and conflict with "intersubjectivity of active audiences" by phases, constructing the divergence of their risk perceptions and disparities among the population (**Figure 6**). However, I understood that these dominant discourses overlap in gradation by conducting this research. It is better to understand this phenomenon as a gradual penetration from top to bottom (from the national level to local society) over time rather than a phased typical escalation.

Since the beginning of the "de-securitization" process, audiences have acted intersubjectively. Based on Côté's definition of "securitization," the participants in this study are themselves part of the "de-securitization" — actors who can influence the construction of "de-securitization." Referring to the result of data analysis in Chapter 4, the population always has their own agenda and choices for their lives and has acted along with their risk perceptions, which were influenced by the dominant discourses.

From this insight, I view the population as rational actors who pursue their own interests on every level through negotiations (Kalyvas 2003, 475), a perspective based on "rational action theory." My research question's ontological stance is "Relational Interactions," and the epistemological stance is "Symbolic Interactionist." Thus, these findings are coherent with my basic researching stance, which sought the interaction between the dominant discourses and the divergent risk perceptions of the local population, namely the interaction between structure and agencies.

As my research question's function is "generative," I aimed to generate a new development of the model of the "de-securitization" process in post-Fukushima. It comes to the **Figure-8**, below.

Figure 8.



Author: Miwa Higashimuki

6.2. Research Limitations and Suggestions

First of all, due to the coronavirus pandemic situation in 2020, I could not conduct fieldwork in Fukushima. It was the most serious limitation of this thesis. Furthermore, I had problems with access and resources to reach more of the "safe faction" people. Thus, the selections and sampling of my data collection are incomplete. Yet, owing to my collaborators in Japan, I could conduct questionnaires with 26 individuals connected to the Fukushima accident, including seven detailed interviews from a distance. Although the sample size was not empirically sufficient, I think the results are nonetheless telling in that they demonstrate, to a reasonable degree, a process of "de-securitization" in the wake of the disaster at Fukushima.

At the same time, I focused on researching the local population in Fukushima for this thesis and could not research the national level of the "de-securitization" process in Japan. Thus, it would be fruitful if I conducted national-level research and combined it with the local research to develop the "de-securitization" model to understand and draw a complete image of the post-Fukushima situation.

Through this research, I found three more aspects which require further investigation and research, below:

Face to face communication:

To construct specific perceptions, it seems that the information from the face to face communication is the most credible for people. I could not sufficiently elucidate this finding in this thesis.

Rationality:

Considering "intersubjectivity," I suppose the "rationality" of individuals was the essential key factor. It is an interesting topic for further research to develop the academic arguments on "intersubjectivity of active audience" in "securitization theory" in line with "rational action theory."

Everyday nuclearity:

This concept was developed by Sklyar, who conducted long-term ethnographic fieldwork in Yamagata, the prefecture next to Fukushima. She investigated family decisions following the Fukushima Daiichi nuclear power plant accident in the region. This everyday factor of the local population who live with radiation is significant, although it is not yet fully developed. I think this concept deserves further research.

6.3. Research Contributions

In this thesis, I aimed to propose a newly developed "de-securitization" model to understand the emergence of divergent risk perceptions and disparities among the population in the post-Fukushima situation through the interaction with dominant discourses, which de-securitized the crisis. Unfortunately, Fukushima is not a popular topic of study in Europe. Nevertheless, what is happening there matters for the world. As a Japanese, I hope to contribute to the acknowledgment of this problem and the people who live there. Additionally, I would like to help develop the academic arguments of "de-securitization," seeing it as an interactive process between "de-securitizing actors" and "active audience." Although "securitization" is an influential theory, it lacks in-depth empirical research on its audiences. I hope this thesis helps address some of the theoretical gaps in "securitization" studies.

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Appendix 1: Glossary of relevant concepts and Theories

<Securitization Theory>

- **De-securitization:** "De-securitization – that is, the process through which issues come to lose their security-related character," (Balzacq et al. 2016, 509).

  De-securitization refers to the revers process. It involves the "shifting issues out of emergency mode and into normal bargaining process of the political sphere," (Buzan, Wæver, de Wilde 1998, 36).

- **Human security**: "There have always been two major components of human security: freedom from fear and freedom from want," (UNDP 1994, 24).

- **Individual Security**: "The security of individuals can be affected in numerous ways; indeed, economic welfare, environmental concerns, cultural identity, and political rights are germane more often than military issues in this respect," (Wæver 1995, 45).

- **Non-change mode of securitization:** "Securitization is a mode of intervention that blocks something specific and in a specific way: by defining what is not allowed to happen and can therefore be prevented with all means necessary. Securitization is the s*election of non-change*," (Wæver 2019, 17).

- **Nonsecurity**: "Nonsecurity terms, that is, to take on the problems, but leave them unsecuritized," (Wæver 1995, 57).

- **Resonance (in securitization):** "The existential threat has to be argued and just gain enough resonance for a platform to be made from which it is possible to legitimize emergency measures or other steps that would not have been possible […]," (Buzan, Wæver, de Wilde 1998, 25).

- **Securitization**:
  - Securitization "is the move that takes politics beyond the established rules of the game and frames the issue either as a special kind of politics. Securitization can thus be seen as a more extreme version of politicisation," (Buzan, Wæver, de Wilde 1998: 23).
  - "One of the most cited definitions of securitization is the following: 'when a securitizing actor uses a rhetoric of existential threat and thereby takes an issue out of what under those conditions is "normal politics," we have a case of securitization,'" (Balzacq et al. 2016, 495).
  - "An articulated assemblage of practices whereby heuristic artefacts (metaphors, policy tools, image repertoires, analogies, stereotypes, emotions, etc.) are contextually mobilized by a securitizing actor, who works to prompt an audience to build a coherent network of implications (feelings, sensations, thoughts, and intuitions) about the critical vulnerability of a referent object, that concurs with the securitizing actor's reasons for choices and actions, by investing the referent subject with such an aura of unprecedented threatening complexion that a customised policy must be immediately undertaken to block it,'" (Balzacq et al. 2016, 495).

    1. **Securitizing actors**: "Actors who securitize issues by declaring something, a referent object, existentially threatened," (Buzan, Wæver, de Wilde 1998: 36).

2. **Existential threat**:
   - The concept of security linking to the question of survival (Emmers 2007, 123).
   - "Requiring emergency measures and justifying actions outside the normal bounds of political procedure," (Buzan, Wæver, De Wilde 1998, 23–24).

3. **Referent objects**: "Things that are seen to be existentially threatened and that have a legitimate claim to survival," (Buzan, Wæver, de Wilde 1998, 36).

4. **Speech act:** "Discursive representation of a certain issue as an existential threat to security," (Emmers 2007, 112-113).

5. **A relevant audience**: "People whom to be convinced by securitizing actors "that a referent object is existentially threatened," (Emmers 2007, 112).

6. **Extraordinary measures**: They are the measures which "can be imposed that go beyond rules ordinarily abided by," when the act of securitization completes (Emmers 2007, 124).

- **Securitization audience:** "The individual(s) or group(s) that has the capability to authorize the view of the issue presented by the securitizing actor and legitimize the treatment of the issue through security practice," (Côté 2016, 548).

  "Viewed this way, audience reactions not only authorize or forbid security speech and action but can also influence the substance of security speech and action, shift and shape future securitizing moves, and influence the perception of shared security understandings and accepted policy responses," (Côté 2016, 552).

  "Viewed this way, securitization success comes via the construction of shared security meanings produced through these repeated deliberative interactions, with past interactions affecting the nature of future interactions. Securitization therefore continues to be linguistically focused, as the process places significant importance on the production, deliberation, and legitimation of security ideas and meanings through speech; however, the introduction of an active audience places this discursive focus within a truly intersubjective framework, forcing the use of language to be understood within an iterative process in which both securitizing actor and audience contribute to the construction of shared security meanings and legitimized outcomes," (Côté 2016, 552).

- **Security (national security)**: "The problem is that, as concepts, neither individual security nor international security exist. National security, that is, the security of the state, is the name of an ongoing debate, a tradition, an established set of practices and, as such, the concept has a rather formalized referent; conversely, the "security" of whomever/whatever is a very unclear idea," (Wæver 1995, 45).

  "What national security links to at the other levels is not primarily individual security and international security, but dynamics and political processes of various kinds at these other levels," (Wæver 1995, 46).

<Discursive formation theory >

- **Discourse**: "Discourses are stories about social reality. These stories are stated in relational terms and give a representation of what is considered the 'social truth,'" (Demmers 2017, 133).

  "Discourses are social relations represented in texts where the language contained within these texts is used to construct meaning and representation..." (Jabri 1996, 94–95).

- **Discursive approach:**
  - "The discursive approach focuses on the 'narrative reconstruction of reality," (Demmers 2017, 126).

- **Discursive formation**: "A framework for knowledge is constituted by a shared body of discourse or given discursive practices. From Foucault's discussion of the discursive formation come five primary units that form the basis of a middle-level epistemic theory: discursive practices, rules, roles, power, and knowledge," (Foss and Gill 1987, 387).

  1. **Discursive practices**: Foucault is "concerned with discourse that, because it follows particular rules or has passed the appropriate tests, is understood to be true in a culture," (Foss and Gill 1987, 387).

     "Foucault's notion of discursive practices seems generally synonymous with many contemporary definitions of rhetoric as symbolicity in all of its forms -both discursive and non-discursive," (Foss and Gill 1987, 387-388).

  2. **Rules**: "For Foucault, rules are principles or procedures that govern a discursive formation; a discursive formation assumes its particular character because of these rules. Generated themselves through discursive practices, these rules determine that one statement rather than another comes to be uttered in a discursive formation. The rules are not likely to be conscious and often cannot be articulated without great difficulty, but they determine the possibilities for the content and form of discourse," (Foss and Gill 1987, 388).

  3. **Roles**: Foucault's notion of roles suggests that "discourse, rather than the rhetor, serves as the organizing principle of discourse and thus of knowledge," (Foss and Gill 1987, 389).

     "His focus is simply on the roles human beings assume in a discursive formation- roles that receive power and position from discursive practices rather than individual qualities of individual rhetors," (ibid.).

     "This role is created and constrained by the discursive formation, allowing rhetors in certain roles to be heard in that formation, while others are not. Foucault, then, is not interested in the individual gifts that enable," (ibid.).

  4. **Power**: Foucault defines power as "the overall system, process, or network of force relations spread through the entire discursive formation." (Foss and Gill 1987, 389)
     "For Foucault, then, power as conformity to norms is omnipresent, diffused, and thus generally hidden to the participants of the discursive formation because it is contained in all relationships in that formation," (Foss and Gill 1987, 390).

5. **Knowledge**: It is "whatever is considered to be truth in a discursive formation. Whatever can be talked about or is an object of discourse constitutes knowledge. This knowledge is discourse that comes from individuals' occupation of certain roles, that follows specified rules, and that involves certain power relationships of the discursive formation. Knowledge is a function of the interaction of the other units and, in turn, affect them," (Foss and Gill 1987, 390).

<Media control>

- **Media Control**:
  - "The common practices of news construction, institutions, and representations that occur across media outlets and mediums as a means to justify and enforce elements of social control," (Gutsche 2015, 3).

- **Press (media) freedom:**
  - "One that 'acts as a market place where ideas, opinions and theories are served up to citizens for their acceptance or rejection' without a government censor hanging 'over the shoulder of the editorial writer,'" (Stein 1966, 11).
  - "Editorial autonomy from government' and 'inability of government to dictate coverage' enable the press to perform its Fourth Estate role – 'a role more secure than the nebulous and inconsistent possibilities in the public's right to know,'" (Powe 1991, 285).

<Denialism>

- **Denial (in psychology):** "Freudian conceptions of denial embrace everything from a rare, almost psychotic refusal to perceive the physical facts of the immediate environment, to the common reluctance to accept the implications of some event," (Laplanche & Pontalis, 1973).

  "Denial, a psychological defense mechanism, is an unconscious mental maneuver that cancels out or obscures painful reality," (Milburn and Conrad 1998, 1).

- **"Denial in fantasy" by Anna Freud**: "The ways children use fantasy to support and maintain their denial of reality by transforming unpleasant facts into their opposites," (Milburn and Conrad 1998, 14).

- **Denialism:** The Hoofnagle brothers have defined it "as the employment of rhetorical arguments to give the appearance of legitimate debate where there is none, an approach that has the ultimate goal of rejecting a proposition on which a scientific consensus exists," (Diethelm and McKee 2009, 2).

- **The politics of denial:** "Nations, in fact, operate on the basis of such shared reconstructions of reality much of the time. This collective fantasy life is both revealed in politics and supported and maintained by it; our official life as a nation is built on a shared denial of painful realities and the suffering they engender," (Milburn and Conrad 1998, 3).

<Intersubjectivity of active audience>

- **Intersubjectivity: "**Intersubjective beliefs are a product of social and group interaction and provide meaning to the social and material world through the creation of shared meanings, norms, values, and identities. These shared beliefs not only facilitate our interpretation of objective reality but also construct our interests and inform our behavior," (Côté 2016, 542).

  "securitization is held to be an 'intersubjective process' (Buzan et al., 1998: 30), implying that security threats are produced through a social process of constructing shared understandings regarding their existence and character within a group," (ibid.).

- **Securitization audience:** "the individual(s) or group(s) that has the capability to authorize the view of the issue presented by the securitizing actor and legitimize the treatment of the issue through security practice," (Côté 2016, 548).

  1: "Viewed this way, audience reactions not only authorize or forbid security speech and action but can also influence the substance of security speech and action, shift and shape future securitizing moves, and influence the perception of shared security understandings and accepted policy responses," (Côté 2016, 552).

  2: "Viewed this way, securitization success comes via the construction of shared security meanings produced through these repeated deliberative interactions, with past interactions affecting the nature of future interactions. Securitization therefore continues to be linguistically focused, as the process places significant importance on the production, deliberation, and legitimation of security ideas and meanings through speech; however, the introduction of an active audience places this discursive focus within a truly intersubjective framework, forcing the use of language to be understood within an iterative process in which both securitizing actor and audience contribute to the construction of shared security meanings and legitimized outcomes," (Côté 2016, 552).

<The Others>

- **Everyday Nuclearity:** "Everyday nuclearity refers to the decisions and contestations that were pushed into the realm of family and the everyday in the immediate moment of nuclear disaster; the continued contestations and disagreements that were worked out and experienced within families, communities, and individuals as no single answer about safety and danger reigned; and the residual personal, familial, and community effects and meanings of those disagreements and navigating those disagreements. Everyday nuclearity includes the shifts in the materialities of everyday life, social relations, and sense of morality within one's role and identity that accompanied the deployment of nuclear knowledge by ordinary citizens within their own lives," (Sklyar 2019, 113).

- **Degree of resonance (in collective action frame):** One of the four variable features of the collective action frame "including problem identification and direction or locus of attribution," (Benford and Snow 2000, 618).

  It is "relevant to the issue of the effectiveness or mobilizing potency of proffered framings, thereby attending to the question of why some framings seem to be effective or "resonate"

while others do not (Snow & Benford 1988). Two sets of interacting factors account for variation in degree of frame resonance: credibility of the proffered frame and its relative salience," (Benford and Snow 2000, 619).

- **Frames:** Frames are "schemata of interpretation" that enable individuals to "locate, perceive, identify, and label' occurrences within their life space and the world at large,'" (Goffman 1974, 21).

- **Framing:** "This denotes an active, processual phenomenon that implies agency and contention at the level of reality construction. It is active in the sense that something is being done, and processual in the sense of a dynamic, evolving process. It entails agency in the sense that what is evolving is the work of social movement organizations or movement activists. And it is contentious in the sense that it involves the generation of interpretive frames that not only differ from existing ones but that may also challenge them," (Benford and Snow 2000, 614).

- **Rational action theory (RAT):** The arguments based on the broader sense of 'rationality' than (RCT) (Demmers 2017, 108).

  Human rationality as an interaction between institutional rules and roles of individuals (Jabri 1996, 70).

- **Rational choice theory (RCT):** "Deep down, rational action approaches find their roots in the work of Machiavelli and Hobbes and the underlying idea of the human being as driven by an instinct for self-preservation and a will to dominate," (Demmers 2017, 108).

Appendix 2-1: Questionnaire

Q1: Personal information;
(1. Name, 2. Age, 3. Sex, 4. profession, 5. family structure, 6. Address, 7. Contact)

Q2: What was the reason for which you decided to evacuate/ not to evacuate after the Fukushima nuclear accident? Also, what was the key information in making that decision?

Q3: During the crisis, by whom (or what) did you obtain information? How about now?
(TV/radio/newspapers/public offices/relatives/acquaintances)

Q4: What made you think that you could trust the information?

Q5: Did you think if the information issued by the government and the media focus on "safety" or "danger"? On which point did you think so?

Q6: Do you feel any discrepancy between your perception and the circulated information? If so, what was the point you recognized?

Q7: Please tell me three of the words and actions among the Fukushima nuclear accident that you think were impressive and influential.

Q8: What impression do you have of each of the words and actions listed above? Also, what impact do you think they have had on people's lives and minds? And why do you think so?

Q9: By and large, what do you think of the way of information about "Fukushima" by the government and media?

Appendix 2-2: Questionnaire in Japanese

オランダ・ユトレヒト大学大学院、文学部史学 / 国際関係論修士課程に在学中の東向美和と申します。修士論文（英文）において、福島原発事故発生後、政府やメディアの発信した情報が皆さまの意思決定にどのような役割を果たしたか、を研究したいと考えています。3.11 から 9 年が経った今も、いまだ帰還が叶わない方々も 4 万人以上おられる中で、福島で起こったことを海外で伝えることで復興の一助となることを願っております。
お答え頂ける範囲で結構ですので、以下のアンケートにご協力いただければ誠に幸甚です。
なお、頂いた情報はあくまで研究の目的でのみ使用させていただきます。また、ヨーロッパの個人情報保護法に基づき、プライバシーには最大限配慮をさせていただきます。論文における個人情報の公開範囲について、ご希望をお知らせください。
（項目番号：

公開可 / 不可）

お答えいただいた内容に関して、後日連絡をさせていただく場合がございます。何卒ご理解をいただければありがたいです。また、もし当方にご質問などございましたら、ご遠慮なく下記の連絡先までお問い合わせください。どうぞよろしくお願い申し上げます。

1 お名前：　　2 年齢：　　3 性別：
4 ご職業：　　5 家族構成：
6 お住まい：
7 連絡先：

Q：福島第一原発事故発生後、避難する / しないと、決めた理由は何でしたか？
また、その決断を下す際に決め手となった情報は何でしたか？

Q：事故発生当時、情報は何（誰）から得ておられましたか？また、現在はどうですか？
（テレビ・ラジオ・新聞・役所・親戚・知人など）

Q：その情報を信用できる、と思われた理由は何でしたか？

Q：政府やメディアの発している情報は「安全」と「危険」、どちらに重点が置かれていたと思いますか？またそれはどのような点からそう思われたでしょうか？

Q：ご自身の認識と、発信されている情報にズレを感じますか？感じるとすれば、それはどのような点でしたか？

Q：福島事故を取り巻く言葉やアクションの中で、印象的だったもの、影響力が大きかったと思うものをいくつか（３つまで）教えてください。
（例「アンダーコントロール」、「風評被害」、有名人が福島産の作物を食べる写真・映像など）

Q：上記に挙げていただいた、それぞれの言葉やアクションに対して、どのような印象をお持ちですか？また、それらが市民の生活や考え方にどのような影響を与えたと思われますか？その理由も合わせて教えてください。

Q：政府やメディアによる「福島」をめぐる情報のあり方をどう思われますか？

ご協力、誠にありがとうございました。
心よりお礼申し上げます。

Appendix 3: List of Respondents and Interviewees

English Name	Publication	Age	Sex	Profesion	Family Structure	Address
Ayumi Yokota	Permitted	60-70	F	Freelancer	Partner	Own house→Temporary housing
A	Name is not permitted	48	F	Freelancer	Father in law, Mother , Three children, Grand child	Kawamata-cho→Kagoshima-ken
B	Not Permitted	50-60	M			
C	Not Permitted	50-60	F			
Hirotsugu Takeda	Permitted	65	M	Former high school teacher	Partner	Fukushima-shi
D	Name is not permitted	46	M	High school teacher	Partner	Fukushima-shi
Kouichi Fukase	Permitted	59	M	High school teacher	Partner, Son	Fukushima-shi
Nobuyoshi Ito	Permitted	76	M	Retired	None	Iitate-mura
Shigeru Kobayashi	Permitted	68	M	Part timer/ Former journalist	Partner	Fukushima-shi
Shin Nakamura	Permitted	53	M	High school teacher	Partner, Son	Fukushima-shi
E	Name is not permitted	25	F	High school teacher	Father, Mother, Brother	Fukushima-shi
Sumio Konno	Permitted	56	M	Freelancer/ Former plant worker	Partner, Son	Namie-cho→Fukushima-shi
Takashi Moriyama	Permitted	33	M	Small business owner	Partner, Daughter (1 year old)	Tokyo→Minami Soma-shi
F	Not Permitted	40-50	F			
G	Not Permitted	60-70	M			
Yoshitaka Ikarashi	Permitted	42	M	Association Manager	Partner, Son (14)、Daughter(12)、Daughter (7)、Daughter (4)	Iwaki-shi
H	Name is not permitted	47	F	House Wife	Mother, 2 sons	Minami Soma-shi
I	Not Permitted	30-40	F			
J	Name is not permitted	55	F	Part time worker	Father, Mother, Daughter (20), Son(14), Son(10)	Fukushima-shi
Yumiko Nihei	Permitted	69	F	University Part-time Lecturer	None	Fukushima-shi

*In red: designated evacuation zone

Appendix 4: Further Examples of Questionnaire Responses and Interview

I. Respondent A

- **About different risk perceptions (compensation):** Respondent A, a 48-year-old freelancer who is a refugee from the designated evacuation zone, said, "The compensation for the accident was unfair. It was not fairly granted to all victims. The government and TEPCO, who were culpable for the accident, determined the amount of compensation without hearing victims' voices."

II. Respondent D

- **About different risk perceptions (number of children):** Respondent D, a 46-year-old high school teacher in Fukushima-Shi, told that he and his wife did not evacuate because they did not have children.

III. Nobuyoshi Ito

- **About Rhetoric 1-4: "*Kizuna*" or "*Fukkou*":** Mr. Ito, a 76-year-old inhabitant in Iitate-mura, which has been a designated evacuation zone, said "The Japanese government carried out decontamination (or contamination transfer), aiming to complete the policy of reconstruction and returning. But it is clear that the nuclear accident cannot be recovered by decontamination. The lifting of evacuation orders and returning policy only force residents to be exposed to a radioactive environment. In the case of Iitate-village, decontamination is insufficient, and high concentrations of radioactive substances remain in un-decontaminated forests. The government facilitates evacuees to return home while it leaves behind more than 300 years of radioactively contaminated materials in the environment. On 31 March 2017, evacuation order (of Iitate-village) has been lifted, except for a difficult to return area. However, there was no age limit for returnees, and there are more than 30 minors, including newborn babies, in Iitate-village. […] It is said that the cost of decontamination to be 6 trillion yen, and for Iitate-village is said to be 400 billion yen. But decontamination was done only for 15% of the village's surface, and 85% is un-decontaminated. […] Does our village have a future?"

IV. Shigeru Kobayashi

- **About different risk perceptions (financial issue):** Mr. Kobayashi, a 68-year-old former journalist in Fukushima, said, "Since the 1960s, a large sum of money has been spent on local communities and nuclear power-related industries. It made local people dependent on subsidies for nuclear power. This tendency also mirrors to the large-scale public works projects in the designated evacuation zone after the accident."

V. Shin Nakamura

- **About Threshold:** Mr. Nakamura, a 53-year-old high school teacher, told his experience of how he warned his school about the radiation he had measured on the

premises, but the school did not consider the measurements to be at the dangerous level stated by the prefectural guidelines in Fukushima.

VI. Respondent E

- **About Threshold:** Respondent E, a 25-year-old high school teacher who was a middle-high school student at the period of the crisis in Fukushima-Shi, wrote that while at the beginning of the accident she checked the radiation monitor every day to judge if she goes outside, nowadays she does not care much.

- **About different risk perceptions (information):** She wrote, "I don't have much information and access. I believe that it is a critically important issue in Fukushima, especially for those who had been teenagers at the time of the accident and will continue to live in the region for decades. However, media coverage becomes less and less over time. There is a limit to obtain sufficient information through individual effort."

VII. Sumio Konno

- **About Media control:** Mr. Konno, a 56-year-old former plant worker who is an evacuee from Namie-Cho, not only accused the government and media of bias but also the Fukushima local government who has taken actions along with the Japanese government's policy.

VIII. Takashi Moriyama

- **About Threshold:** Mr. Moriyama, a 33-year-old small business owner in Minami Soma-Shi, said, "Radiation exists in nature as well, and living in the designated evacuation zone is like living in radium hot spring."

IX. Yoshitaka Ikarashi

- **About different risk perceptions (age):** Mr. Ikarashi, a 42-year-old association manager who has lived in Iwaki-Shi, said, "Over forty years of age or older were deemed to be safe for radiation exposure, though younger people, notably women, and children, were thought that they should flee."

X. Respondent I

- **About different risk perceptions (compensation):** Respondent I, a woman in her forties, said, "Even inside Fukushima, there are prejudices and discriminations against refugees who were granted compensation. People still see them as 'ah, they were compensation granted people!' even after nine years from the accident."

- **About different risk perceptions (personal networks):** She said, "We all believed the safety myth of nuclear power and worked with TEPCO. Me, too, I married the employee of TEPCO to have a stable life. After the accident, I regretted doing since I had not taken the initiative of my life. I am still suffering from my decision."

XI. Respondent J

- **About Fake news and information hidings of experts:** Interviewee J, a 55-year-old woman living in Fukushima-Shi, expressed her anxiety that she was part of ongoing human experimentation.

- **About different risk perceptions (financial issue):** She said, "Although we needed money to flee, it was not granted."

XII. Yumiko Nihei

- **About Rhetoric 3-2: Non-evacuees against evacuees:** Of course, I think it was meaningful that the experiences of the people who had to evacuate from the region to other prefectures were shared. However, refuge communities welcomed and praised them, and the remaining people were insulted as "ignorant" and "pro-nuclear."

Appendix 5-1: The RSF advocacy statement on the 9th anniversary of the Fukushima nuclear accident (English)

RSF urges Japan to stop pressuring the media on Fukushima-related topics, (March 6, 2020)

As Japan commemorates the 9th anniversary of the Fukushima disaster, Reporters Without Borders (RSF) urges the authorities to let journalists freely report on the topic.

On Wednesday, March 11th, Japan will commemorate the 9th anniversary of the Fukushima Daiichi nuclear plant accident, the worst atomic disaster after Chernobyl, caused by a tsunami and collectively resulting in 18,500 dead and missing, 160,000 evacuees and a continuous release of massive amounts of radioactive materials until today. Since the accident, the media have consistently encountered pressure and censorship attempts when trying to investigate the topic.

Reporters Without Borders (RSF) urges the Japanese authorities to ensure that the media can freely report on the Fukushima-related topics and requests a full access for all journalists, including foreign correspondents and freelancers, to the contaminated sites and to all raw data available.

"It is essential for the public to access independent information on the accurate radiation levels," says Cédric Alviani, RSF's East Asia bureau head. *"The government is currently encouraging the remaining evacuees to settle back to the contaminated areas, but it must be fully transparent on the health hazard residents would be exposed to."*

Many Japanese journalists denounce heavy self-censorship in the media, which they attribute to the government and nuclear lobby's efforts at concealing information seen as giving a *"negative image"* of Japan and hindering the preparation of the 2020 Olympic Games, set in Tokyo this summer.

A **senior TV reporter** who formerly worked for a major news program and wishes to remain anonymous recalls *"intense pressure from the government and advertisers"* to discourage his team from reporting on the long-term effects of the radioactive substances released by the plant. *"We even heard of phone calls from Prime Minister Shinzo Abe's cabinet asking our management to move some journalists they disliked to another department."*

In 2014, the board of daily newspaper *The Asahi Shimbun* even had to make a public apology for having published an article pointing out that 90% of the nuclear plant's employees were offsite during the accident, drawing the government's ire. The authors, award winning journalists **Hideaki Kimura** and **Tomomi Miyazaki**, were transferred to a non-writing section and later forced to resign.

Martin Fackler, who served as the *New York Times* Tokyo bureau chief from 2009 to 2015, considers that the authorities "clearly lack transparency" and believes that the *Asahi Shimbun*'s retraction case "successfully deterred other big media from

investigating Fukushima-related stories."

UN Special Rapporteur on Freedom of Expression **David Kaye** has expressed serious concerns about freedom of the press in Japan in 2017, and noted a further erosion in 2019.

Japan ranked 67th out of 180 in the 2019 World Press Freedom Index.

Appendix 5-2: The RSF advocacy statement on the 9th anniversary of the Fukushima nuclear accident (Japanese translation)

国境なき記者団、福島関連報道に対する当局の圧力を批判
東京電力福島第１原子力発電所事故から９周年を迎えるにあたり、国境なき記者団（RSF）は、福島関連のテーマについてジャーナリストの自由な報道を妨害しないよう、日本当局に要請する。

来たる 3 月 11 日（水）、日本は福島原発事故から 9 年目の節目を迎える。東関東大震災に伴う津波によって引き起こされた福島原発事故は、チェルノブイリ原発事故以来最悪のものであり、18,500 人が死亡・行方不明、160,000 人が避難を余儀なくされた。また、大量の放射性物質の放出は今日も続いている。原発事故以来、この問題について取り組もうとするメディアは常に圧力と検閲に晒されてきた。

国境なき記者団（RSF）は、日本政府・当局に対し、福島関連の話題を取材するメディアの自由な報道を保証するよう要求する。また、海外特派員・フリーランス記者を含むすべてのジャーナリストが、汚染された地域や発電所、およびすべての入手可能な一次データにアクセスできるよう求める。

RSF 東アジア支局長のセドリック・アルビアニは「市民にとって、放射線レベルに関する独立した、かつ正確な情報へのアクセスは必要不可欠なものである。」と述べている。「政府は現在、９年経ってなお、まだ最終的な居住地が定まっていない避難住民の汚染地域への帰還を推奨しているが、彼らが直面するであろう放射能による健康被害について、完全なる透明性が確保されなければならない。」

政府や原発関連の圧力団体は、日本に対して「ネガティブな印象」を与えるように見える、2020 年夏の東京オリンピック開催を妨げるような情報を封じこめようとしており、日本のジャーナリストの多くが、それに起因する報道機関内部の忖度による激しい自己検閲の蔓延を非難している。

主要ニュース番組の作成に関わっていた**元テレビ番組制作者**（匿名希望）は、「政府や広告主からの多大な圧力」により、もはやその部署では福島原発からの放射性物質が与える長期的影響に関して報道をすることができなくなった、と言う。その人物は「安倍晋三内閣から（テレビ局の）経営陣に対し、気に入らないジャーナリストらを他の部署に異動させるよう求める電話が何度もかかっていた。」と語った。

2014 年、朝日新聞は、福島第一原発にいた所員の約９割が、事故対応の最中に待機命令が出ていたにも関わらず撤退していたことを指摘する記事を掲載したことで政府の怒りを買い、当時の社長は公的な謝罪に追い込まれた。受賞歴もあるジャーナリストで、記事を執筆した**木村英昭**氏と**宮﨑知己**氏は、記事を書くことが出来ない部署への異動を余儀なくさ

れ、その後辞職した。

2009 年から 2015 年までニューヨーク・タイムズ東京支局長を務めた **Martin Fackler** 氏は、当局の福島に関する情報は「明らかに透明性を欠いている」と指摘する。また、朝日新聞の記事取り消しは「他の主要メディアの福島にまつわる調査や報道を萎縮させる重要な契機となった。」とコメントしている。

表現の自由に関する国連特別報告者である **David Kaye** 氏は 2017 年、日本における報道の自由に関する深刻な懸念を表明し、2019 年には、報道の自由への侵害がさらに深刻化していると指摘している。

日本は、2019 年世界報道の自由ランキングで 180 ヶ国中 67 位だった。

Appendix 6: **Declaration of Originality/Plagiarism Declaration**
MA Thesis in Conflict Studies & Human Rights
Utrecht University

(course module GKMV 16028)

I hereby declare:

- that the content of this submission is entirely my own work, except for quotations from published and unpublished sources. These are clearly indicated and acknowledged as such, with a reference to their sources provided in the thesis text, and a full reference provided in the bibliography;
- that the sources of all paraphrased texts, pictures, maps, or other illustrations not resulting from my own experimentation, observation, or data collection have been correctly referenced in the thesis, and in the bibliography;
- that this Master of Arts thesis in Conflict Studies & Human Rights does not contain material from unreferenced external sources (including the work of other students, academic personnel, or professional agencies);
- that this thesis, in whole or in part, has never been submitted elsewhere for academic credit;
- that I have read and understood Utrecht University's definition of plagiarism, as stated on the University's information website on "Fraud and Plagiarism":

"Plagiarism is the appropriation of another author's works, thoughts, or ideas and the representation of such as one's own work." (Emphasis added.)[1]

Similarly, the University of Cambridge defines "plagiarism" as *" ... submitting as one's own work, irrespective of intent to deceive, that which derives in part or in its entirety from the work of others without due acknowledgement. It is both poor scholarship and a breach of academic integrity."* (Emphasis added.)[2]

- that I am aware of the sanction applied by the Examination Committee when instances of plagiarism have been detected;
- that I am aware that every effort will be made to detect plagiarism in my thesis, including the standard use of plagiarism detection software such as Turnitin.

Name and Surname of Student: **Miwa Higashimuki**

Title of MA thesis in Conflict Studies & Human Rights:

Fukushima's Invisible War: The interactive process of dominant discourses and divergent risk perceptions of the population in the post-Fukushima, Japan.

Signature	Date of Submission
Miwa Higashimuki	August 2, 2020

[1] https://students.uu.nl/en/practical-information/policies-and-procedures/fraud-and-plagiarism
[2] http://www.plagiarism.admin.cam.ac.uk/what-plagiarism/universitys-definition-plagiarism