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## **Collective Emotion:**

# An Unexplored Dimension in Framing Process in Social Movements

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Abstract : This paper explores the role of collective emotion in the framing process in social movements. The role of emotions in framing theory has been studied by Schrock, Holden, and Reid (2004), who introduced the concept of emotional resonance. Emotional resonance refers to a mental state where strategic emotional messages cast by movement organizers are created to evoke movement participation. In this paper, I argue that emotions go beyond such a strategic conceptualization of framing. Emotions function not only as a means to win bystanders' support but also as a constant guide and reminder of participants' initial motivations that enable participants to start and continue movement activities. By introducing the concept of collective emotion, I attempt to shed light on the more crucial roles of emotions in social movements. To attain this goal, this paper compares two anti-nuclear movements – Three Mile Island (1979) and Fukushima (2011) – analyzing the formation process of emotional convergence and the effects it has on the consensus-making process among movement participants. I argue that emotional exposure in a public setting creates a collective emotion, which in turn stimulates a convergence of opinions and ideas that were originally diverse and controversial, thus reinforcing the motive to participate collectively in the activities.

Keywords : collective emotion, framing theory, anti-nuclear movement, Three Mile Island, Fukushima

This paper explores the role of emotions in the framing process of social movements. Emotion has been a much-neglected area in social movement studies. It was only recently that it gained the attention of scholars undertaking research on how emotions generate and affect movement dynamics (Gamson 1992; Jasper 1997; Taylor 1995). Some of these attempts to highlight the importance of emotions have been made by incorporating emotions with the "existing conceptual toolkit" (Schrock, Holden, and Reid 2004, 78) that includes collective identity, framing, tactical interpretation, mobilization, and political opportunities.

One of the main streams of such incorporation is framing theory and emotions. Framing theory explains the participation of bystanders by interpreting or framing certain events or conditions that resonate with an individual's values, ideology, and culture (Snow and Benford 1988). The success of such resonance greatly relies on the ability to affect both consensus and action mobilization (Klandermans 1984). However, past empirical research suggests that social movement organizations face difficulties in coming to a cognitive congruity of the "reality" of the issues at hand, and thus experience framing disputes within organizations (Benford 1993). Goodwin, Jasper, and Polletta have further asserted that "Cognitive agreement alone does not result in action" (2001, 6), leaving no clear explanation under what conditions a frame may resonate with bystanders for them to take action.

Emotions play a role in helping movement participants overcome framing disputes. Schrock, Holden, and Reid have attempted to bring back emotions by introducing the concept of emotional resonance. Emotional resonance is defined as "the emotional harmony and/or disjuncture between collective action frames and the emotional lives of potential recruits" (Schrock, Holden and Reid 2004, 61). Their research suggests that the stronger the "link between targeted recruits' emotional lives and the emotional message encoded in SMO (social movement organization) framing" (Ibid, 62) is, the higher the possibility of frame resonance, and thus of the success of mobilization efforts.

The concept of emotional resonance reorients our attention to emotional aspects in framing theory. However, in this concept emotions are limitedly viewed as only a *strategy* that evokes movement participation. As much as movement leaders use such a strategy to stimulate social movements, emotions have the power not only to develop a frame but also to stimulate social movements by helping individuals find a common ground and bind them together throughout the movement. Thus, the idea of emotional resonance refers to a mental state, which movement participants can attain through strategic manipulation by the movement leaders. In this paper, moving away from the concept of emotional resonance, I argue that emotional convergence may occur naturally and voluntarily among movement participants, and that it will be attained without strategic acts on the

side of the movement leaders. To capture the process of emotional convergence, in this paper I introduce collective emotions as a concept to designate such a mental state of convergence.

This paper is an attempt to capture the process of forming collectivity at the emotional level. The goal of this paper is to shed light on the critical role of emotions in the framing process. Emotions are essential in framing theory because they function as a guide for movement participants to come together as one. I argue that a construction of collective emotion through sharing emotions in a public setting stimulates the process of consensus formation about issues that would otherwise be controversial and create disagreements and dissonance among movement participants – such as strategies, goals, and who or what to assign "blame" to – thus reinforcing the motive to mobilize.

This paper analyzes two distinct anti-nuclear movement campaigns, that of the 1979 Three Mile Island accident and the 2011 Fukushima accident. The 1979 Three Mile Island anti-nuclear movement is a case that resulted in a successful coalition among group organizations. Local residents in Three Mile Island were able to build a consensus on the strategy and goals of the movement, which reinforced their motives to participate and cooperate with one another. On the other hand, the movement campaign in 2011 in Fukushima resulted in disintegration among movement groups. Residents failed to attain a cognitive agreement and thus refused to join hands with one another.

This paper consists of four sections. In the first section I outline the theoretical framework by summarizing previous studies of the social psychological view of social movements and point out unexplored areas within this field. Secondly, I introduce the anti-nuclear movements that took place in 1979 in Three Mile Island and 2011 in Fukushima, as two cases to be compared in this paper. In the third section I analyze the role of emotions in framing theory. In the final section, I discuss my findings and suggestions for future research of emotions in social movements.

#### LITERATURE ON FRAMING THEORY AND EMOTIONS

The question of "why people protest?" has been the main focus of social movement studies. Among these, research on the psychological aspects of participants attempts to understand why people under the same circumstances may act differently by exploring the thoughts, feelings, and actions of individuals. Within the social psychological approach, one of the most popular explanations is framing theory, which was introduced by Snow and Benford (1988). Snow and Benford argue that a "frame," a term borrowed from Goffman (1974, 21), stimulates the support and participation of bystanders. As Goffman explains, a frame is a "schema of interpretation." Snow and Benford apply this term to social movements, arguing that social movements "frame, or assign meaning to and

interpret, relevant events and conditions in ways that are intended to mobilize potential adherents and constituents, to garner bystander support, and to demobilize antagonists" (1988, 198).

Framing theory explains the process of mobilization by introducing the concept of "frame resonance" (Snow and Benford 1988). The success of the framing efforts of a movement highly depends on whether the frame is *resonant* with the belief system and values of the audience, which they intend to mobilize. For example, Snow and Benford point out that the mobilizing potency of a frame is determined by not only individual values but also by "one's cultural narrations" such as "stories, myths, and folk tales" (1988, 210).

Such collective action frames are constructed of what Snow and Benford call core framing tasks (1988, 199). Snow and Benford refer to three core framing tasks as: (1) *diagnostic framing* (what/who to attribute the blame or causality), (2) *prognostic framing* (how to solve the issue), (3) *motivational framing* ("a call to arms" for collective action). The success of mobilization depends on the degree of how deeply developed and interconnected the three tasks are.

While framing theory has become a dominant approach in the study of social movements, some questions remain unanswered. Specifically, little research has been done to explain how these core framing tasks are attained. In fact, studies have pointed out relative paucity in framing theory to understand the mechanisms and processes through which framing tasks are attained. In this paper I attempt to contribute to this unexplored field and look at how core framing tasks are attained.

Of the three core framing tasks, the former two stimulate a *consensus mobilization* while the latter stimulate *action mobilization* (Klandermans 1984). However, the consensus on diagnostic and prognostic framing can be highly controversial. As Goffman points out,

an appreciable period can elapse when there is no immediate potential agreement, when, in fact, there is no way in theory to bring everyone involved into the same frame. Under these circumstances one can expect that the parties with opposing versions of events may openly dispute with each other how to define what has happened or is happening. A frame dispute results. (1974, 322)

Movement participants may have different interpretations of grievances or "realities" at hand, which in turn result in disputes of who/what to blame and how to solve the issue. From his study of the 1980s nuclear disarmament movement, Benford (1993) observed such frame disputes in diagnostic and prognostic framing which also affected the differences in opinions of whether the frame would successfully resonate or not with the values and ideas of the targets of mobilization.

Although past research has presented empirical evidence stressing the success or difficulty in attaining a consensus on core framing tasks, the question of *how* a consensus is attained has been

largely ignored. Benford points out that when scholars apply framing theory there is a tendency to "work backward from successful mobilization to the framing activists proffered and then posit a casual linkage between the two" (1997, 412). This not only results in critiques of being a "circular claim" (Stoecker 1995; Swart 1995) but also takes for granted that a consensus mobilization is produced, thus ignoring the mechanism of *how*. Case studies have repeatedly delineated the difficulties of developing a consensus on core framing tasks, especially stressing the diversity of interpretations on diagnostic and prognostic framing. If so, the question is *how* social movement organizations overcome these difficulties and come to an agreement.

In this paper I argue that emotions are essential in the process of framing, and necessary for movement participants to attain a consensus of the "reality out there". As Jasper points out "Emotions are present in every phase and every aspect of protest" (2011, 286). However, it is when individuals use emotions as a statement in a public setting that they have the power to effect collective action. Emotional exposure in a public setting transforms the *individual* emotion to a *collective* emotion. Collective emotions function as a guide and constant reminder throughout the movement to bring and hold together a group that shares the same source of grievance and thus keep "realities" together, helping to establish a coalition. Without collective emotion, movement participants lose a common platform to come back to and reflect upon the fundamental reason why they chose to take action.

The introduction of framing theory has furthered our understanding of the cognitive aspects of social movements. The interpretation of grievance deeply intertwined with the individual's values, beliefs, and culture can be applied as an explanation of movement participation. However such a theory fails to explain how movement organizations come to a consensus on the competing interpretations of "reality" which otherwise would result in diverse attributions of blame and solutions.

This paper attempts to answer such questions of *how* by compensating framing theory with the concept of collective emotion. To elaborate this theory I compare two movements by local residents that emerged after major nuclear power plant accidents: the 1979 Three Mile Island anti-nuclear movement in the United States and the 2011 Fukushima anti-nuclear movement in Japan. The former movement was able to establish a collective emotion of anger through emotional exposure in a public setting. The collective emotion steered groups which once had been competing with one another to establish a consensus on core framing tasks, thus resulting in a stable coalition. On the other hand, the latter movement failed to share the emotions of individuals, resulting in a disintegration of local groups. By comparing these two cases, I analyze the role of emotions in framing theory.

#### **DATA AND METHODOLOGY**

The aim of this paper is to bring in emotions to framing theory. In order to do this, data that reconstructed individuals' emotions and views were collected through interviews and texts from September 2012 to March 2014. For the Three Mile Island anti-nuclear movement data was collected from residents living in the areas that were within an approximate 40km radius of the nuclear power plant. This included Middletown, Newberry Township, Harrisburg, York, and Lancaster, which were the homes of the major anti-nuclear groups that led the movement.<sup>1</sup> 7 interviews were conducted in September 2013 and May 2014 with former group members of the local anti-nuclear movement that were active during the period of two years following the nuclear power plant accident. To stimulate the recollection of memories of the movement, interviews were conducted not only on a one on one basis but also in the form of group discussion. Also, to compensate the ambiguity of memory in interview data, text data that reconstructed the dynamics of the movement immediately after the accident are employed in the analysis. These data are taken from interview records (Goldsteen and Schorr 1991; Walsh 1988), records of public meetings (Tredici 1980; Walsh 1979) newspaper articles, and also pamphlets, monthly newsletters, posters, and leaflets issued by the local anti-nuclear groups. One of the unique forms of text data taken from the case of Three Mile Island was the proposals for the coalition group Three Mile Island Public Interest Resource Center (TMIPIRC) and Three Mile Island Legal Fund. Such proposals include in depth discussion by group members on why and how the coalition was established.

For the case of Fukushima, ongoing observations are the main sources of data. Data were collected from residents living in areas that were within an approximate 60km radius of the nuclear power plant. This included two major cities of the Fukushima prefecture: the capital Fukushima city and Koriyama city, both also home to many anti-nuclear groups and the main focus of this paper.<sup>2</sup> In depth interviews ranging from an hour to two were conducted with 15 local anti-nuclear group members mainly on a one on one basis.<sup>3</sup> Follow-up interviews were conducted with the main members of the anti-nuclear movement groups to observe the transitions in the following periods: immediately after the accident, one year after the accident and two years after the accident. Text data

<sup>&</sup>lt;sup>1</sup> Details of the nuclear power plant and the movement that followed will be discussed in the following section.

<sup>&</sup>lt;sup>2</sup> Interviews were also conducted with local residents who had lived within a 20km radius of the nuclear power plant at the time of the accident. However, in this paper, some quotes will only be briefly introduced to build a better understanding of the effects of the Fukushima Daiichi nuclear power plant accident to the local community in the next section.

<sup>&</sup>lt;sup>3</sup> Most of the interviewees were in their forties with children, born and raised within the local community. Details of each interviewee are found in the Appendix.

such as pamphlets, monthly newsletters, posters, and leaflets issued by the local anti-nuclear groups are also taken into consideration.

Using these data, two steps were taken for analysis. First, I assessed when and how emotions were shared, and how the process of emotional sharing results in an emergence of collective emotion (or not) among individuals. Secondly, I analyze the relationship between the consensus process of the core framing tasks and collective emotion.

## **TWO NUCLEAR POWER PLANT ACCIDENTS IN 1979 AND 2011**

## 1. Three Mile Island Nuclear Power Plant Accident and Anti-Nuclear Movement Outcomes

The nuclear power plant accident of Three Mile Island (TMI) began in the early hours of Wednesday, March 28 1979. The accident began as an equipment failure in a Unit 2 polisher, a water-softening device designed to remove minerals from the system that supplied water to the steam generators. This was followed by errors of judgment by plant personnel that led to the most serious nuclear power plant accident in the history of America.

Although the site of the nuclear power plant accident was "murderously radioactive," as described by a Nuclear Radiation Committee (NRC) official, it was not until two days after that the residents of Three Mile Island were informed of the accident as a serious threat. Throughout the first day of the accident, NRC officials insisted that there would be no severe "ongoing problem" and for residents to stay calm.

However on Friday, March 30, the conditions dramatically changed. By the morning, orders were made to residents within a ten-mile (approximately 16km) radius to remain indoors, close their windows, and turn off their air-conditioning. Within an hour after such orders, evacuation was *suggested* for pregnant women and young children within a five-mile (approximately 8km) radius of TMI. Convinced that the situation was far worse than what had been told, more than 200,000 local residents of Three Mile Island flew from their houses to evacuate.

The accident brought in new sources of anxiety to the local community. Specifically, uncertainty over information and of radioactive damage brought about high levels of emotional responses among residents living nearby the nuclear power plant. The uncertainty of information was intensified by the contradictory contents of the announcement by the officials. Not only were the details of the accident withheld from the public, the announcements made by officials had changed from "safe" to "danger" within just a few days. Such a drastic change of information left residents with a strong feeling of betrayal and helplessness in who to believe.

Another uncertainty came from the exposure to radiation damage. The damage of radiation cannot

be sensed by the five senses a human being holds, nor does it have clear consequences which can be observed the moment a person is exposed. Radiation, a colorless and transparent substance, has the power to deadly damage a human being but the clear relationship between the dosage and the damage is unknown. Such uncertainty over the damage caused by radiation created a strong fear among the TMI community.

The local residents of Three Mile Island had never been an "active" community before the accident. Rather, they chose to draw a line between activists and themselves by calling the former "troublemakers" or "radical kooks." When anti-nuclear activists raised their voice against the TMI nuclear power plant construction, the community's response was indifference or plainly the cold shoulder.

Even within such an atmosphere two anti-nuclear groups had been active prior to the accident, Environmental Coalition on Nuclear Power (ECNP) and Three Mile Island Alert (TMIA). ECNP was a loosely-knit network of citizen groups mainly based in Pennsylvania and New Jersey. It had established a reputation as a widely known and successful anti-nuclear group after 1975 when defeating the construction of coal-fired and nuclear energy parks announced by utilities in Pennsylvania. Mainly focusing on legal intervention (it also had a legal case against TMI-2 in process before the accident), it encouraged public awareness by sending out 350 newsletters and rotating monthly meetings around the major cities in Pennsylvania even before the accident (Walsh 1988, 49).

TMIA was more of a local group, based in Harrisburg, one of the main cities in the community of Three Mile Island. It started in 1977, two years before the accident, with "twelve people mailing newsletters to about 200 people" according to a founder of the group to stop the opening of TMI-2 (Walsh 1981, 5). Although TMIA also had been meeting regularly and circulating newsletters, its tactics of distributing information were viewed as "extremist and sensational" (Walsh 1981, 5). For example, members of TMIA released hundreds of colored balloons near from the site of the nuclear power plant; attached was a note that told readers the same air current that had carried the balloon from TMI also carried radioactive gas.

Both pre-accident groups played a key role in the drastic transformation of what was once a highly conservative community to individuals mobilizing themselves to fight against officials. The two groups played different roles. The ECNP served as a think-tank for the local community (Walsh 1988, 49). After the repeated feeling of betrayal with continuous confusion and inconsistency in information provided by officials, the local residents of Three Mile Island were on a desperate search to find a source of information they could trust. ECNP helped such needs by supplying technological

and legal information of the nuclear industry. With such information the local residents were able to understand what was taking place and to make a judgment of their own.

On the other hand TMIA channeled the widespread discontent and stimulated local residents to take direct action in the post-accident period. By Sunday, April 8 it had hastily arranged its first rally after the accident at the Capitol of Pennsylvania. Although many evacuees were still away, an estimated number of 3,000 people had shown to make their voices heard (Walsh 1988, 76). By May 6, it had grown into a national-level project. TMIA coordinated to take 30 busloads of local residents to Washington to take part in an anti-nuclear demonstration at the nation's capital. A crowd of 150,000 gathered from all over the country to hear the voices of the local community (Walsh 1988, 51). These events not only fulfilled the desire of local residents to have their voices heard but also presented them with strength in the sense that they were being widely supported.

With the help and support of such pre-accident anti-nuclear groups, local residents began to mobilize themselves and to start addressing their own concerns. The diverse geographical setting of the community surrounding TMI stimulated the emergence of a variety of protest organizations. Parts of seven counties lie within the 20-mile radius of the TMI nuclear power plant and four cities lie within a 30-mile radius. Although sharing the same source of discontent, the concerns of each group slightly differed by their location. For example communities that were close to TMI demanded the immediate shut down of the remaining reactors and an end to their "backyard" issue, while the main concerns for some other groups focused on the safety of their drinking water and opposition to the disposal of highly radioactive water in a nearby river.

Despite these differences, a successful and stable coalition between groups called the Three Mile Island Public Interest Resource Center (TMIPIRC) and Three Mile Island Legal Fund (TMILF) emerged in the early months of 1980. It included the two pre-accident groups, ECNP and TMIA, and four newly established groups: the Anti-Nuclear Groups Representing York (ANGRY) based in York, the Susquehanna Valley Alliance (SVA) based in Lancaster, the Newberry Township TMI Steering Committee (NTSC) based in Newberry Township, and People Against Nuclear Energy (PANE) in and near Middletown.

TMIPIRC was established to "gather and disseminate reliable information, conduct scientific and technical analysis, foster development of community organizations, and assist in coordinative organizing efforts" while TMILF focused "to raise and allocate funds in support of a variety of legal cases impacting TMI" (Proposal for a Three Mile Island Interest Resource Center and a Three Mile Island Legal Fund 1980). Both TMIPIRC and TMILF were an accumulation of efforts of the six groups to come together and cooperate, funded by a non-profit organization called the Youth Project

and Levinson Foundation of Massachusetts.

TMIPIRC and TMILF functioned to establish a clear focus on who the enemy was, what the goals were, and what kind of measures should be taken to attain such goals. Although at times, groups argued over what issues were in most urgent need of being solved, the coalition among local groups established a common ground through meetings. Each group representative attended the numerous meetings held under the name of TMIPIRC and TMIFL and the minutes of these meetings were taken back and shared with their local groups. The coalition served to not only maintain a unification of groups to maximize the impact of their activities but was also able to reinforce the source of motivation to confront officials and nuclear power plan personnel.

Before the accident, the majority of local residents never had a doubt about the safety of the nuclear power plant. Only a handful of individuals who were able to take the risk of being viewed as an "outsider" of the community were actively engaged in protest actions. However after the accident the entire local community of Three Mile Island was transformed into a self-mobilizing community of individuals.

## 2. Fukushima Daiichi Nuclear Power Plant Accident and Anti-Nuclear Movement Outcomes

On March 11, 2011 an earthquake of magnitude 9.0 struck Japan followed by a tsunami that swallowed large parts of the communities facing the Pacific Ocean in the Tohoku area. This tsunami not only destroyed local communities but also heavily damaged the Fukushima Daiichi nuclear power plant. As a result a hydrogen explosion occurred, followed by the explosion of two other plants. The Fukushima Daiichi nuclear power plant accident, evaluated as a level 7 by the International Nuclear Event Scale (INES), became the second largest nuclear power plant accident in human history.

Based on the distance from the nuclear power plant, the effects upon the local residents and the reactions differed. At the time of the accident Fukushima Prefecture could be roughly divided into two: areas that were given evacuation orders (direct evacuation areas) and areas that were not given evacuation orders but voluntary evacuation was strongly recommended.<sup>4</sup> This division had a great impact on the aftermath effects of the accident on local residents' everyday lives.

For the residents of the direct evacuation area the orders to evacuate were sudden and unexpected. Immediately after the accident local residents within a 3km radius of the nuclear power plant were given evacuation orders. By the early morning of the next day, the evacuation orders were extended

<sup>&</sup>lt;sup>4</sup> Yamashita 2012, 22

to a 10km radius, which further extended to a 20km radius by that night. This included all or part of Futaba town, Okuma town, Tomioka town, Naraha town, Namie town, Itiate village, Katsurao village, Minami-soma city town, Kawamata town, Tamura city, and Kawamura village (Yoshida and Harada 2012, 366). Door to door, local police and firefighters informed residents that "there was *something* going on with the nuclear power plant," (former Tomioka town, Fukushima Prefecture resident R, 2012<sup>5</sup>) and ushered them to evacuate. Thinking that they would be back within a few days, residents lightly packed their belongings and headed out.

However, the consequences of the accident were far from such optimistic guesses. Even after the accident, due to high levels of radioactive contamination, most of the residents from the direct evacuation order areas were not allowed to go back to their hometowns.<sup>6</sup> Deprived of their homes, jobs, and community, local residents faced the question of how to restore their everyday lives from scratch.

For the rest of the local residents in Fukushima Prefecture, however, there were no official evacuation orders. The decision to evacuate voluntarily or to stay was left in their own hands. Although many families with small children within this voluntary evacuation area fled from Fukushima Prefecture immediately after the accident, within a month the chaotic settings at the time of the accident had settled down. By April, schools and jobs had started and the everyday routine was back to normal. With the basis of everyday life restored, the main concerns of local residents focused on radiation damage.

These differences in forced/voluntarily evacuation and the way everyday life was restored in the following month was a large point of divergence in the establishment of local anti-nuclear groups in Fukushima Prefecture. Not only did the local residents of the direct evacuation areas lose their homes, but they also lost their networks and community. They became atomized individuals, which in turn made it difficult for them to continue civil activities. On the other hand, for the residents located in the voluntary evacuation areas, pre-accident networks remained such as "mother friends (*mama-tomo*)" and "tea circles (*ochanomi nakama*). Through such networks, individuals gathered to share their memories of the accident and their present concerns of radiation, forming a motivation to mobilize "to do something" about the situation.

There was also the aspect of having the "luxury" to share the emotional phases of the accident. A

<sup>&</sup>lt;sup>5</sup> Interview conducted in November 2012 at an anti-nuclear movement group's office. Interviewee is a woman in her forties and now lives in Aizu-wakamatsu city of Fukushima Prefecture.

<sup>&</sup>lt;sup>6</sup> The direct evacuation areas are currently (as of September 5, 2015) divided into three zones by the level of radiation: "the zone in preparation for the lifting of the evacuation order," "restricted residence area," and "difficult-to-return zone." (Fukushima Reconstruction Station 2015)

resident of the direct evacuation areas recalled her life in the following months after the accident as having no sense of living a decent life (former Tomioka town, Fukushima Prefecture resident R, 2012). All they did during that period of time was busy themselves in reconstructing their everyday life. It was only after they started to feel they were settling down that they began to share among themselves their emotions and thoughts about current conditions. For residents of the direct evacuation areas it was a once forgotten "luxury" to have the room to recall what had happened and what they had lost through the accident.

The emotional reactions of residents from the voluntary evacuation areas were much easier to share because they had never been deprived of the basis for everyday life, at least materially. However, with no governmental orders to evacuate the residents faced the constant conflict of whether to continue to live in Fukushima Prefecture or to leave. The ambiguity in information concerning the safety level of low-level radiation was a major source of stress. Local residents constantly faced questions on daily matters such as whether or not to open the windows or to hang their laundry outside or even to let their children play outdoors for a few minutes.

With the resources of pre-accident networks and the "luxury" to share their stories of the nuclear power plant accident, the local residents who were able to stay in Fukushima Prefecture gathered to form their own social movement groups. Such social movements especially thrived in the prefecture capital area Fukushima city and Koriyama city, cities known for their leading economic development and as the center of transportation within Fukushima Prefecture. One of the first groups to emerge in this area was the "Network to Protect the Children from Radiation (*Kodomotachi wo housyano kara mamoru Fukushima network*)" also know as "Kodomo Fukushima." This group was led by several experts in the field of NGO activities and other individuals that had past experience in working in NGO groups. These pre-accident networks were mainly concerned with environmental issues, organic farming, helping the disabled, and so forth.

The goal of the gathering was not just to share their concerns on radiation but was also to form a civil group *by* the local residents of Fukushima Prefecture. Indeed, they established a new civil group with the help of widely known pre-accident anti-nuclear groups, such as Friend of the Earth (FoE) and Civilians Concerned of the Fukushima Nuclear Power Plant's Out of Date Facilities (*Fukushima roukyu genpatsu wo kangaeru kai*), but the active members were to be of residents from Fukushima Prefecture. After their first meeting on May 1, 2011 with an estimated number of 200 people, four teams were formed to reduce radiation concerns: the short day trips program team for children to reduce their radiation dose, the information sharing team, the administrative treatment

team, and the radiation protection team (Fukushima city, Fukushima Prefecture resident C, 2013<sup>7</sup>). As this group functioned as a pioneer in establishing a group that focused on radiation concerns in Fukushima city, other groups looked upon on them for advice and followed their path. For example, a group of concerned mothers in Koriyama city called "Anzen/Anshin/Action in Koriyama (3a Koriyama)," asked Kodomo Fukushima for advice on how to start their own group. Introduction to human resources such as newspaper reporters and the teacher's union of Koriyama city, enabled 3a Koriyama to hold their first event of a round-table talk.

In the establishment period, these civil groups showed signs of cooperation through the supply of resources such as information, devices, and networks. However such cooperation among groups did not lead to a stable coalition. Rather, it gradually died out. As soon as each group had gotten whatever they needed to start on their own, interaction and communication between groups disappeared. Despite the fact that all of the groups were locally based and shared the same concerns and goals, groups purposely chose to distance themselves from others.

The tendency to maintain a distance among groups in these two major cities resulted in an introverted movement. Signs of such movement can be observed not only from the tendency to stay within their own closed networks but also from the transitions in activities. Immediately after the accident, locally based groups in Fukushima city and Koriyama city focused on radiation concerns, taking direct actions toward their local government, gathering signatures for petitions, and holding seminars on radiation exposure. However after a year, although their concerns and anxieties were still strong, groups began to stop raising their voices. Instead of directing their actions *outside* they began to focus *inside* by providing support to group members. For example, one of the new activities that emerged through the course of development was to provide a space where local residents could freely talk about their concerns on radiation. There also emerged another activity that aimed at supporting mothers who were overly stressed with their life in Fukushima Prefecture, which provided service activities such as café time and hand massages for relaxation.

# ANALYSIS: FRAMING AND EMOTIONS

Although the anti-nuclear movements in Three Mile Island and Fukushima shared a common process in the emergence of local anti-nuclear groups, the period afterwards led to different results of mobilization efforts. For the local residents in Three Mile Island they were able to establish a successful and stable coalition. On the other hand, anti-nuclear movement groups in Fukushima

<sup>&</sup>lt;sup>7</sup> Interview conducted in May 2013 at an anti-nuclear movement group's office. Interviewee is a man in his forties.

failed to do so. Rather what emerged was an introverted movement that maintained a distance between groups.

Comparing these two processes, there is an evident difference in the cognitive field. For anti-nuclear groups in Three Mile Island they were able to create an emotional "togetherness" and attain successful framing. In contrast, Fukushima anti-nuclear groups failed to create such emotional unification; they failed to resonate their views and mentalities among themselves. It thus appears that emotions played a role in the framing process.

What are the roles of emotions in social movements? How can emotions fill the void left unexplained by framing theory? I argue that emotional exposure in a public setting and the process of emotion sharing can affect the consensus of the diagnostic and prognostic framing and thus contribute to the entire framing task. In this section I first review the anti-nuclear movement of Three Mile Island and analyze how such emotion sharing stimulated social movement participants to come together. I then review the Fukushima anti-nuclear movement, which, despite having several chances to share their emotions with one another, ended with segmentations between movement groups.

## 1. 1979 Three Mile Island Anti-Nuclear Movement

The path to a successful and sustainable coalition among groups in the community of Three Mile Island can be divided into three periods by the level of solidarity in the community; pre-accident, immediately after the accident, and one year after the accident. Before the accident, the community was formed by atomistic individuals, who chose to stay a step away from the anti-nuclear movement. Although there were individual networks such as religious groups, most individuals chose to stay within their personal realm.

However immediately following the accident, the community started to solidify itself, changing from a gathering of atomistic individuals to a group with some sense of solidarity. With individuals seeking specific information, the shift was triggered by numerous public meetings and hearings hosted by federal state or local authorities. As Walsh, who conducted 18 months of participant observation after the accident, notes "one extreme were the formal public meetings with prescheduled speakers or witnesses and a silent audience, while at the other were the more informal ones usually chaired by political officials to gather citizen input on their emergency period experiences" (Walsh 1988, 52).

The various public meetings or hearings served as a "mobilization market," with systematic survey results suggesting that local residents who attended any of these meetings were more likely to

become actively involved in the movement than those who did not (Walsh 1983, 775).<sup>8</sup> The meetings promoted organized protest activities, functioning as a site for participants' emotional exposure in a public setting and thus stimulating the emotion sharing process.

In the period immediately after the accident, local residents were in great need of certain information. With no prior knowledge on nuclear power, most individuals who attended the meetings optimistically thought that "we could all get a decent explanation and that would be the end" (Elizabethtown, Pennsylvania resident L, 2013<sup>9</sup>). However, as they gradually understood that the authorities of the utility had no more knowledge then they did, the meetings began to function as a site to share their memories of evacuation, grievances and emotions.

For example, on May 31, 1979 a hearing took place at the Bainbridge Elementary School in Elizabeth town, just 5 miles away from the nuclear power plant. The purpose of this hearing was to "allow state representatives to learn more about the most salient concern of their constituents" (Walsh 1988, 54). For over a five-hour period, 28 speakers spoke up to an audience of approximately 500, looking back at their memories of evacuation and sharing their emotions of fear and anger (Walsh 1988, 54).

The final stage of solidarity was formed a year after the nuclear power plant accident, where pro-accident groups shifted themselves from community-based organizations to a network of groups, eventually into coalition formation. Although the local community based groups shared the same "enemy" and motivation, they had different concerns and issues. It was not until a year after the accident that residents were able to overcome such diversity and form a coalition as the Three Mile Island Public Interest Resource Center (TMIPIRC) and Three Mile Island Legal Fund (TMILF). Meetings with the "enemy" and directing emotional responses toward the enemy played a major role in their shift into coalition formation. For example, the Nuclear Regulatory Commission (NRC) public meeting held in Liberty Fire Station No.1, Middletown on March 19, 1980 allowed residents to directly throw their emotional statements toward government officials (Tredici 1982, 47). By this time most local residents of different groups had gathered information on and studied for themselves various issues about nuclear power. The more their emotions were integrated into one – anger. The process of expressing one's individual anger in a public setting functioned as the process of

<sup>&</sup>lt;sup>8</sup> According to Walsh's survey (1983, 775) 95% of the activists in the movement after the accident had attended at least one of the public meetings or hearings. On the other hand only 8% of local residents who did not participate or "free riders" ever did so.

<sup>&</sup>lt;sup>9</sup> Interview conducted in September 2013 at interviewee's home. Interviewee was a woman in her seventies.

transforming the *individual* emotion to a *collective* emotion. Emotions have been criticized for being constantly there, as with the distinct fact that each individual possesses an emotion. However such individual emotions are kept within, at times not emerging to the surface, unable to be an object of observation. It is when emotions are shared in a public setting that they become a collective emotion for the first time and have the power to facilitate the consensus process of the core framing tasks. The formation of collective emotion facilitates the consensus of the core framing tasks by functioning in four ways: identification of a common grievance, reinforcement of collectivity, the identification of the "enemy" through direct emotional action, and the formation of a platform for joint action. The former two stimulate the transformation of atomistic individuals to group formation effecting the initial stages of framing theory, the latter facilitate the groups into coalition formation creating a consensus on the diagnostic and prognostic framing.

The first two roles of collective emotion can be observed in the period immediately after the nuclear power plant accident. Through the exposure of several different emotions in a public setting such as anger, anxiety, and fear, the local residents were able to share a common grievance. This process of identifying a common grievance affected the initial stages of framing theory. It enabled the atomistic individuals to form a common platform on what issue to focus on.

Emotional exposure also reinforced the feeling of "us" or the collectivity of the group. Through the process of releasing and sharing what was once kept within, residents were able to feel that they were not alone, and rather that they formed a majority with many others who felt the same way. Sharing a common grievance and a sense of "togetherness" helped atomistic individuals come together to mobilize themselves.

The latter two functions of collective emotions can be observed in the period that followed a year after the accident. The identification of the "enemy" through direct emotional action led to the consensus of diagnostic framing. Through each group's movement activities, the dispersed wide range of emotions became integrated into anger with a clear "enemy" to direct their voice against. At this time the public meetings functioned as a site to identify the common enemy and to take direct emotional actions in such forms as speaking out their complaints, raising fists, booing, hissing, and so forth. By expressing their anger *directly* toward the government or nuclear power plant officials a clear composition of "versus enemy" (a clear distinction between "ally" and "enemy") was created. As a result this process reinforced the diagnostic frame.

Collective emotion also formed a platform for joint action stimulating the consensus of prognostic framing. The process of sharing grievance, the feeling of being a unit, and a common "enemy" helped groups overcome the different issues that divided them. Instead of competing against one

another for resources, the collective emotion functioned as a guide for groups to come together.

## 2. 2011 Fukushima Anti-Nuclear Movement

The disintegration between local anti-nuclear groups in the movement of Fukushima can be explained from the lack of emotion sharing. For the Fukushima anti-nuclear movement, what emerged was an introverted movement in terms of both network and activity. Each group refused to go beyond their inner networks and remained within their realm even when they were well aware of the need for joint cooperation.<sup>10</sup> Their activities also changed drastically from demanding an installment of safety measures for their children to accepting the status quo in Fukushima Prefecture after the nuclear power plant accident.

Three aspects prevented the formation of a collective emotion and thus hindered the consensus formation process of the core framing tasks: public meetings successfully demonstrating the safety of the nuclear power plant, the strong social pressure against sharing anxieties, and the identity formation as the "disposed (*Kimin*)." Immediately following the accident the Fukushima local government held a public meeting concerning radiation damage. However the message that was clearly sent out by specialists was "everything is safe." <sup>11</sup> For the anti-nuclear movement in Fukushima, public meetings functioned more as a demonstration of safety; as a consequence residents failed to channel their discontent and grievances into overt activities.

Another aspect that prevented individuals to share their emotions was the strong social pressure that worked against local residents to express aloud their worries of radiation damage. The more time passed after the accident the more difficult it became, even among friends and family, to talk of radiation damage. This atmosphere was produced by the desire of the majority of local residents to *believe* everything was safe. After the accident, the local residents of Fukushima's primary concern was radiation damage. Everyday decisions of whether to dry their clothes outside, to open windows, or to even eat or drink were forced upon the local residents. Having to continue to worry about a substance that *may* have the possibility of causing physical problems decades later can be highly

<sup>&</sup>lt;sup>10</sup> In personal interviews conducted to local residents in May and June 2013, interviewees were asked whether they felt the need for a platform of joint action. Most replied yes but also noted the difficulty of joining hands.

<sup>&</sup>lt;sup>11</sup> One of the major examples of such public meetings was the lecture meeting by Fukushima Prefecture Radiation Health Risk Management Advisor (Fukushima-ken housyasen kenkou lisuku kanri advisor) held by the local government. During this lecture the Radiation Health Risk Manager, Shuichi Yamashita asserted that "if the radiation level does not exceed 100 microsievert per hour there is no problem whatsoever to the health of the human being." He also strongly encouraged children to go outside and play and continued to say, "The effects of radiation damage actually does not come to people who are smiling. Rather it comes to people who dwell and worry about it." (The News, 2011)

stressful.<sup>12</sup> To relieve such anxiety residents began to welcome words of safety and in turn to move toward the reconstruction of the Tohoku area as a whole. As a result it became even more difficult for local residents of Fukushima to share their worries and emotions with one another.

"It's not as if there is direct pressure from somebody to not say anything, of course. But when Fukushima is moving toward reconstruction and it's like you're moving against it, it's hard to have the courage to say something. All I can do is to secretly run the bus (that takes children out of Fukushima so that they can play outside in a non-radiation contaminated environment) in a way that doesn't have to face the government. I guess that's all I can do."

(Fukushima city, Fukushima Prefecture resident E, 2013<sup>13</sup>)

The final aspect that prevented the local groups from sharing emotions was the formation of the identity of the "disposed (Kimin)." Not only did local residents view themselves as "abandoned" for not receiving any evacuation orders but also the feeling of being "disposed" was intensified in the following years by the fact that they had received no help at all. Politicians, media, and even the national level of anti-nuclear movement that was thought to be the representative of the people's voices, failed to capture the local residents' fears and anxieties.

"(When I participated in a demonstration held by a national level social movement organization) there were people calling out 'Give back Fukushima' but it didn't feel right. I mean we're still living in Fukushima. We're here. It's not 'give it back'. Something's wrong. I do believe that 'Give back the nature' is right. But there are people living here. Something is just wrong."

(Fukushima city, Fukushima Prefecture resident E, 2013)

"(The national level of movement) keep saying 'Fukushima! Fukushima!' but it's really doubtful whether they know the reality of it. They probably think that that Fukushima is no longer some place to live in, but there are a lot of people still living here and it doesn't fit the reality."

(Koriyama city, Fukushima Prefecture resident M, 2013<sup>14</sup>)

The claims made by the national level movement "didn't feel right" and did not "fit the reality" local

<sup>&</sup>lt;sup>12</sup> Residents who could not bear the everyday worries and pressure of radiation damage chose to move out of Fukushima Prefecture. As most of the interviewees recalled, during the 2011 summer break, many mothers of children left Fukushima Prefecture to live a "normal" life without having to worry about the effects of radiation. On the other hand residents who had no choice but to stay "became gradually loose." As one Fukushima-city resident put it "Human beings can't be nervous and tense all the time, so we have to accept it." (Fukushima city, Fukushima Prefecture resident E, woman in her forties, interview conducted in May 2013 at the office of an anti-nuclear movement group)

<sup>&</sup>lt;sup>13</sup> Interview conducted in May 2013 at the office of an anti-nuclear movement group. Interviewee is a woman in her forties.

<sup>&</sup>lt;sup>14</sup> Interview conducted in June 2013 at an anti-nuclear movement group's office. Interviewee is a woman in her forties.

residents faced. In other words, social movement groups at the national level were able to capture wide attention from the public but failed to understand the importance of daily life of local residents. As a result the voices of the local residents of Fukushima Prefecture remained unheard and unsolved.

Not being able to freely share their emotions and concerns also increased the suspicion between one another. Instead of seeing the similarities and directing their efforts toward a common "enemy", they began to put emphasis on trivial differences concerning where to draw the line between "safe" and "danger" on radiation issues.

"It's not as if it's perfectly divided into two (whether you care or don't care about radiation) but it's more that even within those two boxes you have another set of numerous different boxes placed side by side by the millimeter. (People keep trying to find the right box) saying 'I can't fit into that box nor this one.' When you talk about the big picture you can divide it into largely two but it's not that easy. Nothing perfectly fits."

(Fukushima city, Fukushima Prefecture resident, 2012<sup>15</sup>)

The lack of process of emotion sharing led to unshared diverse emotions and interpretations, making it difficult for groups to create a common enemy, and a platform for joint action.

## DISCUSSION AND CONCLUSION

The aim of this paper was to uncover the role of emotions in framing theory through a comparative analysis of two anti-nuclear movements. By examining these two discrete movement cases, which had emerged by a "suddenly imposed grievance" (Walsh 1981) but had different results in coalition efforts, a successful coalition on one hand and disintegration on the other, I followed the formation process of collectivity at the emotional level.

For the local residents in Three Mile Island, the emotion at hand was anger.<sup>16</sup> The successful construction of such collective emotion was followed by two steps. Firstly, individuals shared their diverse emotions caused by the accident, such as anger and fear, in a public setting. This stimulated the emotion sharing process and thus reinforced the feeling of collectivity. Secondly, the diverse emotions were aggregated into a collective emotion of anger by taking direct emotional action to the

<sup>&</sup>lt;sup>15</sup> Interview conducted in September 2012 at the office of the interviewee's workplace. Interviewee is a woman in her forties.

<sup>&</sup>lt;sup>16</sup> The main purpose of this paper is to focus on the process in which the individual emotions transform into a collective emotion, enabling movement members to become as a unit. Therefore further studies will have to be conducted to determine whether the content of the emotion had any effect on the mobilization process.

"enemy" such as the nuclear power plant and government officials. The formation of a collective emotion enabled groups to overcome framing disputes and to construct a common platform for a joint action.

On the other hand the anti-nuclear movement in Fukushima failed to construct a collective emotion. Movement participants experienced disintegration between groups and the emergence of an introverted movement. The public meetings, which had functioned as a site for forming collective emotions in Three Mile Island, functioned as a place to advertise "safety" in Fukushima Prefecture. An overt emphasis on controlled risk and safety in turn created strong social pressure on the side of the local residents not to discuss the danger of radiation. In the absence of opportunities to disclose their innate emotional responses, such as fear and anger, they became atomized. Disconnected with one another and feeling abandoned, they lost the momentum to organize themselves into a coherent group.

Collective emotion stimulates consensus formation in the diagnostic and prognostic framing process and thus reinforces the motivational framing. The analysis of the data in this paper indicates the following: (1) Collective emotion is produced by emotional exposure in a public setting; (2) Collective emotion builds a platform for joint action by stimulating the consensus on who the "enemy" is and thus reinforces the sense of collectivity; (3) Collective emotion also functions as a constant reminder for individuals to come back to why they had started the movement in the first place, which binds movement participants together.

The concept of collective emotion differs from the emotional resonance defined by Schrock, Holden, and Reid (2004) in three aspects: the formation process, the functions within framing theory, and the functions within social movements. Emotional resonance is a strategic form of framing theory. It is an aspect, such as cultural resonance, created by movement leaders to win bystanders' support. On the other hand, collective emotion is created through emotional exposure in a public setting, which is not systematically planned nor performed as a strategy. Rather it is formed by the individual's urge to express their innate emotional responses to a certain issue.

Secondly, emotional resonance is an end product of framing process: it denotes a mental stage that is being achieved through mobilizers' intentional actions. In contrast, collective emotion is an intermediary that affects the *process* of forming a frame. Collective emotions function in the initial stages of framing formation by two steps. First, they stimulate the cognitive congruity of the "reality" of the issues at hand and thus help to develop a common platform among movement participants to come together. Second, they stimulate the consensus on diagnostic and prognostic framing through direct emotional action toward the enemy. As a result the motive to participate is

reinforced.

The final difference is the function it holds within social movements. Emotional resonance is limited within the strategic features of framing theory. However, collective emotion goes beyond the boundaries of framing theory, functioning as a guide and constant reminder to movement members of their initial motives to take action. Social movement is never an easy task. It demands time, money, work, and a great amount of dedication. Especially, emotions play an important role when there are no "movement leaders" within the movement to create strategies.

In sum, this paper illustrates the power of emotion in social movements. Beyond the strategic dimensions of emotions introduced by past studies, emotions have a function of their own. Not only do they stimulate consensus on controversial issues among movement participants, they also empower individuals to start and continue movement actions.

# Appendix A.

Interviewee Details of Fukushima Anti-nuclear Movement Group Members (Fukushima city and Koriyama city)

	Name/Residence	Sex	Age	Date of Interview		ew	Place
1	A Fukushima City Resident	Female	40's	Nov-12			Workplace office
2	B Fukushima City Resident	Female	40's	Nov-12	Aug-14		Workplace office
3	C Fukushima City Resident	Male	40's	May-13	May-13	Aug-14	Social movement organization office
4	D Fukushima City Resident	Female	20's	May-13	May-13		Social movement organization office
5	E Fukushima City Resident	Female	40's	May-13	Aug-14		Social movement organization office
6	F Fukushima City Resident	Male	40's	Jun-13	Aug-14		Social movement organization office
7	G Fukushima City Resident	Male	60's	Jun-13			Social movement organization office
8	H Fukushima City Resident	Male	40's	Aug-14			Social movement organization office
9	I Fukushima City Resident	Male	60's	Aug-14			Social movement organization office
10	J Fukushima City Resident	Male	40's	Aug-14			Social movement organization office
11	K Fukushima City Resident	Female	50's	Aug-14			Resturant
12	L Fukushima City Resident	Female	50's	Aug-14			Coffee shop
13	M Koriyama City Resident	Female	40's	Nov-12	Jun-13	Aug-14	Social Movement Organization office
14	N Koriyama City Resident	Female	40's	Nov-12			Social Movement Organization office
15	O Koriyama City Resident	Female	40's	Nov-12			Social Movement Organization office

## **Bibliography**

- Benford, Robert D. 1993. Frame disputes within the nuclear disarmament movement. *Social Forces* 71: 677-701.
- ———. 1997. An insider's critique of the social movement framing perspective. *Sociological Inquiry* 67: 409-30.
- Cinalli, Manilo. 2003. Socio-politically polarized contexts, urban mobilization and the environmental movement: A comparative study of two campaigns of protest in Northern Ireland. International Journal of Urban and Regional Research 27.1: 158-77.
- Fukushima Reconstruction Station. Current Evacuation Order Area Situation. (2015, September 5). Retrieved from

http://www.pref.fukushima.lg.jp/site/portal/list271-840.html

Gamson, William A. 1992. Talking politics. Cambridge: Cambridge University Press.

- Goffman, Erving. 1974. Frame analysis. New York: Harper & Row.
- Goldsteen, Raymond L., and John K. Schorr. 1991. *Demanding democracy after Three Mile Island*. Florida: University of Florida Press.
- Goodwin, Jeff, James M. Jasper, and Francesca Polletta. 2001. Introduction: Why emotions matter. In *Passionate politics: Emotions and social movements*, ed. Jeff Goodwin, James M. Jasper, and Francesca Polletta, 1-24. Chicago: University of Chicago Press.

Jasper, James M. 1997. The art of moral protest. Chicago: University of Chicago Press.

- ———. 2011. Emotions and social movements: Twenty years of theory and research. Annual Review of Sociology 37: 285-303.
- Klandermans, Bert. 1984. Mobilization and participation: Social-psychological expansions of resource mobilization theory. *American Sociological Review* 49: 583-600.
- Kriesi, Hanspeter, Ruud Koopsmans, Jan W. Dyvendak, and Marco G. Giugni. 1995. *New social movements in Western Europe: A comparative study*. University of Minnesota Press.
- McAdam, Doug. 1982. Political process and the development of black insurgency, 1930-1970. Chicago IL: University Chicago Press.
- McCarthy, John D., and Mayer N. Zald. 1977. Resource mobilization and social movements: A partial theory. *American Journal of Sociology* 82: 1212-41
- Messer, Chris M., Thomas E. Shriver, and Alison E. Adams. 2015. Collective Identity and Memory: A comparative analysis of response to environmental hazard. *Rural Sociology* 80(3): 314-39.

Olson, Mancur. 1965. The logic of collective action. Cambridge: Harvard University Press.

- Piven, Frances F., and Richard A. Cloward. 1979. *Poor people's movements*. New York: Vintage Books.
- Schrock, Douglas, Daphine Holden, and Lori Reid. 2004. Creating emotional resonance: Interpersonal emotion work and motivational framing in a transgender community. Social Problems 51: 61-81.
- Shiraishi, Hajime. (2011, June 22). Say NO to Radiation Advisor Shunichi Yamashita ~ A Signature Collecting Campaign Demanding Resignation. Retrieved from http://archive.is/wL6yM#selection-881.0-881.26
- Snow, David A., and Robert D. Benford. 1988. Ideology, frame resonance, and participant mobilization. *International Social Movement Research* 1: 197-217.
- Stoecker, R. 1995. Community, movement, organization: The problem of identity convergence in collective action. *The Sociological Quarterly*, 36: 111–130.
- Swart, W. J. 1995. The League of Nations and the Irish question: Master frames, cycles of protest, and "master frame alignment". *The Sociological Quarterly*, 36: 465–481.
- Taylor, Verta. 1995. Watching for vibes: Bringing emotions into the study of feminist organizations.In *Feminist organizations*, ed. Myra Marx Feree and Patricia Yancey Martin, 114-319.Philadelphia: Temple University Press.
- Tilly, Charles. 1978. From mobilization to revolution. New York: Guilford Press.
- Tredici, Robert D. 1980. The people of Three Mile Island. San Francisco: Seirra Club Books.
- Walsh, Edward J. 1979. Tape recorded document.
- Walsh, Edward J. 1981. Resource mobilization and citizen protest in communities around Three Mile Island. Social Problems 29: 1-21.
- Walsh, Edward J., and Rex H. Warland. 1983. Social movement involvement in the wake of a nuclear accident: Activists and free riders in the TMI area. *American Sociological Review* 48: 764-80.
- Walsh, Edward J. 1988. *Democracy in the shadows: Citizen mobilization in the wake of the accident at Three Mile Island*. Connecticut: Greenwood Press.
- Yamashita, Yusuke. 2012. Great East Japan Earthquake and nuclear power plan evacuation (Higashi nihon dai shinsai to genpatsu hinan) In Discussion on nuclear power plant evacuationfrom the reality of evacuation to second towns, and to the reconstruction of home (Genpatsu hinan ron- Hinan no jitsuzou kara sekando town, kokyou saisei made), ed. Yusuke Yamashita and Hiroshi Kainuma, 22-23. Tokyo: Akaishi Bookstore.

Yoshida, Kouhei, and Shun Harada. 2012. The evacuation of self-governing bodies surrounding the nuclear power plant (Genpatsu shuhen jititai no hinan no keii). In *Discussion on nuclear power plant evacuation- from the reality of evacuation to second towns, and to the reconstruction of home (Genpatsu hinan ron- Hinan no jitsuzou kara sekando town, kokyou saisei made)*, ed. Yusuke Yamashita and Hiroshi Kainuma, 22-23. Tokyo: Akaishi Bookstore.