Risk communication under postfeminism: Analysis of risk communication programmes after the Fukushima nuclear accident

Aya H. Kimura

Abstract
March 2011 was the focus of national and global concern. Moreover, the level of contamination and the health and ecological impacts remained uncertain for a long time after the initial blasts at the reactors. As the crisis unfolded, information disclosure by the operator of the reactors, Tokyo Electric Power Company (TEPCO), and the government regulatory authorities was painfully slow and limited. Citizens felt that the government and TEPCO were withholding critical information and underplaying the severity of the accident. This perception led many citizens to engage in self-defensive actions such as voluntarily evacuating and measuring radiation levels of air and foods (Kimura, forthcoming).

After the most acute crisis phase was over, there emerged a plethora of risk communication programs run by the government and the industry. These programs often target women as the primary audience of their messages. Furthermore, some of them feature women as the spokespersons.

This paper analyzes communication programs by the nuclear industry with critical attention to the role of women. How have the industry's risk communication programs seen women's roles? How have the risk communication programs constructed women's ideal relationship with nuclear power? The promotion of women in risk communication might seem to be a move towards equalizing participatory opportunities for women. However, this paper will show that the ways in which the nuclear industry has involved women in radiation risk communication reflect complex and changing ideas about women's characteristics and their advancement in society.

In post-Fukushima Japan, the role of the women who have acted as messengers in risk communication has primarily been to convince other women—who in general are more likely to oppose nuclear power and be more concerned about the accident's impacts than...
men— that they are wrong. An essentialised understanding of sexes colours understanding of women on both sides of risk communication. On one hand, lay women are considered to be particularly in need of the information delivered via risk communication because their opposition to nuclear power is seen as rooted in their deficient knowledge and their emotional and irrational responses to the nuclear accident. On the other hand, women are seen as the ideal messengers in risk communication because of the presumed possession of a common perspective with the female audience by virtue of their sex. But even when the role of risk communicator is filled by a woman, risk communication rarely comes close to the professed ideal of mutual exchange of opinions among women. Both of the programmes analysed in this paper have shied away from opening up debate and airing multiple viewpoints and interpretations of radiation risks among women and veered towards the marketing of predetermined messages.

The framing of nuclear power in risk communication is also gendered. The contents of risk communication that target women reflect changing discourses about women's liberation. The industry has framed nuclear power as a liberatory and progressive development to be welcomed by enlightened women, a theme highly resonant with the first wave of feminism that began in the 1960s. The post-Fukushima discourse also reflects a newer and neoliberal idea of womanhood, in which nuclear power is portrayed as a positive risk to be embraced by ambitious and economically savvy women.

This paper's findings echo what feminist scholars have observed in many other areas; for risk communication programmes to be truly feminist, it is not sufficient to simply include women—the 'add women and stir' approach (Harding, 1991, p. 212)—rather, it requires a reconsideration of fundamental assumptions of both risk communication and gender stereotypes.
Risk and gender

The contemporary trend of including more women in risk communication can be related to at least two factors. First, existing studies have suggested that risk perception is highly gendered. In regard to new technologies, from genetically modified organisms to growth hormones in milk, more women than men are sceptical of the benefits and concerned about the health and environmental effects. The issue of nuclear energy is another case in point, as women historically have been more critical of nuclear energy (Flynn, Slovic, & Mertz, 1994; Watanuki, 1987). For instance, Keller, Cisschers, and Siegrist (2012) found that men accept nuclear power and associated positive images with nuclear power at higher rates than women did. Post-Fukushima Japanese attitudes towards nuclear power have shown a similar gendered pattern (Honda, Wiwattanapantuwong, & Abe, 2014).

Second, there is a broad trend in risk communication towards more participation by lay people in general. The recent literature moves away from the information deficit model, in which the divergence of lay people’s and experts’ understanding of risks was understood to be rooted in the lay people’s lack of knowledge and technical competency. Risk communication is now increasingly defined as an interactive activity (Pidgeon, Kasperson, & Slovic, 2003, p. 39), as in this definition by McComas (2006): ‘iterative exchange of information among individuals, groups, and institutions related to the assessment, characterisation, and management of risk’ (p. 76). Officially, the Japanese government and private industries support this participatory model of risk communication (Tokuda, 2003), although the degree to which they actually attempt to implement it is contested (Kimura, forthcoming). Most of the current literature has come to see the earlier information deficit model...
The postfeminist gender settlement and risk communication
Various disciplines from economics to medicine have different epistemological understandings of risk (Althaus, 2005), but the economists' take on risk—as a means of accumulating financial wealth—is increasingly prevalent under neoliberalism. Citizens are not only required to monitor and reduce their risks; they have to actively engage with risks to convert them to financial opportunities.

The idea of the postfeminist gender settlement (McRobbie, 2009) clarifies why this neoliberal discourse of risk might be coupled with the hypervisibility of women. The postfeminist gender settlement refers to how the ongoing oppression of women is masked by the increasingly common view that women have achieved equal status with men (i.e. the idea of postfeminism), a view validated by women's hypervisibility. Under this settlement, women are understood to already be free from any sexist constraints, and they are called upon to be aspirational and entrepreneurial citizens. Hailed as competent and full of potential, women are to pursue careers and financial success like their male counterparts. This is a process which can be framed as a feminist achievement of choice and equal opportunity, obscuring the continued existence of various structural constraints on women and other subaltern groups.

The assumption that a postfeminist society already exists makes it difficult to criticize the existing social and economic hierarchy—including neoliberalism and patriarchy (Fraser, 2013). Furthermore, the hypervisibility of women, which gives the illusion that women are on par with men, serves to justify the existing socioeconomic order as meritocratic and equal.

This postfeminist situation is clear in women's relation to risk. As Moodie (2013) observes, neoliberal discourse portrays risk avoidance as passive, and risk-taking as an empowered and agentic position suitable for already liberated women. Under the postfeminist gender settlement, women have to astutely take risk, not avoid or criticize it.
The context

Despite Japan's experience of nuclear bombs during World War II, the country's politico-economic elites have espoused nuclear power. Currently, Japan has forty-eight reactors, ranking third globally after France and the United States. A close-knit community of government agencies, politicians, academic experts, and companies involved in the nuclear industry, often described as the nuclear village (genshiryokumura), has been instrumental in promoting nuclear energy and has had enormous power over business, mass communication, and academia in Japan. The nuclear industry includes not only the electric power companies (ten companies that have regional monopolies, including TEPCO) but also other industries with a significant stake in nuclear power, including heavy equipment manufacturers and material suppliers.

The phrase 'risk communication' formally entered the lexicon of food regulations in 2003 in response to the bovine spongiform encephalopathy (BSE) scandal, and the nuclear accident in 2011 accelerated the government's commitment to risk communication (Food Safety Commission, 2004). For instance, the government launched a program of radiation risk communicators in 2013. International organizations such as the International Commission on Radiological Protection (ICRP) also started risk communication programs after the Fukushima accident. This paper focuses on the private sector part of the nuclear village, while recognizing that public institutions also played a significant role in post-Fukushima risk communication, which I analyse elsewhere (Kimura, forthcoming).
The nuclear industry had been a major player in public relations campaigns even before the Fukushima accident. Electric power companies spent more than one billion dollars annually on public relations including advertisements and promotions, and other organizations representing the interests of the nuclear industry spent millions more, often in collaboration with government agencies and politicians (Nakano, 2012).

This paper analyzes risk communication in post-Fukushima Japan not during but after the immediate crisis phase, from 2012 to the present. Risk communication at this point has salience due to at least three factors. The first is the idea of hōryōhigai. Hōryōhigai can be translated as 'harmful rumor' and refers to damages caused by a false perception of contamination. The hōryōhigai concern emerged when it became clear that people were avoiding buying foods from the affected areas. For instance, a survey by the Federation of Consumer Cooperatives in July 2011 found a large percentage of consumers (42%) trying to avoid food from the affected areas (Seko, 2012). Similarly, in a government consumer survey in 2013, more than 60% of the respondents said they cared about the place of origin of the food they buy, and of that group, 41% attributed their concern to fears about radiation (Consumer Affairs Agency, 2013). The government is concerned about the ongoing economic damages caused by hōryōhigai; it estimated hōryōhigai damages at thirteen billion dollars in 2011 alone (Office of the Prime Minister, 2011). Hōryōhigai is a serious concern for the electric power industry as well, because TEPCO is in principle responsible for compensating all economic damages that result from the accident.

Second, the nuclear industry feels the need to reopen the nuclear reactors that have been shut down, and more favourable views of nuclear energy among the general public are necessary for that end. After the accident, all nuclear reactors were put on hold pending safety tests. The reactors cannot be reopened until they gain approval from both the...
regulatory agencies and the local communities. The prolonged shut-down of the reactors has proven costly to the industry. Asahi Shinbun newspaper reported that it cost close to ten billion dollars annually just to maintain the closed reactors (Asahi Shinbun Newspaper, 2013).

Third, risk communication is crucial to encourage people to return from the evacuated areas to their homes in the affected areas. As the evacuation has been prolonged, the cost of compensating evacuees on top of the cost of decontamination has severely hurt TEPCO’s profits. The estimated cost of damages continues to increase; it had climbed to fifty-seven billion dollars by 2015 (Nikkei Shinbun Newspaper, 2015).

Mitigating the problems of evacuation and decontamination is also critical for the nuclear industry as a whole, because it wants to continue promoting nuclear power. The industry has billed nuclear power as the cheapest possible energy source; an oft-cited cost comparison claims that nuclear power costs 10.3 yen per kilowatt per hour, in contrast to 12 yen for coal and 11 yen for hydropower. This cost argument has been crucial in promoting nuclear power but critics have pointed out that its calculation depends upon arbitrarily low estimates of potential costs of decontamination, compensation, and decommissioning in case of accidents (Otsu, Shino, Kotsubo, Koga, & Hirabayashi, 2015).

It is in this context that risk communication to persuade people of the minimal impacts of the Fukushima accident is seen as critical for the future of nuclear energy in Japan.

Methods

This paper specifically examines two cases of risk communication by the nuclear industry. The first is an organization called WiN (Women in Nuclear) Japan and the second, the Nuclear Reform Monitoring Committee (NRMC). These cases were chosen because these two groups are explicit about incorporating women, which enables focused analyses of
This paper is part of a larger project on the politics of science after the Fukushima accident, based on a year of fieldwork (2013–2014) in Japan, in addition to shorter field work periods every year since the accident. For data on the case of WiN Japan, I relied mostly on its website, which discusses its history, activities, and motivations in risk communication. For the NRMC, I collected data from its published documents, websites, media reports, and video recordings of meetings, as well as a blog and Facebook posts by members of a related women’s group. Drawing on the theories summarized in the earlier part of the paper, I specifically looked at how these two organizations framed nuclear power in their risk communication activities and the ways in which each organization justified involving women in risk communication. Following traditions of feminist discourse analysis, texts are understood as reflecting larger cultural dynamics and discourses. I analysed texts to observe their underlying assumptions about risk, women, and risk communication and communicators, and to consider what kinds of norms and identities are naturalised in these assumptions (Naples, 2003). All quotes from foreign-language sources are my own translations of the originals, unless otherwise noted.

WiN Japan

The organization WiN Japan is a national branch of a transnational organization, WiN, which was established in 1992. As a network of female professionals in the nuclear industry, WiN aims to ‘promote the understanding and public awareness of the benefits of nuclear and radiation
applications’ (WiN Global network website at win-global.org). Its establishment was motivated by the industry’s need to garner social acceptance and particularly to help reverse diminished public support after the Chernobyl accident. The industry recognized the particular importance of women; they were more likely to be opposed to nuclear power and they had already created significant antinuclear movements. WiN now has branches across the globe, with 250,000 members in over a hundred countries. The office of WiN Japan is housed in an organization called Nuclear Waste Management Organization of Japan, which was established by the electric power companies to explore options for managing nuclear waste. WiN Japan was established in 2000 as a national branch of WiN, and it had about 250 members as of 2014. Since its inception, it has played an important role in cultivating women’s support for nuclear energy, particularly in hosting communities. For instance, it has held women’s meetings in the nuclear power plants’ host communities in order to build favorable attitudes towards nuclear power among local residents, invited local women to visit nuclear power plants, and held workshops that specifically target women. The Fukushima nuclear disaster strengthened the call for WiN to actively respond to the fear of radiation and the now widespread opposition to nuclear reactors, given that the fear was stronger among women than men. WiN members appeared in the media after the accident to talk about the need to learn from Fukushima, but also about the importance of nuclear energy for energy security in resource-poor Japan. They also conducted community outreach targeted at women, such as a symposium involving local women in Fukushima in August 2014. Framing of nuclear energy in risk communication
Win Japan has generally framed nuclear power as 'an indispensable energy source for resource-poor Japan,' something that Japan should aspire to keep using despite the accident (Nunome, 2015, p. 43).

Another salient theme is that the opposition to nuclear power comes from a lack of scientific knowledge and/or logical thinking. For instance, Ogawa Junko, a former chair and current member of Win, commented in 2012 that 'there was no death caused by [Fukushima’s] radiation so why do people see nuclear as so dangerous?…We need to judge logically, and the numbers should be the basis of our judgment' (Fuji Sankei Newspaper, 2012).

Win Japan's overall message is that a rationally thinking person would understand the economic need for nuclear power and that fear of radiation is unscientific and illogical.

Specifically in relation to women, Win tends to portray the power of nuclear energy as linked directly and indirectly to women's liberation. Ogawa Junko said that what inspired her most when she joined Win was a phrase that she heard at the global Win conference: 'energy-liberated women.' Nuclear energy, to her, was the energy that enabled Japanese women to pursue a 'happy life' different from that of 'Japanese women only a hundred years ago who were occupied by household chores.' She felt that nuclear energy enabled women to 'make time for intellectual labor and learning' (Ogawa, nd).

Similar to the US nuclear industry’s public relations campaigns that have portrayed nuclear-fed electricity as the source of liberation for women (Farseta, 2008; Nelson, 1984), Win portrays nuclear energy as a strategy of female empowerment.

Justification for women's involvement in risk communication Win has underscored the importance of women in risk communication on two main fronts. The first salient framing is that women's support for nuclear power is indispensable,
and communicating messages to women is best done by women. It believes what one member calls a 'heart-to-heart' approach among women is particularly effective (Kitsunai, 2006, p. 78). This argument goes back to the original mission conceived by the founder of WiN. At the 1989 conference that led to WiN's inauguration, Irene Aegerter, who became its first president, called on the industry to recognize the importance of women. She said, 'we know the advantages of nuclear energy to the environment. But how can we explain this to women? How can we transmit this message to women? Will they accept this message? And are they then ready to accept nuclear power?' (Aegerter, 1989, p. 3). She then argued that the task of transmitting this message to women was best commissioned to women, for two reasons. First, women were more emotional, and the industry had been unable to convince them emotionally. Second, women's opposition stemmed from their inability to understand the science of nuclear energy, and the industry had been unable to speak to them in simple terms without jargon. Women, said Aegerter, were particularly important for the nuclear industry because it is women who are behind what she called the threat of 'a reign of pure emotion' (1989, p. 3).

Second, WiN Japan has emphasized the advantage of the 'women's perspective' in risk communication about the nuclear disaster and nuclear energy more broadly. WiN is better equipped to convince the public than male experts because, they reason, they 'think together from women's perspective, as we understand well why mothers might be concerned about radiation impacts on children' (Andō, 2014 emphasis mine). The idea of a women's perspective and how it is shared among women is also emphasized when host-community strategies are discussed.

1 For instance, Aegerter said, 'here I think women have great duty to fulfil because they for themselves argue emotionally. Moreover motherhood brings ethical values much closer to them' (1989, p. 2).
something by virtue of their sex tends to frame women's opposition to nuclear power as rooted in women's biology. Despite their emphasis on 'women's perspectives,' however, the views promulgated by WiN are heavily skewed towards pro-nuclear, emphasizing the safety of nuclear power and the minimal risk of radiation. For instance, Ogawa Junko, the chairwoman of WiN Japan, described how she would explain food contamination due to the Fukushima accident to students as follows: 'your body has 7000 Bq of radiation. …even if you eat 100 Bq, the X [denominator] is 7000, so nothing to worry about' (Ogawa, 2013, p. 16). As Morris-Suzuki (2014) observed, this kind of relativization of radiation risk was typical of the expert discourse after the accident, and was used to underplay the risk of radiation.

Analysis
It would be a mistake to simply dismiss WiN Japan as a PR machine of the male-dominated nuclear village without at least recognizing some agency of its female members. The disaster undoubtedly produced various responses from its members, some of them with different visions for the nuclear industry. Furthermore, it is not hard to understand how WiN members are attracted to the concept of women-to-women communication and collaboration. WiN represents women in the nuclear industry, where very few women work professionally. It provides a much needed homosocial network for those in a male-dominated field typical in the STEM (science, technology, engineering, and mathematics) related industries.

2 For instance, Ishibashi Suomi, now a board member of WiN, recounted her struggle in the mostly male nuclear field: 'there were no female seniors in the nuclear department. I lost hope. I was not the type to hate my job or get discouraged, but I was plagued with hard-to-articulate worries about my future.' That was when she encountered WiN: 'I am so blessed
However, WiN’s apparent espousal of women’s importance in the nuclear industry calls for critical evaluation from feminist perspectives. It is hard to miss the highly essentialized view of women held by WiN—women are portrayed as emotional and less capable of logical thinking. Furthermore, WiN’s espousal of women as risk communicators implies more of a knowledge-deficiency model than a participatory model of risk communication, and is ultimately geared towards women’s acceptance of radiation risk as inevitable. Rather than involving local groups and lay women in honest debates over nuclear power and the impacts of the accident, its risk communication strives to disseminate a particular view. While WiN has skilfully employed feminist themes of emancipation and homosocial support in its messages, its view of women does not perceive much agency on the part of those who criticize and doubt nuclear power.

Nuclear Reform Monitoring Committee (NRMC)

NRMC was established by TEPCO to be ‘an independent committee that conducts external monitoring and supervising of TEPCO’s reform efforts’ after the Fukushima nuclear accident, according to its website (Nuclear Reform Monitoring Committee, n.d.). NRMC is positioned as an outside advising organisation but is constituted largely of industry insiders. It is chaired by Dale Klein, former chairman of the US Nuclear Regulatory Commission, and the deputy chair is Barbara Judge, a UK/US lawyer who has served as…

Women that I met at international WiN conferences are attractive, such as the head of a nuclear power plant who brought her child to the conference (French) and a head of PR who told me that she was working the day before she gave birth to her child’ (Ishibashi, 2007, p. 29).
Four other members are Japanese, one of whom is the chairman of TEPCO; at least two others have previous experience in the nuclear industry. NRMC is consulted by TEPCO on various reform issues, and one of its key roles is to help improve TEPCO's risk communication. Not only does it advise TEPCO's Social Communication Office, but NRMC itself is also engaged in risk communication, holding press conferences and providing information to the public through various outlets.

Framing of nuclear energy in risk communication

Even though NRMC's information dissemination is framed as open and participatory risk communication, its content rarely diverges from the stance of NRMC that nuclear power is necessary and that its negative effects can be and are under control. NRMC needs to perform being a credible outside monitor, and hence has offered occasional comments critical of TEPCO, but its bottom line is pro-nuclear, a position hardly surprising given the background of the commissioners in the nuclear industry (Miyatake, 2012).

In a video that showed how Barbara Judge (who is in charge of risk communication) had meetings with local residents in Fukushima, she said ‘the most important thing is we have open communication’ (Nuclear Reform Monitoring Committee, 2014), yet it was clear that the objective of the risk communication programme was to control local concerns about the effects of the Fukushima accident. As the NRMC website summarized, the meetings with the residents were held to emphasise the ‘difference between Chernobyl and Fukushima’ (that Chernobyl was much more severe) and to ‘ease their concerns by providing correct knowledge’ (Nuclear Reform Monitoring Committee, nd). The assumption of a singular ‘correct’ knowledge betrays the principle of participation and openness in risk...
As evident in a comment by Judge, who said, ‘approximately 20,000 lives were lost as a result of the earthquake and tsunami, but not one of those who died did so as a result of radiation. … Radiation experts believe that no one will die from radiation’ (Davies, 2013), NRMC’s risk communication was evidently still committed to promoting the view of nuclear power as a safe and economical energy choice.

Similar to WiN, NRMC has also highlighted the role of women. It is noteworthy that its risk communication division is headed by a woman when most of the critical positions in the nuclear industry are occupied by men. Perhaps thanks to NRMC’s advice, TEPCO also hired a woman to head its new Social Communication Office, which was established after the accident—a rare instance in TEPCO, as she is one of only two female executives in the company (Nikkei Shinbun Newspaper, 2013).

Another example of how NRMC has tried to cultivate risk communication towards and by women is its relationship with a student group called the Forum of Female Students for the Future of Japan.

3 The group name in English is their translation.
promulgates the idea of nuclear power as a realistic choice and the antinuclear position as a display of naiveté based on ignorance of the realpolitik of the international economy.

NRMC's Judge has repeatedly noted the importance of women and the 'nuclear gender gap,' by which she is referring to the greater reluctance among women than men to accept nuclear energy. She also emphasises the efficacy of using women to talk to women.

Putting her belief in women-to-women risk communication into action, Judge has made a point of talking with local female residents when touring the affected areas in Fukushima Prefecture.

Analysis

The NRMC's risk communication and its active cultivation of female involvement echo the postfeminist gender settlement in at least two ways. The first is its framing of nuclear power as a resource to be taken advantage of by aspirational women. The self-conscious framing of Judge—a chief architect of the NRMC's risk communication—as a charismatic career woman contributes well to the framing of nuclear power as a rational economic option to be chosen by savvy women.

An examination of how Judge is portrayed by NRMC indicates that the biography of communicators constitutes an important aspect of risk communication. Judge has consciously taken on the role of a cheerleader for women, presenting herself as an embodiment of female success. Commenting on the particular importance of herself as a part of the NRMC, she said, It is often said, that in every country, not just Japan, one of the groups in society that is the most against nuclear energy is women, particularly upper-
middle class women. Accordingly, I think it is important to have someone who can view and assess a safety culture from the point of view of a woman, as well as a nuclear expert. (Judge, n.d.)

In her tours of the affected area, she has underscored her struggle as a female pioneer in a male-dominated field. For instance, when she went to Fukushima as part of ICRP dialogue seminars with local residents, she highlighted the importance of female participation, saying, 'I was very glad to see women participating in the discussion, as it is usually men who do so in Japan. Keep it up!' (cited in Ochi, 2014).

Defining herself as a role model for Japanese women, she went on to say, 'I myself fought hard when I was young,' making a 'gesture of a fighting pose,' as reported in the mass media (cited in Ochi, 2014).

Judge's talks evoke feminist themes, but her example makes it clear that her goal as a female communicator is not to destabilise the existing socioeconomic and sexual order, reflecting the requirements of the postfeminist gender settlement. Similar to other high profile postfeminist female icons (Negra, 2014), Judge embodies the have-it-all woman who not only has a successful career, but also satisfies hegemonic ideals of domesticity and beauty. Judge has held many powerful positions in the private and government sectors, but in line with the have-it-all ideal, she is also married and has a son. She is probably in her sixties, but still looks youthful and always wears professional but feminine attire of jacket, skirt, and pin-heels, with perfectly done hair and makeup. Symbolised in her is an increasingly salient paradigm that equates female empowerment primarily with economic success achieved through individual cultivation of competence and wealth but without losing 'femininity,' which is embodied by reproduction and beauty.
Seemingly tangential to the contents of risk communication on nuclear power, this particular ideal of female success and ambition seems to have strongly impressed the young female audience in the Forum, mentioned above. My examination of Forum member posts on Facebook indicates that many of the members see Judge as a female role model who has everything that is coveted under the postfeminist gender settlement—not only a successful career but physical beauty and motherhood. For instance, one participant wrote, I had never met anyone who achieved all in career, family, and beauty. As I listened to her, I realised that continuing to work is necessary for women to have it all. Power comes from having a career and economic capacity. Family and beauty will naturally follow career and you will become confident. Lady Barbara Judge is my female role model. (Forum of Female Students for the Future of Japan's Facebook page; unsigned member post, October 16, 2013)

That she was a mother was mentioned by several Forum members, and that she was beautiful was also underscored in comments such as, 'I was overwhelmed by how attractive she was. She acted gracefully and was beautiful as a woman' (Forum of Female Students for the Future of Japan's Facebook page; unsigned member post, October 15, 2013).

Risk communication in the postfeminist age is interwoven with the idea of female empowerment as having it all by combining financial success, heterosexual reproduction coded as 'family,' and physical beauty. Aspiring young women from economically mobile families—like those in the Forum who attend good universities—are particularly susceptible to such messages.
One Forum member who participated in a session with Judge wrote on her blog about how she had been struggling to figure out how to balance motherhood and career after college and how impressed she was with Judge, who seemed to have it all. She recounted how she went up to Judge after the talk and said in tears, "I have been at Tokyo University where more than 80% of the students are male, and I am always a minority. I have been concerned whether this was the right choice, and was agonising over which to prioritise between motherhood and my career. I was truly moved to hear your experiences. You taught me how I could be a good mother and pursue a career. I cannot express my gratitude enough." (Anonymous, 2013)

Emphasising her emotive connection with Judge, the young woman wrote on the blog, 'Ms. Barbara held my shoulder and said "Don’t worry, you are going to be a great mother!" I cried and cried' (Anonymous, 2013). Later, she wrote about how a TEPCO representative approached her and offered her an internship.

While the NRMC’s risk communication seems feminist because it embraces gender equality and female role models, its inclination is postfeminist, as it urges women to follow and mimic hegemonic economic and political logic, to be someone like Judge who has abided by the rules of the patriarchal capitalist society and is successful within those parameters.

Discussion
The nuclear industry has involved women in its risk communication at different levels— as the target of its message as well as the messenger. It also weaves seemingly feminist messages of choice and aspiration into the content of risk communication.

On the first level, the two cases examined in this paper show how women are seen as the primary audience of risk communication. Implicit in the organisations' understanding of women as target is the assumption that women are more concerned about nuclear power due to their lack of scientific competence and knowledge about the scientific and economic validity of nuclear power.

With a nod to the participatory turn in the risk literature, both Wien Japan and NRMC pay lip service to the ideas of dialogue and mutual communication, but their position is rigidly fixed on the belief that the impact of the Fukushima accident was minimal and that the accident should not prevent the continuing use of nuclear power. The objective of their risk communication is not so much to have a dialogue as to convince women to accept their view that nuclear power is necessary and its risks can and must be tolerated.

Secondly, the two cases show how risk communication increasingly uses women as its preferred messenger and how this preference tends to be rooted in an essentialist understanding of women and men in which women are understood to have innately unique ways of communicating and interpreting. This view is shaped by the long-standing dichotomy of women as emotional and affective versus men as logical and rational. While at times there is recognition of a unique capacity of women seems like a positive assessment of women's ability, it is built on and reinforces gender stereotypes.

Lastly, the message of risk communication tend to involve feminist themes, but, as the paper has also shown, it is not monolithic. The practice of risk communication seems to be changing, reflecting the changing social environments and discourses surrounding
women, and particularly the discourse of the postfeminist gender settlement. If WiN has cultivated consent to radiation risk by deploying liberal feminist language, a related yet distinctly different kind of message woos women's acceptance of nuclear power as a feminine requirement under the postfeminist gender settlement. The case of the NRMC shows how contemporary risk communication interpolates women as realists and rational players, who are assumed to be already empowered and seeking upward mobility in a competitive economy; it follows that they support nuclear power. Such rhetoric conjures feminism, but it is actually postfeminism in the sense that it diverges little from the dominant economic and gender orders. If being a feminist means opposing all forms of domination (not just sexism, but also classism and racism), the current call to women seems to veer towards the opposite—to help a few women to be on the side of the dominant and the powerful. There is little in the way of sympathy for the disenfranchised, and little analysis of how the nuclear industry depends on the exploitation of the impoverished farmers and fishermen who are forced to give up or compromise their livelihood for the power plants, marginalized workers who expose themselves to radiation even in the normal operation of the power plants, and women in general who have higher health risks from radiation exposure. Rather than seeking to challenge the dominant gender and economic orders, (elite) women are urged to use it to their advantage.

Conclusion

The active participation of women in post-Fukushima risk communication would be valuable if it actually opened up honest discussion about the accident and contamination with and by women, who are often excluded from such debates and policy processes. Yet
women's involvement can easily become no more than tokenism used by the industry and experts. Whether the current trend of involving women in risk communication could be considered empowering for women needs to be empirically investigated.

This paper highlighted the apparent valuing of women in nuclear risk communication. Risk communication by the nuclear village is not only increasingly 'participatory' and 'bottom-up.' Frequently, it also makes women its primary target audience and its preferred messengers. The article discussed only two examples of such use of women, but these are far from isolated cases (see, for instance, Japan Atomic Industrial Forum, 2014; Special Committee on Energy and Environment, 2004). Post-Fukushima risk communication recruits women to embody the right way to be concerned and to become effective ambassadors of the nuclear village.

The nuclear village's courting of women has not been monolithic, and seems to be changing, reflecting the social environments and the discourses surrounding women, particularly the discourse of the postfeminist gender settlement. The contemporary message depicts women's acceptance of nuclear power as the position of empowered, rational, and economically shrewd agents.

Lurking behind the industry's embrace of women as nuclear communicators are two important ideologies of our times. Postfeminism sees no need for radical collective mobilization to challenge sexism and other forms of oppression. Neoliberalism selectively employs feminist themes and refashions them to fit the language of entrepreneurism and individual accountability. Thus, risk communication under neoliberalism and postfeminism frame nuclear power as a postfeminist and neoliberal choice that is just right for women.

References


Miyatake, R. (2012, October 13). Tokyo Denryokuga fukushigenpatsujiken no tsunami wa soteigaidenaku taishokanodattato kashitsuwomitomete a Kashiwazakikariwa genpatsu saikado (TEPCO admitting that tsunami for the Fukushima nuclear accident was not unforeseen is aimed at resuming the Kashiwazakikariwa Nuclear Powerplants). 


Food Safety Commission. (2004). Shokuno anzen ni kansuru risukukominyukesyon no genjo to kadai (Status quo and challenges of risk communication in food governance). 


New York: Routledge.

Journal of Gender Studies, 23(3), 275–286.


Nikkei Shinbun Newspaper. (2013, December 20). Tōden, risukujō kōgyōhyō tantō ni josei wo kiyō [TEPCO hiring woman for risk information dissemination].


