Lecture

Analyzing the Atomic-bomb Experience and Memory for Participatory Heritage

Luli van der DOES

JSPS International Research Fellow, Visiting Researcher Institute of Peace Science, Hiroshima University

Good morning! (Audience murmur). Well, I should have said "Good afternoon" really, but somehow, saying the morning greeting puts me in a lighter mood. Words can have an interesting effect on us and that is the underlying theme of my presentation today. In this presentation I would like to introduce our recently-launched research project, entitled: "the Atomic-bomb Experience and Memory for Participatory Heritage".

We will be exploring how we can pass on the memory of the "Atomic-bomb Experience" to the next generation and beyond. We will first define the concept of the "Atomic-bomb experience" and the "participatory heritage" approach and discuss what these terms mean in the context of passing on the memories of Hiroshima and Nagasaki as legacies of human life. We will then discuss what information associated with memories we should aim to gather and preserve and how this information should be analyzed and interpreted to build a database that is accessible to a wider

audience, including future generations, for them to use the data in their own contexts. This presentation will draw a roadmap of the two-year research project being carried out at the IPSHU with the support of the JSPS.

Our objective is to pursue a holistic approach to the memory of the A-bomb experience, encompassing varied viewpoints. We aim to function as the hub of information exchange on the Abomb experience as a human legacy and to disseminate and facilitate global access to this information both now and in the future. Given the wide range of audiences we envisage, as far as possible, technical jargon should be avoided, because it assumes a shared knowledge. The jargon use can hamper communication, even among people sharing the same mother tongue. So, I will try talking today without technical terms. If I use any, please alert me to it and, with your help, I will try to rephrase it.

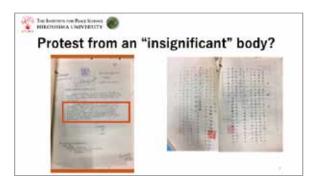
Now, may I properly introduce myself? I have just joined the Institute for Peace Science, Hiroshima University as an International Research Fellow of the Japan Society for the Promotion of Sciences (JSPS) and am a Visiting Researcher at IPSHU for the next two years. The JSPS supports, among many other initiatives, joint research projects between Japanese and overseas institutions. The organization facilitates international academic collaboration, making the fruits of research available for the benefit of a wider community. My research aims to systematically explain what the memory of the Atomic-Bomb experience consists of and, how and under what contextual conditions this memory (of "that day" and "thereafter") has developed, over the last seven decades. into a collective will for universal and eternal peace. Through this, a systematized understanding of the will A-bomb experience be made accessible to a wider audience with different cultures, research disciplines, communities and languages.



In conveying the memory of the Abomb experience, I would like to consider communication, both in terms of action and content. Communication is a twoway process. On one hand, it concerns the transferring of information and "message" through language (action). On the other hand, it concerns interpreting the information in the light of knowledge and experience. When we say "message" we are referring to a combination of: the piece of information; its context; and the interpretation of the information against that context. A message also includes the intentions speaker's and their background knowledge, where it is relevant to the context. So, a message is an amalgamation of all these actions and content arising from the communication process. Furthermore, a series of such messages makes up a piece of "discourse" (or gensetsu, in Japanese). For example, katari ("narration") and riron ("theory") are types of gensetsu ("discourse"). This word, "discourse" (gensetsu), is the only technical term that I would like to use in this presentation today. Thus, the aim of our research is to systematically explain historical development discourse of "the memory of war and the Atomic-bomb experience since WWII". The research outcome will be made available through the Institute for Peace Science, Hiroshima University and the Provided JSPS. that personal

information is duly protected, and other legal conditions are met, our research outcomes will be made publicly available as a resource for Peace Studies and peacebuilding initiatives. It will be managed in a sustainable manner by way of a "Participatory Heritage" approach, which is another topic of this presentation. Before I go on, may I take a moment to share with you a personal experience that inspired this research?

One day, before I joined the IPSHU, I was doing research on a different project at the British National Archives. I came across this old, thin sheet of paper and noticed some Japanese characters.



On closer examination, it turned out to be a letter of protest from the Peace Committee in Mie prefecture. It was addressed to Mr. Macmillan, the UK Prime Minister, and was protesting against the 1957 British nuclear testing on Christmas Island. I wondered why the letter had been kept in the British National Archives for so many years. I decided to investigate and found, underneath it, this letter, in English,

from the Senior Translator of the British Foreign Office to the Senior Translator at the British Embassy in Japan. document read: "...it is a protest in standard form from an insignificant body, to which, if you agree, we will reply in standard form." Another letter in the same file suggested that they did not even feel it necessary to prepare a full translation. Just an insignificant letter from an "insignificant body". On reading this phrase I felt sudden surge of emotion inside me, because I felt for the author of the letter. A lot of thought must have been put into this letter of protest. The letter's neat penmanship, the careful wording and the choice of quality handmade paper, every detail speaks of the writer's heartfelt plea for the UK government to refrain from creating more nuclear casualties. I also realized that, even though the letter did not have any impact at the time, it did make its way, eventually, to Whitehall and was kept in the national archives all these years. I wondered how many letters like this had been written by ordinary people and been rejected or ignored by the world's nuclear powers. Innumerable protest notes and letters might have been written and sent worldwide, but were, time and time again, ignored. At some point, however, those "insignificant" voices reached the ears of "significant" international bodies, such as the United Nations. Thus, the nuclearfree movement was born out of the will of ordinary people. Those who collectively created the discourse of the abolition of nuclear weapons were researchers, media workers, activists, and those in public service. These are the collective voices of ordinary people that reached the ears of significant international bodies. Due to the scope of this presentation, I will leave aside the story of the Mie Peace Committee's protest letter for a future occasion, but I should like to make two important points here: first, at the time this letter was received by the UK government in 1957 the two parties - the people of Mie and the UK government did not share the same views on nuclear testing at all. For the people of Mie, their desire for peace meant protesting against nuclear testing, and they tried, unsuccessfully at the time. to communicate this to the UK. Secondly, however, later on the message did reach the world audience and, eventually, the message of nuclear disarmament was spread across borders.

My unexpected encounter with an old letter got me interested in finding out more about the "something" that spoke to my heart. I had not thought about it until then, yet it felt as if it concerned me personally. This sense of relevance is one kind of motivating factor for pursuing the Atomic-bomb experience heritage. The Japanese call the action, the process, as

well the result ofheritage transmission keishō. The word keishō has multiple meanings, such as "to pass on", "to hand down", "to inherit", "to convey", as well as "to learn", "study", "receive", "accept", or "preserve in order to inherit something". I will be using these English words interchangeably in referring to the Japanese notion of keisho. Unlike its English counterparts, keishō is an action of inheritance from the perspectives of both sides: the giver and the receiver. It is, therefore, an inclusive and continuous concept rather than exclusive and momentary. The word keishō emphasizes that inheritance involves the active participation of both the giver and the receiver. With this in mind, I would like us to consider together what should be conveyed to the next generation and for what reasons, to whom, and in what way.

I used to think of the Atomic-bomb experience as being exclusively about what happened on the sixth and ninth of August nineteen-forty-five under the mushroom clouds. As Professor Kawano said in his lecture earlier, however, I have learned, here in Hiroshima, that the Atomic-Bombing experience comprises of both "what happened on that day" as well as "what happened since then". In other words, it includes everything that has been perceived, felt and remembered by the hibakusha, throughout their lives,

since that day, that they have expressed and conveyed to us and which we will pass on to future generations.



Now, how can such personal experiences be communicated to another person? Feelings and wishes are an integral part of the memory of the Abombings and thus they must be conveyed as a whole. They are, however, the hardest things to render into words as our interpreters in the booth know first-hand from experience. Both conveying and interpreting other people's emotions is challenging, because our perception is inherently limited. Perceptions are shaped by our specific language, culture, generation and other things that we acquire in life. We understand the things that we see and hear using the knowledge available to us at the time in that situation. These aspects may significantly differ from person to person, too. How you perceive something is shaped by your own unique experiences, just as my perceptions are uniquely shaped by my own experiences. No wonder, then, that we struggle to describe someone's personal experience in our own words. Needless to say, it is impossible for one single person to digest and convey many hibakushas' Atomic-Bomb experiences. Having said that, however, we do not need to despair. Why not situate ourselves in a community of heirs, each carrying a portion of A-bomb memory according to his/her interests and availability? This is one facet of what call the participatory heritage approach to the Atomic-Bomb experience. In this regard, the hibakusha with the original A-bomb experience and all those who are involved in recording, organizing, keeping, exhibiting, managing, reporting it, or those who are teaching, researching, exploring and discussing it, as well as those who simply have an interested in it, all comprise the membership of the community for the Abomb experience heritage. You might ask: how can we create such a community made up of people from different generations and cultural backgrounds?

Let me ask you a question. When is "that day" in Hiroshima?

(The floor) "August the sixth!".

Thank you. Yes, you are right. How about the other one? "That day in Nagasaki?"

(The floor) "August the ninth".

Yes, thank you very much indeed. May I ask one more question? When does the "since then" refer to?

(The floor, murmur variously saying) "After the A-bombings?". "After the sixth of August 1945?". "The period between that day and now...".

Thank you. Yes, in this context "thereafter" does indeed include today and now. Actually, that you are able to give these same - and correct - answers is, in itself, an amazing phenomenon. "That day" and "since then" - if I asked the same question to people walking down the streets of, say, Shibuya in Tokyo, I would probably get completely different answers. "This", "That", "Then", these words are called deictic - or pointing words - in linguistics. What they refer to can only be understood by people share the who same conversational "space". For example, you and I are sharing a communicative "space" right now, and this is how we make a specific "community" of understanding for a specific discourse. Like sharing a secret code, you and I know what "that day" and "since then" mean in the context of the Atomic-bomb experience. Here, we share an important vantage point, which is adopted only by members of the same discourse community. So, how then has the community grown since "that day"? To explore this question, I would like you to see the next slide while remembering the protest letter by the Mie Peace Committee. This is an extract from an TV interview with Ms. Izumi Nakamitsu, the

United Nations Under-Secretary-General and High Representative for Disarmament Affairs, Office for Disarmament Affairs. The program was "Close-up Gendai+", aired on July 12, 2017,by the Japanese national broadcaster NHK. The interviewer asked, "Given challenging the situation surrounding denuclearization initiatives at the UN and around the world, how would you view the wishes of the hibakusha?" Ms. Nakamitsu answered: "For many years the hibakusha have continued to give testimony about their experiences that are, for them, almost too ghastly to even mention, but their tireless efforts have become the backbone of the denuclearization movement."



In other words, every step taken since "that day" by each individual who carries the A-bomb experience, despite being regarded as an "insignificant group", has collectively produced, over time, a powerful message that has eventually reached, for example, the United Nations, or brought about a visit by the president of the United States to Hiroshima. These

the remarkable results ofthe community's efforts. How community has evolved and what it has achieved is, in itself, an astonishing fact to be reckoned with. The life-long experiences of the community members since "that day" are also an integral part of the Atomic-Bomb experience. Their knowledge and viewpoints, firmly based on their experiences, are the key to building the discourse community of the A-bomb experience. There are many ways of communicating this other than orally. Reporting it in the media, teaching it in classrooms, exhibitions at museums and living out the life of a survivor, are just a handful of examples. Others include: what we feel with all our senses about the survivors' testimony, how learning about a hibakusha's life touched one's life, and so forth. Collectively they create a discourse of A-bomb experience. The manner in which this experience is narrated, as well as our own opinions about how it should be done, can also constitute a part of the discourse of the Atomic-bomb experience. Like throwing and catching a ball, the discourse is communicated and exchanged between participants in the community. It is a very special kind of ball though. In every exchange, the ball - discourse - takes on additional information, being enriched or modified through adding, editing, or the forgetting of elements of it by the

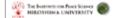
interlocutors. To illustrate, this picture shows how a network of communication is composed of a variety of participating organizations, such as schools, museums, etc. Each participating member contributes to the development and passing on of the discourse of Atomicbomb experience. This discourse is a Each living creature. person's participation enables it to live on. Thus, our research institute is also actively engaged in communicating the Atomicbomb experience and creating a network of discourse participants.



Within this network, our research team at the IPSHU is striving to elucidate the process of remarkable conceptual transitions that the Atomic-bombing survivors have gone through during the past 73 years: the memories of pain, sorrow, anger, and hatred against the foe that have tormented them and shaped their lives for years. Yet, somehow, through all the years of their struggle for survival, this same group of people have emerged as a collective symbol of peace for all. There is an

interesting, transient facet of the A-bomb experience, which, over the years, has developed into a driving force behind the worldwide non-nuclear movement. Something extremely negative, painful, and personal has turned into a collective and forward-looking will for global peace not just among the localized group of hibakushas but rather among the likeminded people across the world. This tremendous conceptual shift on a global scale makes the A-bomb experience exceptionally unique.

At the same time, however, given the right conditions, the same type of transition might occur under completely different set of circumstances. That is, how the hibakusha turned around their negative experience into a peace movement of global scale can have a potential application to other cases of victims in conflict situations. The experiences of this group of people who came together, despite their differences, and who struggled to survive individually, as well as collectively, have valuable lessons to teach to others. It with may provide us kevs to reconstruction after conflicts, possibly leading to reconciliation and peace. This is why understanding "that day" as well as the "thereafter" of the Atomic-bomb experience is crucial. This is an example of memory that contributes to our future.



Potential contributions through research

- "The A-Bomb experience" is a lifetime journey of the hibakusha who have survived so far by:
- overcoming their sorrow & pain, anger or hatred against the foe, and
- finding a meaning of life in the "hope for universal, lasting peace".
- → A unique case of war victims' memory and its transitions.
- → Universal applicability. Potential key factor to reconciliation.
- → The shifting mindscape from "that day" through "thereafter" needs to be investigated.

So then, why must we actively pass on memories? It's because such the memories, which may provide keys to peace, are in danger of being forgotten which, according to the hibakusha, could lead us to repeat the events of "that day" again (Kawamoto, et al. 2016). Memory susceptible can be to subjective variations. Even today, the A-bombings are remembered in different ways, depending on the narrators' viewpoints and socio-political leanings, and this discrepancy could lead to new conflicts. Therefore, our first step is to clarify what discrepancies there are in the memories of the A-bombings, and in what specific historical context of war memories they exist. Memory conflicts can occur not just between different people, but also between the different stages of an individual's life. Memory can shift and transform, depending on the time and place, or the context in which the person such memories. memories of the A-bomb experience can change over time due to changes in public opinion, the media, or even personal recollections, possibly transforming the identities of the hibakusha, too. Indeed, the hibakusha's identities have transformed. from that of afflicted/victims mobilized into collective force campaigning for peace. They have come to symbolize the citizens' collective will for peace, but how that has happened is seriously under-researched. Hence, our study attempts to uncover the process of this transition and systematically provide an explanation for it.

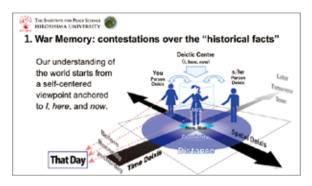
Procedure

1 Why—Contested war memories—conflicts over the "historical" interpretation
2 What. — Shifting memory of the A-Bomb experience and the identity of the hibakusha
>Evolving from a helpless victim to a leading activist for peace and a symbol of peace
3 How—Challenges in the process of systematic analysis and their solutions
- Social, temporal, personal, methodological, and empirical challenges.
4 The data and methodology
- Statistical, linguistic, socio-historical, and personal considerations.
5 What to whom, when, where and in what way? The research findings and the database will be open to public. Towards a sustainable participatory heritage of the A-bomb experience.

It is a method of explaining the way in which the A-bomb experience has been narrated and passed on so far. A structured and organized information database will facilitate translations into different languages, which is one way to overcome language barriers. To explain our approach to collecting and analyzing this information I would like to briefly introduce some of our methodologies. Using the database and information that our research has generated so far, we will discuss how and when, where and to whom, we should aim

to pass on the memory of the A-bomb experience.

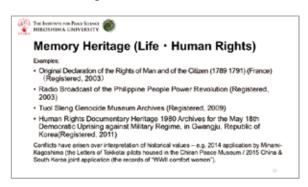
To begin with, let us take a moment to consider why there are a myriad of memories and interpretations about the same war. Some of you may have had a chance to hear the testimony about "that day" from a hibakusha, but have you ever felt emotionally distant or a little alienated? Have you ever felt ashamed because you were unable to connect with the hibakusha, wondering if you were, inside, an unfeeling, cold person? On the other hand, have some of you who are hibakusha ever felt frustrated because you were unable to communicate your thoughts to, say a 12-year old child, listening to your testimony? Did that make you feel inadequate? I am also frustrated frequently by miscommunication. It makes me feel inadequate. We are not. however, entirely to blame for breakdowns in communication, because we are at the mercy of language systems which themselves actually create fundamental communication barrier. Languages operate in a self-centered mental space which allows us to orient ourselves in the world in relation to other beings (Brown 1995). Here is "I" and there is "this" in front of "I" and "that" a little away from "I", and "that over there" further away from "I". (note from the author, Japanese has a proximal, medial, and distal "pointing" system.)



Despite being held back by this selfish language framework, we do our best to reach Out tο other people hv communicating with them. In addition, historical, social, political and cultural frameworks limit viewpoints. Consequently, similar experiences of the same war may be narrated quite differently by people holding varying views and the difference can create further conflict. To counter this, there international projects are which facilitate cross-border sharing of memory heritage. UNESCO's "Memory of the World" is such an initiative. fundamental aim is to preserve valuable artistic and literary artefacts such as historical documents, drawings, music and so on, in order to share them with a wider world community. Examples include: the UK's 'Magna Carta', France's 'Déclaration des Droits de l'Homme et du Citoven', the Netherlands' Het Achterhuis ('Diary of Anne Frank'), and Japan's 'Materials Related to the Keichō-era Mission to Europe, Japan and Spain'. The initiative's underlying concept is that preserving documents that concern people's lives and human rights as a Memory of the World will have the power to prevent future conflicts. Disagreements, however, have emerged over what should be preserved as an international heritage.



For example, Minami-Kyūshu's application to include the letters of the Special Attack Squad members housed in the Chiran Peace Memorial Museum triggered harsh criticism in 2013-2014 from South Korea and China. Debate over what should be preserved and how it should be passed on could spark a storm of controversy. In such a situation, creating a discourse community with a shared viewpoint is crucial.



To communicate such memories, should we concentrate simply preserving valuable artifacts and documents? No. Rather, as Director Shiga demonstrated earlier, they must be audience presented to the appropriate methods for the purpose of research and education. The memory and heritage arm of "Horizon 2020" in Europe is one such research and education initiative. There are, in fact, a variety of other projects which make the most of war memories across the world for the nurturing of a will for peace. We would like to link the passing on of the A-bomb experience to these initiatives.

Speaking of the world, we have entered an era where we are faced with an onslaught of multi-layered, multiplesourced, digitized information. The internet has opened the door for virtually anyone to disseminate news information, making it impossible to control its volume, clarity and reliability. This is a clip from Yomiuri News with the title: "The 'true' news is the one that's convenient". Another one, from Asahi News reads: "Fake news, Beleaguered Europe". Indeed, we do not know how much of the news on social networks is factual. In the midst of this information chaos, we are required to carefully select evidence-based information to pass on reliable A-bomb experiences. We need to make choices based on a clear policy and system — that is, to have a theory to inform our choices. Here, the Atomic-bomb experience provides the "evidence-based theoretical approach" that guides our judgement in discerning fact from fiction.

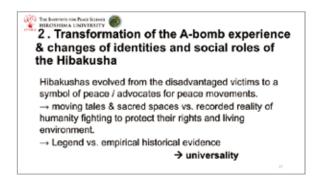


"Atomic-bomb experience" is a term coined by Professor Tadashi Ishida to system ofthought refer to encompassing the manifold emotions of the survivors of the Atomic-bombings. The acts term assupernym incorporating both hibaku ('exposure to the A-bombing') taiken ('experience'), referring to the events of "that day", and also the subsequent suffering, lives and development of the survivors and their society. Having this term for the theoretical allows approach us. researchers to capture the transitions of the A-bomb experience over the years systematically and objectively. It also provides researchers with a holistic perspective for studying the effects of the Atomic-bombing on human enabling them to place equal importance

on their physical, socio-economic, and spiritual-emotional experiences.

The important point isthat survivors live on and the bombed communities did not end on "that day". The victims climbed to their feet. They rebuilt and reconstructed their society and their own lives. New lives came and grew. The Atomic-bomb experience is not just about passive suffering, but also about an active, undeniable, real-life experience. An experience which grew out of the regional confines of Hiroshima and Nagasaki and developed into a universal will for peace driven by the voluntary participation of people with similar desires across the world.

The study of such transitions will point us toward the possibilities of future efforts for peace. Theorizing the Atomic-bomb experience will allow us to hypothesize the conditions of survival and participatory recovery, informed by the conditions in Hiroshima and Nagasaki. It allows us to consider the possibilities reconstruction and building of a system of thought for peace in similar or different conditions. Thus. from the real-life experience of the citizens of Hiroshima, keys to peacebuilding may emerge. This universality is at the core of our research into the Atomic-bomb experience and of our efforts to pass that on.



For that reason, we will collect, manage, analyze, offer, and disseminate knowledge and research outcomes on the A-bomb experience. However, such an ambitious project comes with major challenges: the challenge of time to begin with. The hibakusha and those who have supported them are of advanced age. Memories of "that day" may wane somewhat with the passage of time. As Professor Hoskins demonstrated clearly earlier. them slipping out of the public consciousness is another challenge.

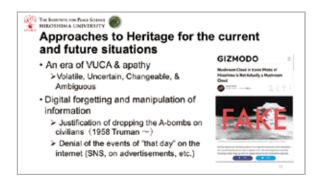


Additional unique challenges may arise, depending on the source of information. The Atomic-bomb experience is not only being disseminated by those with first-hand experience, but also by those who

don't, and this may lead to the spread of falsehoods.

The current world is said to have entered an era when it is VUCA: Volatile, Changeable, Uncertain and Ambiguous (World Economic Forum 2016). Such traits can be observed in various political, social, economic and environmental situations. Peoples' lives are unstable, and they are mentally fatigued, a state which is compounded by the manipulation of ever-conflicting news information. In the midst of the VUCA era a renewed effort to justify the two Atomic-bombs dropping the emerging with arguments similar to Truman's 1958 interview with CBS. Some netizens are even expressing doubts over most of the facts about the damage caused on "that day". This is an extract from an internet discussion. You see the big banner, "FAKE" on the well-known photograph of the mushroom cloud, alleging that the famous photo exhibited in the Hiroshima Peace Museum is a fake. A closer examination of the article reveals that the purpose of the shocking title is only to get the reader's attention. The contents are quite different: it reported the recent discovery of another photo, in The New York Times, of the clouds over Hiroshima on "that day". Indeed, the photo in the Peace Museum is real, not fake. The author of this posting was criticized online: "You put "FAKE"

on the photo, just because you wanted to get attention to your posting. Irresponsible!".



This is a good example of people voluntarily participating in an internet community, discussing how the Atomicbomb experience should be conveyed and passed on. It also shows how the audience is concerned about the possible effects of sharing false information and motivation behind it. It suggests to me that our research should also take these factors into account. Where misinformation occurs, we must not only quickly correct the error, but should also supply clear, evidence-based information instead. Such constant efforts will help to build a discourse community of Atomicbomb experience that provides reliable historical facts.

Motivation has a tremendous influence on communication. Motivation is born out of interest. We do not pay attention to something that does not concern us much. News about the mushroom cloud is not a big deal to those who are not interested in it. Supposing the same group of people

happened to like anime, and you say to them, "the heroine of the anime "In This Corner of the World", 'Suzu-san', lived in Hiroshima, the bomb was dropped over her sister, and these photos of clouds show the sky of that day", you are for providing a context interpretation. Then, showing controversial photos, you may tell them, "for a long time the US did not provide Hiroshima with such photos. Those in the Peace Museum were acquired after years of waiting. The one in the New York Times was discovered only recently...": you are thus providing facts and a historical timescale which helps the sceptics to see the bigger picture. Taking the time to weave these factual threads, and providing context to each of them, we will weave a tapestry of evidence-based testimony.

In other words, this is creating a discourse of the Atomic-bomb experience.

Professor Hook demonstrated how providing layers of contexts and multiple viewpoints enriches the analyses of the discourse of the war in Okinawa. In considering Japan-Okinawa relations, for central government the day to commemorate the restoration of sovereignty may fall in 1952 (the end of the US occupation of Japan), but, from the Okinawan viewpoint, it is 1972 (the year of the restoration of the Okinawa islands by the US to Japan). These

competing viewpoints create the complex and rich discourse for the memory of the war in Okinawa.

Let next discuss our multidisciplinary methodology for capturing the discourse. collecting texts from a variety of sources, both public and private, including news articles. testimonials. interviews, public documents and so forth, to create a master database. It records the texts, sources, dates, and other attributive information that provides the context for interpretation. Some parts are quantified quantitative analyses, and the results further analyzed qualitatively, taking into account the social and cultural conditions in which the text was produced. Of course, people's privacy is robustly protected. Thus, we aim to produce a comprehensive database for holistic study. For example, the shifts in recent years in the survivors' views on the A-bombings was observed in the Asahi Shimbun surveys as well as the Yomiuri-IPSHU Joint Surveys. Another ongoing study isa longitudinal, historical study of transitions discourse patterns. That is, how the Abombs have been described over the years, since the late 1940s. This pilot study uses national and local broadsheets such Chugoku, Okinawa Times, Mainichi,

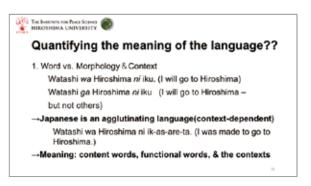
Asahi, Nikkei and so on. The outcome will be compared to the results of similarly-designed studies in English. These will shed light on how the discourse of the A-Bomb experience has developed up to now.

Individual and personal information is equally important. Each of the letters and memoires of the hibakusha and their families, for example, express invaluably unique discourse. A slip of paper on which is scribbled a person's private thoughts on the A-bomb experience is also precious. A short tape of testimony speaks volumes. Visual and artistic expression also comes into our scope in the future.



Turning to the quantification of the expression of thoughts, views, and feelings, let us consider the next example. Japanese has a case-marking system using particles that also indicates the speaker's views. Hence, there is a semantic difference between "I go to Hiroshima" with a particle "WA" or "GA" both of which marks the subject "I". While "WA" topicalizes the subject "I",

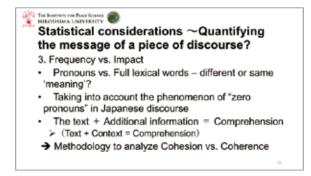
"GA" clarifies who the subject is. Such a subtle difference is actually very important information but when quantified, both particles count as ONE syllable. Clearly, mere quantification is not enough to represent the contents of the hibakusha testimonials.



Speaking of counting, unlike English, Japanese is an agglutinating language, thus the units of meaning are differently structured between these two languages. In our morphological analyses, we find the subtle expression of varying emotions conveyed by tiny inflectional changes in auxiliary verbs. This is an example of concordance analysis conducted by Professor Kawano. It shows how and in what linguistic context "A-bomb exposure" or "hell" might appear in a text. This is one way in which statistical results can be interpreted in context.



This method also helps to identify the referent of a deictic word, that is the pointing words such as "this" and "that". Simply counting their surface occurrences in a text does not reveal much about the discourse. Instead, we find out what "that" refers to in a specific context. It could refer to "the bomb" or "the burning roof tile", for example. Each word was chosen and used for a reason by the speaker, and we scrutinize each one to find out what it is meant to convey.



In carrying out a discourse analysis, we check for meaning, bottom-up, unit by unit, whether that be a word, sentence, a paragraph in context, how the sentence was put together, how it was uttered and in what context, et cetera. As language is a living entity the same word can mean different things according to the setting and intention of the speaker.



The next example shows how silence and omission are also extremely important and eloquent. Without further ado, let us look at an example.

(recorded monologue played).

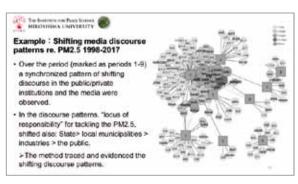
This is the recording of an interview with Julius Robert Oppenheimer. Ten years after the Atomic-bombings of Hiroshima and Nagasaki, recollecting the nuclear test on 16 July 1945, he said:

"We knew the world would not be the same. A few people laughed, a few people cried, most people were silent. I remembered the line from the Hindu scripture, the Bhagavad-Gita. Vishnu is trying to persuade the Prince that he should do his duty and, to impress him, takes on his multi-armed form and says, "Now, I am become Death, the destroyer of worlds." I suppose we all thought that, one way or another."

Not once in this speech does Oppenheimer mention the Atomicbombings, nor does he refer to Hiroshima or Nagasaki directly. Yet we immediately know that he was indicating his regrets about the devastation caused by the Atomic-bombings of these two cities. Why? There may be reasons he chose not to. We will investigate how the discourse is created. You may have also wondered why he quoted from the Hindu scripture? This will be a key to the speaker's background (Oppenheimer in this case). Ten years after the bombings society had moved on. It was in the middle of the Cold War. Could it be anything to do with avoiding being seen as a communist, to avoid persecution in the US? There are possible layers of contextualization. Did you also notice - yes, you did? Yes, he spontaneously wiped his tears. That piece of information is also a part of the discourse.

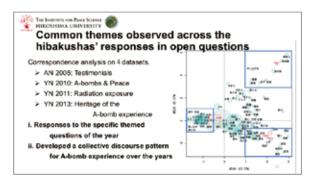
Lastly, I would like to introduce some methodological examples that I have been developing. This slide shows a discourse analysis of media reports on cross-border air pollution. Topics of the reports include: explaining a harmful substance called PM2.5 in the air blown from China, discussing how to deal with it, arguing who may be responsible for the pollution, and so on. Every news item includes the term "PM2.5", published in Japanese up to March 2016, was collected and recorded to create a database, then analyzed for its discourse structure and for the changes

narrative over time. Here is the result. Over time, the media discourse has shifted the locus of responsibility for PM2.5 air pollution. Originally responsibility was ascribed to the State, but it then shifted to the municipalities, then to industry, then to the ordinary citizens. In this way, we are able to empirically demonstrate how, over time, the media reflected the way loci of responsibility for PM2.5 air pollution shifted between different actors in society. This methodology is useful for depicting the transition of feelings and thoughts in discourse.



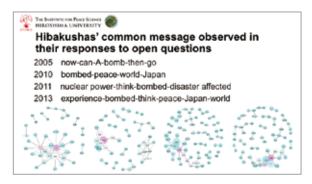
Applying this methodology to the current research, we analyzed the responses to the open-ended question section of the 2005 Asahi News survey as well as the 2010, 2011, and 2013 Yomiuri surveys. The respondents answered in line with the specific theme of each year, but at the same time, collectively, their responses appeared to form a unique message for that year. Then we examined what these messages contain by using the co-occurrence network aalysis method.

The results revealed that respondents used a unique set of words in each separate year, creating a specific message for that year.



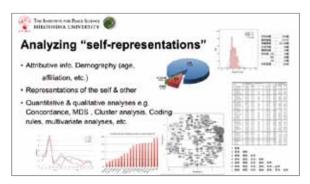
For example, the prominent message in the 2005 survey was to "continue carrying out" "what we can do now" whereas, in 2010, the respondents expressed the desire for "peace" of "Japan" as well as "the world" based on their "suffering from the Abombings". Their message in 2011 focused on the "nuclear plant disaster" which aroused their "thoughts/feelings" about their own "exposure to" and "suffering from" the "Atomic-bombing". Then in 2013 the hibakushas' "thoughts/feelings" turned to "telling" or "passing on" their "A-bomb experience" for the sake of "peace" for "Japan" and "the World" alike. In summary, the link between the personal A-bomb experience and universal peace appears to strengthen over time, even within this small timeframe. Notably, the open-ended question section is not compulsory. The respondents can choose a topic freely. Yet, collectively, a message appears to emerge

from the hibakushas' responses each year, which seems to shift over time.



As above, we have looked at attempts to quantify "thoughts/feelings" in variety of cases, using a range of analytical methodologies. They can be represented in graphs such as these, but this is not enough. They are situated in context and need to be examined further. For example, the discourse is situated in relevant historical events. This step reveals how, over time, the A-bomb experience has changed and described in many different ways. Reasons for the change are being considered and explained (Kawamoto, van der Does, Kawano 2016). We will continue to demonstrate empirically how and in what context an individual's experience of "that day", with its emotions, thoughts and will, has evolved throughout their life into a collective will for universal peace. In particular, we will focus on the transitions of the views within the community of hibakusha that survived. reconstruction and disseminated their message far and wide, making their mark.

Ultimately, our aim is to pass on the research outcomes to you as something you will find to be relevant to you. I hope it will stir your interest and motivate you to participate in furthering the understanding of the A-Bomb experience.



We hope to create an information hub for the Atomic-bombing experience and will report our progress to you the next time we meet. The heritage of the Atomic-bomb experience will live on through two-way (bilateral) communication, which we call keishō. We would like to invite your participation in the keishō of the Abombing experience and on that note, I would like to conclude my presentation.

Thank you, once again, for your kind participation.