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The Cult(ture) of the Second Sun: Remembering, Repeating, and Performing the Past Imperfect

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Article abstract

This paper advances a pragmatic semiotic understanding of memory. By focusing on what is done with the real-time act of commemoration (or, the selective citation of memories), I analyze the multifunctional and multi-layered semiosis in society that presupposes and creates one's experiential continuity between past, present, and future despite sudden (and catastrophic) change. I argue that the 2011 tsunami and ensuing nuclear meltdown in Fukushima, Japan, have unearthed parallels between the semiosis of regimentation and commemoration with regard to their interpretability, performativity, and repetitiveness. Following Parmentier, regimentation is a struggle of interpretants for the proliferation of a certain belief associated with the act of remembering/forgetting in grounding the socio-cultural continuity. I conclude by making a cautious suggestion to apply both Saussurean semiology and Peircean semiotics to study the real-time, historically represented and stochastically determined social life of signs.

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The Cult(ture) of the Second Sun: Remembering, Repeating, and Performing the Past Imperfect [1]

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"[P]eople's memories are maybe the fuel they burn to stay alive. Whether those memories have any actual importance or not, it doesn't matter as far as the maintenance of life is concerned. They're all just fuel. Advertising fillers in the newspaper, philosophy books, dirty pictures in a magazine, a bundle of ten-thousand-yen bills : when you feed 'em to the fire, they're all just paper. The fire isn't thinking 'Oh, this is Kant', or 'Oh, this is the Yomiuri evening edition', or 'Nice tits', while it burns. To the fire, they're nothing but scraps of paper. It's the exact same thing. Important memories, not-so-important memories, totally useless memories : there's no distinction – they're all just fuel". - Haruki Murakami, *After Dark*.

Introduction : *Omne symbolum de signis?*

The main purpose of this paper is to advance a pragmatic semiotic understanding of memory through an analysis of a commemorative process. The working definition of the pragmatics of memory is that it seeks to study the context-dependent outcome of the selective preservation and elaboration (or at times suppression) of the linkage between memories and history in society. By engaging with an interdiscursive (*cf.* Silverstein 2005) memorization of Hiroshima after the Great East

Japan Earthquake of 2011, this article critically examines how after sudden change 1) people generate a new set of linkages between spatio-temporally distinct events in order to achieve the continuity of their preceding beliefs; and 2) this process is mediated by a performative recitation of both an appropriate social code and entailment of a new belief about social action.

In so doing, I privilege the pragmatic dimension of memory, and in particular what is performatively *done* with memory (*cf.* Aarelaid-Tart 2010), as it concerns its outcome materialized in a resulting belief and action. The central premise of such a pragmatic model is the presence of an underlying semiosis as the ground for social reality and cultural presupposition – the ever-flowing continuity of the Peircean principle of "synechism" (CP 7.565). I will employ Silverstein's concept of regimentation (n+1 order indexicals [Silverstein 1992; 2003]) that seems to carve general semiosis into a certain set of ideological frames in society through which real-time indexical signs emerge as if they were genuine replicas of some pre-existing code. The guiding questions of this paper are thus : how is the referent of a representation (signs *of* history) "charged" by the production of an interactional text within an actual or a real-socio-space-time context (signs *in* history)[2] and vice versa (*cf.* Parmentier 2007 : 276)? Further, how are indexical orders (Silverstein 2003) ordered?

The performativity of memory is hypothesized to index, in the present, a selective citation of a past for an imagined future expectation. Following a Peircean conceptualization of the index's "dependence" (CP 3.422) on both the past (icons) and the future (symbols)[3], I will show how signs in society manifest a historically represented and stochastically (*i.e.*, specific to a matrix of historical and cultural contexts of their occurrence) determined real-time signification of *meaning-full through* (Morimoto, forthcoming). I propose the notion *meaning-full through* to capture a set of ethnosemiotic presuppositions that are necessary for any sign in society to be effective, that is, believable, though such presuppositions often escape the awareness of sign users themselves (Silverstein 2001).

The specific case I focus on here is a special presentation entitled "Anti-Nuclear Weapon and Anti-Nuclear Energy" that was given during the 67th anniversary commemoration of the A-bomb, a memorial event that was organized in Hiroshima in 2012[4]. By closely analyzing the performativity of memory in the context of commemorating "No more Hiroshima", I will show how the act of commemoration, as a sign, is an objectification, or a typification of "semiotic regimentation" (Parmentier 1994). I will conclude by making a suggestion for the possible integration of Saussurian semiology and Peircean semiotics in semiotic anthropology by proposing that we model the growth of the Peircean symbol from the perspective of the Saussurian sign.

Background : Do Indexes Need Their Index?

Before delving into the case analysis itself, it is necessary to briefly apprise the reader of the historical specificity that renders this event different from previous annual A-Bomb day memorials in Hiroshima.

On March 11th 2011, at 14 : 46 p.m., a magnitude 9.0 earthquake struck just off the coast of the Miyagi prefecture, 231 miles northeast of Tokyo. Within an hour, a devastating tsunami swept the coast, leaving 15,883 people dead and 2,671 missing (according to information released in June 2013). Due to the fatal sequence of these two natural disasters, the Fukushima Daiichi nuclear plant, northeast of Tokyo, was severely damaged. As a consequence of this technological disaster, up to 315,196 people were evacuated and dispersed all over Japan (Cabinet Office 2013). Two years after this triple disaster the rest of Japan continues to be apprehensive regarding the Fukushima region due to both real and imagined threats of nuclear contamination. This has forced many residents and evacuees to attempt to suppress from their memory – if not to forget altogether – their own home in order to avoid association with the now-stigmatized homeland. The subsequent real and imagined nuclear contamination poses a historical and cultural challenge, as the language of radiation contamination (*hibaku*) is a culturally-specific mnemonic pointing to the memory of the A-bombs deployed in Japan during World War II (Taguchi 2011; Yoneyama 2005).

The connection between "atoms for war" (Hiroshima, Nagasaki) and "peace" (Fukushima) was made explicit by the city of Hiroshima's invitation of Fukushima residents to the annual A-bomb anniversary event in August 2012. This Hiroshima-Fukushima connection has revitalized the anti-nuclear position in talks concerning the risks of nuclear energy, a position which had been silenced in recent decades by the "safety-myth" (*anzen shinwa*) (Hosaka 2011; Kainuma 2011; Ugaya 2013). Moreover, such interlinking of past and present has also led to an uncovering of the unspoken history of the atomic age that shows how the direct victims of the A-bombs (*hibakusha*) have been among the most enthusiastic supporters of the post-war development of nuclear technology in Japan (Tanaka and Kuznick 2011; Zwigenberg 2012).

These facts point to the importance of a heightened awareness and reorganization of both the history and the imagined future of the country after the 3.11 disasters. Moreover, it suggests that remembrance of the past in the present is linked and made relative by a set of real-time pragmatic selections of memory that seem to construct an experiential continuity between past, present and future. In contrast, many of the people in Fukushima with whom I interacted during my fieldwork in the summer of 2012 voiced their distaste of the emergent anti-nuclear energy protests in Tokyo and elsewhere[5]. Many evacuees, hailing from areas surrounding the nuclear plant, chose to be relocated to areas where there are other nuclear plants, a choice that indicates, among other things, the

regions' economic dependency on nuclear technology (Kainuma 2012). In addition, and unbeknownst to many urbanites, the electricity produced by the Fukushima plant is consumed only by the residents of Tokyo and neighbouring areas and not by the residents of Fukushima themselves. Some people of Fukushima feel that the newfound anti-nuclear protests only reinforce the already-burdensome stigma of contamination, while continually silencing the sacrifices that the people of Fukushima have been making for the urban centre. Therefore, instead of searching for some hope in establishing new ties with the people of Hiroshima and Nagasaki, several citizens of Fukushima have been trying to learn from the city of Minamata in order to redress the region's reputation and the negative social impact of (nuclear) pollution (*cf.* Yoneyama 2012). During the 1950s, there was an outbreak of industry-caused mercury poisoning in Minamata (dubbed "Minamata disease", see George 2002, 2012). But since then victims of Minamata disease have been using their "biological citizenship" (Petryna 2002, 2004), in a fight to determine the exact cause of the disease while arguing for industry and government accountability in such environmental disasters.

The interdiscursive process of memory resulting from current disasters illustrates what Parmentier calls "a struggle of interpretants" (1997 : 8) *vis-à-vis* the representations of the 2011 events. This struggle involves four parties : Fukushima, Hiroshima, Nagasaki, and the rest of Japan. Each group is trying to represent and determine the meaning of a single event, though with different results. While the victims of *hibaku* are using the current nuclear disaster to voice their interest in sustaining the anti-nuclear weapon position, especially as the number of survivors of Hiroshima and Nagasaki diminishes each year, citizens of Fukushima wish to avoid being associated with radiation sickness, choosing instead to connect their hardship to pollution as a disaster which may be overcome (exemplified by the case of Minamata). The rest of the country, on the other hand, seems to be reading the catastrophe as a failure of the government and is using the memory of the Fukushima incident to re-evaluate the current energy policy and the state of post-war democracy. This interdiscursive struggle is diagrammatically represented in Figure 1.

The post-disaster context[6] is particularly well suited to illustrate the ambiguous social life of indexical signs (*cf.* Parmentier 2012). A large-scale disaster produces uncertainties (Button 2010) that call for an after-the-fact determination of the "what" of the disaster. In other words, disaster, if and when it is consciously experienced, is always already a mediated phenomenon. It is made relevant to us, while its own compulsion is never determined, beyond the suggestion that it *must* mean something since it affects us in some way (*cf.* Lambek 1996 : 240). In consciously confronting disaster, we make a rigorous effort to remember it by narrating, re-elaborating, and making claims of the memory and the facticity of the past in the present and/or work

to find some equivalent case in history in order to identify a pattern. In fact, a significant amount of time and energy has been spent on *ad hoc* analyses of previous disasters in the north-eastern regions of Japan (*e.g.*, Imamura and Anawat 2012); current scientific endeavour strives to point to the most iconic instance in the past record to determine the cyclicality of – and thus the predictability of – such disasters.[7]

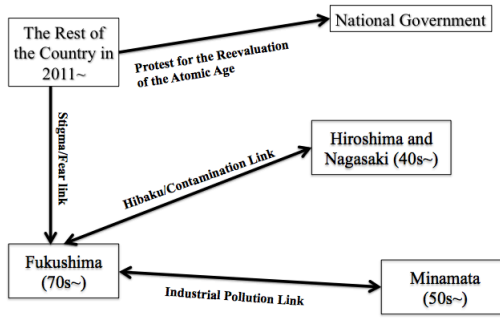

Figure 1 : An Example of Interdiscursive Process of Memory After 3.11

The plausible account of what happened, therefore, is always a representation, in the sense of the Boasian secondary elaboration (1910) or in the sense that it is subjected to semiotic mediation (Mertz and Parmentier 1985). People not only remember *by* something, as when they retrieve the past through a set of habitual associations (*i.e.*, mnemonics [*cf.* Yate 1966]); they also use memory *for* something (*e.g.*, Geary 1994 : 12), in order to produce a new memory with the hope of future continuation (*i.e.*, commemoration [*e.g.*, Saito 2006; Schattschneider 2009]) or to deny the coexistence of multiple memories or versions of a past event in favour of a single authoritative one (*i.e.*, "historicization" [Parmentier, personal communication 12-27-12]). Therefore, remembering/forgetting as a model of semiosis is always a historically and selectively accumulative struggle of representation and determination, one in which memory is a belief about an action or an event regarding the past that is acquired by an individual or a group of people in a specific context of remembrance. The performance of memory, thus, calls for an alibi or a set of alibis for its believability, especially when there exists more than one probable belief about the past.

This pragmatic perspective on memory purports to set the moment of performative mediation as an historically and culturally specific node of shifting coordination between belief and action (*cf.* Galison 1997) in order to ask : how is observable action coordinated with the modification

of a set of pre-existing codes or "deep social grammar" (Oliver-Smith and Hoffman 2002 : 10)? If, as theorized (Silverstein 2003), indexical signs need a higher order indexicality, – specifically, a semiotic ideology (Parmentier 1997 : 24) – to produce culturally significant meanings by typifying signs' "appropriateness/presupposition of" and "effectiveness/creation in" (Silverstein 1993 : 36)[8] particular contexts of performance, then disaster as sudden change (Morimoto 2012) offers the analyst a clue as to how a matrix of indexicalities is (re)organized. The theoretical concern at hand is the intersubjective relay of the real-time "arbitrarization" and/or motivation of indexes through their index – in other words, the oscillation of the semiotic ground[9] of "believability" between a referent that has often been naturalized and a set of habitual beliefs that have been conventionalized as the referent (*cf.* Barthes 1988 [1964]).

What follows illustrates how such a process of grounding can be ethnographically observed in situations that follow a sudden change (such as a natural disaster) and where an acute awareness of the imperfectness of the past and of the "debatability of history" (Appadurai 1981) emerge.

A Brief History of the 'Nuclear' in Japan

The specific case for analysis here centres on the performance of memory by the survivors of Hiroshima in the light of the Fukushima disaster. In such mnemonic performances, survivors aim to reassert their voices by linking the current event with the event of 67 years ago so as to project a certain future. I use the data collected at the 67th anniversary of the commemoration of the A-bomb victims in Hiroshima (August 6th, 2012), drawing especially from the presentation led by a nuclear scientist, Yoshiaki Koide from Kyoto University. The presentation was delivered at the meeting, "8.6 Hiroshima – The Evening of Peace"[10]. I will focus my discussion on the metapragmatic re-direction of the object of commemoration under the guise of metasemantic unification of the pre-existing linguistic divide between the terms "*kaku*" ('nuclear weapon') and "*genshiryoku*" ('nuclear energy'). The projected outcome of Dr. Koide's real-time performative recalibration of post-war memories in Japan demonstrates the complex working of semiotic regimentation as a repeated, commemorative practice. In turn, I will discuss how his message is actually relayed by the specific "stance" (*cf.* Kockelman 2005) of his audience.

In Japanese, the English term "nuclear"[11] has been strategically translated into two signifiers with their associated signifieds : *kaku* (核) for nuclear weapon/war, and *genshiryoku* (原子力) for nuclear energy/peace (*cf.* Ugaya 2013). This is exemplified by the selective usage of 'nuclear' to associate *kaku*/war with talk about the 'nuclear' as a source of weaponry, while the term *genshiryoku*/peace is selectively used to talk about the 'nuclear' as a source of energy. In other words, two distinct

terms have been used ethno-metapragmatically to presuppose and create different domains of reality that are associated with contrasting beliefs and actions. There is, however, a discrepancy between the recorded history of Japan's active participation in the competition with other countries to develop an atomic bomb during World War II (*cf.* Hosaka 2011 for detailed history of the development of nuclear technology in Japan), on the one hand, and the post-war hypersensitivity to "*kaku*" but not to "*genshiryoku*", dictated by the particular usage of language, on the other. In reality, Japan is currently one of the most highly nuclear powered societies in the world. The effect of this linguistic split can further be observed in the fact that the explicit connection between Fukushima and Hiroshima and/or Nagasaki was not made prominent following the series of nuclear meltdowns in Fukushima, nor was there any explicit national or public discourse making such connections, despite the obvious potential use of the term *hibaku* to index this association. In 2011, it was little known (or else it was concealed) that there might be a direct link between nuclear weapons and nuclear energy. Against this background, the main goal of Dr. Koide's presentation, which I will describe below, was to elucidate the connection between the two terms. In order to fully capture the significance of his presentation, it is necessary to elaborate on one final, and crucial, component of the presentation's historical context, however.

Yuki Tanaka and Peter Kuznick (2011) critically analyze a shift in public discourse surrounding nuclear energy related to the post-war reformation of Japan. Nuclear energy was brought to Japan by a U.S. policy spearheaded by President Eisenhower, known as "Atoms for Peace" or "The Peaceful Use Of Nuclear Energy". One of the goals of this policy was to build Japan's first nuclear power plant in Hiroshima. Although no plant was ever built in there, the plan still left historical "traces": indeed, the technology used for the reactors of the Fukushima Daiichi Plant is the same as that which has been used in at least 23 U.S. reactors, all of which were designed by General Electric (Dedman 2011).

With enthusiastic support from a Japanese politician, Nakasone Yasuhiro, and the owner of the Yomiuri newspaper, Shōriki Matsutarō, the U.S. campaign for promoting the positive sides of nuclear technology first entered the public sphere via a museum exhibition in Tokyo and then in Hiroshima in 1956 and again in 1958 (Zwigenberg 2012). The campaign resulted in the dramatic transformation of the opinions of Japanese anti-nuclear activists, including many A-bomb survivors who did not have official governmental recognition as *hibakusha* until 1957. Most significantly, the campaign produced two contrasting views : "the campaign against the use of nuclear weapons must continue; but nuclear energy for non-military purposes should be welcomed and promoted" (Tanaka and Kuznick 2011 : 4). The production of these two seemingly opposite views regarding the 'nuclear' thus materialized in language as

the split between *kaku* and *genshiryoku*. The outcome of this linguistic divide is simply astonishing. Not until after the Fukushima disaster did many Japanese seriously ask themselves, for example, why is "the only country victimized by A-bombs […] one of the most enthusiastic of the very technology […]"? (Taguchi 2012). But Dr. Koide interprets the split as non-contradictory : "exactly because Japan was the victim of the supreme power of [the] nuclear", he asserted to me during an interview in June of 2012, "[its population] desired to possess it, to control it, in order to overcome its own trauma".

Although Dr. Koide's psychological reading of the motivation behind the eventual approval by the Japanese (including the victims of the A-bombs) of the U.S.-led "Atoms for Peace" campaign is debatable, Tanaka concluded that "[t]his explains why A-bomb victim organizations, such as *Nippon Hidankyo* [the Japan A-bomb Victims Association], still maintain silence concerning the fatal incident at the Fukushima No.1 Nuclear Power Plant, and why none of the post-war mayors of Hiroshima have ever publicly criticized nuclear power" (2011 : 4). What is striking is that there is a clear parallelism here between post-war Japan's desire "to be a modern scientific-industrial power" (Tanaka and Kznick 2011 : 7) and the successful construction of the nuclear plant in Fukushima during the 1960s by a central government that promised the total transformation of this then-impoverished rural city into a big urban centre like Sendai (Kainuma 2011). In this regard, the motive behind the shift in the perception of nuclear technology from 'war' to 'peace' was not only fabricated by the linguistic duality noted above, but was also fuelled by the post-war ideology of development and progress. In particular, such mediation resulted, as in Barthesian mythology (1972), in a naturalization of the common referent for the two terms (*i.e.*, atomic power) as well as a sequential semantic difference (Saussure 1966) of meanings distributed between 'war' and 'peace', *vis-à-vis* the alienation of the process of nuclear production. Such an erasure of the original referent resulted in the public eagerness to suppress "the lessons of Hiroshima and Nagasaki" (Tanaka and Kznick 2011 : 7) and in powering the country with *genshiryoku*. The consequence of this 'mythology' appears to be not only a naturalization of ideology, as Barthes would argue, but also a habituation of the mode of interpretation, thereby reducing, semiotically, a Peircean trichotomous relationship of object-sign-interpretant into a Saussurian dyadic structure of sign (signifier) and meaning (signified). This partial reduction (the reducing of a referent without affecting its signification) exemplifies what Parmentier calls the "semiotic degeneracy of social life" – the misplaced reduction of one type of sign relation to a ground more normally characterized by another sign type (Parmentier 2014; see also Barthes [1986 : 139] on the erasure of the referent). It is, I argue, the effect of an ideological regimentation (Parmentier 1994); the rehashing of an ethnosemiotic theory of semiosis beneath a culturally motivated form of remembering/ forgetting.

Cognized as an arbitrary sign in both the Saussurian and Peircean sense, such a conviction to condemn *kaku* but not *genshiryoku* was maintained by the repeated commemoration of A-bomb victims. The case of A-bomb memorialization, as I will show below, exemplifies that "remembering or forgetting does not re-cognize its original referent…" (Morimoto forthcoming). Thus, the U.S.-initiated and Japanese-adapted splitting of Atoms 'for war' and 'for peace', and the ensuing repeated commemorative practice only to condemn the former, have both enabled, on the one hand, the specification of an anti-nuclear ideology by divorcing it from the pro-nuclear energy policy, and on the other hand, the reversal of the indexical order (*i.e.*, causal vector) (*cf.* Inoue 2004), whereby 'proper' consumption of the 'nuclear' necessitates and justifies its production. Notice that there is a 'reciprocal delimitation' of semantic values of the two signifier/signified pairs (Saussure 1966) : *kaku*/war and *genshiryoku*/peace. That is, the semantic value of *kaku*, differentiated by its sound, has an effect relatively and positionally on *genshiryoku* and vice versa. The differentiation has been maintained by the repeated usage of the terms to stand for the conventionalized concepts. Silverstein would argue, and rightly so, that language is social action.

Case Study : The Fixation of a New Belief as Continuity

Given the specific historical and cultural backgrounds of the event, Dr. Koide's performative presentation epitomizes a remarkable Peircean *abduction*[12] of the original signified of 'nuclear'. The evidence for this lies in the oscillation between both axes of 'appropriateness' and 'effectiveness' as his presentation unified the two indexical-orders in the present to entail another order. The audience mostly consisted of Hiroshima survivors and their families, who are most likely knowledgeable of the history of the A-bombs and of the technology behind them. The Hiroshima memorial museum I visited earlier that day had models describing the detailed mechanism of the A-bombs. To make his argument, Dr. Koide first produced a specific 'interactional text' (Silverstein 1996 *cf.* Agha 2007 : 100[13]) by situating the *origō* (*i.e.*, the deictic center) of his presentation in Hiroshima and parsing out how this location speaks to his identity as both a nuclear scientist and a nuclear activist. He stated :

> …Hiroshima is the place where I came *today* and it is where all of you have gathered… Hiroshima is *my source* for *initially* seeking to become a nuclear scientist. The reason why I became involved with the 'nuclear' (*genshiryoku*), *therefore*, has to do with the horrifying impact of Hiroshima and Nagasaki on me; with how I have been so greatly shocked by this event. Because of this shock I have hoped, *mistakenly*, to reverse such sublime power for peaceful use. That's the person I *was then*. I now realize, however, how wrong my *initial* decision was, and *today* I would like to speak about this (emphasis added).

Having introduced himself while emphasizing the difference between his past and present beliefs concerning nuclear technology, Dr. Koide went on to talk about the bombing of Tokyo on March 10, 1945 (Opera-

tion Meetinghouse) which preceded both the Hiroshima and Nagasaki bombings of August 6 and 9, 1945, respectively. The succession of these three distinct geographic locations seemed to ground Dr. Koide's claim that his birthplace, Tokyo – which was destroyed after the March bombing – resembled Hiroshima and Nagasaki after the A-bombs in that "everything was gone after". Nonetheless, he did emphasize that the power of A-bombs was more than 10 times that of the over 1,600 tons of bombs deployed during Operation Meetinghouse in Tokyo.[14]

Through this line of presentation Dr. Koide seemed to achieve three notable points : 1) The A-bomb's definite connection with the war that destroyed Tokyo (his home), Hiroshima (the site of presentation) and Nagasaki; 2) the 'sublime' power of A-bombs compared to non-nuclear weaponry, which was rhetorically measured by using the Hiroshima bomb as a benchmark to describe other events (for example, according to him, the Chernobyl disaster equalled the power of 800 Hiroshima bombs, which was much worse than the Fukushima disaster); and finally 3) restating the "mistaken decision" he had made, along with many other people, in the hopes of pacifying such a destructive power, all the while stressing that "perhaps, some of us *still* believe *genshiryoku* is a necessary source of energy, but […] that this is [precisely] the mistake, a dream we all *had*". Here, Dr. Koide makes a seemingly contradictory statement. On the one hand, he acknowledges the continued belief in *genshiryoku*, which has led to the Fukushima nuclear incident. On the other hand, however, he condemns this enduring belief as well as his own past by stating, "I was one of those who imagined the peaceful use of the 'nuclear'". This sets-up the terms of his talk : 1) producing an interactional text to determine the non-identical statuses of addresser and addressee (Koide and his audience); and 2) attributing this difference to a "time lag" between his current belief and others', namely his audience's, perceived belief. This hypothetical determination of the audience's identity creates a sense of dissonance, given that two distinct beliefs belonging to distinct temporal orders (*i.e.*, Koide's past belief = the audience's current belief, on one hand, and Koide's present belief on the other) were now present, *hic et nunc*, in Hiroshima, the most symbolic space for the Japanese anti-nuclear movement (Figure 2). How then did Dr. Koide manage to leap over the temporal gap he had thus performatively produced with his audience?

Dr. Koide's strategy consisted in moving back in time to distinguish the two different bombs that were used in Hiroshima and Nagasaki, more specifically, considering them chronologically in terms of their production processes. He pointed out that there were two different types of atomic bombs, 'Little Boy' and 'Fat Man', which were used in Hiroshima and Nagasaki, respectively, though they shared the same source material of uranium-238. Uranium-238 has little or no explosive quality in and of itself, and so nuclear scientists had to meticulously extract uranium-235, though only about 0.7% of uranium-235 can be

extracted from uranium-238. The refinement of uranium-238 was the

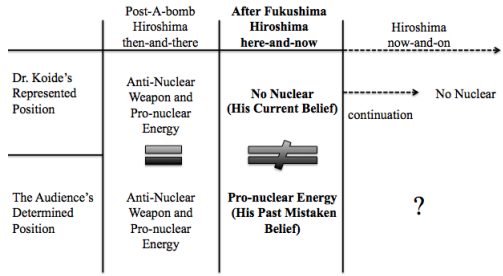

Figure 2 : Dr. Koide's Representation and Determination of the Interactional Text *vis-à-vis* His Audience.

technique used for the production of 'Little Boy', which consisted of 800 grams of uranium-235 that were to be exposed to neutrons in order to undergo nuclear fission. 'Little Boy' was a pure uranium bomb whose explosion produced plutonium as a by-product. Scientifically speaking, it was distinct in type from 'Fat Man', which was a plutonium bomb. In a sense, the difference between the two bombs, as Koide diagrammed in his PowerPoint slides, came down to the mediation role of a nuclear plant in extracting uranium-235 from uranium-238 (Figure 3).

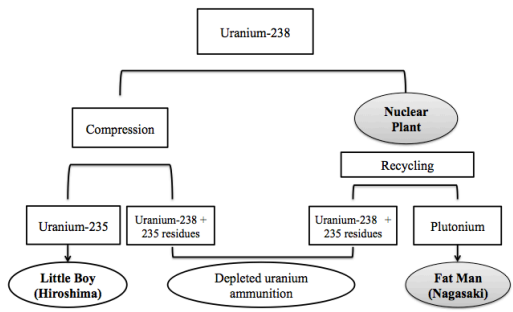

Figure 3 : Atomic Bomb Production, Translated by the Author. The Original Power-Point Slide by the Courtesy of Dr. Koide

From this particular moment in his presentation, shared presuppositions with his audience (regarding the facts of the two sequential bombings and the bombs themselves) came down crashing, and then onward his talk entailed revealing a possible indexical connection which had thus far been blocked in the Japanese imaginary : the A-bomb used for Nagasaki had a very similar signature to the energy produced

at the Fukushima Daiichi Nuclear Plant, not to mention many other nuclear plants in Japan. This 'structural' homology between Nagasaki and Fukushima, both of which are spatially and temporally separate from Hiroshima, points to the shift in the interactional *origō* he set out earlier : the introduction of the mediatory nuclear plant prompts the Japanese to focus on the difference rather than the similarity that exists between Hiroshima and Nagasaki or Fukushima, which bestows to Hiroshima – the place of the commemorative gathering –, a very distinct or differential positional value within this 'system' (*cf.* Saussure 1966).

Having established this difference, Dr. Koide moved on to his central point : nuclear weapons and nuclear power plants are one and the same thing; the only distinction is nominative : we *label* them differently depending on their usage and the agent of their use. The upshot is the unification of the "alienated" production and consumption of the 'nuclear' :

> How do we translate this English word 'nuclear?' In Japanese we use *kaku* to designate the military usage of nuclear and *genshiryoku* for its peaceful usage, namely, energy. We translate the same word differently for different contexts, and the Japanese have been made to believe the two to be different. We have believed *thus* far that *kaku* is bad and *genshiryoku* is good. Then how about this word, 'nuclear development?' How do we translate this? If a country like Iran tries to develop nuclear technology, then we call it *kaku*, but when Japan does so we attribute it to its peaceful usage.

At this point the audience was enlightened : an audible sound of revelation, "ahhhh", echoed through the room. Importantly, Dr. Koide was talking about the consequences of the inappropriate use of language – the separation of *kaku* for war and *genshiryoku* for peace – by pointing to the veiled common referent the two terms share : both *kaku* and *genshiryoku* stand for plutonium. What was achieved, then, was the diagrammatization of the equivalence between nuclear weapon and nuclear energy via a metasemantical unification of two terms. Additionally, however, he was making a metapragmatic claim that the change in the referent of language has an effect on "the appropriateness of" as well as the "effectiveness in" social action (*i.e.*, *parole*) and vice versa. What an elegant Peircean critique of the audience's Saussurian conviction! Whereas earlier Dr. Koide had drawn sharp divisions between his belief and that of his audience – the "time-lag" mentioned earlier referred to the temporal difference between these two states of belief –, in a clever rhetorical gesture he now spoke in terms that unified him with his audience : "we", "the Japanese" have believed "thus far" the semantic distinction between *kaku* and *genshiryoku*. His initial, presupposing, statement of the shared knowledge of the A-bombs, therefore, allowed him to position himself where the audience was determined to be (*i.e.*, preceding his current belief) only to bring them right back to his *origō* (*i.e.*, the current belief) via his declarative union of *kaku* and *genshiryoku*. The significance of establishing the syntagmatic set of Tokyo-Hiroshima-Nagasaki at the

beginning of his presentation became particularly effective in the usage of the "English word 'nuclear'" to mark the foreignness of a technology that was introduced into Japan by the U.S., in sequence, in the forms of *kaku* and then *genshiryoku*. The statement "we have been made to believe" stands as the clear sign evoking a common victimhood in order to collectively acknowledge the past error in believing the difference in the two terms in Hiroshima *here-and-now*.

It is evident that Dr. Koide was using the current disaster of Fukushima and the enduring dependency on *genshiryoku* to strategically make his point by activating different aspects of memories that had thus far been displaced; this displacement, he claimed, occurred by enclosing the production of the 'nuclear' in a reactor or a "black box". The nuclear plant and "the Atoms for Peace" are representative of the government's post-war ideology, which dictates that Japan have plutonium in its possession. Concurrently, it was subtly claimed that the A-bomb in Hiroshima was the origin of the misperception of the 'nuclear', which is why it is the most appropriate place to set the clock back in time, so to speak. Although not explicitly mentioned in Dr. Koide's talk, he revealed to me in a prior interview that his intention was in part to inform the survivors and the family of the victims in Hiroshima that they are in fact responsible for the division of the 'nuclear' between the *kaku*/war and *genshiryoku*/peace pairs. He remarked that their endorsement of nuclear energy was instrumental in further sustaining the government's regimentation of a belief in the benefits of nuclear technology and in its promotion of a social-imaginary of Japan as the symbolic place for peace, one where the sun (the emperor) has now been replaced with a "second sun" : the 'nuclear'. Dr. Koide characterized the second sun accordingly :

> ...a nuclear reactor is a money-generating box (*kane wo tsukuru hako*). It was first brought to Fukushima in 1971. Another reactor was built in '74, and a third one in '76, and so on. Once people start to depend on nuclear energy, it must keep on going. Why? Money flows in and from the 'nuclear', and the people of Ō-kuma village and the surrounding areas agreed to have the money-producing boxes there. But what is more crucial is that in order to stay secure the reactors cannot be stopped. There is a myth that nuclear energy is clean and essential, but it only provides 18% of the total energy, and it warms up by releasing the two-thirds of the heat directly into the ocean. So nuclear energy is a high-risk no return business... It is what I call a drug, and we are addicted to it (Interviewed on 07/23/12).

This exemplifies Dr. Koide's stance that the two-faced 'nuclear' has become a particular code in post-war Japan – the symbol of the country. This naturalized code structure had to be hypothesized or abduced by untangling the layers of syntagms (Hiroshima, Nagasaki, and Fukushima) and paradigms (nuclear, war and peace) and by bringing back the displaced original referent : plutonium.

Dr. Koide's talk serves to illustrate the real-time performance of

the over-determined and multi-temporal nature of memory. In other words, there is always more than one level of semiosis happening at any point in time, and each sign process is in competition with others in an ever-flowing here-and-now. What he seemed to have achieved in his presentation is not the rejection of pre-existing history, but rather the provision of a new interpretant to redirect the real-time remembrance of the past, thus complicating "history's chronicle time by confronting it with another time" (Barthes 1986 : 130). In particular, the talk exemplified the "correct" effect (*i.e.*, Dr. Koide's current belief) by abducing the sign (nuclear) that stands for one concrete object (plutonium). To this end, Dr. Koide' life story regarding the 'nuclear' was rhetorically made to serve as a diagram (or icon) of the presumed life stories of members of his audience, who he hypothetically construes as *both* having committed the same error as he in the past, but also as likely as he to realize the error they committed. Although Hiroshima was both ground-zero for the A-bomb and the source of Dr. Koide's career as a nuclear scientist, he believes that it can also become the ground-zero for remembering "the truth" regarding the 'nuclear'. This poetically measured path of commemoration (and communication) between the two parties finds its root, as it were, with the speaker's announcement of a collective "we".

As Mukařovský observes in works of art, code is mediated by token-level instantiations of pragmatically anchored practices in actuality, where a violation of the code often functions to negatively define the hierarchy of codes within society (1979 : 23-33). On this note, I would like to point out one subtle "violation" in Dr. Koide's argument. According to him, 'nuclear for war' and 'for peace' are equivalent because of the similarity in their production processes – namely, they both require the mediation of a nuclear plant – but strictly speaking, this holds true only for the case of Nagasaki. This fact begs the question for both the 'appropriateness of' and the 'effectiveness in' his presentation in the context of Hiroshima's anniversary event. It appears that he managed to include 'Little Boy' in the picture by limiting his discussion to the technological aspect of the production of plutonium as a nuclear physicist, while *appropriately* suppressing, along with the audience, 'the other' (non-Shinto and non-Buddhist) victims in a suburb catholic city of Urakami in Nagasaki (Mitchell 2011). Therefore, Dr. Koide was selectively and strategically using memories in the present to draw a particular diagram of the continuity of an even further presupposed indexical order of the past-present-future temporal typology. This order was performatively linked with the codified semiosis of the commemoration in Hiroshima and rhetorically replaced with Dr. Koide's suggested model of 'nuclear – disaster – no nuclear' indexical order. (Figure 4 diagrams a node of coordination between belief and action in the multiple levels of indexical order. The degree of appropriateness and effectiveness on the left represents the relationship in which the more appropriate an indexical order is, the more conventional the link

between its n + 1 order. Inversely, the more effective an indexical order is, the more potential the link between its n - 1 order). Dr. Koide's strategic modeling of history (*i.e.*, "a reflexive history" [Barthes 1986 : 137]) was reflected in his concluding performative statement : "I *believe* that if *we* are against nuclear weapons, *we* are [also] against nuclear energy as they are one and the same thing". Notice the reiteration of the pronoun "we", which reprises his earlier rhetorical gesture. As the addressor's and addressee's positions become interactively unified (*i.e.*, performatively transformed), the audience can now perceive themselves to have "remembered" the goal of fighting against both nuclear weapons (*kaku*) and nuclear energy (*genshiryoku*).

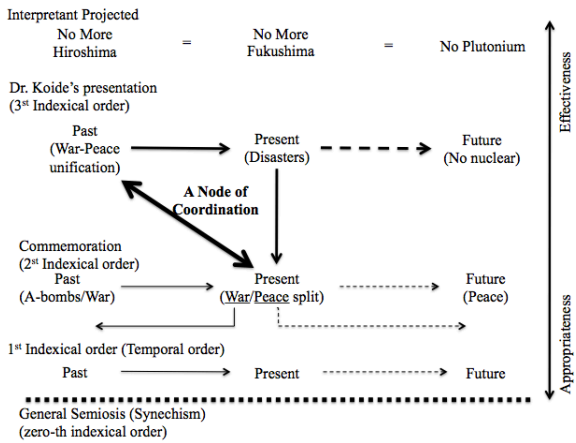

Figure 4 : Dr. Koide's Metapragmatic Re-Direction

In summary, Dr. Koide's presentation in the context of the 67th anniversary commemoration of the A-bomb in Hiroshima was a creative indexical diagram/icon (Parmentier 1987, 1994, 1997) that commemorated the past disaster by first drawing a parallel between the real-time event and a past ready to repeat itself, only to performatively shift the reference of the sign (from 'war' [*kaku*] and 'peace' [*genshiryoku*] to their common source in plutonium). In effect, this performance calibrated a new interconnection between pre-existing memories in society and generated an alternative continuity linking the history of Hiroshima 67 years ago and the current event in Fukushima, thereby mapping the interpretant "no more Hiroshima" onto a new object : "no more Fukushima", in the sequence whose real meaning is : "no more nuclear in the future". Dr. Koide concluded his presentation by citing the famous cenotaph at the Hiroshima memorial park where it is written : "Please

rest in peace. For [we/they] shall not repeat the error". He added :

> …I thank all the people of Hiroshima for working so hard in their fight against nuclear weapons, but *kaku* and *genshiryoku* are one and the same thing. I understand, however, if you do not object to nuclear energy, or if you no longer have the willingness to fight. But if you believe that 'the peaceful use of nuclear' is acceptable, then I think this belief is wrong.

The citation of the cenotaph invited the audience to contemplate "the error" now being repeated, which Dr. Koide attributed to a false belief about the 'nuclear' they all once shared (himself included). But interestingly, he concluded his presentation with the pronoun "you" to suggest that the ultimate decision rests on each individual's shoulders. This seems to have a root in his personal conviction as a scientist :

> …I do not want to be the leader of an anti-nuclear movement. I do not get involved in politics. I inform people about the correct knowledge concerning the 'nuclear'. I am a scientist and therefore I share facts (Interviewed in 07/22/12).

As partial (or even Peircean!) as Dr. Koide's own belief might be, the effectiveness of his presentation lay in the replacement of an interpretant whereby the cenotaph appears to have always stood for the anti-nuclear, both *kaku* and *genshiryoku*. Therefore, his talk aimed at re-directing "signs *in* history" (*parole*) by amending the citation of the "sign *of* history" (the cenotaph), which had thus far stood in for the historicizing and regimenting isomorphic – though asymmetrical – sign of war and peace and the cult(ture) of the second sun.

Conclusion : Psyched About Signs

As a catalyst for sudden traumatic rupture in the continuity of a system, disaster can serve to foreground the awareness of pre-existing social memories that have been layered like a palimpsest – the multiple layers of cultural texts sedimented over time (Morimoto 2012). The post-disaster context produces a vista onto what Ian Hacking calls "an indeterminacy in the past" (1995) and the working of semiotic mediation. In this sense, the memory of the past appears to be always *in potentia* – a past imperfect available for present activation, suppression and interconnection, as it generates socio-cultural continuity in one's experience of the world. But memory does not just stand by itself in society; it needs to be processed through a set of real-time instantiations that articulate, delimit, and reify its reference. As an important aspect of "the social life of signs", memory is a belief observable in its indexical ordering, as its token instantiations in the particular sociocultural context of real-time. Hence, contrary to Pierre Nora's position (1995), I believe that any study of memory must give equal analytical importance to both collective and individual memory, that is, to history (as a set of codified records) as well as memories (ethno-metapragmatic citations) interlinked in the present by selective remembering/forgetting.

From the perspective of a pragmatic semiotics, memory can not only be represented, it must also be *regimented* (*cf.* Parmentier 1994; Silverstein 2003). Present memory, however personally charged it may be for each individual, may find its ground in either quasi-identity, causal association, or habitual belief or perhaps all of them together in any temporal order. Anthropological applications of semiotics need always take into account the perspectival nature of the sign relations under analysis and the simultaneity of multiple degrees of semiosis at any given moment in time (*cf.* Parmentier 2009). The aim of semiotic anthropology is to trace back observable effects of real-time social action as the alibis of always already passing acts of memory (*cf.* Inoue 2004). Therefore, semiotically informed ethnographic inquiries all boil down to the following questions : "what aspect(s) of the event is (are) to be remembered, which image(s) come(s) to be highlighted, when does the interpretative ground become anchored symbolically, and who regiments and regulates the multiple degrees of semiosis?" (Morimoto 2012 : 267). To these considerations, I add that despite the fact that non-human and non-linguistic events (*i.e.*, "natural" disaster) can play a role in determining memory[15], both representation and determination of memory require some form of extrinsic (inter-subjective) motivation that begets a culturally significant social action from which we can hope to abduce various sign processes.

In this regard, commemoration as a sign process seems to elucidate the "entextualization" of a particular memory being summoned. In reciting the memory of a specific time and space, an act of commemoration constitutes, on the one hand, an arbitrarization of the semiotic ground of the memory in question, whereby the referent of a belief concerning the memory becomes further transparent (historicized), and thus codifies the semiosis in cementing some presupposed signifier-signified dyad. In other words, in generating its value and meaning, a pre-existing belief may oppose another one, which belongs to a different spatio-temporal order (*e.g.*, past/Hiroshima and Nagasaki vs. present/Fukushima, present/pro-nuclear vs. future/anti-nuclear). On the other hand, motivating a specific memory by performing some action based on a belief in the present (as in Dr. Koide's presentation) could shift the semiotic ground of a pre-existing semiosis, and thus generate the growth of a 'new memory'. In short, belief induces code and action (re)produces referent. Therefore, the task at hand is to discover how observable beliefs and actions are coordinated in the real-time act of remembering/forgetting that performatively achieves the *plausibility* of a certain memory in the specific historical and cultural context of its occurrence (*cf.* Galison 1987). I argue that the plausibility of memory is calibrated with its quasi-continuity with another presupposed (citable) semiosis[16].

Leon Festinger's (1957) 'Cognitive Dissonance' model speaks to this tendency of favouring fabricated continuity over discontinuity of belief and the tendency of modifying belief over action in order to maintain

the perceived continuity. Therefore, an act of remembering/forgetting as a context-dependent indexical sign, or, to borrow Lévi-Strauss's term, a "floating signifier" (1987), is more likely to ground itself in an ethnosemiotically iconic, or less cognitively disequilibrating, semiosis *presupposed to be* already in existence as its alibi. In the case of the shifting stance regarding the 'nuclear' among Japanese audience members of the Hiroshima commemorative event, once the connection between radiation contamination and the nuclear plant became coordinated, synching Dr. Koide's and his audience's belief, the alibi of the already existing culturally-specific mnemonic of *hibaku* could mutate into the collective action of an anti-nuclear energy stance.

It is urgent to study commemoration in the shifting background contexts of an occurrence in terms of its articulation of a dyadic structure of code (as a set of alibis) mediated by the production of a belief and action relative to the cited alibi in society. In whatever persists, despite shifting contexts, we are likely to find an ethnosemiotic index of indexes – *i.e.*, a cognitive "metapattern" (Herzfeld 1992). As Freud helped elucidate (1958 [1914]), repetition has meaning only if the degree of reiteration in the production of a new belief is analyzed in light of the historical specificity of its occurrence and that of its projected effectiveness for an imagined future.

I suggest that one productive place to ponder the theoretical integration of Saussure and Peirce would be the field of psychology, which Saussure prophesized as the potential direction of semiology, while Peirce rejected the incorporation of this discipline into the advancement of semiotics. To be sure, the Hiroshima audience was predisposed to believe in the action Dr. Koide suggested in the end, since, of course, they were the ones who invited him to give the talk in the first place. It was no surprise, therefore, that many people present at the event spoke to me about how charismatic Dr. Koide was prior to his talk. How his presentation was received by the participants, didn't result therefore from a "truer" elucidation of a semiotic object or referent, from which a clearer (properly Peircean) representation of a reality could be modeled (as Dr. Koide might claim). Rather it resulted from an appropriation, by the audience, of the scientist's claims as an alibi (*i.e.*, an extrinsic motivation) with which an already determined action plan toward the 'nuclear' could (in a Saussurian way) maintain a sense of "natural" continuity between past, present, and future. Thus, one attendee, a man in his 60s, told me after the presentation : "Koide spoke my mind". I asked him what was on his mind, to which he responded : "I always believed that *genpatsu* [nuclear plants] were bad, and now I am certain of it". Clearly, some audience members were already convinced that Dr. Koide was a credible authority in a belief they shared. This is not to say that Dr. Koide wasn't effective in convincing members of the audience, nor that he did so regardless of the historically and site-specific context of his performance. Rather, my observation is meant to highlight

the audience's active participation in making Dr. Koide's presentation effective, particularly given the perceived continuity with their beliefs and Dr. Koide's recognition and credibility as an expert (*cf.* Bauman and Briggs 1990 : 69).

In this article I have argued that "The Evening of Peace" presents an example in which a past event was made culturally relevant through the real-time performance of selective remembering/forgetting in order to supplant the previous ideology of "Atoms for Peace But No More War" with a new anti-nuclear one : one that opposes the 'nuclear' (and plutonium) in its use for peace time energy and war alike. Commemoration is one process in which repeated performances selectively articulate a thick layer of potential memories in society, while entextualizing an ideological framework that gives the cited past a present cultural complexity. As an act of repeating itself in performance to re-member its referent, and because of its function to cite some distant past, commemoration is a potential site for arbitrary as well as motivated change (*cf.* Nakassis 2012). Repetition is always at odds with the inexorable flow of time (and shifts in contexts), and at best the present only resembles the past (Terdiman 1993). Thus, from the point of view of semiotic anthropology, memories are a type of sign that become *meaning-full through* history where history is an "*imaginary* elaboration" (Barthes 1986 : 138) that transforms the past imaginary into present fact. In selectively and repeatedly citing "*this happened*" (emphasis in original : 138), a commemorative sign simultaneously presupposes the naturalized past in the present and creates a memory in the present for the memory's furtherance in the future. This case illustrates that real-time social action aims at achieving maximal congruency with continuing beliefs, and that the motivation behind this can be socio-psychological.

The 2011 disasters in Japan have unearthed parallels in the semiosis of regimentation and commemoration, in their interpretability, performativity, and repetitiveness. As such, regimentation is a struggle of interpretants for the proliferation of a selective and collective remembering/forgetting which serves to ground an individual's or a community's perceived sense of socio-cultural continuity. However, such continuity can also be socio-psychologically motivated or ethno-metapragmatically (Silverstein 1979, 2003) calibrated through acts of commemoration. The Peircean model of a scientific universe of truth is, alas, just one premise of the truth (*cf.* Parmentier 1994 : xiv) in competition with the ubiquitous co-presence of many other models. In stochastically producing multifunctional and multi-layered indexical orders of memories, culture, can carve semiosis at its joints, as it were.

Afterword : Interpreting Struggles

With the victory of the Liberal Democratic Party in the elections of December 2012, anti-nuclear voices in Japan have been suppressed,

demonstrating the people's forgetfulness about the disasters of two years ago, though the stigma of radiation still remains in Fukushima. Although current data suggest lower than scientifically acceptable levels of airborne radiation in many areas surrounding the Fukushima plant, in 2013, when I expressed my interest to research the Fukushima Daiichi Nuclear Plan in the city of Sendai, just north of Fukushima, several people manifested to me their outright disapproval. One woman in particular advised me to reconsider, should I "ever want to procreate". Such persistent mistrust and scepticism of the government, electric companies and scientists has been one of the main consequences of the Fukushima disaster. However, the general consensus seems to be, yet again, that the economy can provide a magical solution for post-disaster reconstruction. This serves as yet another example illustrating that a struggle for interpretants in culture can be mediated by socio-psychological motivations.

One obvious lesson for semiotic anthropology, then, is that both Saussurian and Peircean models are hypothetical approximations of the "social" life of signs. As Daniel (1987) rightly argues, an ethnographic study always comes with an inherent modeling intention, and for this, anthropologists should forge a creative liminal path in interpreting the struggles – and the messiness – of the social life of signs.

Notes

1. This article emerged from a symposium entitled "The Atomic Age : Fukushima" at the University of Chicago with the *Atomic Age II : Fukushima Scholarship* 2012. A shorter version of it, entitled "Plutonium for War and Peace : the Cult of the Second Sun," was presented at the Semiotic Society of America 2012 Annual Conference in Toronto. I wish to express my gratitude to Dr. Yoshiaki Koide at Kyoto University Research Reactor Institute for talking to me at length about his work. I also would like to express my gratitude to Professor Richard Parmentier for providing theoretical inspiration and an intellectually stimulating research environment at Brandeis. Special thanks also to Professor Sally Ness for giving me the opportunity to rework this piece and providing me insightful suggestions to improve it, and to Professor Martin Lefebvre who helped me in clarifying several points. Finally, Beth Semel at the MIT HASTS program patiently helped editing the initial draft of the article.
2. Parmentier employs "signs of history" and "signs in history" for describing the dual nature of the sign's relation to history, with regards to sense and reference. I am using those terms with regards "Hiroshima" as both a historical place and a site of commemoration, whereby as a 'sign' it serves two directions at once : "toward the typifying role of schemata and toward the sedimenting role of practice" (1987 : 308).
3. Peirce makes a temporal characterization of his Sign-to-Object trichotomy : "An icon has such being as belongs to past experience. It exists only as an image in the mind. An index has the being of present experience. The being of a symbol consists in the real fact that something surely will be experienced if certain conditions be satisfied" (CP 4.447).
4. A similar, though slightly longer version of the presentation was done also in Hiroshima a year before on 07/22/2012. A YouTube clip of this particular presentation

is available in Japanese at http://www.youtube.com/watch?v=gRHU9jJUT5M

5. The people's efforts to represent the 2011 disasters have resulted in both looking far back into the past for some similar event – some going back as far as 6000 years (Normile 2011) – as well as toward an indeterminable future for impending disasters, like predictions for the Nankai Trough triple earthquakes, which it is estimated will produce 320,000 deaths (The Yomiuri 2012).
6. I would like to point out that the voices I encountered are by no means the only ones, and in fact, many citizens in the greater Fukushima prefecture have been actively fighting against the further development of nuclear energy plants, though importantly their motivation appears to be different from that of people living in cities. .
7. A Japanese sociologist, Norihiro Nihei (2012) has suggested the use of the term "Saikan"(災間) or "between disaster" to better capture how a disaster lead to continuing apprehensions concerning a future iteration of it and how individuals also develop a tendency to draw analogies with past instances in an effort to make sense of what happened. In this regard, labeling a disaster as "post" is a form of forgetting yet-to-be determined contingencies of a disaster. In this regard, the Fukushima Nuclear disaster is not, by any means, over yet.
8. Silverstein (1993 : 36) defines the bidirectionality of index as : "Any indexical signal form, in occurring (a contingent, real-time, historical happening, with possible causal consequentiality), hovers between two contractible relationships to its 'contextual' surround : the signal form as occurring either *presupposes* (hence, indexes) something about its context-of-occurrence, or *entails* ['*creates*'] (and hence indexes) something about its context-of-occurrence, these co-present dimensions of indexicality being sometimes sees as essential properties of the signs themselves, 'appropriateness-to-context-of-occurrence' and 'effectiveness-in-context-of-occurrence' (emphasis in original).
9. "The ground is some respect, character, reason, or quality that brings the sign into connection with its object" (Parmentier 1994 : 28).
10. A clip of the presentation focusing on the unification of the *kaku*/*genshiryoku* dyad in the current analysis is available (in Japanese) at http://www.youtube.com/watch?v=TZFwSeHB-Nc
11. In this article, I use the English word "nuclear" to stand for the unified concept of *kaku* and *genshiryoku*. By "nuclear development", for example, I indicate the production of plutonium used either for weaponry or energy. The two Japanese terms are used to designate for the emically understood signifieds : weapons for *kaku* and energy for *genshiryoku*.
12. Peirce in one instance defines abduction as such : "An Abduction is a method of forming a general prediction without any positive assurance that it will succeed either in the special case or usually, its justification being that it is the only possible hope of regulation our future conduct rationally, and that Induction from past experience gives us strong encouragement to hope that it will be successful in the future" (EP 2 : 299).
13. Agha (2007 : 100) defines an interactional text as "an emergent structure of positionalities, stances, and relationships, performatively established through these acts".
14. Although there are variable accounts of the power of A-bombs, Tanaka (2011 : 301) describes the force of the bomb deployed in Hiroshima as equivalent to 12.5 kilotons of TNT and the one deployed in Nagasaki as equivalent to 22 kilotons of TNT.
15. I thank Sally Ness for bringing up this point. Chang (2006) and Kim (2006) are forerunners of applying semiotics to study natural disasters.
16. There is a danger of implying a possibility of infinite regress in memory by suggesting a chain-like structure of presuppositions. My point here is to indicate

that 1) any anthropological analysis of memory starts with a n + xth order of indexicality, which is grounded (retrospectively) on some historical and ethnosemiotic order of presuppositions, and 2) that the relationship between the two indexical orders cannot be understood as "cultural" unless the intended effect and/or projected future of the act of remembering/forgetting (that is, the object of memory) is known.

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Abstract

This paper advances a pragmatic semiotic understanding of memory. By focusing on what is done with the real-time act of commemoration (or, the selective citation of memories), I analyze the multifunctional and multi-layered semiosis in society that presupposes and creates one's experiential continuity between past, present, and future despite sudden (and catastrophic) change. I argue that the 2011 tsunami and ensuing nuclear meltdown in Fukushima, Japan, have unearthed parallels between the semiosis of regimentation and commemoration with regard to their interpretability, performativity, and repetitiveness. Following Parmentier, regimentation is a struggle of interpretants for the proliferation of a certain belief associated with the act of remembering/forgetting in grounding the socio-cultural continuity. I conclude by making a cautious suggestion to apply both Saussurean semiology and Peircean semiotics to study the real-time, historically represented and stochastically determined social life of signs.

Résumé

Le présent article offre un regard sémiotique et pragmatique sur la mémoire. En examinant ce qui se produit lors d'un acte de commémoration publique en temps réel (c'est-à-dire lors de la saisie sélective de souvenirs collectifs), nous nous efforçons d'analyser les strates et les multiples fonctions sociales d'une semiosis qui à la fois présuppose et crée une continuité expérientielle chez des individus de manière à relier passé, présent et futur, et ce, malgré l'irruption soudaine dans la ligne du temps d'accidents ou de catastrophes imprévisibles. Nous cherchons ainsi à démontrer comment les événements de Fukushima au Japon en 2011 ont mis au jour un parallélisme dans les régimes sémiotiques de la "régimentation" et de la "commémoration" eu égard à leur intelligibilité, leur performativité et leur répétitivité. La régimentation est définie ici, dans la foulée des travaux de Parmentier, comme une lutte entre interprétants pour le prolongement et la pérennité d'une certaine conviction liée à l'acte de mémoire/oubli sur la base d'une continuité socio-culturelle. Nous concluons en suggérant prudemment de réunir à certains égards la sémiologie saussurienne et la sémiotique peircéenne pour l'étude, en temps réel, de la vie sociale des signes, soit dans leur représentation historique et dans leur détermination stochastique.

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