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Science Wars and Japanese Postmodernism

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1 Landscape of Japanese Postmodernism

When a young boy of 26 years old, named Asada Akira (1957-) published ***Structure and Force***[1] in 1983, the Japanese postmodernism broke into era of full-scale popularity. In this book, Asada displayed his dexterous talent as he interpreted quite roughly the contemporary French intellectual guru like G.Bataille, G.Deleuze, F.Guattari, J.Kristeva, and J.Lacan. ***Structure and Force*** was a tremendous best seller in the époque, and still is even today. It recorded 25 impressions and 100000 copies within one and half year after the publication, and until today the sum of the copy amounts to 152000. Maybe instigated by his own success, Asada published in a next year the second book entitled ***Treatise on Escape***[2] (1984). And in its sub-title people read an impressive manifestation, "an adventure of schizophrenic kid".

Then, what was his message, in broad outline? To understand this, we cannot forget of course the theoretical background of French structuralism like the works of C.Lévi-Strauss, L.Althusser

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[1] Asada Akira, *Kozo to Chikara* (*Structure and Force*), Tokyo, Keisoshobo, 1983.

[2] Asada Akira, *Toso Ron* (*Treatise on Escape*), Tokyo, Chikumashobo, 1984.

or M.Foucault that had been introduced about in 1970's, and by this time opulently commented. Referring by preference to the conceptual dichotomy of Kristeva, le symbolique and le sémiotique, Asada attempted to find a possible source of creativity in the latter, i.e., le sémiotique. For him, the Kristeva's sémiotique opposes to the Lacanian symbolique, the structural order of rational reasoning and oppressive prohibition. But we have no foundation of the structural order except for in its own mutual dependence of web of concepts, the web of arbitrariness and difference. So, the oppressive domination of the symbolic order is never perfect and omnipresent. Like a chaos flowing over the *phusis*, the nature, or like a Bataillan transgression over the pre-existent order, an individual can make a little breakthrough by refusing to obey to it. If this invitation to resist against the symbolic order seems to be too classic and schematic, Asada asks people to refuse to be coherent with their presupposed identity. An individual must deny the allocation of his own self-identity and logical coherence, and must live his otherwise forgotten multiplicity. Be schizophrenic, rather than being paranoiac, docile servant of pre-existent order. Destruct the conceptual hierarchy, and if possible even the social hierarchy, by constructing number of rhizomes between small and local circles. Escape from the order, and escape from your own sclerosed social identity. And live your untraceable multiplicities... I don't know how was in Korea, but as you see here, we can find in Asada's world a typical set of jargons and intellectual tendency of the world-wide postmodernism that has been already in vogue in Europe and U.S.A. Intentionally in light parlance and with apparently frivol lifestyle, his figure was largely and enthusiastically accepted by the youth of the same époque. Small, slim, pale, and homosexual man, Asada became a guru of Japanese

postmodernism, before his thirtieth anniversary. He didn't write so much afterwards, but with many interviews, colloquium, and dialogue, he remains an influent person in our contemporary intellectual scene.

As the second figure of Japanese postmodernism, I must refer to Nakazawa Shin'ichi (1950-), author and contributor of many books amount to about 100. Although one of his earliest and famous works is ***Mozart in Tibet***[3](1983), I would like to mention here his ***Treatise on Snowflake Curve***[4] (1985). Nakazawa's intellectual base is quite eccentric. He traveled while in youth in India, and studied intensively the history of religion, especially that of Japanese Buddhism. He expresses his respect to Kukai (774-835), the founder of *Shingon* Buddhism and spokesperson of Tantric Buddhism in early Japan. At the same time, Nakazawa is connoisseur of French contemporary thought, and among others the hardly classifiable works of M.Serres. At the beginning of this ***Treatise on Snowflake Curve***, he focuses on Kukai's unexpected talent on civil engineering, in this case on irrigation. Irrigation is a technique that covers the two different worlds of elements, the soil and the water. If we pursue a kind of knowledge, the knowledge of between-ness, between the solid state and the fluidity, Nakazawa argues, we will be able to encounter a new and refreshed world. Especially, we must fluidize our world, because the world that we know is that of solid matter and materialism. With its adherence to mathematic formalization and deduction, modern science dissimulates the more interesting and moving phase of becoming and perturbation. Instead of absorbing oneself to explain the

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[3] Nakazawa Shin'ichi, *Tibet no Mozart* (*Mozart in Tibet*), Tokyo, Serikashobo, 1983.

[4] Nakazawa Shin'ichi, *Seppen Kyokusen Ron* (*Treatise on Snowflake Curve*), Tokyo, Seidosha, 1985.

coherence of deductive logic, we had better try to describe inchoative force that makes a structure or a form. In this vein, Nakazawa seeks to establish a new kind of "philosophy of nature", that evaluates a nebular swirl, turbulence or meteorological disturbance. He praises the *clinamen* of Lucretius, finding in it a room of disorder and contingency, and in search of the ontology of between-ness, he invokes Peano's curve or Koch's curve. Particularly Koch's curve, or the fractal geometry in general. Koch's curve, or snowflake curve represents in effect an interesting image of the between-ness, semi-line or semi-plane. Pioneered by B.Mandelbrot, the fractal geometry finds in nature a theretofore-unnoticed geometrical form such as an extremely complicate line of seashore. With the fractal geometry, we face a paradoxical state of affair that reveals that the Euclidean geometry is in effect a far less realistic representation of nature. The real nature is near by a fractal-like world. Nakazawa insists that we must quit from an orthodox understanding of mathematization or Euclidean formalization of nature, and looks forward to assisting a new kind of image of nature. In his nonchalant attitude towards a traditional classification of knowledge, he discusses at the same time the foundation of mathematics and esoteric Buddhism, or turbulence and Leibniz's metaphysic. And with his gorgeous style of writing, Nakazawa took the lead in an age of second half of 1980's.

Good looking, irrefutably talented, Nakazawa appeared often in T.V. show, and professed semi-mystified and esoteric comments over the quotidian culture and manners. But it didn't help him to conserve the reputation in academic sector. Not surprisingly, when he was asked a comment after the monstrous incident of *Aum Shinri Kyo* in 1995, he tried to justify the massacre of citizens by toxic

gas, qualifying it as a sort of Buddhist revolution in the civilian and industrialized culture. His aura disappeared. But recently, he begins to revitalize his creativity, relying always on mythical or esoteric layers of civilization. Still nowadays, he continues to publish many books, and among them, ***Japanese Philosophy***[5] (2000) is worth to be mentioned here. It is an essay of quite original lecture of the philosophy of Tanabe Hajime (1885-1962), a star of Kyoto school, and a pioneer of Japanese philosophy of science. While as an esoteric thinker, if we remember Nakazawa's nonchalance on categorical acrobat, this choice is not so an astonishing one as people might lead to think.

Although chronologically skipping away the intermediate period, I would like to mention here as the third person of leading line of Japanese postmodernism, a still young man named Azuma Hiroki (1971-). Azuma collaborated since in his earliest career with researchers gathered around the important revue called ***Critical Space*** (***Hihyo Kukan***), and published in 1998 a book entitled ***Ontological and Postal***[6]. This book is manifestly an essay of sophisticated comment on the copious works of J.Derrida. Azuma classifies the works of Derrida into three periods: the first period includes the books as ***La Voix et le Phénomène*** (1967), ***De la Grammatologie*** (1967) etc., the second, ***Glas*** (1974), ***La Vérité en Peinture*** (1978), ***La Carte Postale*** (1980), et the third, ***Spectres de Marx*** (1993), ***Force de Loi*** (1994) etc. And Azuma evaluates that the books of the second period are relatively underestimated and rarely well commented. I think that

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[5] Nakazawa Shin'ichi, *Philosophia Japonica* (*Japanese Philosophy*), Tokyo, Shueisha, 2000.

[6] Azuma Hiroki, *Sonzaironteki, Yubinteki* (*Ontological and Postal*), Tokyo, Shinchosha, 1998.

he is right, because ***La Voix et le Phénomène*** and ***De la Grammatologie*** were abundantly discussed as a manifestation of Derrida's fundamental program of deconstructionism, and on the other side, ***Spectres de Marx*** for example was received as an essay of revitalization of Marxism after the collapse of the Soviet Union. But the works of the intermediate period were considered as a sort of self-infatuated word game or chase of riddle. But exactly because of this, Azuma tries to focus on this period, particularly the text of ***La Carte Postale***. The metaphor of mail and postal service dominates entirely his ***Ontological and Postal***. For him, the written words are under the destiny of sometimes misdelivered or lost on the way, like in the real postal service. The "intention" of the author is always jeopardized by the possibility of distortion, oblivion, or rebuff. For him, the fundamental presumption of orthodox logocentrism is that of possibility of total control of the transparency of meaning, refusing the occurrence of distortion or rebuff. On the contrary, the Derridian deconstructionism traces with finesse the emergence of the "outside", or the uncontrability of signifier or its unexpectedness in a text. To tell the truth, I myself was never touched profoundly by the Derridian deconstructivism and I find that although Azuma's use of postal metaphor is quite skilful, the further argument of ***Ontological and Postal*** is not necessarily persuasive, especially when he tries to explain the psychic structure draw on the theory of Freud and Lacan. Nevertheless, I thought that I had better cite this book, because we can see in his work of 1998 a kind of continuity of Japanese postmodern tradition.

As the fourth and the last person of Japanese postmodernism, I would like to introduce Karatani Kojin (1941-), one of the predominant literary critics in contemporary Japan. He has originally

started his intellectual career as a literary critic, but in his long and fructuous career, especially since the publication of ***Research vol.1***[7](1986), the scope of his works became by far wider than ordinary literary critics. In ***Research vol.1***, he poses in a perseverant manner the paradox of rule obeying, referring to L.Wittgenstein and S.Kripke, and defines the notion of the "other", as someone who cannot be subsumed under the same community of rule obeying. As influent person as he is, the focus on the otherness in general, in a literary text or in a logical space was amplified by the another focus on an important thinker, E.Lévinas, so that since the second half of 1980's, the reflection on the otherness became a favourite theme among Japanese intellectuals.

By the way, Karatani published almost at the same period, in 1985, a collection of essays entitled ***Criticism and Postmodern***[8]. In this collection, we find an article having the same title of the collection, written in the end of 1984. This article is interesting as far as it was a good survey of what was becoming an intellectual vogue, proposed exactly by one of its promoters. But it is a little bit astonishing to find that his analysis didn't have an enthusiastic or joyous tone. On the contrary, it was rather deploring of the cultural state of the contemporary Japan. He says, if we can advocate the Derridian deconstructionism, and devote ourselves to deconstruct the Occidental metaphysics, as a primary condition, we must already possess a good and forceful metaphysical construction, whether foreign origin or not, to deconstruct. But in reality, we have no such a construction, sufficiently corroborated as to be an aim of destruction.

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[7] Karatani Kojin, *Tankyu, vol.1* (*Research vol.1*), Tokyo, Kodansha, 1986.
[8] Karatani Kojin, *Hihyo to Postmodern* (*Criticism and Postmodern*), Tokyo, Fukutake Shoten, 1985.

As drastic and revolutionary as it seems to be, the superficial introduction of the Occidental avant-garde attains to nothing of substantial. The Japanese postmodernism doesn't know the otherness of itself, and even if it repeats to deconstruct the orthodox and oppressive thought, it doesn't believe in effect in what it is promoting by itself. It tries to battle against the non-existent or badly identified enemy. In this way, Karatani evaluated that the foundation of Japanese postmodernism bore no more than the ephemeral, and empty substance. Anyway, regardless of this bitter estimation, the Japanese postmodernism will enjoy the zenith of its vogue after the second half of 1980's. Note for instance one symptomatic fact: one of the most famous text of Occidental postmodernism, ***La Condition Postmoderne***[9] (1979) of J.F.Lyotard was translated in Japanese in 1986.

Karatani writes many books and articles, but as I myself am not an enthusiastic reader of them, and that already at least two of them are translated in English[10], I would like to add to the previous comment only one more concrete example, as it represents the recent state of his interest and of the mode of discourse. The book that I take up is entitled ***Psychoanalysis of Japan***[11](2002), published in this summer. In this book, Karatani analyzes three short pieces of three Japanese writers, Akutagawa Ryunosuke (1892-1927), Kikuchi Kan

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[9] J.F.Lyotard, *La Condition Postmoderne*, Paris, Editions de Minuit, 1979: *Postmodern no Joken*, translated by Kobayashi Yasuo, Tokyo, Kaze no Bara, 1986.

[10] Kojin Karatani, *Origins of Modern Japanese Literature*, Durham, Duke University Press, 1993: idem, *Architecture as Metaphor*, Cambridge, The MIT Press, 1995.

[11] Karatani Kojin, *Nihon Seishinbunseki* (*Psychoanalysis of Japan*), Tokyo, Bungei Shunju, 2002. As he states it himself, this title is readable also as *Nihonseishin Bunseki*, i.e., *Analysis of Japanese Psyche*.

(1888-1948), and Tanizaki Jun'ichiro (1886-1965). All of three are the established writers of Taisho and Showa era. Among them, I would like to focus here on the Karatani's analysis of a piece of Akutagawa. The title of the piece is "Smiles of Gods" (*Kamigami no Bisho*). At first, let's see the argument of this piece. "Smiles of Gods" is a little bit strange tale of Japan of perhaps 16th century. The hero of the tale is a Christian missionary named Padre Organtino. Although loving the mild climate and beautiful landscape of Japan, Organtino remembers with certain melancholy his birthplace, Lisbon. While in his usual prayer in a temple, he saw strange phantom of coq and dancing woman, and drinking and amusing people around her. Someone cries the name of Japanese Goddess, and the other replies that there is no such thing as a really new God or Goddess. Meanwhile, the phantasmagoric bacchanal disappeared slowly. The next day, Organtino meats this time a curious old man, perhaps one of the indigenous Gods. This man addresses him riddle-like words as follows: You have a strong God, your Deus. But in this country, even Deus will not triumph the battle against the ancient and indigenous Gods of Japan. In old days, the important thinkers like Confucius or Mencius influenced profoundly the Japanese mentality, and the China gave us their character and their manners. But how did their culture become afterwards? Japanese used the Chinese character, but read them with their own manner of pronunciation. Japanese introduced the Chinese character, but during the era, they invented their own alphabet by simplifying them, conserving their phonetic and syntax structure. And think about the *Honji Suijaku* doctrine that is an essay of relocating foreign thought and foreign religion in an ancient context of Japanese culture. Japanese don't destruct the foreign culture, but digest and modify them in a favorite manner for them. So, perhaps

even your God, Deus, will be modified into an indigenous God of our own configuration. Be careful, my friend, we are in everything of this landscape. After stating these words, the old man disappeared like a shadow in the dark...

This is the argument of the piece of Akutagawa. In this somewhat nationalistic tale of Akutagawa, Karatani thinks to find many interesting themes relating to the nationalism, the self-identity, the cultural identity, or a sort of idiosyncratic character of Japanese vagueness. Karatani cites also a small but famous book of Maruyama Masao (1914-1996), called ***Japanese Thought***[12] (1961). Maruyama seeks to characterize the Japanese thought in general, and as a major one of characteristics he enumerates the fact that the Japanese thought doesn't have any solid Self or coherent Principle. This style of self-understanding for us becomes a sort of cliché, and while the Occidental postmodernism strives to destruct with its many theoretical apparatus the predominant assumption of the transparent Self or the supremacy of logical coherence, certain Japanese state that they are already attained to a theoretical level that denies the solid identity of Self and the Sameness. In this sense, they said, Japan knew the postmodernism even before its maturing in Occidental world. Of course, Karatani doesn't agree with this kind of opinion. Nevertheless, as the old man of Akutagawa, he thinks that the core of Japanese culture remains untouched even in front of many important and strong foreign cultural invasions. For instance, even today after about 1450 years of introduction of Buddhism in Japan, Buddhism is often received as a foreign thought. Like a black hole or an unfathomable

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[12] Maruyama Masao, *Nihon no Shiso* (*Japanese Thought*), Tokyo, Iwanamishoten, 1961.

darkness, Japanese receive foreign culture and foreign thought, but exactly due to the fact that they have never possessed the strong, clear and coherent Self-identity, all of the foreign culture or thought are assimilated into a bottomless swamp of heterogeneity and promiscuity. Floating between the sameness and the otherness, no one can find the strict essence of Japanese psyche, if any such a thing can be after all. In this course of argumentation, Karatani agrees in effect with the old man of Akutagawa. I don't have an intention to judge this difficult and complicated problem, and state my conclusive comment. Anyway, I thought that this anecdote of Karatani's world could be interesting for you, in order that you locate and interpret the discursive and political sphere of Japanese postmodernism in an actual state.

Well, until now I tried to give you a sketch of Japanese postmodernism, choosing the four representative figures of it. Before entering to the next stage of my paper, it will not be so superfluous that I present one more book, entitled ***Left Turning of Postmodernism***[13] (2002), written by an observant critic of Japanese postmodernism, named Nakamasa Masaki (1963-). This work, published in this spring, makes an effort to survey the general constellation of Japanese thought, including the Japanese postmodernism. I can agree with Nakamasa's evaluation on the first and wide-scoped judgment on Japanese thought in general: In Japan, we have actually no predominant thought. Many different stances, many different mode of language, and many different value judgments coexist in Japan, neither of which has succeeded to refute definitively the other concomitant trends. The postmodernism also has already lost

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[13] Nakamasa Masaki, *Postmodern no Hidari Senkai* (*Left Turning of Postmodernism*), Tokyo, Jokyoshuppan, 2002.

its vividness although some persons work still quite hard.

Nakamasa's judgment is similar to that of Karatani in 1984: that is to say, Japanese have never seriously considered the historical and cultural context of Occidental postmodernism, and satisfied with the superficial imitation of certain theoretical vocabularies and certain mood of fluctuation and escape. But if it remains only as an atmospheric metaphor, the nomadic lifestyle cannot change the substantial meaning of life. The destruction of any kind of epistemological foundationalism must demand a long and suffering endeavor of lecture and praxis, but Japanese representative figures of postmodernism have never been so serious and perseverant, Nakamasa accuses in this way. Let's look here on a concrete example: the second book of Azuma, the author of ***Ontological and Postal***, is entitled ***Postal Inquietudes***[14] (1999). Perplexed perhaps with the fact that postmodernists find no more major enemy against whom to fight, and tired perhaps with the absence of any conceivable epistemological foundation for him, Azuma expresses repeatedly his somber inquietude. To resolve this situation, Azuma proposes a new notion of "postal transcendentality". But Nakamasa's comment is hard and bitter. Nobody understands what this concept can mean, including maybe the author himself. Nakamasa rebukes thus this kind of pseudo-resolution or pseudo-elaboration. Sliding down from the zenith of popular reception, Japanese postmodernism enters into a purgatory, or purely and simply it outlives its authentic creativity.

However, Nakamasa continues, since the beginning of 1990's, we can acknowledge that Japanese postmodernism begins to

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[14] Azuma Hiroki, *Yubinteki Huantachi* (*Postal Inquietudes*), Tokyo, Asahi Shinbunsha, 1999.

acquire certain kind of political activation. As we have seen it in the case of Asada, Japanese postmodernist seduced people into series of incoherent escape. But "the escape" from what they call the pre-existent order cannot change in any sense this same pre-existent order, because this escape is by definition the personal matter, and the order doesn't be damaged at all by escape of individuals, unless "everybody" throws away his expected function and tries an escape. But of course, the total and thoroughgoing escape is only a theoretical dream. So, from the very beginning of the vogue, Japanese postmodernism had a clear tendency of anti-political attitude. But, Nakamasa estimates that since the first half of 1990's, Japanese postmodernism begins to find its possible manner of revitalization, in resituating itself as a strong political program. Some actors of postmodernism begin to manifest evident left-side propositions for the social design or the improvement of governmental regime, by reevaluating the documents of Marx for instance.

And in this background, there is a counter part of the left turning of postmodernism. Kato Norihiro (1948-)'s ***Treatise on After-the-Defeat***[15] (1997) was a major symptom of right wing revitalization in Japan, for the mode of reinterpretation of historical facts, the meaning of WWII etc. And as you know very well, with the advocates like Nishio Kanji (1935-) or Fujioka Nobukatsu (1943-) etc., this movement attracts many young persons in Japan, causing some international problems towards Asian countries, including Korea. In this context, the left turning of Japanese postmodernism merges with

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[15] Kato Norihiro, *Haisen Go Ron* (*Treatise on After-the-Defeat*), Tokyo, Kodansha, 1997. cf. Fujioka Nobukatsu, *"Jigyaku Shikan" no Byori* (*An Analysis of Masochistic Historical Views in Japan*), Tokyo, Bungeishunju, 1997: Nishio Kanji, *Kokumin no Rekishi* (*History of the People*), Tokyo, Fusosha, 1999.

some version of cosmopolitanism or the liberalism, and expresses a concern for maintaining a social fairness. So, this effort can be seen as a manifestation of "good will" of certain layer of Japanese intellectuals.

Anyway, in this global conjuncture, Nakamasa finds rather certain irony. One of the fundamental standpoints of the postmodern deconstructionism was a refusal of situating oneself in a traditional and "metaphysical" dichotomy, like rational/irrational, modern/anti-modern, order/chaos, or construction/destruction etc. But the Japanese postmodernism, with its left turning, ends by resituating itself in a traditional political dichotomy of left and right. With its closer relation to real politics, it forgets or feigns at least to forget this standpoint. Nakamasa resumes the actual situation like this. Certainly, we can be suspect with this evaluation. In its approach to the more practical politics, instead of seeing oblivion of its fundamental standpoint, we can acknowledge a real and efficacious engagement to what is occurring in the world. The Derridian deconstructionism can be criticized finally as an ambiguous version of wait-and-see policy, or even as a theoretical opportunism, if it invites admirers to avoid a clear and distinct manifestation of their political stance. I have no intention to argue further for this theme in this context. Anyway, I think that with my succinct review of Japanese postmodernism, you can understand roughly the historical course of this sophisticated movement, its scope and its limit.

And after this presentation of Japanese postmodernism, I can now approach to focus on Science Wars, its outburst or its hitch. For the sake of this, however, we must review on the historical course of Occidental related research tradition.

2 Odyssey of SSK

The new philosophy of science originally instigated by Kuhnian epoch-making works was smoothly discussed and assimilated in academic sector. T.Kuhn's ***The Structure of Scientific Revolutions*** (1962) was translated in 1971[16], and that prepared in a sense a philosophical base for imminent vogue of relativistic epistemology. The term "paradigm" became a famous notion, largely used flowing over the context of history of science. And the notion of "incommensurability" represented for certain Japanese scholars a proof of the impossibility of comparison between ancient scientific theories and new scientific theories with the same criterion of the truth. Even the scientific truth can be contextualized within the cultural and historical particularities. Certain literal or philosophical critics enthusiastically received this thesis. And this relativistic tendency was more radicalized when Murakami Yoichiro (1936-) bent his energies to explain and translate the books of P.Feyerabend, promoter of an anarchistic methodology of knowledge. His ***Against Method*** (1975) was translated in 1981[17], and in the next year, his ***Erkenntnis fur freie Menschen***[18](1980) was translated. We can say that this radicalization of the trends implicitly assumed in the new philosophy of science went well with the growth of relativistic and anti-rationalistic theory of knowledge, promulgated little by little by critics and thinkers of

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[16] Thomas Kuhn, *The Structure of Scientific Revolutions*, Chicago, University of Chicago Press, 1962. *Kagaku Kakumei no Kozo*, translated by Nakayama Shigeru, Tokyo, Misuzushobo, 1971.

[17] Paul Feyerabend, *Against Method*, London, Humanities Press, 1975. *Hoho he no Chosen*, translated by Murakami Yoichiro & Watanabe Hiroshi, Tokyo, Shin'yosha, 1981.

[18] Paul Feyerabend, *Erkenntnis fur freie Menschen*, Frankfurt am Main, Suhrkamp, 1980. *Jiyujin no tameno Chi*, translated by Murakami Yoichiro & Murakami Kimiko, Tokyo, Shin'yosha, 1982.

postmodern sects. They reinforced each other.

By the way, if we turn our attention to the domain of knowledge more sociologically concerned, since about the second half of 1970's, the sociology of science began to develop a new type of problematic. On the background, there was at first a fact that the older dichotomy of internal approach and external approach has lost the meaning, at the expense of the former: The internal approach, i.e., the French epistemology was tapering off to only a domestic and specific tradition. At the same time, the category of external approach began to lapse its substantial meaning, because almost all of participants adopted this approach. Then, since about 1975, a new important trend was born inside of the sociology of science, named the sociology of scientific knowledge. We call it in abbreviation, SSK. SSK tried to differentiate from the more traditional sociology of science, especially from the Columbia school under the leader of Robert Merton. The Columbia school strived to concentrate on sociological analysis of the mode of evaluation of scientists, the race of contribution, the mode of stratification between productive researchers and relatively non-productive ones etc. Generally speaking, the Columbia school didn't touch on the very content of scientific theory, notion or knowledge, for absorbing itself to the mode of existence of scientists. SSK exactly aimed at filling up this vacuum of themes. SSK analyzes the very content of scientific theories and notions sociologically: it contextualizes them with cultural, historical or philosophical backgrounds. As the prime examples of SSK, we can cite perhaps Barry Barnes' ***Scientific Knowledge and Sociological Theory*** [19]

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[19] Barry Barnes, *Scientific Knowledge and Sociological Theory*, London, Routledge & Kegan Paul, 1974.

(1974), David Bloor's ***Knowledge and Social Imagery***[20] (1976), Everett Mendelsohn, Peter Weingart & Richard Whitley eds., ***The Social Construction of Scientific Knowledge***[21] (1977), and Barry Barnes & Steven Shapin eds., ***Natural Order***[22] (1979) etc. Especially, D.Bloor's ***Knowledge and Social Imagery*** was a bold tentative in as much as it proposed a sociology of mathematical knowledge, and what he called "Strong Program" was received as a manifestation of SSK's vigor.

In 1980's, SSK attained rapidly to its golden age. Karin Knorr-Cetina & Michael Mulkay eds., ***Science Observed***[23] (1983) was a collection of essays in which we could witness an interesting fact that the researchers in this volume searched intensively for enlarging the methodologies to analyze the scientific theories: for instance, the theoretical apparatuses such as the ethnomethodology, the discourse analysis, the anthropology of science etc. are carefully examined for their scope and merit. And many important monographs were published in this period. We can cite only some of them: Donald MacKenzie's ***Statistics in Britain, 1865-1930***[24] (1981), Harry Collins & Trevor Pinch's ***Frames of Meaning***[25] (1982), Andrew Pickering's ***Constructing Quarks***[26] (1984), and Trevor Pinch's ***Confronting***

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[20] David Bloor, *Knowledge and Social Imagery*, London, Routledge & Kegan Paul, 1976.

[21] Everett Mendelsohn, Peter Weingart & Richard Whitley eds., *The Social Construction of Scientific Knowledge*, Dordrecht, D.Reidel, 1977.

[22] Barry Barnes & Steven Shapin eds., *Natural Order*, London, Sage, 1979.

[23] Karin Knorr-Cetina & Michael Mulkay eds., *Science Observed*, London, Sage, 1983.

[24] Donald MacKenzie, *Statistics in Britain, 1865-1930*, Edinburgh, Edinburgh Unversity Press, 1981.

[25] Harry Collins & Trevor Pinch, *Frames of Meaning*, London, Routledge & Kegan Paul, 1982.

[26] Andrew Pickering, *Constructing Quarks*, Edinburgh, Edinburgh University

Nature[27] (1986) etc.

Among many other works of SSK, I would like to pour my closer attention to the four important contributions, instead of continuing to enumerate simply the title of books: Harry Collins' ***Changing Order***[28] (1985), Steven Shapin & Simon Shaffer's ***Leviathan and the Air-pump***[29] (1985), Bruno Latour's ***Science in Action***[30] (1987), and Donna Haraway's ***Primate Visions***[31] (1989).

Changing Order is a small and inconspicuous book, but its philosophical stance is very radical. Collins begins his argument with a reevaluation of the signification of induction. Induction is a procedure that extracts the sameness or the similitude from many different and diverse objects of the world. Induction is a procedure that recognizes some regularity among in appearance irregular and chaotic state of things. But, Collins insists that this kind of regularity is not founded on ontological layer of things, but only on some conventional belief upon expectability. The sameness of the thing is not an objective attribute of the nature of outer world, but a conventional arrangement. With this primary confirmation, Collins presents a drastically anti-realistic ontology. And as for the problem of science or more epistemological concerns like repeatability or verifiability, he strives to destruct the self-evident character of them, by focusing on tacit knowledge, non-verbal skills, or idiosyncratic characters of each laboratories etc. This small work expresses perhaps

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Press, 1984.

[27] Trevor Pinch, *Confronting Nature*, Dordrecht, D.Reidel, 1986.

[28] Harry Collins, *Changing Order*, Chicago, The University of Chicago Press, 1985.

[29] Steven Shapin & Simon Shaffer, *Leviathan and the Air-pump*, Princeton, Princeton University Press, 1985.

[30] Bruno Latour, *Science in Action*, Cambridge, Harvard University Press, 1987.

[31] Donna Haraway, *Primate Visions*, London, Routledge, 1989.

an extremity of anti-realistic implications of SSK program.

Leviathan and the Air-pump is a historical study on the époque of 17th century England. This book treats principally two important persons, Robert Boyle (1627-1691) and Thomas Hobbes (1588-1679). Particularly Shapin & Shaffer retrospect the inchoative discussion on the meaning of experimentation and its justification elaborated intensively by Boyle. For us, it is almost totally inconceivable that science can go without experimentation. But in this époque, experimentation is something to be strongly promoted so that people accepts it as a possible and adequate form of knowledge making. And Hobbes appears as a vehement opponent against the experimentationism, as he posited mathematical and geometrical knowledge as prototype of reliable knowledge. For Hobbes, experimentation is just an inexact and imperfect attempt towards a pure knowledge, because it has necessarily a material limit and technical imperfection of detective instruments. After this presentation of discussion, Shapin & Shaffer attempt to connect this epistemological antagonism with a political background of 17th century England. It was an époque after Puritan Revolution, and people craved for a peaceful and stable social regime. The community of experimentation has already elaborated certain qualification and norm of conduct to be a participant. And once accepted in view of criterion, scientists could freely exchange the discussion inside of their community. This type of intermediate and adjustable style of knowledge production between oppressive absolutism and licentious egalitarianism was considered as a better form of research than a purely geometrical and theoretical production of knowledge. In this manner, Shapin & Shaffer presented brilliantly a concrete example of SSK program, i.e., a social constructive understanding of scientific

research and discourses.

Science in Action is maybe one of the most famous contributions among the entire research domain of science studies. Latour was already known as an author of a book named ***Laboratory Life***[32] (1979), written with Steve Woolgar, and which was a pioneer essay of "laboratory studies", or the "anthropology of science". This study was accepted as one of major opportunities for a descriptive turn of philosophy of science. The dominant atmosphere of ***Science in Action*** is quite cynical and strategically politic. Latour affirms in a general manner that the destiny of individual thought or hypothesis is thrown out under the hand of other persons who evaluate or denigrate it. So, to be powerful and influent, one must talk a maximum of people into compliance. And this state of affair can be applied equally for the world of scientists. In this manner, Latour proposes a Machiavellian portrait of scientists who cites the articles of the alliance, and ignores those of enemies etc. Another important claim is that he asserts that a scientific fact is not at all an isolated existence, but a set of instruments that detects and verifies, and a mass of documents that state its validity etc. Scientific facts exist in a sense as a massive block made of documents, instruments, and even as an institution that provides rooms of research and discussion. I think that this special ontology of scientific facts is one of the most important claims that he has ever done.

The fourth and the last book that I take up here, as an example of the zenith of SSK is a voluminous book entitled ***Primate Visions***. This book treats a rather marginal domain of natural

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[32] Bruno Latour & Steve Woolgar, *Laboratory Life*, Princeton, Princeton University Press, 1979, 2nd edition, 1986.

anthropology, or more specifically primatology of 20th century. Haraway's astute sensibility detects a "simian orientalism" in ordinary anthropological or primatological discourses. Male anthropologists make sneak many gender-biased presumptions or anthropocentrism stealthily into seemingly objective scientific observations, and Haraway makes conscious of it. But at the same time, she acknowledges through research for historical course of primatology, certain gender character in a positive sense when female researchers realize the work in a different style and with a different approach: in this context, the works of J.Goudall, D.Fossey or B.Galdikas were highly evaluated. Primatology as science constructed with women's eye and brain. Written in a fine and splendid style, this feminist critique of science and a cultural study of science cannot be overestimated as such: SSK bequeathed to our generation a masterpiece in the science of monkey.

SSK's vigor began to languish slightly at the beginning of 1990's. Of course, there was a continuity of research tradition, and we can enumerate important works like Sandra Harding's ***Whose Science? Whose Knowledge?*** [33] (1991), Andrew Pickering ed., ***Science as Practice and Culture***[34] (1992), Harry Collins & Trevor Pinch's ***The Golem***[35] (1994), Dorothy Nelkin & Susan Lindee's ***The DNA Mystique***[36] (1995), and Andrew Pickering's ***The Mangle of***

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[33] Sandra Harding, *Whose Science? Whose Knowledge?*, Ithaca, Cornell University Press, 1991.
[34] Andrew Pickering ed., *Science as Practice and Culture*, Chicago, The University of Chicago Press, 1992.
[35] Harry Collins & Trevor Pinch, *The Golem*, Cambridge, Cambridge University Press, 1994.
[36] Dorothy Nelkin & Susan Lindee, *The DNA Mystique*, New York, W.H.Freeman, 1995.

Practice[37] (1995) etc. ***Science as Practice and Culture*** is a collection of essays in which we can read interesting discussion on the scope of actor-network theory of B.Latour and M.Callon. ***The Golem*** is a collection of rather cynical case studies, through which we can conclude that what is called scientific discourse, is not at all something of certain and corroborated, and science can be confounded sometimes with a dumb and stupid lump of clay, the Golem. ***The DNA Mystique*** is an analysis of popular images upon contemporary genetics. And ***The Mangle of Practice*** is an essay of analysis which makes efforts to be concomitant with what is being thinking and practicing in scientific or technological works. The metaphor of mangle is not necessarily adequate and efficacious, but Pickering's trial on promoting at its extreme level a sort of praxiology of science and technology is worth being praised in certain grade.

But among these works, there is one another contribution to which I would like to praise especially, and that I have omitted intentionally to refer until now, that is, ***Whose Science? Whose Knowledge?***. This is an essential book to evaluate the philosophical and political meaning of feminist critique of science. Of course, this is not the place to think over the feminist critique of science in itself, but I can say that Harding's book presents many important topic of this theme, rather objectively. And at the second half of the book, she makes an attempt to reflect upon her own discourse in order to limit in a sense the scope of her previous arguments. As a spokesperson of females in a scientific research sector or an ordinary woman of the everyday life, Harding locates herself in the category of socially weak

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[37] Andrew Pickering, *The Mangle of Practice*, Chicago, The University of Chicago Press, 1995.

persons. But this delicate awareness of weakness in general leads her unavoidably to be also aware of her own rather advantageous social status, a professor of philosophy, heterosexual white woman, rich and respected person etc. So, at the second half, she confronts a more minor social category such as lesbians or poor black women etc. in order to assume their marginalities and to undermine her own unconscious superiority. It is a difficult and laborious task, and if we qualify it simply as relativism, we fall into a very simplistic dualism of absolutism and relativism. ***Whose Science? Whose Knowledge?*** is an important landmark of SSK, whose fine re-articulation of objectivity and subjectivity prohibits us from adopting a simple schematism.

In this sense, we will make a mistake if we state hastily that SSK is degenerating at the first half of 1990's. Nevertheless, certain introspection began to urge to halt and watch on the own ground. As SSK tries to contextualize the content of scientific theory and discourse in cultural, social and political conditions in which it is presented, SSK is a version of what is called "social constructionism" in the vocabulary of sociology. But is it really true that the reality a fragment of which a scientific discourse seeks to describe is only a social construction, or a purely artificial existence? Being absorbed excessively in destructing a common sense of naïve realism, doesn't it run a risk of overstatement? Some researchers began to confess this kind of hesitation and self-reflection. For instance, Latour himself wrote an article of 1992 in which he diagnosed the present state of SSK as deadlocked in an impasse[38]. And a sociologist Stephen Cole

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[38] Bruno Latour, "One More Turn after the Social Turn", in Ernan McMullin ed., *The Social Dimensions of Science*, Notre Dame, University of Notre Dame Press, 1992.

published in the same year a book named ***Making Science***[39] (1992). In this book, he alarmed that the radical version of social constructionism could be hardly persuasive, and proposed to distinguish a core from a frontier side in scientific discourse, to protect some realistic meaning of it inside the core.

To tell the truth, if we survey in a wider scope, we can easily find a similar structure of problematic in the domain of sociology, not limited to the sociology of science. For example, already in 1977, Malcolm Spector & John I.Kitsuse wrote a famous book entitled ***Constructing Social Problems***[40], in which they proposed that what is called "social problem" became existent at the same time of contestation of claim makers. Social Problems like drug abuse or discrimination of female worker etc., become something to exist when somebody asserts that people suffers from it and asks for amelioration. So, the existence of "drug abuse" for example is concomitant with the social focusing on it. The philosophical meaning of this social constructionism leaves room of careful examination. Anyway, this work functioned as an opportunity to give strength to the subsequent vogue of social constructivism. And as is expected, after the predominance of social constructivism, some critiques began to appear. In this context, it will be sufficient to cite the article of Steve Woolgar & Dorothy Pawluch's "Ontological Gerrymandering"[41] in 1985. So, the problem of ontological status of some social entity, no matter how scientific or not, was one of the major theoretical problems in the

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[39] Stephen Cole, *Making Science*, Cambridge, Harvard University Press, 1992.
[40] Malcolm Spector & John I.Kitsuse, *Constructing Social Problems*, Menlo Park, Cummings Publishing Company, 1977.
[41] Steve Woolgar & Dorothy Pawluch, "Ontological Gerrymandering: The Anatomy of Social Problems Explanation", *Social Problems*, vol.32, no.2, 1985, pp.214-227.

broader context of sociology. Some hesitations in SSK were only a reminiscence of already discussed items.

In this way, already about since 1992 or 1993, the tradition of SSK began to fluctuate and hesitate. But the more turbulent storm was about to come from the outside.

3 Science Wars: American Incident

Let's confirm again the essential contention of SSK. SSK refuses to pose ontologically an objective reality as such, and proposes to contextualize any kind of ontological presupposition with regard to cultural, social and political background. In this sense, SSK is anti-realistic and relativistic. But we must not forget that this anti-realism and relativism is highly elaborated and nuanced one. On the other side, SSK refuses to keep an exceptional privilege to scientific discourses in that it detects many contingencies, pass-dependencies, ambiguities, uncertainness, or underdetermination in scientific reasoning. Scientific discourses are not necessarily more certain and clear than any other kind of discourses, so we don't need to respect it overwhelmingly. In this manner, SSK looks down upon the scientific sector, and damages a social and philosophical authority of science. If we don't forget this fundamental tone of SSK's politics, we can feel the premonition of some negative reactions from the very scientific sector. And as was justly expected, the scientists did indeed negative reactions, in addition, very furious ones.

Almost about in the same period with the confession of hesitation in SSK, some books written by scientists began to identify their dangerous "enemy" and to denigrate it, appealing to its worthless reasoning or its stupid errors. For instance, we can cite here Lewis

Wolpert's ***The Unnatural Nature of Science***[42] (1992) or Steven Weinberg's ***Dreams of a Final Theory***[43] (1993). Wolpert is a biologist and Weinberg is a physicist. But we will commit a big mistake if we don't cite in this context a book entitled ***Higher Superstition***[44] written by Paul R.Gross & Norman Levitt (1994). ***Higher Superstition*** is a quite voluminous and important book, in that it is a systematic and vehement attack against almost all kind of left side tradition of thought: Marxism, postmodernism, social constructionism, feminism, multiculturalism, radical environmentalism etc. For the commodity of argument, Gross & Levitt call them "academic left". Their tone of argumentation is so violent that it provokes to a reader an enthusiastic approval or an abhorrent repulsion. In effect, many readers did so. And that was an outburst of Science Wars, against which an important left wing journal named ***Social Text***[45] (1996) organized a special issue, and for the total title, editor chose the expression of Science Wars. I don't want to explain in a detail this battle including Sokal's hoax etc., because in itself Science Wars is almost only a noisy slapstick, or political comedy. And I think that all of you know very much on it, including the successive tedious battles between the two clans, in many conferences, congresses, T.V. show, or in cyberspace. So I prefer to avoid the description of this war in itself, and try rather to analyze the specific context of American background.

Until this period, the development of SSK caused to make ambiguous its demarcation line especially with the history of science.

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[42] Lewis Wolpert, *The Unnatural Nature of Science*, Cambridge, Harvard University Press, 1992.
[43] Steven Weinberg, *Dreams of a Final Theory*, New York, Pantheon Press, 1993.
[44] Paul R.Gross & Norman Levitt, *Higher Superstition*, Baltimore, The Johns Hopkins University Press, 1994.
[45] "Science Wars", *Social Text* 46/47, vol.14, no.1-2, Spring/Summer 1996.

And, even a part of philosophy of science was being more or less linked to SSK. So, people who are interested in all kind of meta-reflections on science and technology, regardless of their major methodological tendencies, began to name their works as "science studies". In this sense, SSK was subsumed practically under this wider category of science studies. In parallel with this conjuncture, the term STS, abbreviation of Science, Technology and Society[46] became more and more popular among the researchers of related domains. I think that nobody has tried yet to reflect on the conceptual difference between science studies and STS, and that this kind of trial won't be so fructuous anyway, I don't care for different uses of the two notions. What I want to say here is that Science Wars can be defined as an academic and political battle between science studies and scientific sector. At the first place, this definition seems no more than a truism. But if we remember in a broader context the cultural trend of the U.S.A. in 1980's and 1990's, we must acknowledge an interesting fact that demands us to revise the simple and unilateral understanding of Science Wars.

Think for example the famous text of Allan Bloom, called ***The Closing of the American Mind***[47] (1987). In this best seller, Bloom deplores the actual state of American universities in which some versions of nihilism of European origins devastate the American young students. Somewhat in the same manner with Japan, the European postmodernism was introduced in U.S.A., and in 1980's, its influence became so preponderant that scholars with more "classical"

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[46] Or, the other persons understand it as an abbreviation of Science and Technology Studies.

[47] Allan Bloom, *The Closing of the American Mind*, New York, Simon & Schuster, 1987.

sensibility felt scared with its potential dangers. Moreover, cultural studies were becoming little by little influent on the other side. As cultural studies look in scorn at the traditional hierarchy of high culture and low culture, its increasing influence in academic sector can undermine the core of classical hierarchy of knowledge. And while postmodernism and cultural studies, all of the two, tended to destruct some classical evaluation of knowledge criterion, many political contestations to support minorities, on the other side, undermined incessantly the traditional high status of white rich men, as were verified in the cases like feminism, multiculturalism, gay and lesbian movement etc. What is called Culture Wars was shaking violently the old and traditional social link and relations. To evaluate this cultural scene, we have good documents like James Davison Hunter's ***Culture Wars***[48] (1991) or Todd Gitlin's ***The Twilight of Common Dreams***[49] (1995) etc. Hunter's book is a relatively neutral survey of this phenomenon, while that of Gitlin is a manifest lament that American people tends to forget the search for common political ground, instead of agitating always each specific identity politics or claims for anti-discriminations. And I find another interesting example in ***Illiberal Education***[50] of Dinesh D'Souza (1991). In this vitriolic document, D'Souza decries the frivolity of many political protestations against racism, sexism, ethnocentrism or logocentrism, assumed by several minority support groups or some self-purportedly avant-garde thinkers. When par example D'Souza illustrates cynically

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[48] James Davison Hunter, *Culture Wars: The Struggle to Define America*, New York, BasicBooks, 1991.
[49] Todd Gitlin, *The Twilight of Common Dreams: Why America is Wracked by Culture Wars*, New York, An Owl Book, 1995.
[50] Dinesh D'Souza, *Illiberal Education: The Politics of Race and Sex on Campus*, New York, The Free Press, 1991.

a portrait of Stanley Fish, "fashionable" philosopher employed in the midst of 1980's in Duke University as a part of large-scale employment program of thinkers of postmodernist trends[51], we have an impression of reading a passage of ***Higher Superstition***. Stanley Fish despises someone because he commits an "error of objectivism" etc. In this sense, in the context of Culture Wars antagonism, the battle between protectors of universalism and postmodernist relativism went on the way.

After this commentary, I can now resume clearly my point of argument: if we ignore these important and large backgrounds on American contemporary cultural debates, we cannot understand the scope of complicated articulations and elements that made occur a battle called Science Wars. Science Wars was a sort of local war within the scientific sector and science studies researchers. But the more important and large-scale wars have been already on the way in several layers of American civilization. Science Wars repeated only almost the same structure of battle and antagonism with the big wars of background. Incidentally, in her illuminating article "P.C., O.J. and Truth", a feminist philosopher Susan Bordo presents almost the same judgment with me[52]. Of course, we can cite the succession of Science Wars exemplified in documents like Alan Sokal & Jean Bricmont, ***Impostures Intellectuelles***[53] (1997), Paul R.Gross, Norman Levitt & Martin Lewis eds., ***The Flight from Science and Reason***[54] (1997),

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[51] Ibid., chap.6.

[52] Susan Bordo, "P.C., O.J., and Truth", in *Twilight Zones*, Berkeley, University of California Press, 1997, pp.66-106.

[53] Alan Sokal & Jean Bricmont, *Impostures Intellectuelles*, Paris, Odile Jacob, 1997.

[54] Paul R.Gross, Norman Levitt & Martin Lewis eds., *The Flight from Science and Reason*, Baltimore, The Johns Hopkins University Press, 1997.

and Noretta Koertge ed., ***A House Built on Sand***[55] (1998), for instance. And for each document, we can make a lot of comments inside of discourse sphere of science studies and their enemies. But I insist that if we ignore the scope of its wider cultural background, we can never understand very well what kind of social and political elements each clan of Science Wars has advocated or represented in the U.S.A.

4 Japanese Science Wars: Abortion or Miscarriage?

Well, if in this manner, Science Wars was fundamentally a war occurred in a particular American context, is there any meaning to talk about Japanese Science Wars? Yes, there must be some signification to discuss on Japanese Science Wars, even if it can be quite different from the original wars. By the way, did this kind of battle occur in Japan? Fortunately or perhaps unfortunately, there was no such a thing as Japanese Science Wars, if by this term we mean the wars with the same scope and the same level of battle between the scientific sector and the science studies researchers in Japan. In the first place, there are not so many science studies researchers in Japan as the scientific sector might feel threatened. And the very American Science Wars remained almost unacknowledged in Japan during its most intensive battle between, say, 1994 and 1997. Before I published in the summer 1998 a long introductive article entitled exactly "Science Wars" in Japanese Journal ***Contemporary Thought*** (***Gendai Shiso***)[56], there were almost none of commentaries on it. My article

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[55] Noretta Koertge ed., *A House Built on Sand*, New York, Oxford University Press, 1998.

[56] Kanamori Osamu, "Science Wars 1", *Gendai Shiso*, vol.26, no.9, 1998, pp.16-42; idem, "Science Wars 2", *Gendai Shiso*, vol.26, no.10, 1998, pp.8-27.

drew some attention, so that ***Contemporary Thought*** prepared in November 1998 a special issue on this theme. Approximately by this time, some critical reactions on my work began to appear especially in cyberspace, but I regret to say that the level of these critiques was in general quite disappointing. This is approximately the first phase of the introduction.

The second phase was constituted by an almost simultaneous publication of the Japanese translation of ***Impostures Intellectuelles*** (***Chi no Guiman***[57]) in May 2000, and of my collection of essays on related themes, and entitled ***Science Wars***[58] in June 2000. In this second phase, however, the level of discussion didn't change very much. There are multiple reasons why this was so in Japan. At first, during the golden age of SSK in 1980's, the predominance of Japanese postmodernism was so overwhelming that the other academic trends had some difficulties to be introduced: especially when the theme of book was on science and technology, Japanese important editors considered that it could attract only a small and minor circle, that is to say, not interesting for the market. So, almost all of the important contributions of SSK remained unknown in Japanese intellectual class, and remained hardly discussed. In effect, an important work like ***Science in Action*** of Bruno Latour was translated in Japanese as recently as in 1999[59]. SSK tradition, or more precisely science studies tradition in general were for a long time unnoticed in Japan, and even today the situation is hardly ameliorated.

At second, Japanese translated only ***Impostures***

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[57] Alan Sokal & Jean Bricmont, *Chi no Guiman*, translated by Tazaki Haruaki, Oono Yoshitsugu & Hori Shigeki, Tokyo, Iwanamishoten, 2000.
[58] Kanamori Osamu, *Science Wars*, Tokyo, University of Tokyo Press, 2000.
[59] Bruno Latour, *Kagaku ga Tsukurareteiru Toki*, translated by Kawasaki Masaru & Takada Kiyoshi, Tokyo, Sangyotosho, 1999.

Intellectuelles, and until now at least, there is no translation of ***Higher Superstition***, while especially the latter, and not the former, is an essential document in order to situate finely many different political elements in adequate manner. Moreover, Japanese people is not so sensitive to the complicated problems of identity politics on race, gender, and class, and the level of knowledge on American Culture Wars is in general poor and elementary. Because of these lacks of knowledge, Japanese have not many opportunities to succeed in locating American Science Wars in these complex webs of culture, thought and politics, on which I had given a sketch above.

The style of battle in Japan is thus reduced to just a simplistic dichotomy of scientific realism and extravagant relativism. But how can we discuss adequately with this naïve dichotomy, while we have all kind of reflections upon the status of objectivity, scientificity or political conditioning of objectivity etc. as I had sketched for presentation of postmodernism or SSK? Moreover, under the influence of ***Impostures Intellectuelles***, the scientific sector contents itself with repeating plenty of tedious and humdrum attacks on abuse of scientific concepts like chaos, fractal or Gödel's theorem etc. assumed by French thinkers or by Japanese commentators on these French thinkers. Their attacks don't even attain to the science studies in themselves. To be worse, some scientists, satisfied with their fake triumph, begin to profess again an old philosophy of naïve realism, as if they had forgotten all of the philosophical examinations after Thomas Kuhn. It is rather a deplorable, conservative and dangerous cultural symptom. They feign to ignore the finesse of articulations that refuses to be schematized in a rigid dichotomy of objectivity and subjectivity, that of matter and spirit, or that of reality and phantom etc. This means to ignore science studies in general, and

even Japanese own tradition of some good versions of postmodernism.

To sum up, Japanese Science Wars, if any, is a tiresome and sterile war, in which you don't have to be interested. So, please don't follow our style, don't repeat our mistakes. But not all of conjuncture is without hope. There are actually some premonitions of good signs. At first, an academic association specializing for STS[60] was organized in the autumn of 2001, and we held the first congress in last week. In the congress, there were many interesting discussions on the problematic like scientific journalism, public understanding of science, human experimentation, and technology assessment etc. At second, I edited with my colleague Nakajima Hideto a textbook on STS in this spring, entitled ***Science Studies in Front***[61] (2002), and it was relatively well accepted. It is certain that Japanese must investigate thoroughly what kind of contributions exist especially since SSK phase of science studies, in order to articulate their merits and their demerits. And at third, the important journal called ***Science*** (***Kagaku***) of Iwanamishoten organized a special issue on risk studies in this October. In this issue, there were three contributions on risk studies from critical points of view inspired by science studies tradition, besides the other studies of enlightenment and promotion of them: it is quite an extraordinary phenomenon for this important and orthodox journal specialized in science. Certainly, it will be an optimistic overstatement to affirm that Japanese science studies have entered already into a firm developmental phase. But with the advent of more sophisticated technological civilization, it is undeniably important to assess what kind of results is coming out of a concrete technique or

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[60] Japanese Society for Science and Technology Studies (JSSTS).

[61] Kanamori Osamu & Nakajima Hideto eds., *Kagakuron no Genzai* (*Science Studies in Front*), Tokyo, Keisoshobo, 2002.

science, what kind of social system is the best for a fair regulation of science and technology etc. And those who bear the responsibility to resolve these important and difficult tasks must be not the scientists themselves, but the researchers of science studies.

Akutagawa showed off in his tale "Smiles of Gods" the unfathomable receptivity of Japanese culture, in that it receives voluntarily everything from outside, but finally it won't change anything of essential in its indigenous character. Japanese receives everything, but they change this everything to accommodate to their own culture. In this manner, are they going to modify science studies for their own style? I don't know. But the least I can say is that we live in an extremely sophisticated civilization where reigns predominantly not the objective reality and its mirror-like reflection, but a sort of "politics of objectivity" that arranges by its multi-causal connections the demarcation line between reality, quasi-reality and pure phantom of verbalism.