

THE JAPAN SCIENTISTS' ASSOCIATION

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2017 Summer Lecture "Where is Japan's politics heading toward?"

JSA and Article 9 Association of Scientists held a lecture meeting "Where are Japan's politics heading toward?" on November 25, 2017 at Chuo University. About 90 citizens took part therein.

Prof. Shida (Musashino Art Univ., rep. , Article 9 Association of Scientists) delivered a lecture "Family and individuals, dignity and equality, for the sake of open constitutional debate". Making a survey of the involvement of government (the judicature and legislature) with family as an aggregate of persons, she claims that family must have a role to contribute to individual freedom, to that end the formation should be open. The term relating to family basing on personal dignity (Article 24) is the object of improvement even in the draft of constitutional revision proposed by the Liberal Democratic Party (LDP). The professor strongly pointed out it is danger to rearrange into mutual support obligation prior to respecting individual and equality. That is an important indication.

Prof. Watanabe (Prof. Emeritus, Hitotsubashi Univ.) delivered a lecture on the characteristic of Japanese politics and how constitutional amendment movements are developing. He stressed that LDP, which aspires for the constitutional amendment, did not win two third of seats in the general election for the House of Representatives, necessary ones to amend the constitution. That failure was because that the opposition parties, advocating constitutionalism, again have been unified at the last moment, which intercepted the aim of LDP. The driving force behind the result is the citizen's one to oppose the constitutional revision. To block the scheme of the constitutional revision, significant is to construct the further solidarity among citizens and parties advocating the constitution.

The Abe administration drew up a schedule to amend, that is, drawing a draft of constitutional amendment in 2017, and laying the draft before the Diet in 2018. In order to contain the scheme of Abe it is necessary for us to rapidly boost national movements against it.

Lecture on “New Statement on Research for Military Security of Science Council of Japan”

During the surge of military-academia joint research due to the Abe administration, on November 19, 2017 Research Society for 15 years War and Japanese Medical Science and Service (Dr. Karita, director-secretary) held a public lecture “What question did Statement of Science Council of Japan on Research for Military Security put to scientists?” by Prof. Komorida (secretary, Committee on National Security and Scientific Research of the Council, Kanagawa Univ.), where 30 participants including people on the media attended.

The lecture covers the position of the new statement, an outline of National Security Technology Research Promotion in the fiscal year 2015, the new statement as a developmental accession of past ones, and future tasks. He explained the process to arrange statement and experience such as in fully disclosing discussions and minutes.

The professor mentioned that past statements in 1950 and 1967 were declarations of resolve of the Council, universities and institutions were left to judge whether utilize them, which caused difficulties in corresponding to subsequent things, namely, the mutual approach of military affairs and academics. The new statement, while, says that the Council as the representative of scientist community in Japan requests a concrete correspondence to universities and institutions, coincidently promises to continue to lead deliberations on relevant issues. This is the first step. Whether the statement could be utilized depends on sustained deliberation and tackling in society.

Professor Komorida also stressed the following necessary things: a) To arrange screening system and guideline, in addition, with the force to imagine future taking account of global situation and historical experiences concerning the relation between military affairs and academic research; b) To build consensus not through top-down approach but with sustained and frank argument; c) To make opportunity to think about administration, research, and education in university together with the young.

ACTIVITIES OF RESEARCH COMMITTEES AND GROUPS

The JSA headquarters organizes a number of research committees and groups undertaken on a nationwide scale, which are encouraging the members across the country

1) “HIKIKOMORI” STUDY IS A PHENOMENON PECULIAR TO JAPAN

The research committee of protection of human rights for elderly people and disabled people put together a feature story on “Present state of hikikomori studies” in JJS June 2016 and published this special issue as a book titled “Practice and studies to support withdrawal -you can start repeatedly“.

In cooperation with the Kyoto branch, the committee held a symposium and a lecture at Bukkyo University on September 2, 2017. The speaker of the lecture was Mr. Urushiba (Bukkyo University, psychiatrist), and about 60 people who are suffering from this problem participated and talked about their troubles.

After that, we conducted a questionnaire survey in English about 150 foreigners (33 countries) visiting Kyoto on “Hikikomori is unique to Japan”. Regarding Japanese people, 100% of them know the word “hikikomori”, and a quarter of people say that there is a person of withdrawing nearby. On the other hand, one third of foreigners (half of Koreans) answered they don’t know this word. Quoting the Oxford dictionary and explaining, one-quarter of people answered that the withdrawal is in their countries, but it doesn’t become social problems.

The phenomenon of withdrawal exists in Europe and the United States, but in Japan it is abnormally high that the withdrawal- persons are more than 1% (one million) of the population. When we asked a question “Why does the withdrawal phenomenon occur?” They answered that the causes are education, society, information culture. And few people answered parents’ problems and “amae” (emotional dependence). Young members of the committee in the Kansai region are going to publish a book on “care and welfare studies”.

2) ISSUES OF MILITARY-ACADEMIA COLLABORATION AND UP-TO-DATE SIGNIFICANCE OF “REPORT OF RIGHTS, STATUS, AND ETHICS OF RESEARCHERS”

(JSA the committee of scientists' rights)

We have held the first committee of the current term on July 8th. The focus was review of military-academia collaboration and “Report of rights, status, and ethics of researchers” (Report of Rights: 2007).

In FY2015, Innovative Science & Technology Initiative for Security Program of Ministry of Defense has been started. With the allocation of 11 billion yen in FY2017, the government is getting up speed to promote military-academia collaboration. This year, Science Council of Japan has issued “Statement on Research for Military Security” (New Statement), affirming its two statements on its commitment to never become engaged in scientific research for military purposes. The New Statement expresses there exist concerns that government intervention in the activities of researchers might become stronger. Regarding Dual Use argument, the New Statement clarifies that prudent judgment is required on sources of research funding and other conditions before actual research activities begin. It also requested enhancement of funds for researches on public welfare. The Report of Rights clarifies the right to oppose to and refuse scientific research for military purposes in the clause <Right to refuse and oppose to researches that are contrary to humanity> and further strictly admonishes against research for military purposes as the ethics of researchers in the clause <Contribution to peace and welfare>.

Under such circumstance where up-to-date significance of the Report of Rights is increasing, we would like to appeal to propagate and reinforce the Report of Rights as well as expecting to utilize it for charters now under discussion in JSA. We also consider we need to fill vacancies of committee members with those who work regularly in private sectors for succession and development of the committee activities, and to find, advertise, and support the issues of infringement on rights and misconduct in research. We will consider to introduce to Journal of Japanese Scientists the “Recommendation on the Status of Scientific Researchers (1974)” whose proposal and publication of revision are slated for the fall of this year at a UNESCO's general session, including contribution of our committee. We have agreed to plan an attractive subcommittee meeting, correlating ‘military-academia

collaboration and rights, status, and ethics of researchers' and 'misconduct in research' for the theme of the subcommittee at the 22nd Comprehensive Scientific Study Convention. (Kiyosato NIU)

DISTRICTS' AND BRANCHES' ACTIVITIES

The JSA consists of 47 branches which are grouped into 9 districts, and they are independently and/or cooperatively carrying out their activities in addition to the headquarters' ones

1) LECTURE SESSION "REMOVAL OF A BAN OF ARMS EXPORTS; PROGRESS OF THE MILITARY-INDUSTRY COMPLEX – UNIVERSITIES, ENTERPRISES, AND RESEARCHERS WHO ARE INCLUDED"

JSA Yamanashi branch

The Yamanashi branch has invited Isoko Mochizuki for a lecture session on the 5th of August. There were nearly 150 participants which was beyond our initial expectation; there was once a queue in front of the Yamanashi Prefectural Library where the session took place. They were the citizens eager to listen to the lecture of the very journalist of the Tokyo Shimbun newspaper who has been posing penetrating questions to Suga, the Chief Cabinet Secretary, during regular press conferences in the PM's official residence.

The lecture of Mochizuki started from explanation of 'Innovative Science & Technology Initiative for Security Program' of the Ministry of Defense. The contents of her lecture were so vivid as to feel the interview scenes as live ones, covering voices of researchers who are receiving the funds, sensation and shock spread to the nationwide stakeholders in universities, statements by promoters of military-academia collaboration, offence and defense in the government over arms exports, Statement on Research for Military Security of Science Council of Japan, and the latest movements of universities who have decided not to allow participation to the program. The attitude of Mochizuki was impressive when she responded by saying "There are many things than cannot be done by people but by journalists. I am dealing with this issue with a resolution as a professional of mass communication." as an answer to the question by a participant "How can you be so powerfully active."

While many participants expressed they were not aware of the issue, encouraging voices were delivered; "Researches should not be done with subsidy from Ministry of Defense," and "We have to expand our activities." In Yamanashi University, a young researcher of faculty of engineering applied for the program and was not adopted in FY 2015. During the past 2 years, there were researchers who wished to apply but they abandoned in the end. It was not because there was an agreement in the university, but faculty head dissuaded them. From now on, questioned is how the university makes mind on the issue. We must deal with the issue, taking account of the voices of citizens who participated in the session. (Tomoko TAKAHASHI)

2) SEVENTH "YU MANABIYA" MINI-SYMPOSIUM ON ESTABLISHMENT OF NEW DEPARTMENT OF VETERINARY MEDICINE

The mini-symposium entitled "The Problem of Kake-Gakuen and its Establishment of a New Department of Veterinary Medicine——History of Animal Medicine and Education" was held on

September 28. The lecturer was Nakama, the former director of Yamaguchi University Animal Medical Center, who had been engaged in veterinary medicine and training of veterinarians for many years.

He talked about history of the veterinary practice, changes in veterinarian's practice resulting from recent changes in breeding conditions of dogs and cats, current state of veterinarian training and the problem of Kake-Gakuen's establishing a new veterinary medicine department.

While veterinarians engaged in health management of military horses in the wartime and medical care for food animals after the war, they became increasingly ready to correspond to breeding a vast number of dogs and cats as pet animals after the period of high economic growth. In recent years veterinary practice has become more sophisticated and specialized with high-level equipment such as ones used for human medicine installed. Also, countermeasures against zoonotic infection have become a task.

Although there are sufficient numbers of veterinarians they somehow are dominated by companion animal practitioners and veterinarians for industrial animals and public health are lacking. Behind this situation is inadequate treatment of government-employed veterinarians to compensate their grueling work.

Veterinarian training programs in Japan (11 public and 5 private, 16 in all) are smaller in scale than those in the United States and Europe and the teacher-student ratio is also smaller, especially in private universities. It is important, more than anything else, to increase the number of teachers and update the facilities of existing training courses, rather than to create a new veterinary department. Commencing with the Japanese Society of Veterinary Science, almost all veterinary schools throughout Japan are opposed to establishing a large department of veterinary medicine that accepts 140 students each academic year in Imabari City as National Strategic Special Zone.

Following these lectures vigorous debates together with participants' comments went on beyond scheduled time. Reflecting their considerable concern to this matter, the large joint lecture hall of Yamaguchi University's Departments of Agriculture and of Veterinary Medicine was filled with more than 30 people including high school students who wish to enter the veterinary school, University employees, veterinarians and the general public.

3) SYMPOSIUM ON AN ISSUE OF RAIL LINE DISCONTINUANCE IN HOKKAIDO

On October 29, 2017 the Hokkaido branch held the 2017 Hokkaido Science Symposium, where a symposium "Issue of area transportation raised by Japan Railway Hokkaido". 40 citizens participated in the symposium.

JR (Japan Railway) Hokkaido, on November 2016 disclosed a list of 10 lines and 13 railway divisions that are separately unsustainable, proposing to transform to bus transportation and requiring municipality to defray the cost of reform because it is difficult to maintain a half of existing 2,500 km railway with no financial support. The governor of Hokkaido, following the result of deliberation by the working team for railway system (established in the council of transportation in Hokkaido), does not take stance to keep the rail system going. That causes anxiety of people reside in the areas far from Sapporo, they fear being disregarded.

JSA members organized a study meeting in May, 2017 on the modality of railway, where about 100 citizens gathered from around the prefecture to discuss several questions. For instance, Hidaka line running along the Pacific Ocean coastline was blocked on account of coastline broken by last typhoon, the state government improperly neglects the coastal erosion. At Oiwake High School located in Abira town, where Muroran and Sekishou lines intersect, above a third of students commute by train. If railroad is discontinued we are anxious whether the school is closed. There are about one million people living along *the lines difficult to separately maintain*. If JR decided to discontinue those lines the more depopulation would be accelerated.

This time the symposium was held to discuss the role of railway in Hokkaido, relation between accession of technology and incident, 30 years of JR's operation after breakup and privatization, and how to maintain existing rail system, basing on specialists' reports. From the floor voices of discontent with JR exploded according to precedence of management, namely, trains into service were reduced, connection was made inconvenient, people feels no attachment for unmanned station, and to abandon railway is to abandon culture and so on.

According to the reports, JR's corporate failure is the result of breakup and privatization. The council for acceleration of JR Hokkaido rehabilitation (lead by the business community) recommended *selection and concentration* to the Hokkaido governor, who immediately followed the recommendation. Thus JR is now at loss. Viewing efforts of Switzerland and countries in north Europe, in order to sustain the lives of residents and vitalize economics, it is crucial to retain the railway. Not leaving the matter up to JR alone, we can settle it in an alternative way which the state and local governments have a responsibility to such as "scheme of separating infrastructure and operation".

4) SMALL TALK SESSION IN OKAYAMA

The Okayama branch holds a lecture about topics of science for faculty staffs, students, citizens about eight times per year. At the fourth lecture in 2017, Professor Sakuta (Faculty of Science, Okayama Univ.), who is engaged in the research by Kamiokande, gave a lecture on the discovery of gravitational waves.

He showed the subsequent data of the gravitational waves found on September 14, 2013 and explained they can be understood by calculation based on the general relativity theory and by coalescence of black hole binary stars and neutron binaries stars. Referring to the gamma ray observation data emitted from the coalescence of neutron binary stars, he further said that the speed of the gravitational wave coincides with that of light within 15-digit accuracy.

He described difference of distance dependency of energy and distortion of wave and pointed out the importance of strain observation of gravitational waves. He explained the laser interferometer using various techniques to realize direct observation of the microscopic distortion of space due to the gravitational waves that Einstein thought impossible.

He said that neutrinos associated with a supernova explosion can be more reliably detected by using a detector that added gadolinium in the neutrino observation he is involved, and the neutrino observation and the gravitational wave observation will develop the elucidation of heavy element synthesis process in space.

5) NOVEMBER REGULAR MEETING OF FUKUOKA STUDY GROUP OF NUCLEAR PROBLEMS

“Scientific and technical analysis of nuclear development in DPRK; Note 2-The hydrogen bomb and its advancement to fit multiheaded ICBM”

In the regular meeting of Fukuoka Study Group of Nuclear Problems held on November 4, 1917, Okamoto Ryoji, Professor Emeritus, Kyushu Institute of Technology, gave a lecture entitled “Scientific and technical analyses of nuclear development in DPRK; Note 2-The hydrogen bomb and its advancement to fit multiheaded ICBM.”

In his article titled “How Have Nuclear Weapon Program Developed in DPRK (North Korea)?” published in the Journal of Japanese Scientists, 598, November, 1917: pp.24~30, he analyzed the North Korea’s past five nuclear experiments and explained that their nuclear development technologies were well advanced, the explosion power was steadily increased and the actual military deployment was near at hand.

Now that another nuclear experiment was conducted on September 3, 2017, and in response, the US-South Korea joint military exercise was held as usual, the provocative moves by both sides continue. While threatening by military operation and economic sanctions do not seem to bring a true resolution of problem, objective analyses and understanding of North Korea’s military trends are indispensable, Okamoto said.

A hydrogen bomb is composed of a primary fission bomb and a secondary fusion bomb. According to the literature by Gsponer et.al.(2009) , the technology to drastically improve the explosion efficiency by employing the booster principle is said to be easier than expected. In the primary system (nuclear fission system) of the present-day hydrogen bomb, the booster process promotes fission chain reaction with a small amount of nuclear fusion materials (deuterium and tritium) added. The hydrogen bomb (W88) of the United States is designed to maximize the efficiency of thermonuclear fusion by making the secondary system spherically symmetric.

On September 3, 2017, the DPRK Nuclear Weapons Institute announced that the 6th nuclear experiment had been performed. The statement claimed that core technical targets for ‘hydrogen bombs’, consisting of the primary and secondary system, had been achieved with high precision. Okamoto said that the H-bomb experiment could be considered essentially successful and their nuclear development technologies had possibly more advanced than could be overlooked.

(Reported by Isa Tomoko)

6) KYUSHU-OKINAWA SYMPOSIUM “AIMING AT A PEACEFUL AND SUSTAINABLE SOCIETY”

On December 2, 2017 JSA Kyushu-Okinawa district and the staff union of Kagoshima University held 34th Kyushu-Okinawa symposium at Agricultural Department of Kagoshima University with about 60 participants including citizens.

In session I, five JSA members in Kyushu delivered the following reports:

- (i) In “The age of Treaty on the Prohibition of Nuclear Weapons and debate on North Korea’s menace”, Prof. Kawahara voiced his expectation that People’s Alliance for Democracy could initiate a surge of movement to create peaceful circumstances in the northeastern Asia as a movement in victim of nuclear bombing Japan.
- (ii) In “Theory of nuclear deterrence and the nuclear umbrella, North Korea peril, their true and false”, Prof. Okamoto reported the actual state of nuclear and missile development of North Korea and criticized by the use of the game theory, saying that nuclear deterrence is illegal and inefficient.
- (iii) Four power companies having pressurized water reactors insist that even in case of accident radioactive materials are estimated approximately a two thousandth of amount in the case of Fukushima accident. Prof. Nakanishi criticized such a new safety myth for nuclear restart according to reports from OECD and JAEA (Japan Atomic Energy Agency).
- (iv) Prof. Kameyama reported on the attainment of movement against new military base and protection of natural environment in Okinawa, detailing state governmental act of violence to destruct nature of Okinawa and residents’ living in contrast with local governmental deed.
- (v) Prof. Oguri explained the dangerous nature of ‘Innovative Science & Technology Initiative for Security Program’ of the Ministry of Defense, whose funds are increasing every year. Although Kagoshima University has established a fundamental guideline and rule of review committee, the rule has a problematic defect, namely, review is conducted after application. The JSA Kagoshima branch and the staff union of the university released a contrary opinion to the public.

In session II, Prof. Sato gave a lecture on the current condition of the sea of Ariake and the Isahaya bay, showing with comment “Deeply-troubled sea, Ariake (1988-2016)”. We confirmed through the vision, a vast extent of tidal wetland, disappeared by the national large scaled reclamation project, had been the *precious sea* that supports a plentiful fishery, and the historical transition of the fishery. It was especially impressive to hear that press in general reports “hostility between farming and fishing”, whereas the wetland was a precious habitat for a really large number of endangered species though unknown to the general.

All things considered, we ourselves need judge from assured information of social problems without depending on media story alone. We had participants’ positive voices and reactions on the symposium from the questionnaire.

(Sonoya and Tajima)