

Harmonization of Natural Science and Social Science

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Distinguished participants, ladies and gentlemen:

I was very much impressed when I learned the book “The Methods of Operations Research” by P. M. Morse and G. E. Kimball published in 1951. In the following years, I had been surprised that the war affairs which are irrational sometimes brutal behavior of human, can be analyzed in terms of mathematical equation, and one can elucidate the consequences of the military actions by means of mathematical models. After that time, due to the great progress of computers in recent years, the operations research has been developed in many areas. We can find the optimal solution for the very complicated problems such as linear programming, dynamic programming, queuing theory, inventory scheduling, gaming, etc. When the objective and constraints are expressed in terms of mathematical equation, however, complicated, we can find the optimum solution by means of the theories of operations research. It is widely utilized for the decision makers to analyze the problems. The Society for Operations Research Japan was established in 1957, and registered at The Science Council of Japan. It is extensively applied in business and in industries in this country.

I attended the conference “On the Role of the Science in Rebuilding the Countries of the former Soviet Union” in 12-14 June, 1994, at the Leeds Castle, Maidstone, U. K. The conference was organized by International Council of Scientific Unions, and J. C. I. Dooge, President of International Council of Scientific Unions, P. Fasella, Director-General and Directorate for Science, Research and Development of European Commission, A. Badran, Assistant Director-General for Science and acting Deputy Director-General of UNESCO, were the hosts of the conference. This was very informal conference stressing discussions and open exchange of information. Sir Anthony Epstein, Chairman of ICSU Special Committee on Science in the former Soviet Union and Central and Eastern Europe (COMSCEE) is the organizer. U. Colombo, Immediate Past Minister for Universities and Scientific and Technological Research of Italy, Sir Willam Stewart, Chief Scientific Adviser to the Cabinet of U. K., and M. Osborne, Head of Outlook and Countries Studies Division of OECD together with Sir John Kendrew, Nobel Laureate and Past President of ICSU and myself, President of Science Council of Japan attended the conference.

From the former Soviet Union, B. Genzelis, Chairman of Committee on Education, Science and Culture at the Parliament of Lithuania, Y. Bersheda, Assistant to the President of Ukraine for Science, D. Daoukeev, Deputy Minister for Science and New Technologies of Kazakhstan, M. Demchuk, Deputy Prime Minister for Science of Belarus, J. Cooper, Director of Center for Russian and East European Studies at Birmingham, U. K., K. Jumaliev, Chairman of State Committee for Science and New Technologies of Kirghizstan, C. N. R. Rao, Director of Indian Institute of Science, J. Rostrup-Nielsen, Director of Research and Development of Haldor Topsoe A/S of Denmark, and L. Tissot, Executive Director of Tissot Economic Foundation in Switzerland participated and

discussed the use of science to rebuild these countries.

These countries after the fall of the former Soviet Union are facing difficult problems not only in economy but also in political situation. There is no doubt how the science is useful for the economic imperatives in the search for solutions, and science should be regarded as a means of rebuilding the societies. The needs of training human resources and the information flow are recognized very important to construct these countries. However, the committee concluded the importance of the harmonization of natural science and social science. After the fall of the former Soviet Union, the philosophy of Communism, or the theory of Marx, Lenin has been disappeared. These countries are facing very difficult situation both in political and economical situations. However, what is most important is to establish a new discipline on which these countries should be constructed. In other words, what can substitute Marx Lenin theory should be determined shortly. Without the discipline or philosophy of reconstruction of the countries, one cannot place the priority of the national political issues. The degradation of environment and rebuilding education, and finally to increase the happiness of the people of these countries. It would be necessary to establish the firm belief which can be easily understood by people.

From November 15 to 17 last year, 1993, The Science Council of Japan organized Asian Scientist Forum in Tokyo. At this meeting, Prof. Shou-Qi Li and Prof. Ren Wang from China, Prof. Surinder Kumar Goyal and Prof. Satinder Vir Kessar from India, Dr. Mien Achmad Rifai and Prof. Harsono Teroepratjeka from Indonesia, Mr. Harun B. Masri and Prof. Nordin HJ. Lajis from Malaysia, Prof. Amayllis T. Torres, Prof. Virginia S. Cariño and Prof. Jonathan Coloma Malicsi from philippines, Prof. Chu-Whan Cha and Prof. Chang-whan Kim from Republic of Korea, Prof. Kim Chuan Goh and Prof. Hsing Hua Huang from Singapore, Prof. Chamrieng Bhavichitra, Dr. Suvit Vibulsresth, and Ms. Wanasri Samanasena from Thailand and representing Japan, Prof. Tadashi Kawata and myself gathered and discussed freely about importance of the scientific cooperation in the future towards the 21st century. In the 21st century, the economic growth in Oriental countries will be remarkable. On the other hand, the economy in the industrialized countries mostly U. S. A. and European countries will face difficulties. What we discussed at this conference is the important role to develop the prosperity and the peace of the world on the role of Oriental countries. The science and technology after the industrial revolution greatly depends on the development of science which was originated in European countries. However, if we recognize the global environmental problems and the problem of population growth in the Oriental countries, we will find that the responsibility of the oriental countries towards the 21st century should be increased. Therefore, we oriental countries have to contribute to the future of the world.

Before concluding my remark, ladies and gentlemen, we believe that APORS'94 should consider our responsibility to establish a new theory of operations research. Consequently, I am looking forward to every success of the conference, and I deeply regret myself not be able to attend the meeting.

Thank you.

(Conference Chairman APORS'94)