Activities of Japan's Group for History of Physics*

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After the Second World War there has been continually, though not very actively, proposed in Japan that the history of science should have certain roles in the education of science. It has been argued that the history of science would contribute to the science education by drawing pupil's attention to the human elements in the development of science and thus by awaking in him the interest in learning science. It has also been expected that the study of history of science might offer useful suggestions about how to teach a particular subject by elucidating where did the psychological and conceptual obstacle in understanding a new scientific fact or concept lie in the actual history. Finally, J. B. Conant's proposal to use the case history in order to make student realize the method of science was also recommended.

These discussions certainly have encouraged some attempts to utilize the history of physics in physics education. For example, Prof. M. Watanabe of University of Tokyo, himself a historian of physics, once made a model of the instrument of Galileo's falling body experiment on an inclined plane. Prof. Watanabe tried to carry out the experiment in his course of general physics at Tokyo Women's Christian College. Another historian of physics, Dr. K. Itakura of the National Institute for Educational Research, proposed a teaching method which he named the hypothetico-experimental teaching. Suggested by his study on the history of mechanics, he selected questions which once puzzled or misled those who first studied the subject. He proposed to pose the same questions to a pupil, and to make him suppose the answer and devise an experiment to test the supposed answer. Then the pupil is required to perform the experiment and to examine his supposition by the result of experiment. Itakura's proposal was earnestly welcomed by school teachers.

In spite of these remarkable attempts, the discussions which have been done about the role of history in science education seems to me, in general, unsatisfactory in two respects. First, while the teaching of science at the primary and secondary schools has been discussed rather frequently, the education at university level have been left untouched. It is true that it has sometimes been tried to replace the course

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