

Does Science Give Us THE Answer?

Issues Centering on Risk and Social Decision-Making

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It has been discussed the relationship between the risk of nuclear utilization and geoscience, the role of scientist and engineer in the previous sessions. The author has analyzed those issues from the perspectives of interactions and gaps between science and engineering, their views on risk and safety behind the social mechanism and their senses of vocation, and pursued the better way to overcome the obstacles centering on them

However, there has been the counter argument that the fundamental problem is ethics and conscience of scientists and engineers as the relevant professional, or problematic policies and institutional designs which lead moral hazards of them (e.g. Funabashi 2013, Shimazono 2013, Ishibashi 2019 and so on).

These different views are, from the point of view of STS (science and technology studies), caused by the difference of understanding on the nature and role of "science" itself. Does scientific knowledge directly tell us the best answer for social decision on safety (risk) of some technology? And is it an ideal of our way to make decision? Or, it doesn't the case, and we need some special articulation to bridge and organize the heterogeneous elements (of course, including scientific knowledge) to make appropriate decision? These different views lead different analysis –to understand the problem from ethical perspective, or communication and social mechanism perspectives.

In this paper, the author would like to illustrate a picture to understand and discuss the issues on "science and engineering relationship" in organized way, and to contribute to encourage substantial dialogue between them, citing his own case study on the "SPEEDI" (System for Prediction of Environmental Emergency Dose Information) controversy which was presented at the 2019 JpGU meeting.

Keywords: Science and Engineering, STS (Science and Technology Studies)