

Radiation Risks and the Hermeneutics of Low-Doses: A Chronic Disaster?

by
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Abstract

The Fukushima nuclear disaster (hereafter “3.11”) has reactivated the controversy over the hazardous consequences for human health of low-dose radiation, an issue dating back to the mid-1950s. Since 3.11, Japanese citizens and labor organizations have engaged in negotiations with the Ministry of Health and Labor to defend the rights of the workers involved in the cleanup of Fukushima Daiichi, and of those hired for the decontamination work in Fukushima prefecture. To reinforce their criticism of the current working conditions, these activists point out that the existing epidemiological surveys posit no safety threshold, therefore challenging the current standards of radiation protection not only for occupational exposure, but for the whole population.

The authors of the major epidemiological studies related to nuclear plant workers, when asked, confirmed that their results could not be interpreted as down playing the risks of low doses, stressing the epistemic constraints inherent to epidemiology. The conflicts of interpretation (i.e. hermeneutics) between Japanese government experts and activists thus reflect a larger debate, at a global level, within the community of epidemiologists and radiation specialists. This debate needs to be considered within the *longue durée* of the controversy over low-dose exposure, particularly in regard to its evolution after Three- Mile Island and Chernobyl. Following on Charles Perrow’s notion of “normal accidents” and Miwao Matsumoto’s “structural disaster”, I will address here the chronic dimension of 3.11: 1) the disaster before the disaster, or the social invisibility of nuclear plant workers’ occupational hazards before 3.11; 2) the disaster after the disaster, or to what extent has 3.11 created a new context that could lead to the further modification of current standards? Meanwhile I will discuss the limits of the social constructivist paradigm.

This research follows up on a study I started in 2002 on Japanese nuclear contract workers. Further observation and interviews have been conducted since 3.11 in Japan and in Europe, among clean-up workers, government experts, activists and epidemiologists.

Keywords: Radiation, low-dose, epidemiology, controversy, risks, nuclear disaster