# Ethics as Social Acceptance

**Norihisa Miki [1]**

*1) Keio University, Faculty of Science and Technology*
*3-14-1 Hiyoshi, Kohoku-ku, Yokohama, Kanagawa, 223-8522, Japan (E-mail: miki@mech.keio.ac.jp)*

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Misconducts by companies in design, inspection, etc. are still frequently reported. In order to prevent such misconducts, engineering ethics has been long said to be mandatory for engineers. However, prevention of the misconducts is not a ethics problem; ethics problems are considered not to have correct answers but preferred answers. The misconducts should not take place, which is defined by laws and is the correct answer. I have a mandatory class of engineering ethics for the junior students at the Department of Mechanical Engineering, Keio University. Instead of just saying that you should not do this or that, my class spends much time on discussion about ethical topics, which include SDGs, social psychology, quality management of medical devices, gender, and Yukichi Fukuzawa, who is a founder of our school.

Through the class for 6 years, I have come up with the idea that ethics is social acceptance. For example, LGBT has long been a ethical topic. While LGBT was not ethically accepted several decades ago, now it is widely accepted by the society in Japan, that is, ethics about LGBT has changed. Note that LGBT itself has not changed while the society has. Therefore, we can say that ethics is strongly dependent on the society and I consider that ethics can be described as social acceptance. Preference in autonomous driving, which is a modern trolley problem (Fig. 1), was surveyed all over the world and various trends were found. This is the evidence that ethics is not an absolute one.

It is often the case that ethics does not necessarily require scientific and technological correctness. For example, in the case of Brent Spar of Shell UK, discarding Brent Spar in the deep sea of Atlantic Ocean was the first choice considering the environmental impacts, labor safety, and cost. However, Green Peace protested against it and Shell decided to dismantle it on land, which might lead to more hazardous effects on the environment, dangers of labors, and high cost. This decision was not rational from the scientific point of view. But it was accepted by the society.

Now that the engineering ethics, which enforces engineers to contribute to the safety and prosperity of the society, contradicts against the social acceptance, or ethics. Many cases are even hazardous to the society. For example, in Japan, HPV vaccine was not recommended by the government due to some reports of health issues, even after no correlation between the health issues and HPV vaccine was verified by Epidemiological survey. This policy might lead to as many as 4,000 additional death cases from cerical cancer. Should we, engineers attempt to change the society or accept the decision made by the society? This is the discussion to be made in the context of engineering ethics.
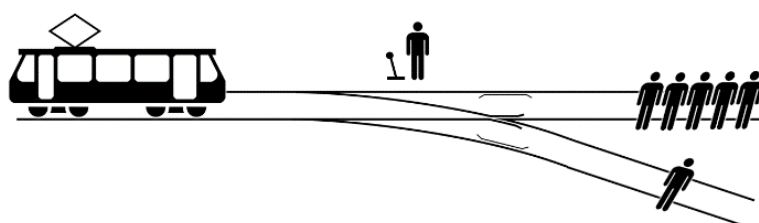


Fig. 1 Trolley Problem