

Eliminating ambiguity in laws or regulations can reduce our misunderstanding not by sentences but by a set of logic rules

Yoshiyasu Takefuji

Wendy Wagner et al. wrote an article entitled “Whose science? A new era in regulatory science wars” (1). Wendy Wagner et al. mentioned that good laws need good science; however, good science is never guaranteed (1). We must understand what is a good law. The conventional laws are described by sentences so that the meaning of ambiguity in the sentences may produce inaccurate understanding. The ambiguity may cause misunderstanding regulatory science. If all laws or regulations were depicted by a set of mathematical logic rules for automated reasoning, there would be no ambiguity in the laws. Is it possible to make a law using a set of mathematical logic rules? Consider building standards law. Once the building standards law using a set of mathematical logic rules is established, verifying an application of a new building against the building standards law can be fully automated without human involvement. Human should be only involved in creating or modifying logic rules, because bribery or corruption problems can be eliminated in our society. Eliminating ambiguity in laws or regulations can reduce our misunderstanding not by sentences but by a set of logic rules.

What is good science? The current knowledge of science is always expired or replaced by the new knowledge so that science is fragile or vulnerable (2,3,4). However, good science can be defined by a set of logic rules. The set of logic rules should be updated by the new technology or discoveries. We should start to rebuild laws using a set of logic rules for eliminating the ambiguity in laws and automating judging the unnecessary infringements.

References:

1. Wendy Wagner et al., Whose science? A new era in regulatory “science wars”, Science 09 Nov 2018: Vol. 362, Issue 6415, pp. 636-639
2. <http://science.sciencemag.org/content/358/6362/427/tab-e-letters>
3. Y. Takefuji, <http://science.sciencemag.org/content/359/6380/1094/tab-e-letters>
4. Y. Takefuji, <http://science.sciencemag.org/content/362/6413/379/tab-e-letters>