

Faculty of Engineering and Mathematical Sciences

Project Management & Engineering Practice
(GENG5505)

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Steps in resolving ethical dilemmas

(Week 11A) - Lecture 18th , 14 May 2024



Ethical dilemma resolution: Line drawing approach (Fliedderman, 2011)

- Used when moral principles are clear, but a large extent of “gray area” exists;
- Two paradigms are considered:
 - At one end, is placed the “positive paradigm” (i.e. something which is unambiguously morally acceptable);
 - At the other end, is placed the “negative paradigm” (i.e. something which is unambiguously (not morally acceptable)
 - In between, is placed the problem under consideration, along with other similar examples



Ethical dilemma: Scenario (Fliedderman, 2011)

- It is proposed that our company dispose of a slightly hazardous waste by dumping it into a lake.
- A nearby town takes its drinking water supply from this lake.
- Our research shows that with the amount of waste we plan to put into the lake, the average concentration of the waste in the lake will be 5 parts per million (ppm). The limit for this material has been set at 10ppm. At the 5-ppm level, we expect no health problems, and consumers would not be able to detect the compound in their drinking water.
- Positive paradigm (PP): The water supply for the town should be clean and safe;
- Negative paradigm (NP): Toxic levels of waste are put into the lake

(Dump toxic levels of waste in lake) NP _____ PP (Water should be clean & safe)



Ethical dilemma continues.....

Additional hypothetical examples for consideration:

1. Our company dumps the chemical into the lake. At 5ppm, the chemical will be harmless, but the town's water will have an unusual taste;
2. The chemical can be effectively removed by the town's existing water-treatment system;
3. The chemical can be removed by the town with new equipment that will be purchased by the company;
4. The chemical can be removed by the town with new equipment for which the taxpayer will pay;
5. Occasionally, exposure to the chemical can make people feel ill, but this only lasts for an hour and is rare;
6. At 5ppm, some people can get fairly sick, but the sickness only lasts a week, and there is no long-term harm;
7. Equipment can be installed at the plant to further reduce the waste level to 1ppm;
8.

Ethical dilemma continues.....

- Hypothetical examples should continue until it's clear what the best resolution would be.
- Now, let's redraw our line including our hypothetical examples;
- "P" on the line stands for "the problem under consideration"

➤(Dump toxic material) NP _____ 6 _____ 5 _____ 4 _____ 1 _____ P _____ 7 _____ 2,3 _____ PP (Water be clean & safe)

➤As explained, given that no humans will be harmed and waste levels are below those that could cause harm, dumping the toxic waste is probably a morally acceptable choice.

➤However, since it's far from the positive paradigm, there are surely better choices that can be made, and our company should investigate these alternatives.

➤Although this approach seems ethically acceptable, other considerations should include:

- Subjective aspects of this approach
- Legal aspects
- Political aspects
- Wider community perception of the matter
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Ethical dilemma continues.....

In conclusion:

- Line drawing can help solve ethical aspects of a problem, but it must be remembered that a choice which may appear morally acceptable may not be the best choice;
- Needless to say, that the immoral choice is never the correct choice;
- In order to be effective, line drawing must be used objectively and honestly.

Moral development – Stages hierarchy model (Linstead et al., 2004)

➤According to this model, there are seven stages of moral development:

➤Pre-conventional morality (stage 1 and 2): i.e. Self-interest, and is concerned only about personal gain or loss. Questions asked in these stages: What's in it for me? Why should I bother to help? Who's in charge? Social norms and conventions are obeyed only if there is a direct payoff

➤Conventional morality (stage 3 and 4): At stage 3 the concern is to please close friends, family and associates by meeting their expectations. At stage 4, professional integrity and lawful pursuit becomes an important end in itself.

Stages in moral development - Stages hierarchy model (Linstead et al., 2004) continues...

- Post-conventional morality (stage 5, 6 and 7): At this level, rules and/or goals are seen to be invalid unless founded on a concern for social justice and collective well being (TBL approach). Striving to be reasonable, consistent and purposeful in pursuit of principles that are good for the community.
- Research indicates that less than one-fifth of adults reach stage 5 (Hersh et al., 1979; Weber 1990) and stage 6 and 7 are rare (Colby et al., 1983).
- This model is a model of the development of moral reasoning capacity – i.e. People at higher levels, e.g. 6-7 still retain the ability to assess a situation from lower stages;
- Factors such as temptation, stress, bad mood, etc. can alter people's moral predisposition. For example, corruption spreads not only among people considered to be retarded in their moral development who are incapable to reach stage 4 or above, but can also involve people who for whichever reason, fail to apply their full moral reasoning capability.

Reading week 11a

- Stages in moral development (Kohlberg et al., 1981; 1990)
- Engineers Australia Code of Ethics
<http://www.engineersaustralia.org.au/>