

## **Ethical dilemmas in geosciences. We can ask, but, can we ans?**

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Philosophy tries to provide rules and principles enabling us to solve the ethical dilemmas we face in a wide sense, and, also, in particular fields as (geo)sciences. One alleged goal of ethics is to figure out how to solve ethical dilemmas. But, is it possible to solve such dilemmas? And what can we do if we cannot?

An ethical dilemma is a problem that offers an alternative between two or more solutions, none of which proves to be fully acceptable in practice. Dilemmas arise because of conflict between the rightness or wrongness of the actions/means and the goodness or badness of the consequences/ends. They involve an apparent conflict between moral imperatives, in which to follow one would result in violating another. Can a geoscientist answer those dilemmas that appear in the exercise of his/her profession? Always? In some cases? Not at all? What if we cannot? Have we?

As geoscientists, we hold the knowledge (our scientific principles), not perfect, thus fallible, and always subject to changes and improvements. If we have to do what is right, based on our principles, despite potentially bad consequences, then we have to be sure that the principle is an absolute true. But, are our scientific principles such a true?

Deontological theories may deny that consequences are of any concern, provided the intention was a good one. However, if our principles are not perfect (and we know that): can we answer in one or other direction to geoethical dilemmas in good faith? Although, if a geoscientist action does usually go for the best consequences, sometimes bad consequences may be accepted. But, who have to decide to accept the bad consequences? If ethical dilemmas with a conflict between means and ends cannot simply be solved by a geoscientist, where is our duty?

If there is no real solution to the conflict of the right with the good, in the sense that a solution usually seems to be expected, what has to be our professional attitude? When we have duties of omission and when duties of commission?

The task of examining ethical dilemmas is a relatively recent issue in the 3K years old philosophy and, off course, just a “baby” in geosciences. But the time has arrived to better examine and rethink the challenge of answering and how to approach geoethical dilemmas.