

A Defense of the Precautionary Principle

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1. Introduction

Many important events can only be predicted with a definite probability. For some events, we cannot even specify the probability of their occurrence. Such situations are referred to as *situations of risk or uncertainty*, respectively.¹ Risks and uncertainties play a major role in the ethical evaluation of technologies such as nuclear energy, artificial intelligence, new medicinal drugs or genetic engineering.

The introduction should introduce the topic of the essay and explain why it is relevant and interesting.

One principle of risk management that is popular among both ethicists and policy makers is the so-called precautionary principle. In this essay, I will defend the precautionary principle against one of its fiercest critics, Cass Sunstein. I will argue, against Sunstein, that even the strong version of the precautionary principle is at least sometimes perfectly coherent.

The introduction should clearly state the aim/thesis of the essay.

This essay proceeds by first outlining Sunstein's criticism of the precautionary principle (section 2.1), before explaining how, contrary to Sunstein, the precautionary principle is at least sometimes coherent and applicable (section 2.2).²

Explain the structure of your essay in the introduction and make sure to stick to it.

2. The strong precautionary principle

2.1. Sunstein's rejection of the strong precautionary principle

Sunstein distinguishes between weak and strong versions of the precautionary principle. While he endorses weaker versions, he rejects strong ones as incoherent (Sunstein 2005, ch. 1). One statement of a strong precautionary principle goes as follows:

One good way of structuring the main part of an essay is to first (2.1) outline the debate/position with which you engage, and then (2.2) develop your own argument/position. But other structures are fine, too.

When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not established scientifically. In this context the proponent of the activity, rather than the public, should bear the burden of proof. (Goklany 2001, p. 6; see Sunstein 2007, p. 33)

Long quotations are typically indented, in a smaller font size, and do not need quotation marks.

This statement of the precautionary principle is 'strong' in that it does not require the relevant causal relationships to be well understood nor the harm to be irreversible or even particularly serious. It also assigns the burden of proof to the advocate of the activity in question. Typically, strong versions of the precautionary principle call for preventive actions without much regard to the costs associated with them.

Sunstein rejects the strong precautionary principle as incoherent. By mandating the regulation of risky activities without much regard for the costs of regulation, the strong precautionary principle generates new risks of exactly the sort it is supposed to guard against. The same risky activities

Use the introduction to acknowledge existing research on the topic and to explain how your own contribution relates to it (in a footnote and/or the body of the text).

¹ On the distinction between risk and uncertainty, see Hansson 2013, ch. 1.

² For related defenses of the precautionary principle, refer to Mandel/Gathij 2006; Sachs 2011.

are both condemned and condoned by the precautionary principle, which renders it incoherent (Sunstein, ch. 1).

2.2. A qualified defense of the precautionary principle

Having explained Sunstein's reservations about the precautionary principle, I will now move on to show why the strong precautionary principle is, pace Sunstein, at least sometimes coherent and therefore applicable.

Sunstein's argument seems to rest on the assumption that the application of the precautionary principle *always* generates the sort of risks that it seeks to prevent. Some activities, however, can be regulated without thereby generating similar new risks. This is because some regulations are low risk and cheap.

To give one example: Some 3D printers enable individuals to produce guns in their homes. This technology can certainly be said to pose serious risks. The strong precautionary principle mandates that this technology be regulated or banned. At the same time, a regulation of, or complete ban on, 3D printers that allow producing guns is relatively cheap and low risk. This demonstrates that we can go along with the mandates of the precautionary principle without thereby generating a new risk of the sort that the principle seeks to prevent. In this situation, then, and presumably in many situations like it, the demands of the strong precautionary principle are not incoherent.

Thus, while the precautionary principle may *sometimes* be incoherent, it would be wrong to dismiss it as incoherent *per se*.

3. Conclusion

The aim of this paper was to offer a qualified defense of the precautionary principle against Sunstein's criticism. Using the example of 3D printers that can be used to build guns, I showed that there are situations in which the demands of the precautionary principle are not incoherent in the way suggested by Sunstein. One question that I have not addressed is how often the demands of the precautionary principle are coherent, and how often they are not. Also, I have not offered a positive argument for the precautionary principle, having instead defended it against one prominent objection. Still, this essay suggests that it would be premature to reject the precautionary principle as a guideline for dealing with risk and uncertainty.

References

Hansson, S.O. 2013: *The Ethics of Risk: Ethical Analysis in an Uncertain World*. Basingstoke: Palgrave Macmillan.

The purpose of a philosophical essay is never just to repeat what others have said but to develop and defend an original philosophical position. The section(s) in which this happens is the heart of the essay.

Use signposts to help the reader follow your line of thought.

It is always a good idea to support or illustrate your argument with an example.

The conclusion should briefly summarize the main points of the argument. There should be a match between the conclusion and the aim of the essay as stated in the introduction.

In the conclusion, you can reflect on the significance of your finding and mention remaining open questions. But you should never present new arguments for your main claim.

The list of references should include all and only those sources that you have cited or quoted in the essay.

Goklany, I. 2001: *The Precautionary Principle: A Critical Appraisal of Environmental Risk Assessment*. Washington D.C.: Cato Institute.

Mandel, G./Gathii, J. 2006: "Cost-Benefit Analysis Versus the Precautionary Principle: Beyond Cass Sunstein's Laws of Fear", *University of Illinois Law Review*, pp. 1037-1079.

Sachs, N. M. 2011: "Rescuing the Precautionary Principle From its Critics", *University of Illinois Law Review*, pp. 1285-1338

Sunstein, C. 2005: *Laws of Fear: Beyond the Precautionary Principle*. Cambridge: Cambridge University Press.