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What Is the Sufficientarian Precautionary Principle?

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In their recent article, Koplin, Gyngell and Savulescu (2019)[[1]](#footnote-1) assess the viability of the precautionary principle as a decision-making tool to determine whether and under what circumstances germline gene editing should proceed. While their survey of different forms of the precautionary principle is illuminating, the most novel contribution is a new account of the precautionary principle, what they dub the Sufficientarian Precautionary Principle (SPP). SPP is meant to avoid several problems with existing accounts, while comporting with at least some of the intuitive force behind the general idea of the precautionary principle. However, as it is only one subsection of a larger paper, SPP is not fully worked out. In this brief response, I will flesh out some problems with SPP as a decision-making tool – particularly that there is a lack of adequate normative justification for adopting it. While this does not constitute a decisive refutation of the approach, SPP needs considerable refinement and clarification before it can be considered viable for use in decision-making.

The first task is to specify how, exactly, SPP is to be defined. Koplin, Gyngell and Savulescu state that SPP “would place especial weight on avoiding threats that would place people below a sufficient level of well-being.”[[2]](#footnote-2) Both how substantial that weight is and where the threshold lies are theory problems that need specification before it could be applied to germline editing or any other practical case. At the same time, it needs to be clarified whether this is a symmetric principle: do we also place extra positive weight on seeking benefits that would take people who are otherwise below the threshold, and move them above it? The answer will substantially affect cases like germline editing, where just such an outcome is envisaged by proponents. Koplin, Gyngell and Savulescu suggest sympathy towards this line of thinking later on, when they say that failing to use germline editing may constitute a threat due to foregone benefits – collapsing the distinction between threats and benefits. [[3]](#footnote-3)

It might help in specifying SPP to further explore its normative grounding. The authors derive SPP from the distributive principle of sufficientarianism, but this makes SPP an odd fit for decision theory: it was designed as an alternative to distributive theories such as egalitarianism (distribute goods as evenly as possible across society) and prioritarianism (give priority in distribution to those with fewer goods), and not as an alternative or supplement to cost-benefit analysis in decision-making. The central motivating force behind sufficientarianism is that, above a certain threshold of well-being or resources, distribution is morally irrelevant. We simply do not care about whether there is vast inequality between millionaires and billionaires. In this vein, one of the primary defenders of sufficientarianism, Roger Crisp, has argued that compassion calls for absolute priority in distribution to those below the threshold.[[4]](#footnote-4)

Compassion and concern over fair distribution is not, however, what motivates SPP. Koplin, Gyngell and Savulescu explicate it not by reference to distribution of resources or well-being between individuals, but rather concerning the different impacts a decision will have on the well-being of a single individual.

Some normative clarity is offered when Koplin, Gyngell and Savulescu frame SPP as a reflection of the intrinsic and instrumental value of health security – that is, minimizing grave risks to public health.[[5]](#footnote-5) Yet SPP does not appear particularly well-grounded in health security either, because the value of health security makes no reference to any sufficientarian threshold. Koplin, Gyngell and Savulescu cite Selgelid approvingly on the intrinsic flaw of a society where there is constant threat of annihilation, even if that threat never accrues, suggesting security has intrinsic value.[[6]](#footnote-6) But supposing the vast majority of the population is below the specified threshold, the threat of annihilation would still be of intrinsic disvalue. SPP, however, would give no particular weight to a decision to alleviate that threat, because the alleviation would not raise anyone above the threshold. In other words, SPP is focusing on an entirely different value (raising people above a threshold) compared with health security (minimizing variance of outcomes)

Conversely, SPP makes no reference to uncertainty, so it will potentially conflict with a risk-averse health security schema in scenarios where there is a risky probability to bring people above a threshold. An adjustment of the authors’ own example illustrates this: at baseline, X is at 50 units of utility – well below the threshold of sufficient utility, 80. Intervention A has a 60% chance of raising their utility to 100, and a 40% chance of killing them (utility 0). Standard decision theory would make intervention A choiceworthy over doing nothing (expected utility gain is 10 units), and SPP would either not apply (if it only applies to threats of bringing someone below the threshold) or bolster this choice (if it gives extra reason to raise people above the threshold). Yet risk-averse health security would militate strongly against A, due to the high degree of uncertainty involved and large stakes at play.

If health security is truly the motivating factor behind Koplin, Gyngell and Savulescu’s account, a more direct schema should be applied: place lesser weight on options that have more uncertainty, irrespective of any threshold. This approach certainly deviates from traditional decision theory, but has particular resonance with the way many of us actually think.[[7]](#footnote-7) To the extent that SPP diverges from such a general risk averse schema, a successful justification for SPP would need independent grounding.

A final issue is that Koplin, Gyngell and Savulescu critique Weckert and Moor’s harm/benefit asymmetry account[[8]](#footnote-8) for not taking the non-identity problem into account, SPP faces the same problem: since germline editing would affect the identity of resultant individuals, it is debatable whether anyone is moved above or below the threshold. Instead, we may be replacing people below the threshold with people above it. Indeed, SPP shares the same types of flaws that Koplin, Gyngell and Savulescu identify in Weckert and Moor’s account: a philosophically controversial premise (for SPP, the moral relevance of well-being thresholds); lack of definition of key facets; and running afoul of the non-identity problem. Meanwhile, Weckert and Moor at least have a clear normative grounding for their account: the moral asymmetry between harming and benefitting, reflected in a variety of deontic theories as well as intuitive moral reflection.

SPP is, then, in need of several refinements:

1. Clarification of its definition and scope
2. Specification of the relevant threshold and weight of the principle
3. Explication of its grounding – why we should accept it
4. Resolution to the non-identity problem

Until these points are addressed, it remains unclear how promising SPP is in offering a coherent and defensible version of the precautionary principle that can be applied to cases like germline gene editing. Still, as it is an interesting and relatively unexplored proposal, further examination of these points, along with other features and implications of SPP, would be welcome.

1. Koplin, J. J., Gyngell, C., & Savulescu, J. (2019). Germline gene editing and the precautionary principle. *Bioethics,* Early View. https://doi.org/10.1111/bioe.12609 [↑](#footnote-ref-1)
2. Ibid, p. 9 [↑](#footnote-ref-2)
3. Ibid, p. 10 [↑](#footnote-ref-3)
4. Crisp, R. (2003). Equality, Priority, and Compassion. *Ethics*. *113*(4), 745–763. https://doi.org/10.1086/373954 [↑](#footnote-ref-4)
5. Ibid, p. 9 [↑](#footnote-ref-5)
6. Selgelid, M. J. (2013). Biodefense and dual-use research: the optimisation problem and the value of security. *Journal of Medical Ethics*. *39*(4), 205–206. https://doi.org/10.1136/medethics-2012-100923 [↑](#footnote-ref-6)
7. Allais, M. (1979). The foundations of a positive theory of choice involving risk and a criticism of the postulates and axioms of the American School. In M. Allais & O. Hagen (Eds.), Expected utility hypothesis and the Allais paradox. Springer Netherlands. [↑](#footnote-ref-7)
8. Weckert, J., Moor, J., & Philosophy Documentation Center. (2006). The Precautionary Principle in Nanotechnology: *International Journal of Applied Philosophy*. *20*(2), 191–204. https://doi.org/10.5840/ijap200620214 [↑](#footnote-ref-8)