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(Trans-)planetary sustainability once more – a reply to Losch

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Letter

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Abstract

In this reply to Losch (2019), I show that, Losch's own judgement notwithstanding, his plea for a concept of (trans-)planetary sustainability does propose conceptual change. I further argue that he has not provided convincing reasons to think that the label 'planetary' is superior to 'trans-planetary'. I summarize my concerns about the plea for introducing the notion of (trans-)planetary sustainability and a related ethics.

Should we introduce the notion of (trans-)planetary sustainability and do we need an ethics of (trans-)planetary sustainability? These questions are at the centre of a recent debate. Using the term 'planetary sustainability', which had previously been employed by NASA (2014), Andreas Losch (2019) has pleaded for what he calls 'ethics of planetary sustainability'. This ethics is supposed to take into account issues that humans face in relation to outer space, e.g. other planets[1]. Losch's main idea is to broaden the notion of sustainable development to include concerns related to outer space. In Beisbart (2019), I have examined Losch's proposal from the perspective of conceptual engineering. Assuming that Losch proposes a new concept that is supposed to replace the previous notion of sustainability, I have reviewed the reasons that speak in favour and against introducing such a concept. I have argued that the gains are small. I have further claimed that the term 'planetary sustainability' is a misnomer, which should be replaced by 'trans-planetary sustainability'. Losch (2019) defends his view and his nomenclature. In what follows, I will briefly reply to Losch's (2019) article.

Concepts: In his reply, Losch first states that he did not want to replace our current notion of sustainability. If he did not want to replace our current notion, then the point of view that I have taken, viz. the perspective of conceptual engineering, might seem problematic. For at least the prominent method of explication is aimed at replacing one concept by another (Carnap 1950, 3; Carnap also talks about the transformation of one concept into another; ibid). However, the only sensible way to understand Losch is to hold that he does indeed propose a replacement of the previous notion of sustainability. First, Losch (2019) seems to agree that he wants to introduce a new concept of sustainability. Since it is implausible to think that the new concept is used at the same time as the old one, he must argue for the replacement of the old concept. Second, Losch (2018) uses the not so common expression 'planetary sustainability' to promote his idea; but why should one use this very term, if the expression 'sustainability' denoted everything that matters to Losch? The use of the term 'planetary sustainability' would be superfluous if it did not have a meaning that is different from the one of 'sustainability'. Therefore, both terms have to have different meanings, which implies that they stand for different concepts[2]. Third and finally, Losch (2019) explicitly states that he wants to extend the concept of sustainability. However, to extend a concept is to change it. This is immediately clear for an extension in the logical sense (i.e. if the set of instances of a concept is broadened). If two concepts disagree on their extension, then they are different. The point generalizes if 'extension' is meant in a looser sense (which implies that additional aspects need to be taken into account). This type of extension is likely to affect the extension in the logical sense – in our case, developments that have been deemed sustainable under the old notion fail to be sustainable under the new one; and even if this is not so, the concepts differ because they require a different way of thinking. Either way, if the extended concept is to be used instead of the previous one – as is very plausible –, we can talk about a replacement.

Now it may well be denied that the proposed extension of the concept of sustainability is possible from the outset. As indicated in Beisbart (2019), it is arguable that our previous notion of sustainability already covers all aspects that relate to outer space. But this is not what Losch thinks; Losch (2019) instead stresses 'implications [of the definition of sustainability proposed by the Brundtland commission] which are taken for granted, but must be reconsidered, if

[1]The notion of outer space is well-known from e.g. the Outer Space Treaty. For this paper, it does not matter where exactly outer space begins (see, e.g. Donegan 1984, pp. 83–85 for a related discussion). It is important for our argument though that space debris is a problem *within outer space*.

[2]For this argument and the discussion that follows below, it is essential to distinguish between concepts and terms. Terms are linguistic expressions; some of them denote concepts, which are not supposed to be linguistic entities.

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discussing sustainability on a truly planetary scale'. All in all, Losch does promote that our notion of sustainability be replaced by a different one called 'planetary sustainability'.

Nomenclature: An ethics that takes into account not just our planet, but rather also outer space, seems to be trans-planetary. In Beisbart (2019), I had thus proposed that the new sort of sustainability that Losch has in mind should be called 'trans-planetary'. Indeed, I argued that the name 'planetary sustainability' is a misnomer. In his reply, Losch admits that the term 'trans-planetary' is preferable in the context of ethics. However, he still believes that the term 'planetary' is advantageous in the context of the discussion about sustainability. To defend the use of 'planetary sustainability', Losch offers two thoughts:

First, he draws a parallel to planetary protection and points out that this term is meant to refer not just to protection of our planet, but rather to protection of all planets. This is an interesting point, and I now think that the term 'planetary' is slightly ambiguous: It either means 'related to our planet' or 'related to many, or all, planets' (this is in accordance with what the Oxford Advanced Learner's Dictionary suggests)[3]. The first meaning is used when, e.g. Benner et al. (2002) talk of 'planetary biology' or 'planetary analysis of genome and proteome databases' (p. 864). What the authors mean here is an analysis that takes into account data from the whole planet. Yet, as the example of 'planetary protection' shows, 'planetary' may also refer to all planets. While 'planetary sustainability' may thus be understood as referring to all planets, the term is still not optimal. For one thing, it may easily be misunderstood as referring to our planet only. Additionally, the ethical issues that are mentioned by Losch (2018) do not only refer to other planets, but also empty space between them. In this respect, 'trans-planetary' seems preferable, although there is admittedly a problem with it too, as it may be thought to exclude concerns that relate to our planet.

Second, Losch prefers the term 'planetary sustainability' because it promotes the understanding of Earth as a planet. This, in turn, is supposed to let us keep in mind that the Earth is embedded in a larger space (viz. what is called 'outer space'). Losch contrasts the idea that Earth is a planet with the idea that it is (only) a globe. He seems to think that the latter idea is still popular and that a paradigm shift is needed, which overcomes this very idea in favour of a 'planetary' understanding. But this argument is not convincing. First, although the term 'planetary' does remind us that Earth is a planet, this does not show that the term is preferable to 'trans-planetary'[4]. It seems that the term 'trans-planetary' would be better suited to remind us of outer space. The contrast between the Earth as globe and the Earth as planet seems very crude. In particular, the idea that Earth is a globe (in the sense of a roughly spherical object) is compatible with the idea that it is a planet. A significant transformation in our thinking would accordingly only be possible if a significant fraction of people still thought that Earth is only a globe (and not a planet). Losch does not provide any evidence that this is so, and I think, it would be very difficult to obtain such evidence.

In consequence, there are no convincing reasons to prefer the term 'trans-planetary sustainability', and I will continue to use the term 'trans-planetary sustainability'.

Reasons for and against replacing our previous notion of sustainability: Since Losch (2019) denies that he wants to replace the previous concept of sustainability, he does not comment on the reasons for and against this move, as explained in my paper. However, Losch usefully clarifies that his notion of trans-planetary sustainability is supposed to imply that possible extraterrestrial beings that are sufficiently similar to humans have a moral status. Here, having a moral status means that they have to be taken into account as sources of non-derivative value or as holders of moral rights as are humans. This helps to avoid a potential pitfall of an ethics of trans-planetary sustainability, namely that it is unduly anthropocentric. Yet, as indicated in Beisbart (2019), the inclusion of extraterrestrial beings as having moral status creates a problem for the notion of sustainability, which was so far mainly anthropocentric: replacing this notion with a notion of trans-planetary sustainability would be a significant change. In terms of the desiderata mentioned by Carnap (1950), we would have to pay in terms of similarity because the new notion is quite dissimilar from the previous one.

Towards an ethics of outer space: Losch and I agree that the exploration and use of outer space raises a lot of interesting ethical issues. I have some doubts as to whether the notion of sustainability is particularly helpful in this context. First, the notion does not figure prominently in ethical theories. Second, as argued in Beisbart (2019), it does not cover all ethical problems that arise in the exploration and use of outer space (a point with which Losch (2019) seems to agree). Yet, maybe, these are minor disagreements given the challenges that we face. It is in any case noteworthy that most remaining disagreements between Losch and me are based on the adoption of different perspectives. Where Losch focuses on political debates about the Sustainable Development Goals, I concentrate on the value of the concepts for our thinking in a broader context.

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[3]https://www.oxfordlearnersdictionaries.com/definition/english/planetary?q=planetary, checked 2 February 2019.

[4]It is interesting to note that the term 'planetary', as used by Losch here, is meant to refer to our planet only.

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