

Interactive comment on “ESD Ideas: It is not an Anthropocene; it is really the Technocene: names matter in decision making under Planetary Crisis” by Oliver López-Corona and Gustavo Magallanes-Guijón

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I am posting the following on behalf of an anonymous reviewer.

Axel Kleidon, Editor

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This Ideas piece for ESD argues that the Anthropocene should in fact be called the Technocene. They suggest that the driver of the Earth-system changes that go under

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the name of the Anthropocene is not in fact the Classical Homo Sapiens (CHS) of the Pleistocene and Holocene but is ‘Homo Sapiens living in modern cities’, which they say are a different type of ‘ecobiont’ (any coevolving set of genome, symbionts and milieu) that they call the ‘Technobiont’, to indicate that technology is a novel integral part of this ecobiont. They suggest that such a nomenclature will give a clearer signal that growing ecological problems ‘are not caused by our human (Anthropic) nature but by an over coupling with some kinds of technologies that enhance unprecedented niche construction capacities.’

I have a lot of sympathy with the idea that technology is so central to the phenomenon of the Anthropocene that it should feature in the name that we give it. And ‘the Technocene’ is not a bad name, and has been used in a number of publications, for example by the anthropologist Alf Hornborg and the sociologist Hermínio Martins. I also think that there are some interesting ideas sketched here about how to theorise humans and their technology as a single evolving assemblage, using natural selection and niche construction.

However this piece would need a lot of revision before publication. Firstly, the details of the argument are too sketchy. The authors miss the chance to reference and summarise other literatures that support the idea that the relevant entity that might be pushing the Earth into a new system state is an assemblage comprising biological humans plus the exteriorisations of culture and technology. Some better examples would help too – that of fracking and Earth tremors doesn’t seem to work so well, as it is not evidence of a proper systemic shift; there are many better examples in the canonical Anthropocene science papers, such as the shaping of rivers (e.g. <http://dx.doi.org/10.1016/j.ancene.2015.03.003>).

Secondly their normative conclusion – that we therefore need to reject technology, revert to classical Homo Sapiens, and thereby stay in the Holocene – does not follow. On the contrary, their argument (that technologically enhanced humans are simply the latest example of a long pattern of evolutionary shifts involving natural selection

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and niche construction that can be expressed in a single formula (line 44)) seems to naturalise the current situation, assimilating it in a wider pattern in Earth history. To conclude that we need to reject technology and stay in the Holocene seems out of step with this idea – rather like imagining that when multicellular eukaryotes evolved, it would obviously have been better if they had all reverted back into being monocellular prokaryotes. I'm sure there are good reasons to be cautious about adopting certain new technologies such as solar radiation management climate geoengineering, but I remain unconvinced that the holobiont argument alone, or the Technocene name, are that helpful for identifying and assessing them. Indeed, one could argue that calling the new multi-thousand year geological epoch the Technocene rather than the Anthropocene will do more harm than good, by seeming to cement the idea of the rule of technology for millennia to come!

On more minor matters, the English language needs work. Most sentences have at least something wrong, but the worst slips are 'Inhere' instead of 'in here' (line 17 – though in fact it would be better to delete the word altogether), 'fall out' instead of 'follow' (line 58), 'scare' instead of 'scar' (line 94).

The Shakespeare quote, 'What's in a name? That which we call a rose by any other name would smell as sweet' (line 71) seems very ill-chosen by the way – the quote is generally taken to mean that names are not important, which is in tension with the basic idea of the article (lines 17-18) that names shape perception and cognition, so really matter.

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