

Review of: "The Anthropocene Borderline Problems"

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This is an interesting paper that seeks to analyze the Anthropocene through the lenses of borderline problems and the evolution of knowledge theory. It is an important and timely attempt, but requires substantial revision in its current form. The following are my main concerns:

- (1) While the author provides numerous important citations for both the geological/stratigraphical case(s) for the Anthropocene and the evolution of knowledge theory of Renn, but in the end, I was left with the impression that the two were not sufficiently integrated; or in other words, the implications for the evolution of knowledge were not sufficiently fleshed out.
- (2) Some of the observations may seem a bit confusing to readers, for example: "The AWG took this position knowing about claims that human activity likely shaped the Holocene's early development (Ruddiman et al. 2015) (Bauer and Ellis 2018) (Braje 2018) (Ruddiman et al. 2020)." I am not entirely sure that the claim that human activity likely shaped the Holocene is widely accepted, the relationship between cause and effect here is not the same as that implied in the Anthropocene--and could very much possibly be the other way around (Holocene climatic stability allowing human flourishing). Note that this also remains a major weakness of the 'Anthropocene as an event' line of logic.
- (3) The concept of the GTS was not adequately addressed in the paper. For example what is an 'epoch'? How would that relate to other segments of the GTS? Note that some of the scientists criticizing the Anthropocene as an Epoch also seem to hold a critical view of the Quaternary as well (See Lewis and Maslin, 2018, The Human Planet).
- (4) Again, partially referring to point 1 above, the 'economy of knowledge' angle was also insufficiently engaged with. For example, consider the following statement: "Hence, an enquiry of this essay is: which concept of anthropogenic global change (the Anthropocene), epoch or event, leads to an economy of knowledge that renders the idea of an Anthropocene as a shared knowledge of our societies having the potential to trigger societal action?" However, in the light of the economy of knowledge insight, it could be easily argued that both concepts (Epoch and Event) have their own distinct 'ECONOMIES' of knowledge, i.e. it is not a question of 'which one' of them leads to an economy of knowledge, but 'what economies of knowledge' are implied through each of them.
- (5) Some observations such as "Contemporary societies are social-ecological systems" are too casual in my opinion. Also, please note that the coupling of a planet-wide human activity and natural systems/processes is not a prerequisite of classical SES theories.

In addition, the paper needs some copy-editing for consistency in referencing and in particular, how in text references were cited.