



# Scholastic fallacies? Questioning the Anthropocene

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## Abstract

The view that we live in the Anthropocene is increasingly gaining currency across scientific disciplines. Especially in sociology this is said to require a paradigm shift in analysis and theory formation. This article argues that such a conclusion is premature. Owing to a scholastic fallacy – the uncritical transposition of the concept from the natural to the social sciences – *Anthropocene* lacks analytic clarity and explanatory power evidenced by: a normative overreach that erroneously imagines an idealised world citizenry with collective action capacities; an obfuscation of the unequal distribution of ecological pathologies caused by capitalism; a normative indeterminacy concerning modes of redress; and an abstract ecological universalism offered as moral panacea. The article suggests that sociology needs to address the Anthropocene's heterogeneity marked by contradictory regional interests and inequalities that neither appeals to social justice or 'one humanity' nor an escape into a dissolution of ontological differences between actors and artefacts can redeem. To that end, sociologists are asked to undertake a critical reconstruction of the concept.

## Keywords

Anthropocene, environment, globalisation, post-growth, sociological theory

With the Anthropocene, the world seems to not only have entered a new geological epoch, but it is often suggested that sociology too has arrived at a new epoch of theory formation requiring foundational presuppositions to be subjected to an overdue revision. Indeed, clinging to received terminology, concepts and theories is not exactly a mark of

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quality in sociological research. The question needs to be asked, however, whether the much called for change of paradigm does not also come with reflexive costs. When holistic concepts intended to encompass the biophysical earth system are evoked, purported gains from a recalibration of sociology's conceptual framework might well have to be traded in for a loss of analytic, differentiating capacities.

## **Anthropocene as category of observation**

To begin with, it is the construct of the Anthropocene itself that, as a reference point of sociological analysis and theory formation, begs scrutiny. Upon closer inspection, it appears that the concept 'Anthropocene' is widely misunderstood in the social and human sciences as purely descriptive. In fact, not even natural scientists, including geologists, agree to what extent it constitutes a meaningful concept describing a geo-chronological epoch. In any event, in July 2018, The International Commission for Stratigraphy modified periodisation by adding a more precise distinction to the Holocene – which humanity has inhabited since the end of the Ice Age approximately 12,000 years ago – according to which we have lived in the Meghalayan Age for the last 4250 years (Bajohr, 2019: 63).

It is generally agreed that human action over the course of the last 200 years, beginning with the industrial revolution, inaugurated a time period during which humans became a definite geological power, and that the effects of human activity on the Earth have reached dimensions comparable to other natural effects (Crutzen, 2002). Only the political right and lobbyists for the fossil fuel industry still deny the causality between human action and the far-reaching transformation of the global environment we are witnessing today. As a geological concept denoting the extent to which human activity is stored in the Earth's sediment, thus symbolising the anthropogenic formation of nature, the concept may therefore claim legitimacy. At the same time, there are no grounds for the social and human sciences to use *Anthropocene* as a basis for theory formation as if concept and subject matter were not intertwined with numerous unresolved analytic problems that not only give geologists pause, but are especially in need of sociological reflection. The concept should therefore first of all serve as a category of observation whose meanings demand critical reconstruction.

## **Actor idealism**

Once one gets involved in such an undertaking, it becomes immediately apparent that even within the framework of its geoscientific context of emergence the category Anthropocene evinces far-reaching normative implications which should not simply be dragged along when translated into the social sciences. This is particularly explicit in political demands to more or less uncritically transpose categories from the natural sciences into the social domain based on the conviction that accurate political conclusions can be inferred from geoscientific findings. Thus, according to the views of the German government's Federal Scientific Advisory Committee (WBGU, 2011), a mutual adjustment of global average temperatures and Global Social Product (GSP) needs to be effected in keeping with a co-evolution of ecosphere and anthroposphere (Kersten, 2014: 384).

Such an enterprise is quite unrealistic because the notion of a GSP promises to control something that only exists in the aggregate calculations of the United Nations Conference on Trade and Development (UNCTAD) without being at the disposal of any one authority; it presupposes, furthermore, a global political subject that by means of a 'global societal contract' ought to be enabled to bring about a climate-friendly, sustainable world-economic order. It is suggested that the aims should be realised by way of the creation of so-called 'planetary guidelines' that define the ecological framework within which the global development of humanity can proceed in a sustainable manner. To that end a depth of intervention into the organisation of human cohabitation, comparable only to the radical changes of the Neolithic and industrial revolution, is held to be necessary. In this context, no less than humanity itself, or rather a 'world citizenry' (Kersten, 2014) tasked with the collective responsibility for planetary risks, is called into existence. Consequently, the actor of the Anthropocene who enters the political stage is once again the *anthropos*, that is, precisely that idea of a universal human being that the social and human sciences had long expunged from its theoretical inventory as idealist fiction (Bänziger, 2019).

The notion of a world citizenry with action capacities allowing it to govern the planet on behalf of all of humanity originates in an actor idealism that does not correspond to societal reality. It ignores the profound economic, cultural, religious and political fragmentation that characterises world society. The image of a global political subject amounts to a normative overreach of an ideal that infers from the diagnosis of global threats the constitution of a global actor without considering – as is known to sociology – that the formation of collective actors is not simply a function of their necessity. It is the task of sociology to scrutinise such a *normative overreach* instead of letting itself be guided by it.

Such an analysis would need to make explicit what kind of transformational processes are conducive to such fallacies. The latest notable episode in this regard was the emergence of Web 2.0, which was frequently invested with the hope for the establishment of a global community and world-enveloping internet culture promising the creation of shared values (Kersten, 2014: 388). Instead, we have over the last decade experienced how Web 2.0 has become the preferred arena for all sorts of global political and cultural antagonisms.

## **The ecological pathologies of capitalism**

Just as there is no world citizenry able to act collectively to overcome the bleak consequences of the Anthropocene, it is also not simply humanity as such that has generated it. The fact that the concept carries the danger of levelling unevenly distributed historical responsibilities for the critical condition of the planet has already been much criticised. Not the human species per se but specific types of economies, technologies and lifestyles have caused the current ecological crises, which is why human ecologists and environmental historians prefer to speak of a 'technocene' (Hornborg, 2015) or 'capitalocene' (Moore, 2017). Discussions of the Anthropocene, on the other hand, have the tendency to minimise the primary responsibility for global warming of those countries that industrialised soonest. Sixty per cent of all greenhouse gasses are produced by the

wealthiest one-seventh of the world's population (over 1 billion people), while close to 40 per cent (3 billion people) are responsible for only 5 per cent of emissions (Steffen et al., 2018).

But the concept not only obscures the historical and contemporary unequal distribution of capitalist ecological pathologies (Swyngedouw and Ernstson, 2018). There is also an inherent paradox. On the one hand, processes like climate change are denaturalised insofar as global warming is recognised to be a result of human action. On the other hand, this suggests a re-naturalisation with climate change an outcome of essential human characteristics rather than an effect of particular societal forms of life, work and economy (Malm and Hornborg, 2014).

### **Normative indeterminacy**

Actor idealism and the lack of descriptive capacity regarding the reasons for the genesis and developments of global economic crises are, however, not the only weaknesses of the concept. There is also the paradox of an unmitigated normative indeterminacy, which is nevertheless understood in terms of an unambiguous moral mission. In fact, it remains unclear what should follow from the diagnosis of a human epoch. The most definite position is still held by those geoscientists who originally declared the Anthropocene. For example, for Paul J. Crutzen (2002), the geoscientific 'inventor' of the Anthropocene, the fact that humanity has caused global ecological damage suggests that technological interventions into nature have to be intensified in order to secure the future inhabitability of the Earth. Because humanity has the capacity to ruin the planet, it also has at its disposal the potentials for its repair.

Contrary to the critique of growth that connects the Anthropocene to the normative demand to end the merciless hominisation of the planet (the subordination of all life to human purposes), the proponents of a so-called *good Anthropocene* turn human destructive potentials into a positive vision of the creative, technoid power of a civilisation reconciled to nature (Horn and Bergthaller, 2019: 85). Geoengineering, that is, active climate manipulation, subterranean storage of carbon dioxide, the release of particles into the atmosphere to partially block sun radiation, or the large-scale deployment of bacterial cultures to clean up the oceans are but some of the proposals that have been fielded in order to elicit from the catastrophe of the Anthropocene the hope for a deliberate recovery of the Earth. Thus, paradoxically, with the concept – which is supposed to signal that human action is the source of practically irreparable damage of the ecosystem – a new faith in science and technology has emerged whose very zealotry conjured the ecological escalation of the Anthropocene in the first place.

### **Fallacies of the Anthropocene**

Having arrived at this point in our considerations it becomes apparent what is at stake when the social and human sciences take a category originating from the natural sciences as the basis for analysis and theory formation: the derivation of societal diagnoses from geoscientific findings, as well as the drawing of questionable inferences from

geological formations towards social action, manifest in the scientification (*Vernaturwissenschaftlichung*) of global problems when their causes are in fact socio-historical. The perception, for instance, that political systems function analogously to Earth systems, and that they can make binding decisions on the basis of an analysis of ecological systems, conflates biotopes with sociotopes leading to serious fallacies on either side.

Pierre Bourdieu has analysed the inner logic of such fallacies in his *Pascalian Meditations* (2000). Prompted by the question why the sciences not infrequently tend to believe in theories that are out of touch with reality, Bourdieu found an answer in the different forms of ‘scholastic fallacy’, by which he describes a tendency, often bound-up with an academic position, to forget the historical and societal preconditions of one’s own theoretical knowledge, and to then more or less unconsciously universalise one’s own world view. The scholastic fallacy levels the difference between practical and theoretical knowledge and misapprehends that everyday praxis follows a different logic than reflections about it, so that the logic of praxis remains inaccessible to scholastic thinking (Bourdieu, 2000: 49–59).

Geoscientists’ theoretical knowledge posits the Anthropocene as a category of planetary dimensions. The scholastic fallacy occurs when these dimensions are transposed to the social world without much consideration, as is the case with contractual models for the management of climate change – when, as outlined above, the agency of a world citizenry is conjured up beyond any political reality. The factual effects of the Anthropocene are as varied in the different regions of the world as the suggested measures in the fight against climate change ought to be (Kersten, 2014). Moreover, climate change does not give rise to *agency* accruing to a single global subject, but rather to a multiplicity of actors with different and partly antagonistic interests that cannot simply be unified by a belief that all the world’s people live in the purportedly same Anthropocene.

Only from the perspective of a scientific aggregation of data can the Anthropocene be apprehended as a unified and undifferentiated planetary process by which the Earth as a whole becomes a scientific reality, even though it does not apply to any single location as such, and even though the same measures are not applicable everywhere. What would be gained – asks literary theorist Eva Horn (2017) in an insightful essay – by demanding the same ecological footprint from a Vietnamese rice farmer and a vegan, bicycle-riding German student? Although methane emissions from rice farming are not inconsiderable, the vegan student, were she to forgo not only meat consumption but also air travel, would possibly score better than the rice farmer.

The sidelining of a specific perspective of the world in discussions of the Anthropocene, and the transposition of this scholastic worldview to the logic of a praxis of sustainability, constitute the limits of theoretical knowledge of the global ecological crisis. It misses – to return to the Vietnamese rice farmer – what Bourdieu (1979) has shown in his Kabyle studies, namely that actors below a minimal threshold of disposable economic freedom are usually unable to pursue practices that presuppose future orientated efforts and the sustainable management of resources. To that end, the abstract ecological universalism currently offered as readily available moral panacea under the banner of the Anthropocene is equally useless.

## Planetary heterogeneities

In contrast to the human pathos of this abstract universalism, the real sociological challenge today lies in the kind of attention the US anthropologist Anna Lowenhaupt-Tsing has called for in her much noticed *The Mushroom at the End of the World* (2017): attention to the fragmented and heterogeneous manifestations of the Anthropocene, the patchwork landscapes, multiple temporalities and changeable constellations of people, ecosystems and infrastructures which extend across the planet in completely irregular patterns.

From a sociological perspective, this view on the heterogeneities of the Anthropocene will require further clarity so that global power imbalances can come into view. The pathos with which researchers in the social and human sciences today intone ‘The Song of the Earth’ cannot drown out the fact that extensive contradictory interests between North and South, but also within continents, clash with each other. The trite demand for global social justice does not suffice; the situation is too complicated (cf. Horn, 2017). The Indian historian and pioneer of postcolonial historiography, Dipesh Chakrabarty, has drawn to our attention the fact that climate protection and the fight against global inequality are not unproblematically complementary but in fact oppose each other. The sad truth is that the continuance of world-wide inequalities and extreme differences in living standards actually limit CO<sub>2</sub> emissions and global warming: ‘It is, ironically, thanks to the poor – that is, to the fact that development *is* uneven and unfair – that we do not put even larger quantities of greenhouse gases into the biosphere than we actually do’ (2014: 11, original emphasis).

There is no way out of the multiple constellations of conflicts; no path that leads beyond global dislocations via one humanity. To claim otherwise would be purely ideological. And neither does the Earth itself offer us any points of orientation concerning how global socio-ecological conflicts resulting from inequality can be negotiated in a just and peaceful way and without catastrophic consequences for humanity and the planet. Yet, precisely such notions are constantly offered by theorists referring to the concept of the Anthropocene, including Chakrabarty. In his seminal essay, ‘The Climate of History’ (2009), he juxtaposes ‘world’ and ‘planet’ to finally advocate a merging of world and planetary history. In Chakrabarty’s construction of Earth history, humans now only figure as one planetary force among others, and no longer as central, powerful and accountable actors. But what is the yield of no longer continuing the differentiation between the human world and Earth system history (Bänziger, 2019)? What kind of orientation can historical knowledge offer us in the fight against the global problems of socio-ecological inequalities when that historical knowledge understands itself as a history of the Earth system? After all, what we lack is not knowledge about the extensiveness of global environmental degradation, but a consensus regarding what concrete political, economic and social conclusions ought to be drawn from it. Just as Earth history as science of the planet cannot provide us with answers, neither can the assumption that thinking, feeling and acting human beings could be able to divert their attention from that which is specifically human in order to understand themselves as one planetary force among others.

## Escape to Gaia

The Anthropocene has also entered the somewhat narrower field of sociological theory especially prominent in the writings of Bruno Latour (2010). His work differentiates itself from other approaches to the Anthropocene insofar as he expressly does not share the idealism of one agentic humanity. Rather, his theory is attuned to the multiplicity of human actors and non-human actants that are in networked relations and thus produce entanglements that evince a hybrid character between nature and culture. Latour substitutes the ‘modern’ distinction of nature and culture with the notion that humans, objects, animals, plants and the overall ecosystem constitute a post-natural *compositum*. Somewhat strangely he calls this unity Gaia, after the mythological earth goddess.

However, this unitary concept cannot hide the fact that Latour actually has no clear conception as to how a successful connection between post-natural components is actually to be created. In his attempt at a ‘compositionist manifesto’ (2010), he stops at modal intimations without naming material criteria for a better or worse relationship between natural and cultural elements under post-natural compositionism (cf. Kersten, 2014: 393). This begs the question as to how one can contribute something substantial to a sociological analysis of global dislocations and conflicts when one’s own judgement exhausts itself in metaphors such as ‘spheres’, ‘bows’, ‘circuits’ and so-called ‘loops’. Here, the loss of ordering categories – in a conceptualisation of Anthropocene that thinks it possible to lead analytic differentiation down the path of hybrid composites, only to finally escape into obscure unifying concepts such as ‘Gaia’ – exacts its revenge (Kersten, 2014: 397). The dissolution of ontological differences between actors and artefacts (Hornborg, 2017), of human subjects and non-human entities, in the ‘*disorders of nature*’ (Latour, 2010: 8, original emphasis), finally does not inconsiderable damage to the theoretical capacities of compositionist thinking. What kind of impoverishment of sociological analysis follows can be read in Latour’s (2018) ‘terrestrial manifesto’, where advancing global warming is explained with recourse to a conspiracy theory concerning global elites.

## Analytic alternatives

The swagger with which Latour finally bids farewell to modernity and proclaims the Anthropocene cannot veil how sobering the analytic and normative information we receive from the protagonists of the new planetary epoch actually is. Modernity has not been criticised for its various claims without reasons, but at least it has some claims to offer. Sociologically speaking, the idea of the Anthropocene has up to now largely remained an empty formula whose considerable impact demands, however, that the full set of sociological instruments for the analysis of the societal construction of reality be used in its analysis. For the hybridisation of nature and culture is, after all, a process that is driven by effects as well as side-effects, by intended as well as unintended consequences of social action. On those grounds alone sociology has not run its course in the new epoch.

That does not mean that sociology in times of ecological threats that may escalate to the collapse of the Earth system should cling, rigidly traditionalist, to the purely ‘social’

– something that was, incidentally, always a reductionist perspective that did not do justice to the materiality of societal cohabitation. Still, there are alternatives to the ‘geologization of social science’ (Delanty and Mota, 2017) expressed in unclear concepts such as *Anthropocene* or *Gaia*. There are, for example, analytic proposals in World Ecology Theory that account for the elementary integration of modern societies in the Earth system without losing from view with what grave consequences global capitalism organises ‘the web of life’ (Moore, 2003, 2015, 2017). Such sociological enrichment and further development of materialist perspectives may be more promising than the premature dependence on the scholastic worldview of the Anthropocene.

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