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A Philosophical Point of View on the Theory of Anthropocene

Mariaenrica Giannuzzi
ECOPOL - Iaph Italia (International Association of Woman Philosophers), www.iaphitalia.org, Italy

Abstract. This paper discusses how the model of a universal history which emerges in the current debate on the theory of Anthropocene, in particular in the field of evolutionary biology, risks ignoring differences in ways of economic production and consumption. A tendency for life sciences to gather concepts from the dominant neoliberal ideology has already been the focus of academic research. Within the Italian political debate, in the magazine effimera.org several scholars have criticized the neoliberal assumptions underlying studies of the Anthropocene, since scientific debate on this theory has thus far focused on the quantitative perspective of a biodiversity crisis without paying any attention to political and social inequalities. Since it does not take into account the conditions of environmental justice, the quantitative method of universal ecology seems to produce a sense of catastrophe so widespread as to be almost a symptom of an apocalyptic social disease. Following the historical perspective of Fressoz and Bonneuil (2013), in this paper the theory of Anthropocene is considered as a theory of universal history. Referring to evidence of climate change, the two historians have developed an historical perspective that connects both the philosophy of history and the history of "nature", inasmuch as the two disciplines set out to propose answers for the same questions: How can we imagine going beyond the modern paradigm of labor, since it seems to be no more environmentally sustainable? How can we explain the relationship between conscious human activity and its unconscious environmental consequence? Which constructs of global history can adequately describe the environmental crisis?

Keywords: Anthropocene, universalist ecology, universal history, environmental justice, capitalism, labor

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Corresponding Author: Mariaenrica Giannuzzi, Italy.

E.mail: enrica.giannuzzi1989@gmail.com

***Perspective**: Theoretical visions*

***Fields**: Human and natural sciences*

***Issues**: Universalism in history and ecology, social, economic and environmental justice*

1. Introduction

In the 1980s Stoermer and Crutzen began proposing a redefinition of the current geological era as that in which the agency of the human species impacts on the planet's biodiversity in a way that is so significant as to warrant describing a passage from the Holocene to the Anthropocene (Stoermer and Crutzen, 2000). In 2016, the Anthropocene Working Group (AWG), a branch of the International Commission for Stratigraphy, London, will decide on whether to accept this proposal as a valid scientific theory. Starting from its introduction within the field of geology, the theory of Anthropocene has also become increasingly widespread in anthropology, political ecology, and the philosophy of history[1]. And so it has become evermore necessary for the humanities to respond to this scientific description of extinctions and natural catastrophes, above all if we consider that media representations of these phenomena are already part of our daily experiences. They modify our perception of the planet, as suggested by Latour (2014), from Galileo's "Eppur si muove!" (*and yet it moves*) to a planet *moved* by the global system of industrial production. The "anthropological shift" of natural sciences is testified by several developments in recent years, with the creation of *The Anthropocene Review* (2014), the by now decades-old debate conducted in *Nature,* and public initiatives on the subject, promoted above all by the Max Plank Institute and the Haus der Kulturen der Welt, Berlin, by the Collège de France, and the Institute Momentum in Paris. "Anthropocene" has thus become the name for a new geological era in which our species, by destroying local systems on an ever-increasing scale, decreases the levels of bio diversity among all living species. "Anthropocene" has been defined as the era in which humans have become the global ecosystem of all other species (Eldredge, 1998) and also as the new political era determined by climate change (Chakrabarty. 2009).

Ecological definitions of "environment" and "human species" always pose philosophical problems. In the first place, the "emergence" of the human species among others as a "global species", postulated in the evolutionary biology of Eldredge, requires further examination. Within the idea of humans playing a special role among other species there is a tendency to read the behavior of humans not according to relationships between particular experiences, cultures or identities, but rather according to the universality of the species. And this idea of universality in environmental history - criticized both by Marxist ecology (Moore, 2015) and in seminal works of ecofeminism, such as the analysis of the gendered division of labor (Mies, 2014), tends to identify "humanity" and "species" and to unify unequal responsibilities, since it hides massive social and environmental inequalities under the umbrella-term of "the human species". By analogy with Freud's assumption that "wo Es war, soll Ich werden" (*where id was, ego shall be*), since therapy transforms the unconscious into consciousness, one could say that where the term "human species" is the subject of a discussion on ecology, we should rather insert terms like "society", or "financial capitalism". If the universal subject "human species" can be useful to expresses certain commensurate data in the universal language of natural sciences, the need to search for words and narrations to express the differences in patterns of economic production and consumption on a

[1] For an account of the diffusion of the term "Anthropocene" in the humanities cfr. "Comment penser l'Anthropocene?", 5-6 November 2015. Collége de France, Paris (http://2015.paris/2015/05/23/programme-du-colloque-comment-penser-lanthropocene-5-6-novembre-2015/).

global scale cannot be ignored. Words capable of telling the history of the environmental crisis should make global inequalities as apparent as possible in order to identify actors and decision-makers in the crisis. As Bonneuil and Fressoz have pointed out, this problem poses new questions for philosophy too. Contemporary philosophy has to re-define a conception of finite freedom in relation to a finite environment.

> One of the main tasks of contemporary philosophy is indubitably to reconsider freedom as something other than the rupture of natural determination, and rather to explore what can infinitely enrich and emancipate the attachment we attribute to the other beings of a finite Earth. What is left of infinity in a finite world? (Fressoz and Bonneuil, 2013, p. 56).

In the debate on the theory of Anthropocene this finite freedom has been defined as "geological agency", since the data on climate change seem to correspond to the unconscious consequences of a human agency (Chakrabarty, 2009). But, on a practical level, this agency risks coinciding with the ecological effects of global capitalism, another object that seems extremely difficult to describe. To avoid such a risk of indicating objects that cannot be adequately explained as causes of the environmental crisis, without being able to distinguish responsibilities and alternatives within the context, it may be useful to recall some of the traditional issues of environmental ethics. How is it possible to speak in general terms of all the multifarious diversity that surrounds us before the world becomes an object of scientific disciplines (Husserl, 1970)? How was the concept of environment first coined in its illuminist formulation (Canguillhelm, 1971)? Is the whole of mankind involved in the environmental crisis in the same way? Or is the environmental crisis a particular ideology that belongs to the industrial – and cultural – production of "developed" countries (Stengers, 2009)? And how are those labor practices we call "environment" produced through the historical process of capital accumulation (Moore, 2015)?

2. The concept of environment

From a philosophical point of view, the concept of environment can be understood as the universal and material substance of all the phenomena of human history, regardless of their qualities, as in the *res extensa* of modern philosophy of nature. This notion is the result of what Edmund Husserl (1970) called the mathematisation of the qualities of bodies. It is a mechanical notion of environment, introduced into modern culture under the heading of *milieu* in d'Alembert and Diderot's *Encyclopédie* in which the results of the mechanistic physics of Newton were presented (Canguillhelm, 1971). If the qualities of bodies had been excluded from the Galilean model of modern science, they returned in the biological understanding of environment. Biologically, environment is defined as the complex of exchanges between organisms in a given geographical space, together forming an ecosystem. This is the geographical element introduced by Buffon within Lamarck's mechanistic understanding of "influencing circumstances". If for Lamarck circumstances are a *genus* whose species are climate, place, and milieu and thus still belong to mathematical schemes, Buffon re-introduced the tradition of anthropo-geographers in biology, which, after Machiavelli and Bodin, had been kept alive in France by Montesquieu (Canguillhelm, 1971). In ecology, environment is today defined as the basis of the pure and simple

existence of the species (Eldredge, 1998), which can be analyzed according to mathematical models and the total energy produced and exchanged by the organisms of a habitat. But how is the concept of environment used in the theory of the Anthropocene? And what political, discursive, and visual practices turn the places surrounding us and that we inhabit into specific and finite places as ecosystems? How do these practices produce meaning in the continuous exchange between organisms?

3. The privilege of the human life form as a problem of political ecology

According to Eldredge, the behavior of the human species with respect to its own ecosystem is different from the behavior of all the other species in that "for the first time in the entire history of life, one species, us, *Homo sapiens*, has gone out of his natural ecosystem" (Eldredge, 1998, p. 149). Thanks to agriculture, the human species became independent of the productive capacity of the local ecosystem it lived in up to 10,000 years ago in small groups of hunter-gatherers. The clearest indicator of the ecological success of this fact is the increase in the size of the human population. As opposed to all other species, which are in a relationship of exchange with the organisms in their local ecosystem and thus have a locally limited habitat, the human species has an exclusive ecological quality – it is a "global species". "We have to realize that, over the past 10,000 years, we have redefined the global system as our own mega-ecosystem" (Eldredge, 1998, p. 150) and established a narrative of its progressive destruction. But the fact that "we are an internally integrated global species" due to our economic exchanges, in no way means that we are also safe from the effects the global system has *on us*:

> Because we are still stuck with the notion that we have escaped the natural world, few of us see the dependence that our species truly has on the health of the global system. The main reason we should fear the Sixth Extinction, I truly believe, is that we ourselves stand a good chance becoming one of its victims (Eldredge, 1998, p. 150).

The widespread ideology that considers the human species a privileged form of life also involves the tendency to deny differences between cultures. Yet the very extinction we should be afraid of is that of "western" living standards. "We might well avoid literal biological extinction – but our cultural diversity, and, for the developed nations, our high standards of living, are very much at risk" (Eldredge, 1998, p. 150). It is thus clear that in this analysis "human species" means above all "our cultural diversity", that of wealthy elites, and the outcome of this view can be very much that of a political conservationism towards both ecology and social movements.

When the definition of human environment coincides with global economy, single behaviors are dissolved into an abstract and undetermined "climate" which, more than ever, seems to favor the destruction of autonomous cultures. If the borders of human agency are the same as those of global economy, the tendency of neoliberalism to expand and create monetary value from every aspect of life, thereby promoting an all-pervasive biocapitalism (Morini-Fumagalli, 2009), inexorably destroys single cultures and autonomous communities that do not accept the cosmology of local/global agency. Yet authors such as Naomi Klein (2014), Vandana Shiva (1993) and Silvia Federici (2004) have always criticized the idea of capitalism as a self-regulating system, since an all-pervasive financial oligopoly constantly endeavors to regulate

communities that oppose financial management of the land and defend subsistence economics.

Moreover, according to Chakrabarty (2009), the ecological limits of capitalism – underlined by the idea of the Anthropocene - pose a conundrum for the whole of modern political theory. Whereas such theory developed historically around the concept and the goal of human freedom, in contemporary political ecology the agency gained by mankind is the capacity to ask to what extent the planet is free from the effects of this human activity, which in turn has up to now considered itself free. As a consequence, the modern idea of political freedom, has, together with industrial development, shown itself to be rather a geological capacity, and thus a loss in terms of individual freedom, since the geological agency is entrusted to the productive process of the species and not of the individual or the social groups Chakrabarty (2009).

4. The emergence of the human species as a problem of the philosophy of history

Following Adorno's criticism of Hegel's philosophy of history, Chakrabarty proposes the idea of a *negative universal history*, one that does not subsume the particular to a unique normative global narrative. This narrative would be based within a global identity, founded on the sense of catastrophe, which stems from the awareness of not being able to have a universal experience of the world:

> Climate change is an unintended consequence of human actions and shows, only through scientific analysis, the effects of our actions as a species. Species may indeed be the name of a placeholder for an emergent, new universal history of humans that flashes up in the moment of the danger that is climate change. But we can never understand this universal. It is not a Hegelian universal arising dialectically out of the movement of history, or a universal of capital brought forth by the present crisis. Geyer and Bright are right to reject those two varieties of the universal. Yet climate change poses for us a question of a human collectivity, an us, pointing to a figure of the universal that escapes our capacity to experience the world. It is more like a universal that arises from a shared sense of a catastrophe. It calls for a global approach to politics without the myth of a global identity, for, unlike a Hegelian universal, it cannot subsume particularities. We may provisionally call it a "negative universal history" (Chakrabarty, 2009, p.222).

This critique of positive historiographies, whether they are universalist or Marxist, can also be usefully re-examined through the lens of cultural history. Chakrabarty's reasoning seems to move towards a phenomenology of history with a negative universal, in some ways close to De Martino's writings on the end of the world. De Martino (2002) devoted his cultural phenomenology to the sense of catastrophe embedded in the lack of a universal experience of the world. Our experience of the world is not available to human nature in rationalist ways, as the experience we have of the whole world is always a relationship between heterogeneous singularities. From De Martino's point of view the sense of catastrophe always arises from the meeting between cultures. It is the manifestation of the Western sense of the end in the face of *the Other*. The sense of catastrophe observed by Chakrabarty is very close to De Martino analysis. In both cases the sense of catastrophe comes from the collapse of a Western universal identity.

Chakrabarty proposes *four theses* that provide a useful tool for dividing contemporary ecology into three main positions. In each of them, universal history is considered in a different way.

The first position is that of Chakrabarty himself and is shared by many authors who were shaped by Frankfurt critical theory, above all in the US. It can be called the *historical-critical vision of ecology*. In brief, it states that the scientific discussion on the Anthropocene, with its quantitative universality, represents a universal history, which emerges only through the data of the natural sciences. It constitutes, for the humanities, a negative universal, which shows the impossibility of giving an account of multiplicity in local histories at the same time. In this respect, "species" is an available, empty signifier-signified relationship, open to being filled by political actions. Human agency as a species does not yet consciously exist and so it can be invented through political imagination. Such a perspective is present in the work of Isabelle Stengers (2009), McKenzie Wark (2015) and Bonneuil and Fressoz (2013) and it investigates the relationship between historiographies and environmental crisis.

The second position is the *universalist vision of ecology*. Here, the human species is considered as a real universal composed of free individuals competing for their own ecological success. This vision is the principal feature of the quantitative studies of natural sciences, often presented in popular literature. Such a thesis is contested by the *Marxist vision of ecology*, for which the universal of the species hides economic disparities between the planet's populations, a position shared by radical geographers like Saskia Sassen (2008).

In order to continue our investigation, we need to ask why the humanities also believe quantitative universality to be a valid *modus operandi*. What institutions, rules, and processes in the production of culture can generate universalism in political ecology? Even without exploring in detail the specific arguments of each one, the variety of positions illustrated demonstrates that universal and quantitative criteria are not exhausted within the description of their ecological objects. Ecology is a hybrid discipline that is also informed by the problems and the critiques of the humanities that do not require acceptance of universality or quantitative criteria.

5. Anthropocene and the cultural politics of extinction

The activity of the Anthropocene Working Group (AWG) over the last six years has centered on the quantitative aspect. The group comprises some forty members, including oceanographers, paleontologists and meteorologists, assigned in 2009 by the International Commission of Stratigraphy the task of carrying out the research project of the geologist Jan Zalasiewicz. Zalasiewicz proposed studying through stratigraphic analysis evidence that would justify adopting the term Anthropocene and the AWG's increasing number of publications and conferences have met with considerable interest, also on the part of a public of non-specialists. Maslin and Lewis (2015) provide an update of the AWG's work from a very specific standpoint. The**ir** main focus is on if there are events in human history that have an impact that can be verified geologically in the same way as climatic changes of the past can be shown in fossil documentation. Looking at geological traces, the Commission has the goal of confirming or disproving by 2016 the hypothesis that there actually is a

relationship between the crisis in the biodiversity of living species and the impact of the human species on the environment, and whether it has become a geological cause of extinctions on a par with the natural catastrophes which caused previous extinctions. Other researchers of extinction such as Raup and Sepkoski Jr. (1984, 1993) have presented a much more nuanced view of natural catastrophes than the apparent equation between the linear growth of the human population and the crisis of biodiversity due to human impact. Natural catastrophes are either unforeseeable and devastating, or cyclical and recurring. In the second case, the direct impact of humans on biodiversity may be questioned. The studies on cyclical occurrence of extinctions are of great importance for the philosophy of history. They testify that the concept of environment as it is used in universalist ecology and in the description of a universal history of the planet, is not properly a concept. On the contrary, it is a fluctuating signifier, in that it moves from a condition of existence to a condition of extinction of the species.

The research of the AWG is rewriting the traditional time boundaries of human history. Until now it seemed that it took place in the long spring of the Holocene, a climatic situation generally favorable to the development of life. The human species was part of a general diversification of life forms. Today, the beginning of the human species refers to time boundaries and situations that are the involuntary effect of a given system of production – the world-system of global capitalism. On the other hand, the beginning of the Anthropocene varies from the success of agriculture 10,000 years ago and other much more recent events such as the extinction of indigenous forms of life following the colonization of the New World, or the explosion of the first nuclear bomb in the desert of New Mexico. It is thus clear that establishing time boundaries for the beginning of the Anthropocene is an act of cultural policy, because it forces its proponents to establish a foundation myth based on the relationship between the human species, contemporary capitalism and its inhabitants.

6. Conclusions

Faced with the variety of the time-boundaries considered as the essential beginning of this natural history, many questions that closely intersect with the history of culture, the philosophy of history, and natural sciences can be posed. What model of dating and chronology of events is selected to explain a complete assimilation of natural history to human history? What are the criteria of this selection? What models and technologies produce the space and time of local ecosystems? And how is the narrative of human evolution changed if the theory propounded by Charles Darwin is integrated into the system of capitalist production? These are the questions the environmental crisis urges the humanities to inquire into. Yet their further development and an agreement on the definition of the concepts involved can only be achieved through a public debate and after collectively rethinking political ecology in specific contexts.

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