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RESEARCH ARTICLE

THE COLLAPSE OF THE CLEAVAGE BETWEEN NATURALHISTORY AND HUMAN HISTORY

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Abstract

This article has endeavoured to challenge theories according to which cosmo-telluric upheavals have blurred the boundaries between natural history and human history to the point of collapsing the old humanist distinction between these two domains. We have argued that humanity is in an unprecedented situation in that it has inaugurated a new history of nature with an apocalyptic perspective, but it is excessive to believe that the conjunction between natural history and human history is a foregone conclusion for ever and ever. We have reached the conclusion that the history of nature does not have a history that is partly entangled with the history of man, but that the action of man affects fundamental processes in nature that were once considered to be able to determine human history, without being determined by it. Previously non-reciprocal action has become reciprocal, but this does not mean the end of natural history and with it the end of the great division. Nature is seriously threatening to determine human history, but this does not break down the old Nature-Culture format. To reach this result, we have used both the direct method of analysis and the historical method.

Introduction:-

Theories of the material deterioration of nature propagate the thesis that humanity is profoundly and rapidly changing the history of nature, to the point of inaugurating a new ecological epoch that merges with human history. The claimed novelty lies in the blurring of the cleavage between nature and history, or more precisely between natural history and human history. Behind the apparent evidence of the end of the disintegration between natural and human history, a non-negligible part of the history of nature follows its course independently of that of humankind. This poses a problem, and forces us to examine the idea that what seems new in the ecological crisis is the movement of human history, which has seen its tempo increase to the point of dragging the history of nature along with it. Against such a position, we put forward the hypothesis that there is a non-irreversible reciprocal relationship between natural and human history. So, despite the fact that natural history seems to be taking on a frenetic pace, why is it possible to maintain that the great divide between natural history and human history has not disappeared? The answer this question, which concentrates all the density of this problem, will almost inevitably lead us to recall the classical philosophies of natural history in order to determine their validity today. This will allow us, first of all, to show that there is a shift in the time scales of natural history and human history. Next, we will show that this is what justifies the theories of a collapse of the cleavage between these two fields. Finally, we will support the idea that it is highly probable that nature will continue its course if mankind were to disappear, the better the distance between natural and human history has not completely melted away to the point where we can only foresee an apocalyptic outcome.

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An Outdated Philosophy of Natural History

The emancipation of contemporary man from the severe existential limitations imposed by nature has aroused this giant, which threatens to determine human history negatively. Man's reckless exploitation of nature seems to be erasing the cleavage between the history of nature and the history of man, to the point of ushering in an unprecedented epoch in the history of the earth and of man. To properly appreciate this movement of human history, which has seen its tempo greatly increase to the point of influencing the history of nature, we will revisit the category of the feasibility of history in the classical philosophies of natural history. To bring out what seems to be completely new in the ecological threat, our starting point will be the idea developed by the Italian philosopher Vico. According to him, men can know history better than nature because the former is made by themselves and the latter by God:

> And anyone who reflects cannot but be astonished to see how philosophies have applied their most serious efforts to achieving knowledge of the natural world, of which God alone, because he made it, has the science, and how they have neglected to meditate on the world of nations, or the civil world, of which men, because it is men who made it, can acquire the science. (Vico, 2001).

Knowledge of the history of nations, of the civil world, is superior to knowledge of the natural world, because what is true always coincides with what is done. By thus introducing a division between nature, which comprises physical processes that occur without humans, and history, which encompasses everything that is done by humans, Vico inaugurated a new practical and political category of history. This category, which had an epistemic meaning for Vico, would later be interpreted, in the wake of French Revolution, as the principle of the "feasibility" of history. History can be made by human beings within given limits. This idea, which is an invention of modernity, will be in controversial form at the foundation of the philosophies of Collingwood, Marx and Croce, the idea being to know to what extent men are aware of the history they are making. The margin between a feasible human history and an immutable natural history is not irrefragable. This same modernity wanted to make itself "masters and possessors of nature" by intensifying, through its knowledge, the exploitation of the surface of the globe. In 1778, G-L. Buffon(2018) observed that the entire face of the earth today bears the imprint of man's power. This control was limited to the surface of the globe and did not embrace its depths or the air.

Humans did not believe that they could influence the planet's meteorological and geological movements, in the face of which they were an extremely modest power. At the time, the commonly held idea was that man was naturally subject to the virtuality of nature, against which no human influence was conceivable. This is what has led the old man from Königsberg to evoke, in a text dating from the end of the 18th century, the hypothesis of mankind being crushed by a natural upheaval, the idea of which had been given local expression by the Lisbon earthquake in 1755. Kant had no idea that man could be the author of such a natural cataclysm, since his influence on nature was so negligible: "for the omnipotence of nature […] man in turn is still but a trifle" (Kant, 1990). Man is but a speck disappearing into the immensity of nature. Nature is a huge, immeasurable actor, and its excitement cannot be linked to human behaviour. In his view, the outbreak of natural disasters cannot be attributed to human action, because human beings, in their assumed freedom, cannot justify them by reference to their own actions. Human action cannot, therefore, be turned against nature to alter its sovereign course.

Inspired by Montesquieu, Hegel studied the natural conditions of human history, taking up the beneficial role of rivers, seas, the influence of climate on peoples, etc. (Hegel, 2009). But at no point does he mention human action on nature, because he doesnot think it is capable of influencing it. Man could not therefore be a geological agent; in any case, such an idea would have seemed superfluous in his time. Well versed in the geological studies of his time, Hegel knew that the appearance of man came after the earth's very long history, which had seen some of the most terrible catastrophes that had disrupted both the plant and animal kingdoms and the relief. For Hegel, the earth's history came to an end in a fixed form with the components that we know today and that enabled the appearance of the human species. Nature had a history, but it no longer has one. The end of natural history must be followed by the "history of the mind", so that the tiresome repetitions of this unchanging nature do not determine human history. Nevertheless, Hegel raises the possibility of the sleeping giant of nature waking up and, after a long sleep, setting the history of nature in motion again. Citing the biblical saying that the earth and the heavens will pass away (Hegel, 2004), he even envisages the dismantling of the Earth, which will one day complete its extinction. But this final collapse in no way depends on human beings, and it seems to him to be situated on a time scale so remote that it has no bearing on the course of human history.

Following in Hegel's footsteps, Marx(2020)also highlights the natural basis of human history, which requires climatic and geological conditions that make life possible: "[…] men must be able to live in order to be able to 'make history". But he points out that the relationship between nature and history is reciprocal. This is precisely what he notes in his critique of Feuerbach's materialism:

'The objects of the simplest 'sensible certainty' are themselves given to Feuerbach only by social development, industry and trade. We know that the cherry tree, like almost all fruit trees, was transplanted to our latitudes by trade only a few centuries ago, and so it was only through this action of a particular society at a particular time that it was given to Feuerbach's 'sensible certainty' […] as if man were not always faced with a nature that is historical and a history that is natural'(Marx, 2020).

Human history is natural because it takes nature as one of its essential conditions. Nature is historical in the sense that it is locked into the cycles of trade and human industry. This is what he calls the "becomingman of nature". (Marx, 1999). On closer examination, however, the idea that humans can exploit natural resources and modify nature does not mean that nature is totally under their control. For while the European cherry tree is the product of the determined action of the Romans, who brought it back from the Pont-Euxinus – in other words, a product of human history – it is quite clear that the climate and the land on which it is grown were not created or imported by humans. Marx would probably have agreed. Even in Marx's century, we can already observe what Koselleck (1997) calls the "temporalisation of history", where the concept of historianaturalis, which was limited to classifying natural beings, began to slide towards a new conception of natural history that sees it as a dynamic process with its epochs and revolutions, a history in the true sense of the word. By considering the modes of temporality specific to natural history and human history, it is possible to argue that the relationship of reciprocity established by the classical philosophies of natural history today is much less an embrace than a crush.

The Time Scales of Natural and Human History

The idea that nature has a history is attested to in Kant's philosophy through his General History of Nature and Theory of Heaven and on the Different Human Races. In both texts, he deals respectively with nature as an entire universe and with the natural history of the human species. Buffon, too, devoted his time to this subject and came to the same conclusion as Kant: the gradual discovery of deep time is the foundation of the idea that nature has a history. We are not going to dwell on this question, which has already been the subject of a number of works, the most admirable of which is undoubtedly the synthesis by Richet (1999), but we will note that man appeared very late in an immemorial natural history. It went without saying that natural history should not be coupled with human history, the disproportion being the consequence of a mismatch between chronologies and time scales. This inspired some geologists to think of natural history as a large circle that would enclose human history as a smaller circle. Quinet reflected on the disparity between these two histories and gave us the abyssal depth of geological time in a tone that was immediately Pascalian:

'Antiquity recedes for us on all sides: the Iron Age, the Bronze Age, the Stone Age; beyond this threshold the geological epochs open up like a palpable infinity. What is to become of us in the midst of these centuries that are lining up around us? Now that we are playing with eternity in the smallest pebble, what will become of man?

Yesterday, he was astonished to pass so quickly over the earth; today, how much his life is shortened by comparison with this incalculable antiquity which presses and overwhelms him on all sides! He was only a point in time; that point is fading and disappearing into immensity. We escape from ourselves. What are we then? A zero, or even less?' (Quinet, 2013).

According to Quinet saw man as powerless and crushed by nature. He differs from Kant, for whom human trifles are infinitely reasonable, but he simply notes that history is not man-made and that it has been making itself since time immemorial, the course of which cannot be retraced. Duration, i.e., the time scale and, if we follow Quinet correctly, tempo, are the factors that divide natural history from human history. Nature's time is long and slow, as evidenced by the formation of rocks and sedimentation, which take an enormous amount of time when compared with human activities. Maris quotes Diderot on the opposition between art and nature:

'Nature is stubborn and slow in its operations. When it comes to moving away, bringing together, uniting, dividing, softening, condensing, hardening, liquefying, dissolving and assimilating, it advances towards its goal by the most insensitive degrees. Art, on the other hand, hurries, tires and slackens. Nature spends centuries crudely preparing metals; art aims to perfect them in a single day.

Nature uses centuries to form precious stones; art claims to counterfeit them in a moment' (Maris, 2018).

Geological processes occur slowly and progressively, but sometimes with very sudden accelerations. The history of nature does not take the same amount of time as human history. Social and economic processes and political deliberation happen very quickly, whereas it takes thousands of years to change an environment. At the heart of this issue, then, is the question of tempo. When you look at natural history, human history seems infinitesimal and frantic. When we consider human history, the history of nature, it seems immense and fixed. Between these two histories, there is a difference in time scale and a difference in tempo. If we take the question in its broadest aspects, we can say that there is also a difference in knowledge. Specialisation in distinct disciplines has reinforced this divide by grouping together history, archaeology and anthropology in a cluster of sciences called the human sciences and evolutionary biology, geology and palaeontology in another called the natural sciences. The idea of slow, immobile geological time may well have reinforced the conviction that human history is accelerating:

'If there is an experience of time immanent to the world, historical, which is distinct from time linked to the rhythms of nature, it is undoubtedly that of acceleration, by virtue of which historical time presents itself as time produced in a specific way by humans' (Koselleck, 2016)

The acceleration of historical time is a product of human history. The category of acceleration can be used to describe certain major political and technological developments in modernity, but it cannot be applied to the history of nature. This analysis clearly introduces a difference between it and the philosophies of natural history that we have discussed so far. If acceleration is a category applicable exclusively to human history, it is quite possible that natural history will be swept along with it. Koselleck does not mention such a possibility, but this is precisely what other philosophies of history will argue, and to which we will return in the following lines. They explode the cleavage between a slow, intangible natural history and a fast, mobile human history. They argue that these two histories are intertwined, which makes them sensitive and even reactive to each other. We believe that this is a transposition of the category of the feasibility of history specific to human history into the history of nature. Before examining this particularly interesting point, we will outline the theories of the end of the entanglement of these two domains.

The Collapse of the CleavageBetween Natural and Human History: AnIllusion

In the previous paragraph, we showed how a gradualist philosophy of natural history reinforced the idea of a frenetic human history, thus aggravating the cleavage between these two fields. Human action has made natural history feasible. The history of nature has become available and accessible. The time scale of natural history has shrunk to the point of coinciding significantly with that of human history. This sudden irruption of the natural giant into human history is a "total event par excellence" (Beau and Larrère, 2018), because it is perceived as a negative, even threatening insertion, as if deep, metamorphosed masses of geological time had emerged of their own accord on the surface of the earth, to disrupt or even block the political time of societies. The decisive intervention of natural history in human history homogenises the speed of time in these two domains. It would not even be superfluous to argue that the history of nature outstrips human history in terms of speed, given the slowness of the political response to the ecological crisis.

Cosmo-telluric jolts have blurred the boundaries between natural and human history, and there is a "collapse of the old humanist distinction between natural and human history" (Chakrabarty, 2009). This catastrophism was qualified in a text published three years later in which he has spoken of "serious and lasting cracks" (Chakrabarty, 2012). Henceforth, the geological present is intertwined with the present of human history, in the words of the same thinker. There is a kind of convergence of natural history and human history. The metaphor of dissolution has been used by Latour (2015) to eliminate the margin that separates these domains:

'This is the meaning of this New Climate Regime: the 'warming' is such that the old distance between background and foreground has melted: human history seems cold and natural history is taking on a frenetic pace' (Latour, 2015).

In his view, the two histories had merged, resulting in a heterogeneous reality with a totally confusing component. It was the end of natural history and with it the end of the "great divide". It is the "disintegration of the old Nature/Culture format" (*Ibid.*). We might think that humanity is in an unprecedented situation for having inaugurated a new history of nature with an apocalyptic perspective, but it would be excessive to believe that the conjunction of these two domains is a foregone conclusion for ever and ever. There are several reasons for this. It is

a safe bet that nature would continue its course if man were to disappear. Better still, the final extermination of the dinosaurs did not put an end to the history of nature. And a quarter of nature's landmass is untouched by human activity. The stellar movement continues its round, the processes linked to continental drift, plate tectonics and the Earth's mobility around the sun are, for the moment, beyond the reach of human action. As human action remains within narrow limits, most of the history of nature is following its course independently of human action.

So, where does the idea that natural history and human history are intertwined come from? No doubt from the application of the category of feasibility and, to a certain extent, that of acceleration to the history of nature. The closer interweaving of natural history and human history, and probably an increase in the speed of change within human history, may well have nurtured the idea of an interaction between these two fields. Historical and technological mutations have brought about fundamental transformations that would have required the transformation of nature. Nature has thus become a challenge to man in the struggle to domesticate it. Nature therefore comes into conflict with man:

'What should encourage us in this never-ending struggle is that, on the whole, one does not change, while the other changes and becomes stronger. Nature remains the same, while every day man gains some advantage over her. The Alps have not grown, and we have carved out the Simplon. The wave and the wind are no less capricious, but the steamship splits the wave without taking into account the caprice of the winds and the seas' (Michelet, 2021).

The Alps, a symbol of nature from time immemorial, are the face of the challenge facing mankind. They are proof of a change in transport and traffic and a transformation of nature, and thus of the intertwining of natural and human history. The Alps have been totally altered by human activity, which has opened up passages and altered the landscape, changing nature and gradually imparting its own history, setting it in motion as if technical acceleration were dragging the history of nature along with it. Natural history becomes an extension of human history, with the notable observation that this interaction is not harmonious but feared. This is a collapsology that is sometimes based on the use of gas, oil and coal to sharpen a critique of the ecological crisis that does not plunge us into "the era of the triumph of humanity, which is merely accelerating a movement that is heading towards its downfall" (Beau and Larrère, 2018). This prophecy of the end of natural or human history is very close to the position of Hartog (2014), who sees in it "a possible apocalypse that we must do everything to at least delay, divert and, if possible, prevent".

It is the same concern that led Rockström (2009) to determine the nine 'planetary limits' that humanity must not cross if it wants to continue its development in a viable and stable ecosystem. This specialist in sustainable development believes that three of these limits have already been crossed. These are the loss of biodiversity, CO2 emissions into the atmosphere and the nitrogen cycle. Having reached the critical threshold, humanity has entered a definite danger zone. For V. Marais, this is simply an analysis which, based on tables and diagrams, reactivates the old historical category of catastrophe in a highly technical way. This dashboard is a "sad repetition of an old fantasy of omnipotence that a series of curves (the great acceleration) and diagrams (planetary limits) illustrate in a new way" (2018). We believe that this issue is more worthy of our attention, because it at least gives concrete content, based on precise scientific data, on the natural crisis, which really shows us that this is not a collective illusion.

Is the acceleration of natural history a collective fantasy?

The impact of human action on nature is not just a squabble between intellectuals or a fussy scholar who is content to use curves to illustrate a collective fantasy. The phenomenon is very real, and is reflected in developments that have been measured and documented in scientific literature, in real trends, including global warming, which is not the only ecological challenge. The dreams of omnipotence evoked by Rockström do not necessarily involve geoengineering, about which his article is silent. One criticism of these graphs is that they give a purely quantitative reading of the disturbances. This hides nuances that his global vision of the matter ignores. His article overlooks the fact that it is the Western capitalist mode of production that is at the root of the disturbances identified by scientists, chemical pollution and the concentration of CO2 in the atmosphere. These diagrams need to be supplemented by other approaches that should not be ignored.

Disturbances in nature must be explored from a holistic perspective, which implies a scheme that brings together the economic, historical, geographical and political aspects of the phenomenon. This approach has begun to be applied by Mc.Neill (2014), who studied the relationship between fossil fuel use and demographics, biodiversity and climate, the impact of the Cold War on the environment and the role of imperialism. He came to the conclusion that, since 1920, there has been an "energy orgy" and that the human race has consumed more energy than any other in

human history. This finding is then broken down into the different continents, which have played an unequal part in this orgy. North America and Europe took the lion's share until the 1960s, when they were overtaken by India and China. A more qualitative study by the same author emphasised the diachronic dimension of the problem, which means that we cannot pinpoint its origins to a single point and determine that it has not yet begun in the summits of Patagonia. Whatever the period in which the natural problem is situated, the diagnosis of modernity is the same:

'It was in the context of the rapid biogeophysical evolution of the Earth and all its systems that what historians have come to call modern history took place. Humans have changed the environment, and the environment, in changing, has changed humans. This embrace is as it has always been, except that lately it has acquired greater and greater intensity and speed, like a figure skater spinning in an ever-tightening spiral' (Mc. Neill, 2014).

The image of the skater is used here to characterise the influence of nature on man, and above all to signify that the vice is tightening on him. The degree of this tightening is illustrated by a spiral, indicating the impact of the movement of nature as a whole on the experience of human history. It also illustrates the fact that the history of nature is not a history that is partly entangled with the history of humans, but that human action affects essential processes such as climate, which was once thought to determine human history, without being determined by it. Action that was previously non-reciprocal has become reciprocal. Thus, the novelty of global warming lies as much in its scale and speed (practically one degree in less than two hundred years) as in its human origin, which implies that. Similarly, the speed and scale of the current collapse in biodiversity are not in themselves new phenomena in the history of life – which has already seen five massive extinctions – it is the fact that they are due to a particular species, human beings, that is unprecedented. As W. Steffen said at the opening of the conference "The Anthropocene Project: An Opening" (Berlin, 10–13 January 2013): "We are facing the sixth extinction in the history of our planet, but this is the first time that a single species has been responsible for such a cataclysmic event".

The natural crisis describes the shrinking of areas of pristine nature on the planet, the reduction of 'alterity-nature', of that 'wild part of the world' that we have not created, to use the expressions of Maris (2018). It also points to the proportional annihilation of the domain of nature that can be modified by human activities. The last two centuries have seen humans, armed with their technological and scientific knowledge, altering and damaging processes that were previously independent of human history: hydrological cycles, short – and long-term climate change, the survival and extinction of species, nitrogen, carbon and phosphorus cycles, and so on. Humans have had a totally new impact on the biosphere, the atmosphere, the cryosphere and the geosphere, at a level that goes far beyond the local level and into the global sphere of life. They have invented processes that did not exist on Earth, such as the synthesis of ammonia – which enables us to produce synthetic fertilisers in large quantities (Federau, 2017) – or the production of nuclear energy:

'We know today that, although we cannot 'make' nature in the sense of creation, we are quite capable of setting in motion new natural processes, and that in a sense, therefore, we 'make nature' insofar as we 'make history'. (Arendt, 1989).

They have extended the territory of the feasible and pushed back the frontiers of the unalterable – they have made, more or less consciously and to varying degrees, the history of the Earth. If the history of nature has become feasible, it is because it is controllable by humans. This idea is the point of conversion of all geoengineering projects that aim to manipulate climate change through technology. Examination of this particularly important point will certainly be the subject of further research, but what is at stake with such ideas is human responsibility towards the environment and the constant concern to protect the planet and make it a sustainable living environment.

Conclusion:-

From the conception according to which humans are subject to the virtuality of nature, which they cannot influence because they are an extremely tiny power, we have been able to examine the changes that have taken place, which now postulate that human history is natural because it posits nature as one of its essential conditions, and nature is historical in the sense that it is enclosed within the cycles of human activity. The difference is that the time of natural history is not the same as that of human history: one seems infinitesimal and unbridled, the other immense and fixed. At the heart of the examination of time in these two histories, then, is the question of tempo, and its direct implication today is that the acceleration of natural time is a product of human history. The history of nature has become available. The time scale of natural history has shrunk to the point of coinciding significantly with that of human history. The decisive intervention of natural history in human history homogenises the speed of time in these two fields. The two histories therefore converge and merge. This is the end of natural history, the end of the "great

divide" between the two domains. It is this idea that we have tried to challenge by arguing that humanity could find itself in an unprecedented situation for having inaugurated a new history of nature with an apocalyptic perspective, but it is excessive to believe that the conjunction between natural history and human history is definitive. As far as we are concerned, it is a safe bet that nature would continue its course if man were to disappear. Better still, the final extermination of the dinosaurs did not put an end to the history of nature. And a quarter of nature's landmass is untouched by human activity. The majority of geological processes are, for the moment, beyond the reach of human action. Since human action has remained within narrow limits, most of the history of nature is taking its course independently of human activity. To better understand this, we need to look at the disruption of nature from a holistic perspective, which means bringing together the economic, historical, geographical and political aspects of the phenomenon. The speed and scale of the current collapse in biodiversity are not in themselves new phenomena in the history of life, but the fact that they are caused by human beings is cause for concern.

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