Progress, Hope, and Ecocide

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Abstract

Considering the climate crisis, the '4th industrial revolution', the current pandemic, and a recent ideological campaign named the 'New Optimists' that celebrates humanity's progress, the paper revisits this idea, which marked the emergence of the Western world and has been globalized in the 20th century. The paper, in particular, examines three basic assumptions of the idea of progress: that it encompasses society as a whole; that improvements and increases are infinite; and that the present is always more advanced than the past, and the future will be more advanced than the present. The main question is how far these assumptions hold today. I argue that the climate crisis is removing the sense of infiniteness, traditionally accompanying the belief in progress, which is now being shifted from the social to the private horizon. As progress no longer guarantees the future, the past emerges, as I also argue, as memory, as nostalgia, but also as a threat.

Introduction: ecocide and the New Optimists

One can hope that, with a yet unknown toll in human lives, the current pandemic will be eventually contained. However, what societies will be unable to contain is the collapse of their very natural conditions of existence. The planet has been steadily heated over the past 150 years, due to excessive energy produced by greenhouse gas emissions, most of which has ended into the oceans. Currently, most countries and regions in the world are producing emissions leading to a global warming well beyond 2 ℃ – a tendency that the current decrease of air pollution due to the pandemic cannot alone withhold (see Le Quéré et al, 2020). Even if the commitments of the Paris Agreement were applied, they 'would result in planetary warming of 3.4°C by 2100, without considering "long-term" carbon-cycle feedbacks' (Spratt and Dunlop 2018). With such feedbacks taken into account, global temperature could increase 4.5 to 5 degrees. With a rise of 3°C, 'most of Bangladesh and Florida would drown, while major coastal cities — Shanghai, Lagos, Mumbai — would be swamped, likely creating large flows of climate refugees'. Global warming of 4°C or more would be 'incompatible with an organized global community', and it 'could reduce human population by 80% or 90%' (p.15).

It seems then that 'the end of the world' is no longer merely an idea traced in the waning of the West's 'material domination and spiritual hegemony', as Bauman (2018) remarked, but a visible possibility. Capitalism, a distinctive creation of Western civilization, has been globalized to such an extent that it is destroying the conditions for existence of all life on Earth. Indeed, 70% of the global greenhouse emissions since 1988 have been produced only by 100 companies, and, even more remarkably, in the same period, just 25 companies have produced half of the world's industrial emissions (Griffin, 2017). These are transnational corporations, the activities of which are promoted by dominant states, international organisations, geostrategic interests, wars, and, of

course, governments that allow them to justify or hide the damage that they inflict upon nature. Nevertheless, power in the domain of policymaking, and for that matter of economic policy, cannot be adequately understood only in terms of the capacity of certain social actors to impose their decisions on collectivities, as a number of prominent social theorists have convincingly posited (e.g. Arendt, 1969; Parsons, 1970; Castoriadis, 1991; Castells, 2009). Power in society lies in the construction of meaning, in shared values, in their acceptance and legitimation, or, in other words, in the social imaginary significations characterising a society and incarnated in its institutions.

Yet, notwithstanding the existence of social movements that address the current predicament at its root (e.g. the de-growth movement), neither capitalism nor significations and institutions associated with it are central in the public discourse and action aimed at averting the impending ecological catastrophe. Indeed, in a political debate dominated by the dismal data of the environmental sciences, measurable targets, and incentives for investments on 'green technologies', there is hardly any space given to civilizational analysis and reflection on the historical trajectory which has led human societies to face an existential threat. This is remarkable, given the fact that there has been a wealth of such analyses in philosophical, anthropological and sociological literature, almost since the dawn of industrialisation. I refer mainly to the literature on the idea of progress, and all the derivative concepts and policies (e.g. development, modernisation, growth, advancement, etc.), which, notwithstanding the critique to which it has been subjected during the past century, it is not being publically debated, even at this decisive for the fate of humanity historical moment.

In fact, if there has been some debate about the idea of progress, it is a repetition of its basic assumptions, and an attempt to discard, rather than address, the critique to which it has been subjected, as well as the historical experience and the very concerns about the present juncture. This is the case of the 'New Optimists', a campaign sponsored by tycoons, media outlets, and academicians who celebrate current and anticipated progress, through publications of which, perhaps, the most prominent is *Enlightenment Now: The Case for Reason, Science, Humanism and Progress*, by Steven Pinker (2018). The book presents progress in a number of domains (e.g. 'health', 'wealth', 'equal rights', 'democracy', 'knowledge, 'quality of life', 'happiness' etc.) through selected time series graphs, as International Organisations customarily do by quantifying everything, but stretched long back in history in order to designate the progress that 'we' have achieved so far. Indeed, for the study, there are essentially no different societies, civilizations, politics, ideologies, interests, classes, economic systems; the world is governed by entropy and evolution and 'improvement' is inherent in human nature. Nor are there any anthropological, historical, sociological or philosophical accounts, under which the very concept of progress could be examined; there is a global and transhistorical 'we', comprised of individuals who are or ought to be rational enough to pursue their 'well-being', and divided between opponents and advocates of progress. The opponents are 'progressophobes', who include 'morose cultural pessimists' from the Western intellectual tradition (Nietzsche, Heidegger, Foucault, Laquan, Derrida, the Critical Theorists), and contemporary academicians in humanities and social sciences practicing postmodern and postcolonial studies. The latter, Pinker argues, have brought to universities relativism and obscurantism, against which humanism, science and reason must be defended.

There is no doubt, that much of postmodernist writing has led to a situation that often scholarship from farce can hardly be distinguished (see Boghossian et al 2018). The critique, even satire, to the thoughtless application of theories from the domain of society to the domain of nature is plausible, but Pinker, who refers to C.P. Snow's famous thesis on the split of 'the two cultures' in Western intellectual life, is doing the same from the other side: he applies uncritically theories from natural sciences to the social sphere. The second law of thermodynamics or the entropy law, by which the author starts his voluminous book on progress, is relevant for examining the relation between natural resources and economy, as, for instance, Nicholas Georgescu-Roegen did, who proposed that modern economy ignores the irreversibility of the transformation of matter and energy, and therefore infinite economic growth in a finite world is impossible. In fact, he predicted that 'Since the Entropy Law allows no way to cool a continuously heated planet, thermal pollution could prove to be a more crucial obstacle to growth than the finiteness of accessible

resources' (1975, 358). Pinker offers no discussion on this matter nor does he refer to this relevant work, but he presents entropy as a governing law of human history. The mathematician Phillip Davis (2011) has warned of the recent tendency to apply the entropy law to social sciences for it leads to deterministic and historicist explanations, as well as, overall, of the dead ends and detrimental effects produced by mathematisations and "scientific' inroads into humanities' (p. 134).

Pinker's book is a case in point, as it seeks to establish, through such inroads absolute criteria of where societies should be heading, and dismisses any prior civilization and different mode of thinking as by definition adversarial to human prosperity. Reason, which the author claims to defend against obscurantism, is represented by the ascending or descending line of a time series graph (often drawing on biased data) to which every society and individual is called on to submit. Namely, he counter-proposes a dogma, which consists obscurantism, too. Moreover, if 'cultural criticism can be a thinly disguised snobbery that shades into misanthropy', as Pinker writes (p. 247), so is his concealment of the historical reality, i.e.: the century-long social and political struggles in the West that demanded wealth distribution and rights for workers and citizens; and the innumerable lives lost in his country (USA), and by the interventions that it has carried out with its allies, around the world, in the name of 'progress', 'development', and 'freedom' (see Chomsky and Vitchek 2017). Of course, the reality would disturb the picture of the 'best of all possible worlds' that Pinker tries to convey in the book, reminiscent of professor Pangloss, the intellectual figure in Voltaire's satirical novel *Candide:, or The Optimist*. Pinker dismisses the metaphor, on the ground that Panglossian, i.e. Leibnizian optimism, is accompanied by Theodicy, which justifies the evils and horrors that happen in the world as manifestation of God's existence. However, if there is a difference between them, it is that, unlike Pangloss, Pinker hides the evils and horrors that take place as the unavoidable manifestations of progress, the supreme deity of Modernity – something that makes very happy the Barons of Thunder-ten-Tronckh of our time.

Considering, therefore, the absence of public debate or the mere repetition of the old claims about progress, this paper is revisiting the meaning of this idea, and it is examining its current state in our times. In particular, I am distinguishing three main assumptions behind the idea of progress, which I think deserve attention in order to understand how it is realized today. First, progress is taken to encompass society as whole, even though it refers to scientific and technological advancements and the productivity capacity of society. Secondly, progress indicates a linear move towards infinite improvements and increases, which even if they are interrupted, they are bound to resume. Thirdly, progress is strongly orientated to the future, and depreciates the past against which a society always conceives its present as a more advanced stage. I explicate these assumptions in the next section, and, further down, I discuss how the idea of progress is realised under the globalisation of capitalism.

Tracing the belief in progress

Progress is an idea of Modernity. In the medieval world, life was understood as a series of events arranged by heavenly interventions and revelations. As Bury writes in his classic book on the subject ([1920] 2006), for the Christian doctrine, as it was formulated by the Church Fathers, history moved towards securing the happiness of a small number of humans in another world, while there was no further development assumed on earthly life.

In Greek Antiquity, which influenced profoundly European Modernity, there was no perception of progress either, not even any particular word to express it. There was, however, an appreciation of the transition from a lawless life to organized community and its material comforts. Nevertheless, as both Bury and Edelstein (1967) point out, in reference to the classical times, the Greeks had no inclination to discard the old as inferior nor did they look at the future for perpetual improvements. As Edelstein writes, 'once security and stability had been established [...] and once the refinement of the arts and of knowledge had reached its present level, they did not look forward to things that would be much better that they were' (p. 29). With regard to knowledge, although the Greeks created mathematical proof and empirical scientific inquiry, they perceived its role as a means to understand natural phenomena, not to dominate and exploit nature. As Geoffrey Lloyd (1970) remarks, the view that scientific knowledge was to fulfil practical aims was foreign to

the ancient world. After all, for the Greeks, humans had a distinct but no advantageous position in the world: they existed in equal distance between the savage life of beasts, and the eternal and blissful life of gods, a condition that the Golden Race shared too, before Prometheus confers on them the technical means by which they instituted societies. The ritual of animal sacrifice to the gods was precisely, according to Jean-Pierre Vernant (1990), a symbolic marker of this distance. All three parts emerge simultaneously and independently from the chaos, and they are all subject to *Moira* (Μοῖρα), namely, to their lot and destiny in life. An idea of progress similar to the modern would mean breaking down these distinctions and thus challenging Moira. Besides, we should bear in mind the Greeks' tragic perception of life, conveyed by the Hesiodic myths down to the Athenian tragedy. In *Works and Days,* Pandora opens the jar given to her by the gods and releases all evils and harms to humanity, except hope. Hope remained in the jar, which can never be opened again. In tragic theatre, humans cannot have full control over the meaning of their actions, and thus they are prone to *hubris* (ὕβρις), i.e. exaggeration, arrogance or excessive manifestation of power, and, therefore, they should limit their actions – something which, of course, is entirely antithetical to the imperatives of progress.

Moreover, the Ancient Greeks did not include the moral character of individuals nor their happiness in any perception of progress. For instance, Thucydides, who, in the first book of his *History of the Peloponnesian War*, remarks that the Greeks improved materially in comparison to earlier times, he notes that there are 'human things' that transcend time, namely they are relevant to his contemporaries as much as to his readers in the future (Thucydides, 1910: 1.22.4; see also Castoriadis, 2011). In other words, there will always be hatred, betrayal or crime, and the fact that a society observes certain moral values at a particular historical age does not entail that they will not be abandoned or degenerate in another age. Similarly, it can be argued that progress applies neither to the domain of politics nor of that of artistic creations. Politics does not follow any linear course of 'improvements'. The discovery of democracy in Ancient Greece and its subsequent disappearance for centuries is an obvious illustration. Also, seeking to establish progress between, say, a cave painting, a Fayum mummy portrait, a Shan shui, and an impressionist or cubist painting would make no sense, beyond the technical means employed, since artistic creations are expressions of the artist's imagination and of a particular culture and should be seen in that context. A number of modern authors would agree with this observation, most certainly Max Weber (1949) who underlined that progress cannot be conceived outside of the domains of technical improvements, quantities, and standards setting. There can be, as he stressed, no progress in the affective and cultural domains, and therefore no measurement. Progress refers to the instrumental domain, he pointed out, where solutions to technical problems are sought and where the relation between means and ends is calculated (p. 38).

Nevertheless, the dominant idea in Modernity was that all domains of life were subject to progress, i.e. to continuous improvement. Progress, therefore, encompassed society as whole and consequently, as John Stanley (1972) remarks, it was, identified with history itself. 'Since progress now means improvement in all fields, he noted, 'the history of all human activity – of mankind itself – is the history of progress. At this point "history" and "progress" become virtually synonymous' (pp. xx-xxi). History, in this regard, is regarded as linear and indefinite course of improvements. There is no perception here of rise and fall, apex and decline, or cyclicity, but a constant linearity, which, although it may be interrupted by crises and misfortunes, never stops its upward move towards indefinite perfectibility, to use Condorcet's phrase. This move is necessary as well as inevitable, since society, considering much of 19th century philosophy, is thought to be governed by laws, and history unfolds in stages. For Spencer, for instance, civilization is a part of nature, and thus progress 'is not accident, but a necessity'; for Marx, capitalism is a historically necessary stage, to be succeeded by the proletariat's control of productive forces in favour of humanity; and for Comte, the world entered the 'positivistic' stage, in which the role of social sciences is to satisfy the societies' need for 'order and progress' (Manicas, 1987: 64 and 70; Lasch, 1991: 153). Progress is thus considered inevitable, subject merely to assistance and acceleration by the social forces assigned historically this role, or by the methods of social sciences that can predict, determine and measure it.

This way of thinking is easily identified, or, better, conflated with optimism or hopefulness, as any downfalls or tragedies are regarded as no more than hindrances to be overcome before the endless course of improvement resumes. However, as Christopher Lasch points out, in his seminal study on progress (1991), this is a thoughtless equation, since it is precisely hope that is dismissed under the belief in progress. Believers in progress, he writes, 'though they like to think of themselves as the party of hope, actually have little need for hope, since they have history on their side' (p. 81). The lack of hope, Lasch notes, makes them incapable for intelligent action, since they take the future for granted.

Indeed, reliance on the future is the third feature of the idea of progress, that needs to be underlined, as well as the concomitant devaluation of the past, which is identified with primitiveness or barbarism. A progressing society ought to move constantly 'forward', by expanding endlessly techno-scientific knowledge, wealth, domination over nature, and rationalistic controls over society through 'scientific governance'. This overall perception can be traced in both advocates of capitalism as well as of socialism during the 19th century. *'Tout pour l' industrie, tout par elle'* ('everything for growth, everything through growth') proclaimed Henri de Saint-Simon, and Marx, the most prominent critic of industrial capitalism, considered it a necessary passage to socialism, because, he maintained, industry would create the material conditions for a new, liberated society. Marx was opposed to a form of socialism that would restore pre-capitalist economic activities (i.e. of artisans, farmers, or small-scale production units), as he identified pre-industrial life with medieval barbarism and mediocrity, which he contrasted with the energetic and dynamic spirit of capitalists (see Rich, 1994; Lasch, 1991: 150-153).

The depreciation of the past goes, indeed, hand in hand with progress and associated ideologies and policies (e.g. modernisation or development), which celebrate contemporary and upcoming advancements in the techno-scientific domain, productivity and consumption. Looking at the past is usually accused of nostalgia and incapability of adjusting to modern life. Lasch (1991) examines the apparent antithesis between the belief in progress and nostalgic attitude, and he argues that, in fact, they concur, rather than differ, in that they both represent the past as motionless, and modern life as dynamic. Nostalgia, he points out, idealizes the past, and abstracts it from time, freezing it in a state of unchanged perfection, as for instance in the case of the dreams of a carefree, pastoral world of childhood. 'Nostalgia evokes the past to bury it alive. It shares with the belief in progress, to which it is only superficially opposed, an eagerness to proclaim the death of the past and to deny history's hold over the present' (p. 118). Nostalgia differs from memory, Lasch notes, in that the latter draws hope and comfort from the past to deal with the present. Memory 'sees past, present, and future as continuous' (p. 83).

It is precisely memory that the imaginary signification of progress displaces, along with the past itself, often identified with nature, by celebrating a presumably advanced present to be followed almost certainly by an even more advanced future. Interestingly, in some of the great dystopian literature of the 20th century, the past and the natural environment are where memory, humanity, and important cultural creations lie, and, for that matter, the inspiration for questioning and political opposition towards the status quo.

For instance, in Yevgeny Zamyatin's *We* (1924), progress is secured by One State, surrounded by the Green Wall, which separates its population from the outside world, where there is still untamed nature, and where people live in old houses and use old objects. 'Outside' lie nature and the past; 'inside' lie progress and happiness. Nature and the past are what must be left 'outside' or 'behind' by the World State, too, in Aldous Huxley's *Brave New World* (1932), a technologically advanced society consisted of genetically modified denizens. Museums are closed, historical monuments are destroyed, and books of the past, especially literature and poetry, are forbidden as blasphemous or pertaining to morbid minds. In Ray Bradbury's *Fahrenheit 451* (1953), all books are forbidden, and if found they are burned, often with their possessors too, by the fire brigade, whose duty is not to put out fires but to start them. Many outlaws live in the countryside, where they have memorized the content of important books, thus rescuing cultural memory as well as themselves from the lethal assaults of the security forces. Finally, in George Orwell's *Nineteen Eighty-Four* (1949), the past, in the form of old houses, furniture, objects, or human relations, lies at the outskirts of the State, where Winston resorted with Julia hoping to escape for some moments the

gaze of Big Brother. But in the end, the old house to which they resorted was proven unsafe, since for the Party 'anything old, and for that matter anything beautiful, was always vaguely suspect'.

In short, explicit or implicit in the belief in progress are the assumptions: that society follows stages, each of which is considered superior to the previous; that progress is presented as applying to the whole society, even if it refers mainly to scientific and technological advances and industrial productivity; that progress is necessary and inevitable, and subject only to acceleration and monitoring by political authorities and scientific methods; and that the past must be left completely behind in favour of an always promising future.

But how far these assumptions hold today? I am arguing below that the climate crisis removes the sense infiniteness traditionally accompanying the idea of progress, which almost exclusively now focuses on techno- scientific advancements aimed at promoting military might, economic command, and biopolitical controls, but not the common good, as the current, and preventable, pandemic demonstrates. Infiniteness is shifting from the social to the private horizon, as perpetual 'upgrading' and prolongation of the individual biological life. As progress no longer guarantees the future, the past emerges, as I also argue, as memory, as nostalgia but also as a threat.

Progress, capitalism, and the 'fourth industrial revolution'

Since the 19th century, capitalism has spread around the world, in the name of progress, through colonisation, imperialistic interventions, international relations, cultural lending and borrowing and, in our age, through globalisation. In the communist regimes of Europe, the main priorities were to increase economic productivity as well as the state's surveillance and military capacity. In the West, these priorities included the market economy, which became the epicentre of social life. After WWII, capitalist expansion took place under the banner of 'development'. As Castoriadis writes, 'the term "development" came into use when it became evident that "progress", "expansion", and "growth" were not intrinsic virtualities, inherent in all human societies, the realisation of which would be considered inevitable, but were specific properties of Western societies possessing a "positive value"' (1991, p. 180). 'World development' was led by the USA, and the then formed International Organisations, controlled by Western countries. Harry Truman, whose inaugural speech in 1949, is considered a landmark of this project, identified 'greater production' with prosperity and promulgated his country's endeavour to make the rest of the world adopt this idea but also to profit out of it: 'Experience shows that our commerce with other countries expands as they progress industrially and economically'.

The IMF and the World Bank were amongst the main agencies assigned to carry out this plan, through macro-economic reforms and infrastructural programmes. Using as tools loans and evaluations of governments' creditworthiness, under the notorious Structural Adjustment Programmes (SAPs), and the promises for prosperity through 'development', a legitimation basis for most governments, these organisations have managed to advance the economic and geostrategic interests of their sponsors and promote capitalism around the world. To make this possible they have often taken advantage of extraordinary conditions (e.g., deep economic crises or natural catastrophes) and cooperated with some of the most oppressive regimes in modern history (e.g., Suharto's in Indonesia, Marcos's in Philippines, Ceausescu's in Romania, Pinochet's in Chile, Mobutu's in Congo-Zaire and the South African apartheid regime).

The collapse of the bipolar world, a decade after the 'Opening of China', allowed for the globalisation of capitalism, namely the abolition of restrictions in cross-border mobility of products and services and, especially, for the unfettered activities of financial markets and big corporations. Globalisation unified the world 'into a single mode of production and a single global system and bringing about the organic integration of different countries and regions into a global economy', as Robinson (2001: 159) writes, something which still holds, notwithstanding the mercurial tariff war initiated by the current US government. In this process, transnational corporations have enhanced dramatically capital accumulation and the economic control that they exercise over countries. According to figures from the last decade (Vitali et al, 2011), there are more than 43,000 transnational corporations, located in 116 different countries, out of which only 737 accumulated 80% of the control over the value of all transnational corporations. 40% of this control is

accumulated just by 147 corporations, 3/4 of which are financial intermediaries – something that testifies to the dominance of financial capital and the 'global casino' established over national economies. At the same time, around half of the world's population shares just 1% of global wealth, while 1% of the world's population owns half of all global wealth. About 2/3 of city residents in the 'least-developed countries' live in slums under appalling conditions, with the help of the 'adjustments' and 'conditionalities' of the major International Organisations, which promoted urbanisation. In 2040, slum-dwellers may reach two billion worldwide (Davis, 2007). Furthermore, the post-WWII 'developmental' policies have led to the highest increase in global temperature since the beginnings of industrialisation. Just in the last three decades, capitalist globalisation has produced more than half of all industrial pollution ever emitted. The consequences are evident: greenhouse effect, heating and acidity of the oceans, extreme weather phenomena, extensive droughts, ice melting in the poles, rising sea levels, and massive extinction of flora and fauna. In other words, progress, as actualised by the expansion of capitalism, in all its stages and versions, has resulted into a major *hubris* against the environment, and the consequences from the looming collapse of the global ecosystem emerges as the *nemesis* against human beings.

The climate crisis, as I am arguing below, removes the sense of infiniteness traditionally accompanying the idea of progress, which almost exclusively now focuses on techno-scientific advancements aimed at promoting military might, economic command, and biopolitical controls, but not the common good, as the current, and preventable, pandemic demonstrates. Infiniteness is shifting from the social to the private horizon, as perpetual 'upgrading' and prolongation of the individual biological life. As progress no longer guarantees the future, the past emerges, as I also argue, as memory, as nostalgia but also as a threat.

To be sure, the expansion of technology, or more generally, technique, has always been at the heart of the idea in progress. Technique, as Ellul showed in his classical study (1964), is not necessarily an application of science to practical life. Historically, technique preceded science, though in order for the former to develop, it had to wait for the latter. Since the 20th century, technique has become independent from machine, thus transforming 'everything it touches into a machine' (p. 4). In other words, technique has taken over not only productive activities but essentially all human activities, and it is fully integrated in society, establishing what Postman called a 'technopoly'. Before Modernity, as he writes, cultures were, 'tool-users': tools solved the practical problems of life (windmills, waterpower etc.) without contradicting significantly people's worldview. Modernity gave rise to 'technocracy', in which tools were not merely integrated into culture but 'attacked' it: everything should give in to technological development. Today's 'technopoly' entails the total prevalence of technology in social institutions and the elimination of alternatives; alternatives are not made illegal, immoral or unpopular, but invisible and thus irrelevant. Individuals in a 'technopoly' are driven to fill their lives with the quest of information. Namely, the processes of generation, storage and distribution of information constitute both the means and the end of human creativity (Postman, 1993).

This has been even more so the case, in the last two decades, with the dramatic proliferation and spread of Information and Communication Technologies (ICT), which, also, expanded individuals' immersion into the audiovisual spectacle, 'the sun that never sets on the empire of modern passivity', as Debord wrote already in the 1960s. No doubt, the advent of the internet broke the monopoly of the mono-directional media, gave space to free journalism, facilitated political action and communal initiatives, and allowed citizens to be informed and learn independently, bypassing institutions that have been controlling knowledge for centuries (e.g., the education and medical systems). Yet, technology, as all creations, is embedded in the social-historical field. The internet today, especially after the proliferation of all sorts of mobile gadgets, platforms and 'apps', embodies primarily significations associated with contemporary capitalism and its emphasis on production and consumption, and incessant flows of information, spectacle and entertainment. More remarkably, the internet and the personal computer, which were initially celebrated as the means to escape the gaze of the Big Brother and promote democratic citizenship, have come to be the ultimate tools of ubiquitous surveillance, exercised now by global corporations, jointly with agencies of the state.

It would be more accurate, though, to say that the idea of progress today is located in the so-called 'fourth industrial revolution', which is based on the synergy amongst a range of scientific and technological fields such as ICT, artificial intelligence (AI), robotics, genetics, nanotechnology and neuroscience. The expectation is that a whole array of new applications will emerge out of this synergy, which will address persisting social and economic problems, health conditions and the environmental crisis, as, for example, electric self-driving vehicles, communication aids and prosthetics for handicapped people, or robotic devices that relief workers from heavy labour.

Nevertheless, it is hard to argue that these promises create the optimism that conventionally accompanies the idea of progress, given the main orientation of the current and upcoming technological inventions: robotisation across production and service sectors threatening to raise unemployment and underemployment; self-sailing battleships, auto-targeting tanks and missiles, underwater nuclear-armed drones, soldiers who can activate military equipment through neural messages, and killer-robots; predictive policing (i.e. data use purportedly identifying persons likely to commit crimes); face recognition and collection of biometric data through cameras and policemen's eyeglasses; leap-reading and emotion detection devices; 'smart cities' (i.e. urban areas equipped to collect data from citizens through sensors in lamp posts, street cameras, and mobile devices); brain implants and mind-reading helmets, connected with AI devices, that decipher thoughts from neural activity; AI debaters and invincible chess players; 'virtual assistants' which replace peer or parental advice and record private conversations; distortion of photographic and video material through 'face-apps' and 'deepfake' software; the Internet of Things (IoT) which connects appliances in order to constantly renew consumables; social-media platforms exposing and selling off details of private lives, while simultaneously augmenting privatisation and self-isolation and; animes, holograms, and sex robots available for partnering or temporary satisfaction by *Hikikomori* and all kinds of atomized consumers. Thus, techno-scientific progress is focusing on the reinforcement of economic, rationalistic, and bio political controls, wealth accumulation, intense competition on military might, perpetual and pervasive surveillance, the mathematisation or algorithmisation of judgement and conduct, and the turning of human life into data, rather than on averting common threats and ensuring the common good – as the climate crisis as well as the current pandemic are demonstrating.

Indeed, those who were in the position to know, they actually expected a pandemic, but research funding would not priorities its prevention. The Global Preparedness Monitoring Board (co-convened by WHO and the World Bank) knew: in their 2019 report, they underlined that investments in vaccine development and broad spectrum antiviral drugs were inadequate in the face of a high risk, as they warned, for epidemics or pandemics that would cause loss of life, upset economies and bring about social chaos (GPMB, 2019). The American government knew: in 2017, the Pentagon warned that a 'novel respiratory disease' could 'quickly evolve into a multinational health crisis that causes millions to suffer' (Klippenstein, 2020). The EU knew, but **industry lobby groups have managed to convince the European Commission to let the private sector decide how very large amounts of public research funding should be used'** (CEO, 2020). Billionaire-run philanthropic foundations knew, but 'the investments that could have been done … were not made', because there was 'no private sector incentive for something uncertain like this' (Gates, 2020). Indeed, pharmaceutical companies also knew, but, over the last twenty years, they sat on vaccine research results, because investing on face creams, drugs that maintain chronic diseases, marketing, and stock buybacks are where the big profits lie, not in preventing pandemics (Lawson, 2020). As Michael Osterholm (2020), the acknowledged infectious disease epidemiologist, said, if after the SARS epidemic of 2003 a vaccine was prepared, today half of the victims of COVID-19 could have been rescued, even if the two coronaviruses are not exactly of the same strain. Richard Horton (2020), editor of *The Lancet*, confirmed that the 'warnings of doctors and scientists were ignored, with fatal results', and that 'coronavirus is the greatest global science policy failure in a generation'.

Thus, in societies which pride themselves to be 'knowledge societies', scientific knowledge, as rational reflection and accommodation of empirical results, aimed at safeguarding the common good, is neglected for the benefit of wealth accumulation and in favour of techno-scientific control, domination and consumption. One might recall Orwellian Oceania, where '… there was no vocabulary expressing the function of Science as a habit of mind, or a method of thought, irrespective of its particular branches', and where '… technological progress only happens when its products can in some way be used for the diminution of human liberty.'

The current technological progress, therefore, appears more like a social threat than a hope, and, in the face of ecological catastrophe, it is losing its assurance for indefinite social prosperity and improvement. Nevertheless, whereas the infiniteness and hopefulness of progress are waning from the social horizon, high-tech capitalism has been shifting them to the private horizon. A case in point is the so-called 'human transcendence' or 'Singularity' which promises everlasting life through perpetual technological upgrading of the human body. Inventor, futurist and Google's director of engineering Ray Kurzweil, who made these terms widely known, prophesies that, from the mid- 21st century, human life will be transformed irreversibly, because: ICT capacity is expanding exponentially; brain scanning is mapping out the regions of the brain in detail; AI is accessing all of the information and knowledge available on the internet and is able to record and 'remember' all facts; nanotechnology is enabling the construction of nanorobots designed to manipulate physical reality at the molecular level, the brain included, in which they will be interacting with neurons to create virtual reality and extend 'intelligence'. The convergence of these technologies will bring about the era of the 'Singularity', which will allow human beings to transcend their biological limitations. 'We will gain power over our fates. Our mortality will be in our own hands. We will be able to live as long as we want [. . .] By the end of this century, the non-biological portion of our intelligence will be trillions of trillions of times more powerful than unaided human intelligence (Kurzweil, 2005: 9). Immortality has been also the explicit business plan of the bosses of R. Kurzweil in Google (Larry Page and Sergey Brin), as well as other Silicon Valley moguls, who present death as a 'problem to be solved', and a new glorious field for lucrative investments (see Damour, 2016).

Infiniteness, therefore, a pivotal assumption of the idea of progress, has been privatised, in line with the culture of consumer individualism, characterising contemporary capitalism, which pursues the endless extension of life as new niche for business making, while it massively ignores needs of public health, such as the preparation for a pandemic. At a more fundamental level, though, the dreams of the Singularitarians and the Immortalists are deeply rooted in the social imaginary of European Modernity, which set out to realise the attributes of the Father Almighty, i.e. omniscience, omnipotence and immortality, through techno-scientific inventions. The aspiration at mastering existence, a privilege of God for seventeen centuries, was bequeathed to the Modern Man, and today it is being put into full operation through the merger of ICT, AI, robotics, genetics, nanotechnology and neuroscience. Two centuries after the publication of Mary Shelley's novel, the Victors Frankensteins of today are acclaimed researchers in these fields, supported generously by corporate and state funding and collaborating in transnational academic networks to modify, extend, but, also, create new life. If Modernity generated the drive to dominate nature and living beings, 21st century is creating new beings, while causing the massive extinction of species that have existed on earth for millions of years.

Epilogue: the past as threat and as hope

Along with nature, as noted above, capitalism, under the idea of progress, degrades also the past, by identifying it with primitiveness and barbarism, as well as with poverty, often conflated, as Marshall Sahlins (2006) has shown, with living on few possessions, which has eventually been 'modernised' too. In fact, capitalism 'de-historises' and 'de-culturalises' societies, by regarding them as differentiated only according to the pace and degree of their integration into the global production and consumption system (as 'pre-modern', 'developing', 'transitional', 'emerging', etc.). In addition, in the last decades, the technological infrastructure of globalisation has given rise to what Castells (2000) called a 'space of flows' and 'timeless time'. The 'space of flows' indicates a global, a-

historical, capitalist territory which networks mega-cities, business and financial functions, sites of techno-scientific innovation and production, and labour, and operates through circuits of electronic exchange. 'Timeless time' creates 'the universe of forever' through the functioning of the global economy in real time and the incessant hunting for profit around the clock, as well as through the global media which scan the planet and the history of humanity incorporating every cultural expression in a major 'hypertext'. History, in this regard, is absorbed by the relentless flows of information and spectacle, which induce recurrent disruption of meaning, instead of informing memory and comparison with the present. Tourism has transformed cultures into theme parks for the masses of sightseers who scavenge the planet for entertainment and 'new experiences' and has replaced the value that heritage has for local inhabitants by economic value. Local traditions and customs, natural landmarks, antiquities, heritage sights, rituals, dances and arts are thus commodified and 'Disneyified' (see Shepherd 2000).

Under the conditions of degradation, muddling, and commodification of the past, by globalized capitalism, neither the recent quest for identity affirmation nor the rise of the far-right forces in the West, which invest politically in this quest, are accidental. They indicate a 'return to the past' (along with the recent rise of Islamism, with which they are interrelated), even though not 'a repetition of the 1930s', as often claimed in the public discourse of the Western countries. The fact that this political shift includes forces and acts guided by the fascist ideology generated in that period in Europe does not entail that they should be interpreted through the lenses of the same period. Fascism, after all, was orientated to the future, even though it drew on a mythologised past (e.g. the Aryans, Greco-Roman antiquity, or the virtues of Italian peasants) to build a collective identity and buttress racism and nationalism. In fact, 20th century fascism sought to break with what it regarded as decadent liberal past, and to create, through militarised education, the New Man, a dynamic, disciplined and spirited character dedicated to the reinvigoration of the nation. Fascism in Italy set out to instil, as Dagnino (2016: 139-139) notes, quoting the Mussolini incumbent Augusto Turati, the 'will to annul at all costs in us the vestiges of the past, so at to live only in the future'. Similarly, Nazism sought to terminate the *Zivilisation* of Enlightenment, yet by employing institutions, methods and technologies that were spawned by the rationalistic spirit that dominated the idea of progress. Indeed, Nazism built an enormous and efficient, administration, manned by committed bureaucrats and *wissenschaftliche Soldaten* ('science soldiers', i.e. statisticians), and an industrial system based on modern science and technology, and the organisational principles of the business enterprise, including Taylorist management and division of labour. All this apparatus was applied also to the preparation, administration and management of the horror of the concentration camps, which functioned as factories of death, exterminating millions of people as if they were raw material in the production process (see Traverso 2003). The totalitarian society, therefore, envisaged by fascism incarnated fully the signification of rationalistic mastery and control, embedded in the idea of progress, as also the major dystopian novels of the 20th century depicted well.

In the West, the far-right of today, which, with few exceptions, is part of parliamentary politics, has been investing ideologically in contemporary crisis by promising a return to the past (e.g. economic and political sovereignty and the affirmation of national cultures and identities), even though it keeps on serving neoliberal capitalism as the rest of the political spectrum. Unlike its 20th century predecessors, today's far-right is neither a massive ideological movement nor does it intend to a particular kind of future society. It takes advantage of nostalgia (rather than memory, which is capable of recalling the history of fascism), or the critique to globalisation to keep serving neoliberal capitalism and legitimise ideologically the debarment of those attracted by its sirens or escaping its consequences. These will be, increasingly in the coming decades, climate migrants (see IOM, 2008). Mass migration, autocratic forces intended to deter it, along with emergency policies aimed at managing the consequences of abrupt climate breakdowns could return societies to a pre-political past and the natural conditions resulting from such breakdowns could return them to a pre-historic past. In other words, the past, always repudiated by the idea of progress in the name of a perpetually advanced future, lurks now as a threat precisely within the very future that progress has pursued.

However, the past, crucially enough, appears also as hope, as it contains creations that can inform the re-institution of societies away from the dogma of progress. Cases in point are initiatives of protection and recovery of ecosystems, organic farming, rediscovery of communal life, re-localisation of the economy, the reestablishment of intergenerational responsibility spawn by the youth movement against the climate crisis, and, overall, the revival of politics against the perception that everything will be solved by technology alone. The past can generate hope as long as it activates memory, which can reconnect it with the present and the future, as history in the making. In other words, memory, as opposed to nostalgia, is essential for reflective action, as it draws experience from the past to re-institute politically the present and the future.

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