Is the Enlightenment an Outdated Program?

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In this essay I provide a critical analysis of the Enlightenment program—focusing particularly on the thought of Hegel, Rouseau, Kant, and Nietszche—describing the central dangers inherent in the program. I conclude with reflections generated from the post-metaphysical responses to the Enlightenment made by Giddens and Heidegger.

I. The Enlightenment Program

The Enlightenment program was based on the mechanization of nature and man. On one hand, each and every thing was conceived as being an automatic machine, exemplified by a clock.[1] On the other hand, both human body and human mind were thought of as being automata. For some (Leibniz), spiritual automata, for others (La Mettrie), material: opposites which reflect a metaphysical divergence as to the *substratum* out of which things are made, not impeding, however, the decisive agreement as to the *design* according to which they function. As to the machine, one does not want to know as much what it is, not even what it is made of, but rather what it can do if we want it to do something.

This twofold mechanization objective allied to the will of power over things (in accordance with the Cartesian project of making man "maître et possesseur de la nature") required that the scientific *language* of nature and man be made mathematical. The effects of material machines had to be calculated from their causes either by algebraic or differential equations, that is, mathematical instruments designed especially to that effect. In cases where calculation is not able to provide full certainty about things it can at least tell us, Leibniz anticipated, what is most probable.[2] In agreement with Leibniz, Jacob Bernoulli tried to

invent the calculus of probabilities which could provide us with the art of "measuring the probabilities of things" as exactly as possible, so that we can always "select and heed in our judgments and actions that which appears to us as better, more suitable, more certain or advisable."[3]

Since the working of human machines was driven to depend on their representations and since representations are not always distinct, complete, or rationally combined, the control and perfectibility of these machine's performance required emendation of their cognitive powers. This objective, Leibniz found out, can be greatly favored by inventing an artificial language which would allow: 1) substitution of all words of natural languages referring to confused notions by characters expressing distinct ideas, and 2) performance of all reasoning by mere calculation. For the first time, the world created by God (natural machines) and the world generated by men (artificial machines), in other words, the whole of things as they are in themselves, was conceived as being subjected to one and the same power. They are susceptible to indefinite expansion and in an effective manner: the calculating reason. God himself became the supreme Engineer who designed the best possible world and, having created its initial conditions (the indestructible monads), calculated the entire infinite series of future world states from these conditions and in accordance with his own design. "*Cum Deus calculat fit mundus*" is one central *dictum* of the enlightened modernity. Humans are not gods, yet they can imitate God, by producing their own designs of (partial) possible future worlds and by calculating them from conditions available in the created world. For God, any world is a virtual world; for us, any real world can be transformed into a virtual one. This is a possible Leibnizian interpretation of "*mundus est fabula*," another decisive *dictum* of modernity to be found in a book held by Descartes in a famous Dutch portrait.[4]

During the eighteenth century, while the Enlightenment program was still in its beginnings, the trend towards rationalization did not take the form of scientific research funded by public or private money but rather that of a "movement" of ideas. This movement put, for the first time, intellectuals in the world history scene.[5] This was when the process of building up public opinion by means of propaganda started to be a decisive factor in public life. At the same time, sophisticated administrative practices where being born. Why administration instead of decision making by calculation? Because the "universal" language and methods of rational ("intelligent") decision making were not yet in place. Meanwhile, the only effective way to "elevate" human interaction above the level of nature consisted, in addition to moral education, of the institutionalization of administrative laws.

Indeed, according to Rousseau, the objective of rational adminis-tration of human beings can be achieved through education ("*l'éducation peut tout*") and the institution of the Social Contract. Through such a "Holy Alliance," isolated individuals freely submit them-selves and all of their forces to the supreme direction of General Will, consequently forming a State, that is, a social body, a political machine, endowed with an "I."[6] Each man gets rid of his own forces in order to receive the help of others. In that manner, his "individual" and "com-plete" existence is replaced by "collective" and "partial" existence. As a result, each one's natural freedom is guaranteed, from now on, by a device that none of them, as individuals, are capable of controlling.

The rules of "movement" of the social body, that is to say, of men's existence alienated for the social collectivity, are the laws. Since they are not natural laws, their power must be based on "despotism." They must be proclaimed "sacred dogmas" and turned into objects of public faith. Not only the behavior but also the consciousness of citizens should be ruled by civil religion. Those who don't believe in these dogmas should be banished. Whoever calls himself a believer and doesn't act accordingly must be killed.

Who will make the laws once the Alliance is agreed upon? The people, answers Rousseau. But the judgments of particular individuals that constitute the people might not always be clear. Therefore, they all need guides: "There is the need to oblige some to match their will to their reason; there is the need to teach others about what they want." In fact, the task of legislating is above all human forces. In order to ex-ecute it, nobody, no individual, no group, has the necessary authority. Therefore, the legislator of the General Will, like a prophet of the Bible, must possess the characteristics of a messenger of God.[7]

II. KANT'S CRITICAL VERSION OF THE ENLIGHTENMENT PROGRAM AND ITS POSTERITY

In Kant, Enlightenment means fundamentally free criticism by which metaphysical and religious elements still present in older products of reason are discarded.[8] The project of controlling the world by math-ematization of sciences of nature and man, that is, the Cartesian idea of the *mundus fabula* is maintained yet constructed within the framework of a priori conditions of possibility of nature and freedom provided by the legislative power of human reason. The theoretical legislation im-poses the categories of the understanding upon nature (not just reproducing the natural order of forms, as in dogmatic metaphysics).

The practical legislation, in its turn, coerces our finite individual wills by the categorical imperative of reason itself (thus no longer depending, as it had been in Rousseau, on precepts of a prophetic legislator).

These two kinds of legislation, both a priori, are also the basis of education. In a child, there are only seeds of goodness (of reason). The development of these seeds needs assistance, for a man is nothing other than what education makes out of him.[9] The fundamental aim of education is that children be effectively enlightened, that is, that they learn to think critically by themselves. To that effect, nothing is more advisable than to provisionally place the youth's reason under tutorship during an initial period and to preserve it from seductions.[10] Human individuals have to be disciplined (by physical education of the animal in man), cultivated (by making the enlightened mode of thinking stable—*Dekungsart*), civilized (by adapting them to society) and moralized (by teaching them moral attitude—*Gesinnung*).[11]

Once enlightened by that kind of teaching, humanity will progress in the direction of a happier life and will become able to defend itself against two types of basic dangers in this world: those of nature and those of wars. The first kind of dangers can be resolved by using rules of scientific technology ("technical imperatives") in actions transforming the world, and those of the second kind by legal rules and by the establishment of a World Confederation of National States, which would be in a position to assure human rights and world peace.

Kant's critical reconstruction of Enlightenment, is the main source of all other critical theories that followed. All of them are 1) theories of overcoming traditional forms of knowledge and social customs, and 2) theories of progress of knowledge as well as of man. By proposing the *destruction* of the unsatisfactory past and the *construction* of a better future, the critical theory of Enlightenment entered a new relationship with time. The concept of historicity applied to knowledge, human existence, and even to the world is indeed one of the most typical products of modern times. It is also the framework for Kant's concept of human history as an infinite though uncertain progress, guided by practical ideas. This Kantian "schematism" of practical reason by infinite time unquestionably signals the crisis of "infinitism" of traditional metaphysical and religious conceptions. Hegel had already set off the alarm against what we may call "finitism." The confinement of reflection to the domain of certainties and operations of the finite intellect in which the term "Absolute Being" is void of cognitive content constitutes, he says, a fatal theoretical defect of the Enlightenment program.

Yet, Hegel's move back to the Absolute did not prevail. The old substantial Infinite of the metaphysical and religious traditions had

ceased to exist. Its place was taken by the calculating reason performing its recursive operations in infinite serial time. Very soon this new metaphysical machine showed what it could do: it started systematically to crush all truths and to devour all the practical achievements (beginning with the leaders of the French Revolution). It didn't take long before Nietzsche, maybe the brightest and the most clear-eyed man of modern times, came to the conclusion that the true foundations of his time were not the a priori conditions of possibility of the *mundus fabula* stated by Kant, and still less any concrete revelation of the Absolute, but the will to power whose fictions govern the perpetual change and the eternal return of the alike. There is no continuous development for the best, be it in the Kantian or Hegelian sense, nor for the strongest. What exists is the constant resurgence, at different places and within various cultures, of "superior types" cases.[12] Yes, by sacrificing the weaker in favor of the stronger, the eternal return generates progress. However, the circular and fragmented character of this process prevents us from speaking of infinite perfectibility either of individuals or of humanity.[13] The linear progress towards equality is, indeed, the fastest path to decadence, an illusion that could only be proclaimed by "idealists and crooks" (such as Rousseau). What the primacy of the future over the present and past, which characterizes the temporality of Modern age, does is to make way for an endless series of "futuristic" movements which leave nothing as it is or was. This is true, in particular, of Nietzsche's own idea of indefinite transvaluation of all traditional values under the guidance of instinct rather than reason.

III. THE DANGERS OF ENLIGHTENMENT

Today, the Enlightenment program dominates—due to globalization—this planet's life. What can we say of the results of this development? In the areas of the domination of nature through technical knowledge, the success of the program is unquestionable. As to human affairs, we have now entered the era of the "society of information," in which the handling of human issues tends to be done automatically, through the use of numbers and calculations precisely as it was foreseen and hoped for by those who created the Enlightenment.

Nevertheless, we are far from achieving some of the basic promises of rationalization, such as ensuring peace and basic well being for all humanity. The civilization which the Enlightenment gave birth to became a *risky* enterprise. Sociologist Anthony Giddens spelled out the high-consequence risks which we face today: ecological decay or disaster,

collapse of economic growth mechanisms, nuclear conflict or large scale warfare, growth of totalitarian power as we already know from the recent past.

This same risky character diagnosis of the Enlightenment project of men's administration was made more than a century and a half ago by Alexis de Tocqueville. Contrary to the libertarian discourse of the right and the left, the main result of the Revolution in Europe was the creation of an amorphous mass of citizens, moved by their private passions and interests, in particular by the will to enrich, and administered by centralized States in an increasingly despotic manner with the help of public opinion molded by the educational system and by the media. In accordance with the ideological inversion of values typical of the enlightened consciousness, this modern type of tyranny has received the name of modern democracy.[14]

Tocqueville has also foreseen a series of future developments which became in more recent days object of negative utopias (Huxley, Orwell, Zamiatin). In his *De la democracie en Amérique*, Tocqueville anticipated that the modern world, including North America, could develop a new type of slavery that would cover the surface of all societies by a net of administrative rules, insignificant within themselves and yet very complicated, being for that very reason impenetrable even to the most powerful minds and by means of which people of each nation could be coerced, enervated, and stultified until each nation be reduced to a herd of scared and hard-working animals, kept in perpetual infancy and guarded by their respective governments.[15]

Since the time of Tocqueville, it has become increasingly more plausible to say that the most basic conflict in modern societies is not so much the one between the inherited privilege of a few and the human rights of all (as was thought by liberalists) or the one between the capital and the labor (as was assumed by socialists), but the conflict between despotism of total administration, based on calculating reason, and a way of living founded on what is left of our humanity and of what we used to call nature.

As a matter of fact those who accept this point of view are inclined to say that the so-called postmodernity is nothing other than radicalized modernity. According to Giddens, for instance, the phenomena of finitude registered by postmodernist thinkers are direct consequences of the self-criticism process or, as Giddens puts it, of the "reflexivity" inherent to the Enlightenment movement. Instead of speaking of postmodernity we should rather say that we are entering the time of "High Modernity" generated by the basic mechanisms of this movement. Giddens goes on to say that the essence of modern nihilism is

"ontological insecurity." Today most human beings are losing, he says, "confidence in the continuity of their self-identity and in the continuity of the surrounding social and material environments of action." The ontological security has thus essentially to do with the question of "nature of being" or, as Heidegger puts it, with "being-in-the-world."[16]

According to Heidegger himself, Enlightenment is not only dangerous, in the sense that illness or wars are dangerous, but *extremely* dangerous, in the sense that it menaces the very nature of man. This new kind of danger results from the very program of the movement which requires the complete reduction of men and nature to mechanisms.

It is not just an empirical matter, but an ontological move which makes it possible that in theory as well as in practice, each and every entity be submitted to calculation and, as a consequence, to arbitrary manipulation within the limits of laws of logic and nature. It is precisely in this victory of egalitarianism in the form of a general equalization process, in this triumph of liberty capable of creating anything that is clearly represented in computer language, that resides, against all expectations of Enlightenment, an extreme danger for humanity: the loss of a dwelling place in a world generated by total substitutability. Just as in a tautology, we can replace each individual term by any other individual term *salva veritate*, in the modern world we can replace organs of individuals by organs of other individuals and increasingly more so individuals by other individuals, *salva realitate*. The individuals and the world have become, just as Leibniz *projected, artifacts described by infinite "identical" sentences.*

Individual human beings' inessentiality resides, according to Heidegger, in the very mode of being itself which dominates our time: the persecutory installation of all and every entity by technological production. The precise counterpart of this meaning of presence of beings as such is the transformation of language in a computational device. Since Leibniz, a process has started which makes our language gradually cease to be determined by the way in which we talk to each other in order to agree more and more with the way computers "talk," that is, calculate. This history allows, for instance, that purely chemical processes as far as they transmit "information" be identified with verbal communication among human beings. This fact, more than any other reveals that the technical construction of a human machine has already begun. Thus, the supreme danger for mankind is not that of totalitarianism, it does not belong to politics or to ethics at all, but consists in the extreme objectification (*Vergegenständlichung*) of everything, including human beings.

IV. Enlightenment and Post-Metaphysical Thought

According to thinkers like Giddens and Heidegger, the most relevant question today is not that of the failure of Enlightenment but rather whether there are chances of overcoming the dangers resulting from its everlasting success. Giddens hopes for the arrival, within the horizon of High Modernity, of a "utopian era" which would no longer be dominated by virtual reality of all things in an infinite and void time, both produced and destroyed rationally by abstract expert systems. The foreseen era which would be characterized if not by renaissance of religion then by "a renewed fixity of certain aspects of life that would recall some features of tradition." Such fixity would in turn provide "a grounding for the sense of ontological security" of human beings, involving "a radical reorganization of time and space."[17]

Does it mean that we shall return to some sort of traditional Infinite? Not necessarily. There is an entirely "finitist" solution, proposed by the late Heidegger and based on the deconstruction of the metaphysics of calculating reason (and, indeed by metaphysics in general).[18] Heidegger hints that a new non metaphysical meaning of being might well be made possible by the artificial character itself of everything that there is today.[19] Once the phantasmagoric nature of reality as projected in modern times is made clear, we can perhaps stop substituting virtual reality for the "given" reality and, in that sense, stop "fantasizing" and "dreaming." We may perhaps wake up and be able to accept the being as a true gift (*die Gabe*) that we are called to protect and to cultivate, not to mechanize. From that point of view, a perspective might be opened in a mode of living within a "finite" and "full" space-and-time, where, as it was foreseen by some poets (Hölderlin, in particular), heaven and earth meet, where the mortals and the divine ones are no longer total strangers to each other and where things are no more "re-presented" but let be what they are. Essential requirements for the arrival of such a new topology of being are that we renounce to the will to power, that we start thinking in a new way[20] and that we enter a new relation to natural language. This last requirement should allow that there be poets and, more generally, it should preserve the essential polysemy of natural speaking modes which makes them essentially non-computational. In that manner, we can perhaps save what remains of our humanity, nature and natural languages from extinction.[21] Heidegger insists on saying that since history itself (namely, the history of being) is what dictates the arrival of modernity, it is impossible for any individual or group to set up an agenda for a reversal in our "insistence" in the whole of beings. Nor can the "salvation" of what

there is against technological installment be conceived as a project that can be realized just by our own efforts.[22] This weakness is a sign of our ontological finitude which we have to accept, in terms of a responsibility unknown to thinkers who have been or still are moving into the framework of the Enlightenment's (almost) omnipotent reason.[23]

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NOTES

1. On the mechanization of nature, cf. E. J. Dijksterhuis, *The Mechanization of the World Picture* (Oxford: Oxford University Press, 1961).

2. Cf. Gottfried W. Leibniz, *Die philosophischen Schriften*, vol. VII, ed. Gerhardt (1890), 26–7; Condorcet, *Esquisse d'un tableau historique des progrès de l'esprit humain* (Paris: Éditions sociales, 1971/1794), 81, 272, 279f.

3. Quoted according to Rudolf Carnap, *Logical Foundations of Probability* (London: Routledge & Keagan Paul, 1950), 48.

4. The portrait is by J.-B. Weenix, from around 1647, being exposed at the Museum of Utrecht. On the theme of *mundus est fabula*, cf. Jean Beaufret, "La fable du monde," Günther Neske, *Martin Heidegger zum siebzigsten Geburtstag* (Pfullingen: Neske, 1959), 11–18.

5. Tocqueville had already stated that the philosophers and writers substituted the politicians and the administrative technicians in opposition to the Old Regime and in that manner became the "true heads of the great party" that wanted to overthrow all the social and political institutions of the country. Cf. Alexis de Tocqueville, *L'ancien régime et la Révolution* (Paris: Laffont, 1986/1856), 1043.

6. Cf. J.-J. Rousseau, *Du contrat social*, vol. III (Paris: Gallimard. Coll. La Pléiade, 1762), Bk. I, Chap. 7.

7. The biblical inspiration of the concept of the Social Contract and the legislator's figure in Rousseau is more than evident.

8. See KrV, B, 775, 783. The Kantian concept of *Aufklärung* is frequently identified only with *Selbstdenken* in society, that is, with thinking for oneself as an autonomous individual, emancipated from external, heteronomous and social influences. Some of Kant's texts authorize indeed this reading (cf. Kant, *Beantwortung der Frage: Was ist Aufklärung?* [1783], 484; *Kritik der Urteilskraft* [1790], 156). But for Kant, emancipation *(Mündigkeit)* implies thinking in terms of principles of reason duly criticized, that is, thinking in terms of the Kantian critical philosophy. Thus, in the more fundamental sense, *Aufklärung* means

liberty of criticism of pure reason by pure reason and of learning about reason from reason.

9. Kant, *Über Pädagogik*, 1803, 8.

10. Kant, KrV, B, 782.

11. Cf. Kant, *Über Pädagogik* (1803), 22–23.

12. Cf. Friedrich Nietzsche, *Werke*, 3 vols., ed. K. Schlechta (Munique: Hanser), vol. II, 1166.

13. Cf. ibid., 819.

14. Cf. Tocqueville, op. cit., Bk. III, Chaps. 3 and 8, *et passim*.

15. Cf. Tocqueville, *De la démocracie en Amérique* (Paris: Laffont, 1986a [1835/40]), Pt. IV, Chaps. 6 and 8.

16. Cf. Anthony Giddens, *The Consequences of Modernity* (Stanford: Stanford University Press, 1990), 92.

17. Ibid., 178.

18. Here, the term "deconstruction" is used in the original heideggerian meaning and not in the sense of its structuralist reinterpretation made popular by Derrida.

19. Giddens himself is confident in his "utopian realism" precisely because of the "counterfactual nature" of future-oriented thought of modernity.

20. More precisely, that we start to think at all, since science, according to Heidegger, "does not think."

21. As it is well known, each year, not just dialects but truly different natural languages disappear from the face of the earth. At the same time, more and more new artificial languages are produced.

22. Heidegger is implying that politics embedded in the principles of Enlightenment are not the adequate means to cope with extreme dangers which follow from these very principles. His point is that human rights do not and cannot protect humans from being turned into machines.

23. For an ethical interpretation of Heidegger's ontology, cf. Joanna Hodges, *Heidegger and Ethics* (London: Routledge, 1995); Zeljko Loparic, *Ética e finitude* (S. Paulo: Educ., 1995); and Frederick A. Olafson, *Heidegger and the Ground of Ethics: A Study of Mitsein* (Cambridge: Cambridge University Press, 1998).