

NEED OF TECHNOLOGY FROM METAPHYSICS AND ETHICS

La necesidad de la técnica desde la metafísica y la ética

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Abstract

Technology as a philosophical question has a double relevance: first one, insofar as it is considered as the essence of the human (only human being is a properly technological subject); the second one as it is considered as a vital function (although it arises in their heart, once created “no longer belongs to it”, it is transhuman). For this reason, the aim of present paper is to expose two philosophical conceptions on technological essence of human being: José Ortega and Gasset’s metaphysical conception and Hans Jonas bioethics conception. These positions will be analyzed from their respective problems: technology as a vital function, in the case of Ortega’s perspectivism; and in the case of Jonas bioethics technology as a possible cause of the destruction of the environment. Then, we will show the radical difference between them: while Ortega conceives technology as a vital function based on the concept of ‘well-being’, Jonas analyzes it from the concept of ‘necessity’ in an anthropological sense. The paper concludes explaining how, despite of these differences, both authors reach to the same conclusion: the technological exercise must summon to reflect anthropologically on the impact of the self-creations and the environment in to preserve quality of self-lives at the biological level (bio-ecology/bioethics).

Keywords

Technology, metaphysics, bioethics, basic needs, cultural welfare, ecology.

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Resumen

La pregunta filosófica por la técnica posee una doble importancia: en primer lugar, en cuanto se la considera como esencia de lo humano (solo el hombre es un sujeto propiamente técnico); y la segunda, en cuanto se la considera como función vital del mismo (si bien surge en el seno de este, una vez creada “ya no le pertenece”; es transhumana). Por ello, el objetivo del presente trabajo es investigar las concepciones filosóficas de la esencia técnica humana en la concepción metafísica José Ortega and Gasset y la concepción bioética de Hans Jonas. Se analizarán cada una de las posturas a partir de sus respectivos problemas: el de la técnica como función vital, en el caso del perspectivismo de Ortega y, en el caso de la bioética de Jonas, el problema de la técnica como posible causante de la destrucción del ambiente. Posteriormente, se mostrará la diferencia radical entre ambas posiciones: mientras Ortega concibe a la técnica como función vital fundamentada en el concepto de ‘bienestar’, Jonas la analiza a partir del concepto de ‘necesidad’ en un sentido antropológico. El texto finaliza explicando cómo, a pesar de estas diferencias, ambos autores llegan a la misma conclusión: el ejercicio técnico debe convocar antropológicamente a reflexionar sobre el impacto de las propias creaciones en el ambiente para preservar la calidad de las propias vidas a nivel biológico (bio-ecológico/bioética).

Palabras clave

Tecnología, metafísica, bioética, necesidades básicas, bienestar cultural, ecología.

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Introduction

As can be seen in the work of Martin Heidegger (1997), *The Question Concerning Technology* is, in the end, a question of human essence. At the same time, he characterized the essence of technology as partially creative (“artistic,” he will say).¹ It is just a matter of looking at different situations in the contemporary world to reaffirm Heidegger’s thesis: globalization, education, wars, information flow, entertainment, professionalization, advertising, political campaigns, etc. they are currently strongly influenced by technology in such a way that pretending to give it up would not only be nonsense but something simply impossible.

Based on this provocative Heidegger thesis, various philosophers have questioned what it would consist of, how will it manifest and what implications that “human technological essence” has. Next, two interpretations are outlined: that of José Ortega and Gasset and that of Hans Jonas. It will be shown that, while the former understands the technological essence as a necessary condition for human well-being and performs its analysis based on metaphysical concerns, the latter understands it as a need for survival from bioethics. These positions assume contrary theses and, nevertheless, have a common purpose: to offer a perspective on the question: what is man? that is, they aspire to make a contribution in the field of philosophical anthropology. Roughly speaking, the dilemma is as follows: understanding the technological essence as a need for well-being

has greater explanatory power in existential and vitalistic terms since it reconciles technology with human freedom. On the other hand, thinking about technology based on the need for anthropological survival allows us to see what the real implications of the technological work of man are in the environment and, therefore, in himself as a species.

However, after the exposition of both theories, some questions will be made that can be formulated both to complement their contributions and to refute them. Finally, it will be shown how, although the paradigm from which each author analyzes technology as a human essence is different, they conclude in a common aspect: they recognize the imperative — bio-ecological, in Ortega; bioethics, in Jonas — of preservation of the environment as a necessary condition for the preservation of the essence and, above all, of the existence of the human being.



José Ortega and Gasset: technology as well-being, a necessity?

The problem: essence or need?

Taking into account Heidegger's (1997) thesis - "technology is essential to man" (p. 113) -, it would seem coherent to affirm that technology is necessary and, therefore, unavoidable to man. Their relationship is, therefore, not free, but of necessity: 'every essence is, by force, necessary'; denying it would imply rejecting the identity principle (something absurd). However, reducing technology to an exercise of mere survival and adaptation would detract from all the creative and voluntary value that it implies. Therefore, Heidegger himself (1997) argues that: "Free is the relationship when our being-there [*dasein*] opens to the essence of technology" (p. 113). Hence, the relationship with technology modifies our perception of the world and, with it, what we consider to be true or accurate (Merchán, 2011, p. 57). Then, if someone affirms that technology is the essence of the human, then they should commit to it being necessary and, therefore, not free; on the other hand, if it is maintained that it is free and voluntary, either the principle of identity would have to be renounced when recognizing contingent essences, or accept that, given its contingency, it is not essential to mankind. It can be seen below how the Spanish philosopher José Ortega and Gasset solves this apparent paradox:

The conditions of need: a quo and ad quem

If the question of technology² were considered in a transcendental way, it should be: What are the necessary conditions that enable (*conditionis sine quibus non*) and require the emergence of technology? For this, Ortega and Gasset in *Meditations on technology* finds two initial conditions: first, a *quo* (from...): nature, the world or circumstances; and second, the *ad quem* (towards which...): man's vital desire to deploy his technological faculties in the world. It could be said, for the sake of the clarity of the theory, that the *a quo* conditions are the given conditions or, rather, those that correspond to existence (*dasein*)³: what is there (the context) or "the objective description of a fact (technological)" (Aguilar, 2011, p. 130). Therefore, they are extrinsic to the individual⁴. On the other hand, the *ad quem* conditions refer to the intrinsic qualities or potentiality of the subject to practice technology on the environment that surrounds it or, if desired (although in a very broad sense), "the subjective assessment of a fact (technological)" (Aguilar, 2011, p. 130). In this sense, two different needs can be distinguished: *ad intra* (inside the subject) and *ad extra* (outside it)⁵.

Regarding the first element (*a quo*), Ortega is incessantly obliged to oppose the "reductionist naturalism" of technology. According to him, technology is reduced to the solution that man makes to solve the adversity of his circumstances and simply seeks through it - technology - to survive.⁶ Although Ortega and Gasset admits that clinging to survival ('surviving') is the starting point that makes technology possible, this is not the real cause, it is, rather, well-being (pp. 322-328). Technology not only arises from an eagerness of man to be in the world, but its purpose is to be well in it.

If survival were the only cause of technology, animals would also be technological subjects, because, like humans, they have a survival instinct. However, animals just have to survive; while men don't: they always look for better well-being conditions. Even, as Ortega says, on some occasions man may prefer to cancel his existence (commit suicide) for maintaining this state of well-being; because 'living' is not reducible to 'being in the world' (existing), but denotes a degree of appropriation (of 'earning') of its own existence. As Ortega and Gasset (1964) states:

We would say, then, that man is given the abstract possibility of existing; but it is not given reality. This he has to conquer, minute after minute: man, not only economically, but metaphysically, has to earn a living (p. 337).



Hence it is important to rescue the differentiation between ‘existence’ and ‘reality’ (taking the latter as a purely human construct).⁷ The human condition is distinguished from the animal one in that the former manages to make sense of its existence from the desire to live (as will be shown below). Based on this desire to live, man constantly strives to ‘earn’ (‘appropriate’ authentically) his existence (p. 323). This appropriation occurs in the transformation of nature (p. 324); says Ortega (1964): “Technology is the opposite of the adaptation of the subject to the environment since it is the adaptation of the environment to the subject” (p. 326). This is precisely why the position of “reductionist naturalism” is unsatisfactory to explain technology: it only manages to see it as a product, as something derived from human action; when, as Ortega shows, technology is something essential and constitutive of man. That is why it seems legitimate to affirm that man constitutes technology (as long as he creates it) and technology constitutes the man (while it is his essence) $\forall x \forall y \{[(Tx \rightarrow Hx) \wedge (Hy \rightarrow Ty)] \rightarrow (x \leftrightarrow y)\}$.⁸

To summarize the foregoing: contextual conditions (*a quo*)—that is, extrinsic conditions to the individual— start from the fact that nature requires man to develop tools that allow him to survive. However, these are not only reduced to survival needs but are mainly based on the fact that man wants to stay in a state of well-being. Therefore, it is valid to affirm that the state of well-being is more ‘comprehensive’ than that of survival. Everything that is done to survive is done looking for well-being, but not everything that is done looking for well-being is because one wants to survive (for example, the case of suicide or euthanasia).

Every act of survival seeks well-being $\forall x(Sx \rightarrow Bx)$, but an act of well-being may not have the purpose of survival $\sim \square \forall x(Bx \rightarrow Sx) \rightarrow \square \exists y:(By \wedge \sim Sy)$.⁹ Thus, it is possible to conceive the creation of technological objects that threaten human life and, in the same way, it is possible that well-being threatens existence. We create dams, factories and other objects that threaten the environment. This can go against survival since such contamination can shorten one own’s time of existence and of the species. However, even so, the human being does it because he prefers to enjoy greater comforts over the simple fact of existing.

On the other hand, regarding the second element (*ad quem*), Ortega and Gasset (1964) considers the explanation that technology is a product of a survival instinct to be insufficient, since the concept of ‘instinct’ is not entirely clear and, assuming it was, instincts are subsumed by reason and will. Thus, he chooses to replace it with the concept of ‘desire to

live'.¹⁰ When it is said that the 'subject is technological' it is usually attributed (not without vain reason) that it is because it 'needs to meet certain needs', that is, for survival. However, Ortega recognizes that man does not necessarily have to replace them: he can decide whether or not he wants to be well; moreover, he can decide to live or not do it (commit suicide/ let yourself die). In other words, by itself, technology is not something necessary in man, but it is when the desire to live is assumed as a premise, especially, to live well.

Perhaps the statement above seems suspicious to the reader. On the one hand, Ortega (1964) states that technology is essential to man: "There is no man without technology" (p. 332); nevertheless, the author affirms that it is not absolutely necessary for man to display this essence, but that it is a voluntary act. So: Is technology necessary or not? Can something be essential and not necessary? If it is essential and necessary, what kind of need is it? It is necessary to make a clarification here: it is said that by itself technology, well-being, and survival are not necessarily facts, because a man can, perfectly, decide to let himself die. However, if the desire to live is accepted, then, necessarily technology must emerge, arise. This is called the distinction between 'necessary by itself' and 'necessary by another' or 'under an assumption'.¹¹ An example of this is that 'it is not necessary for the reader to finish reading this text completely': $\sim\check{y}P$; It may be the case that you interrupt your reading and devote yourself to another matter. However, 'if what you want is to finish reading it, then it is necessary for you to complete the reading route through all the sections': $\check{y}(P\rightarrow Q)$. Similarly, it is not necessary that man desires to live and, therefore, makes technology; but if he wants to live that is, remain in a state of well-being, then he needs to make it.

Proposal: the repertoire of needs

Following this order of ideas, technology is essential but irreducible to man. It is a vital product, but transhuman; hence, it will last over time and become an 'object in the world'. This is explained by Ferrater Mora (1975), linking it with the characteristic perspectivism of Ortega's philosophy:

The subject is a screen that selects the prints or the given. It is not an abstract being, but a concrete reality that lives here and now. It is, therefore, a life. Such a life is not only biological; the defense of the vital, in which Ortega insists stubbornly, does not amount to the defense of the primitive. While culture is produced by life and for life - and, therefore, life is prior to culture - it does not mean that cultural values are secre-



tions of vital activities and even less merely biological. It means that cultural values are vital functions, although vital functions that obey objective laws, and that, consequently, there is complete continuity between the vital and the transvital or cultural. As a consequence of this, it can be affirmed that the reason is not out of life nor is it life, but a function of life (pp. 347-348).

Taking into account that the type of need of the desire to live — and, therefore, of technology— is conditional, this opens an infinite field of possibilities of responses or projections (functions) regarding on how that desire manifest life through technology ($\forall x[\forall x \rightarrow (\Phi x \vee \Psi x \dots)]$). This is called by Ortega (1964) as a “repertoire of needs” (p. 330). This repertoire is nothing more than the synthesis of all possible functions or possibilities of technological manifestation of that vital desire to preserve well-being. It is, therefore, a nucleus from which all possible projections of the vital function of technology emerge.¹² Now, being consistent with his opposition to ‘reductionist naturalism’ — previously described in his explanation of technology by a mechanistic instinct—, Ortega (1964) also finds untenable that position in which it is claimed that this field of possibilities for the deployment of ‘being in the world’ of man is not changing. He says:

As the repertoire of human needs is a function of it, these are no less variable, and as technology is the repertoire of provoked acts, provoked by and inspired by the system of those needs, it will also be a proteiform reality, in constant mutation (p. 330).

If the world or nature changes, then the possibilities of development also change. It is inconsistent to think of a repertoire of needs that is absolute; If reality is in perpetual construction, how can we say that technology is a ‘something already finished’? Ortega says (1964):

As the repertoire of human needs is a function of it, these are no less variable, and as technology is the repertoire of provoked acts, provoked by and inspired by the system of those needs, it will also be a proteiform reality, in constant mutation (p. 332).

The repertoire of needs may be explained with the following figure:



Figure 1
Explanation of the infinite projective relationships
from the repertoire of needs



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Source: The authors

The repertoire of needs is explained as follows: throughout life our needs are endless, some of them are never met. Take any need (x), for example, to obtain food. From that need, infinite possibilities of a solution to that need are deployed through technology (a: hunt another animal, b: plant a crop, c: domesticate and raise an animal, d: be nomadic and constantly search for food, e: synthetically create new food, etc.). Moreover, each form of technological solution of the needs (a, b, c...) has infinite specific forms of solution (for example, in a, hunting a mammal, a reptile, a bird, etc.) and each one of those forms can be developed in turn in other infinite specific forms, etc. Thus, there seem to be at least three projections ad infinitum: first, the needs; second, the technological solutions; third, the specific ways by which such solutions can be carried out. In turn, there seem to be infinite possibilities contained within others ('meta-infinites'). Each need contains within itself an infinite number of possibilities of solution through technological acts. In turn, each technological act has infinite possibilities of being developed, and so on. From the above, Ortega (1964) offers a precise definition of this concept of 'technological act':

Technological acts, we said, are not those in which man seeks to satisfy directly the needs that the circumstance or nature makes him feel, but precisely those that lead to reform that circumstance, eliminating those

needs as much as possible, suppressing or diminishing chance and the effort required to satisfy them (p. 326).

With this, Ortega visualizes an interesting aspect: if technology seeks well-being, then, technology can also have the purpose of suppressing other needs—which, in turn, potentially contains the development of other technologies—; thus, paradoxically, the effective development of one technology may deny the possibility of the development of others. An example of this may be cell phones: a single technological object that was designed to solve the need for communication may supply the need to access entertainment, information, calculator, clock, compass, etc.

Thus, there is a risk that the move towards a great technology—that is, a great technological object that solves all needs— will end up denying that projective development of that technological essence of man and at that time, given that man already has created a technology that solves all his needs, man would not need more of technology (which would imply that man would cease to be a man, insofar as he ceases to be a technological being).¹³ This could be, then, the great metaphysical paradox of man as being essentially technological: the more he exerts his development as a technological subject, the more he denies his needs and, thus, the more he approaches the situation in which at a certain point he no longer needs technology. The deployment of its essence is what in the future could make it impossible for him to continue doing it since he would no longer need to continue performing such an act.

Before concluding this analysis of Ortega's philosophy, it is necessary to resume what has been said: first, technology arises from man's need for well-being and this does not necessarily imply survival, but could even deny life; second, technology also arises from the "desire to live", then it is a voluntary act and not necessary per se; its need lies in the fact that, if you want to live well, then the development of technology is necessary; and third, due to the repertoire of needs, infinite possibilities of the technological act are projected, which, in turn, tends to gradually and exponentially deny the emergence of future needs; then, it is possible to think that in the future the technological act itself is the one who denies the possibility of developing. Thus, in the analysis, three of the conditions (transcendental) can be recognized: a) well-being, b) the desire to live and c) the repertoire of needs.



Hans Jonas: two needs for a new ethic

However, once explained the position of Ortega and Gasset, this section aims to show the temporal relationship imprinted in the ethics, that, so far, have taken place in the thought of Hans Jonas and his thesis of the pressing need of the times of acquiring new ethics. First, the need for a new ethic in the field of the effects of human activity on nature will be presented. Secondly, this need will be shown in the field of human intervention as an object of technology. Finally, the consequences and commitments that arise from this need will be stated in ethical terms for Jonas.

Natural need: survival

In 2010, a 6.9 magnitude earthquake hit the Tibetan city of Yushu in Qinghai province. The aforementioned earthquake took the lives of 1,944 people and injured more than 10,000. There are compelling reasons to suppose that the main cause of this earthquake or at least of its unexpected strength, was the construction of a monumental technological feat: The Three Gorges Dam. Among other things, the concrete giant caused the creation of artificial lakes whose additional pressure on the surface seems to have influenced the balance of the cracks in the subsoil and thus contributed to the geological shock.¹⁴

In this way, something as natural as an earthquake is likely to be included in the field of phenomena influenced by human activity. It is no longer a simple interactive relationship between man and nature. Now it is affirmed, with evidence in hand, that humanity is a force of nature in a geological sense. In other words, to say that the human —by his technological capacity, number, technological imagination, etc.— has become a geological agent of the planet means that it is capable of affecting the very balance of life on Earth.

In this way, a new geological era has begun, baptized by some scientists such as the Anthropocene. For the first time in history the human mass is constituted collectively and, therefore, is left to the responsibility of itself: the way of future survival will depend, then, on the maturity of the collective reason, according to Chakraparty (2009). The technological power is —in the modern sense— the engine of a new era and the dawn of the Anthropocene.

The basic premise of this section is simple: at least one natural need —in terms of species— can be traced to an ethic of the future in this example. Unlike nuclear war, which would be the result of a conscious decision by a particular agent, the modification of the Earth's ba-



lance as habitat is an unintended consequence of technological action and shows the effects of human beings' actions as a technological species. This imminent threat to the very existence of humanity creates a new sense of "we" that truly encompasses each and every individual.

A pressing need and extreme panorama for a high-caliber ethical reflection. Hans Jonas, first involved in this reflection, was able to capture the insufficiency of previous ethics in the face of the new dimensions, powers, and limits of human action in the technological field. For the latter, it would be necessary to address at least three aspects of any ethics in the current circumstances: first, the object of ethics, that is, to whom it is directed; second, the depth of the effort or the scope of its regulations; finally, the temporal scope of the assumed responsibility.

From these three points, Jonas will examine the temporal nature of the previous ethics. Jonas's proposal (1995) can be stated, then, as follows: "The new classes and dimensions of human action demand a new ethic of foresight and responsibility adjusted to those, ethics as new as the circumstances to the ones we face" (p. 48). The great challenges of this ethic are immediately posed by technology, by human action and its powerful magnitude of planetary reach. The power of technology over the destiny of man has exceeded the power of all existing ethics.

Previous forms of 'future-oriented ethics'

Among the traits of the inadequacy of these ethics is its temporary character, oriented towards the immediate present "as ethics oriented towards contemporaries" (Jonas, 1995, p. 42). The author's concern is evident: it is not about ethics as actions oriented to immediate action, but rather that human survival depends on our efforts to care for the planet, its future and the possible life that inhabits it or will inhabit it.

The future, although formulated in previous ethics, suffers from another fundamental evil: it remains anchored to the present and has no foresight. In the case of the 'ethic of consummation in the hereafter' (befitting of the believer), there is a future that guides the entire practical dimension of actions. However, this future is ultramundane. The action is presented in the form of atonement, a preparation for a life pleasing to God and his qualification.¹⁵ This metaphysical commitment represents the renunciation of the earthly, the mundane, the sensitive and the pleasures. For Jonas (1995), resignation is precisely the condition from which salvation is given: its character would be that of a transaction whose primary purpose is the immense gain of the post-mortem prize (p. 43).

This logic displaces precisely the entire ethical universe. The cornerstones of ethical thinking —deliberation, judgment, decision, the causal connection between the action and its outcome— are abandoned; they fall on an ultramundane foundation that always articulates the actions of the believer.

According to Jonas (1995), in this ethic, the path of purification constitutes in itself the ‘best’ way of life. This ethic remains anchored to the present by the earthly disposition of private purification through immediate actions (if we are allowed the poetic license, to ‘earn paradise every day’). Thus, its object is nothing but the individual, its scope is only the community of believers and the spectrum of responsibility assumed is reduced to the post-mortem prize (undoubtedly, alien to society as a whole). Given its private nature, Jonas (1995) considers that this ethic becomes “selfish and individualistic” (p. 44).

The political promise in the figure of the ruler does not enjoy better tools for the theoretical challenge of an ethic for the future. This future in the form of a promise only includes the present intervention of the ruler according to “the duration of his work and not the prior planning of something that will only become a reality for future men and that is unattainable for the contemporaries” (Jonas, 1995, p.44). On the one hand, it is based on the real, immediate, current foresight of the present that could be extended in the near future. However, the future is but an extension of the present. Its anchorage to the present is reduced to the ability of the ruler to overcome the contingencies of fortune.¹⁶

It is, then, in other words, “to establish a viable political form and the proof of its viability would be as far as possible in the duration of the created” (p. 45), that is, its present character would be based on the fact that whatever the order of political things, it would be included in the best possible order, whose configuration would include the wisdom and work of the ruler in the present. Simple equation: the present that is preserved as the best possible state of affairs is equal to a mere extension of a similar future as an effect. The object of this modern political promise is the ruler; its scope and effects, the mass of governed; and the temporal extent of his responsibility, the duration of the ruler’s work.

In the case of the utopian ethics of Marxist thought, Jonas (1995) argues that it is a ‘dynamic eschatology of history’. In other words, the ultimate destiny of the human being as a socio-historical subject. This ethic intends to positively establish from the actions said destiny, not the preparation of the path —as occurs in the ethics of consummation—but of the active commitment in making it possible. Jonas (1995) will indicate,



then, that only with the modern idea of progress “arises the possibility of conceiving any previous step towards the current and everything current as a previous step towards the future” (p. 47). Establishing the future order now presupposes having an idea of what it is. Progress is presented as a black hole because this idea turns the above into a medium: it strips it of its value, it becomes a vehicle for what is to come, it makes the facts appear as provisional germs of utopia. Ultimately, the promise of a better future order mobilizes the action.

However, the action is oriented towards a future that “neither the agent, nor the victim, nor the rest of the contemporaries will get enjoy” (Jonas, 1995, p. 48). These actions are oriented towards the future, mobilized by the historical force in a feeling of temporary and effective abolition that, through actions, would push us towards the final destination. Consequently, it is an ethic of the transition of the coming order. It is utopian, as it presupposes a destiny of history as a goal. At this point, Jonas does not make it clear what the purpose of such ethics would be, the scope of its regulations or the extent of the assumed temporary responsibility. The question is: How would these ethics address the overwhelming power of technology in human action? How would they respond to future challenges? These questions become more complex when one of their main premises (man) no longer has consistency or a fixed nature and becomes an object of technology.¹⁷

The most ominous of interventions is that of the art of *homo faber*, who turns his potential on himself in order to remake, modify, give himself wings. Never in history did ethical thinking has faced what was assumed from the beginning as a premise: the constant nature of human nature. This field of current plasticity of the human appears as a mobile background difficult to grasp in three dimensions: mortality, behavior control and genetic manipulation (Jonas, 1995, p. 49).

Anthropological necessity: the place of man with respect to technology

The World Transhumanist Association, founded in 1998 by Nick Bostrom and David Pearce, has set itself the task of addressing these problems. Describe ‘transhumanism’ as follows:

Transhumanists defend the moral right of those who wish to use technology to expand their mental and physical abilities and to improve their control over their own lives. We seek personal growth beyond our current biological limitations (Bailey, 2017, § 4).



Its basic premise is that human development, in evolutionary terms, has not reached anything like an endpoint: all kinds of technologies on the rise —neuropharmacology, artificial intelligence, cybernetics, and nanotechnologies— have the potential to improve human capabilities.¹⁸

Among these technologies, for Jonas (1995), there is the possibility of “counteracting the biochemical processes of aging to indefinitely prolong human existence” (p. 50). This implies, as can be inferred, that death disappears from the human spectrum as a natural necessity. Death becomes, rather, an organic failure that can be modified, postponed and disposable avoiding its annoying consequences and its substitute anguish. Who should prescribe such a Faustic sin? Who will distribute the blessing? To what extent is it desirable? These speculative fantasies of immortality surpass the obvious question of death as a necessary biological step. The consequences of suppressing death, for Jonas, are clear: it would mean eliminating procreation, living locked in a world of old people suppressed from astonishment, suppressing the privilege of contemplating the world with new eyes, suppressing curiosity.¹⁹ Nothing could happen just once, nothing would be preciously precarious. For Jonas (1995), “death (or its allusion) makes men precious and pathetic” (p. 51). These are moved by their condition of ghosts, each act they perform may be the last. There is no face that is not about to blur like the face of a dream. It could be that what appears as a gift — the gift of immortality — is nothing more than a curse. And so, given the seriousness of the matter, it is impossible to get carried away by its consequences or by the calculation of interests. What is necessary is an ethical reflection of these consequences.

The other field that has crossed the hitherto unmovable border of the human is the modification of behavior through technology. The specific questions that arouse the concern of Jonas (1995) are about the validity of intervening behavior to induce attitudes.²⁰ How — under what premises and with what right — can it transgress the individual’s status as an ethically autonomous agent? The strategy is always the same: an invention is presented first as a brilliant remedy for some strenuous disease —so that no one can object— and then extends to other fields. The risk? Cross the medical frontier and settle on the plane of social manipulation, putting the capacity for social manipulation above the value of individual autonomy (p. 53). The latter entails — as was the case with Ortega— the redefinition of a new type of man and his commitment to the future.

Finally, the last field of technology applied to man is presented: genetics. Rather, the genetic control of future men. In this field, it is indicated that man takes the reins of his own evolution not only in order to



preserve himself but to improve his own design. The questions of Jonas (1995) appear:

Are we qualified for such a creative role? What sculptors, what models, from what knowledge is based? These questions only show the way in which the capacity and power of technological action overflow all ethics that have existed until now (p. 54).

This last axis is the major signal for the ethics of responsibility. Man has gradually ceased to be a fixed object —biologically and physically constituted— and becomes an axis of continuous transformation, a plastic platform for technological intervention.

Reflections on both theories

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Now, in order to broaden the understanding of these positions, some questions will be raised regarding these theories. These questions are elaborated from areas and theories within which these theories are framed, since it would be unfair and, possibly, irrelevant, to carry them out from external contexts from which they were conceived. Subsequently, and by way of conclusion, it will be shown how, although both theories have diametrically opposite conceptions about what technology is, they have common aspects.

Implications of technology as a vital function of Ortega

Two great questions can be formulated for the theoretical proposal of José Ortega and Gasset. First, if the role of technology is to facilitate life and avoid discomfort and efforts, are we dependent on our own works or, precisely, as is deduced from Ortega's discourse, the possibility of reaffirming freedom and human power (potential)? If technology guarantees our freedom, why does the human being tend to become dependent on it? Can we freely choose to be dependent on our technological creations?²¹ If the freedom of man lies in the creation and not in the use of technological objects, can there be partial freedom?

It seems that in the exercise of the vital function of technology man gives himself or receives technology as beneficiary (Dust, 1993). However, it seems that the main means by which man exercises his freedom is, in turn, the cause of his eventual loss of freedom. The dialectic between affirmation and denial of this vital function increasingly loses its balance and tends to some independence from technology of man. Then,

will there be a state in which man loses his freedom of creation by having nothing new to invent?

On the other hand, this same paradox can be approached from a different angle and perspective: Is it possible that technology denies itself from the cancellation of future needs? If this is so, how true was it that the 'repertoire of needs is infinite'? Can man create technology without having to do them (that is, for leisure)? Why is it said that the possibilities that man has to perform his technological act are endless: by the means that man has or by the faculties (such as imagination)? Can an infinite function (the faculties of creation) be denied by another, in turn, infinite function (the projections or manifestations of these faculties)?

It is clear that, rather than answers, these questions call for further inquiries in this regard. However, they seem to be serious problems that, in the metaphysical field, someone who wishes to defend Ortega's thesis must overcome.

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About Jonas and consequences

On the other hand, we have the questions to Jonas (1995). Alan Weissman's successful book (2007), *The World Without Us*, suggests an interesting mental experiment to live the present:

Suppose the worst has happened. Human extinction is an accomplished fact [...]. We are facing the image of a world in which we would all have suddenly disappeared. Is there, at least, a weak footprint of ours that will last in the universe? (p. 10).

It may be an exaggeration to ask such a thing, however, technology has turned mental experiments and speculative flirtations into achievable, materially possible projects at your fingertips. Therefore, the only things that are visible are its extreme conditions, the remote effects, seen as an automatic operation that requires, by itself, something that we have renounced, according to Jonas (1995), "absolute values and objective truth" (P. 54).

For the author, the representative government—due to its blindness to the foresight and its anchorage to the present interests—lacks an ethical basis to regulate the actions. It cannot fit into any future attitude of those who come, a current decision that would redeem the past in a balanced order for the future. No. For the moment, Jonas invites to base an ethical theory on the edge of needs, with a solid system, absolute values and objectively arranged so that, from there, the mandates and pro-

hibitions of the future are possible. What forces will shape these norms; what ethical background will give value to that future?

For Jonas (1995) ethics exists precisely “to order the actions of men and regulate their power” (p. 58). Again, the need for ethics as a regulator of the power of human actions is evoked —by the inseparable hand of technology that is inherent to it—. The equation becomes transparent: more power of action implies a greater spectrum of regulation at what it should regulate. In other words, the capacities of action that we have mentioned “require new technological rules and, perhaps even new ethics” (p. 59) in the face of the power to act there should be rules, the prohibition, the mandate. First, the capacity for action then the regulation. The technological capabilities —within the technological dimension— characteristic of human existence and its consequences are nothing but violence exerted on ethical thinking, novel pressure and theoretical challenge.

Given the snowball effect of the technological action, whose exacerbated power we have seen, the regulatory norms, their foundation and, in this same movement, the value of nature and of man were neutralized (presented in this text as fields of specific need for ethics). Faced with the inconceivable power given by technology, only comparable with the literary imagination comes an excessive emptiness. And with the emptiness, ignorance, and fear about the power and impact we possess. For Jonas (1995), fear and moralism are the first predictable feelings that cloud the wisdom necessary to give seriousness to the matter.

Faced with the possible consequences of the ‘explosive’ technological action, we get fear. Fear that, in any case, it is anchored to the present, but that can no longer refer to the past, to the sacred, which in other times provided comfort and future hopes. It is not that there is some kind of return to a previous era, where we get rid of the technological excess, where we only manufactured pulleys or supplied energy with coal. It is not possible to return to it; the excess is with us forever. In the end, does not Jonas himself fall into the error that criticizes Marxism —which understands the human being as something fixed—, believing that nature is a fixed, candid and harmonious plane of human intervention? On the other hand, is it realistic to propose an ethic for the future by isolating the engine that gives rise to the exacerbated technological production, that is: the economy and social and political factors?



Conclusions

As clarified in the previous section, raising criticism of both positions from contexts and areas outside the theory would be unfair and futile. The concerns and analysis criteria of both authors are clearly different: while Ortega speaks from a vitalist metaphysics and a perspectivist epistemology, Jonas makes his reflections from bioethics and with a proposal of ethics of the future. Therefore, it is understandable that, while Ortega maintains that man is a substance with a repertoire of needs from which infinite functions of technological acts are projected, Jonas affirms that the essence of man is plastic and is in perpetual transformation. Similarly, their positions are positioned at opposite poles with respect to the characterization of technology: Ortega denies that technology is caused by the need for survival and states that it is due to the need for well-being; Jonas, on the other hand, maintains that the need for survival is the genuine cause of technology since it is a necessary condition of all future well-being (without survival there can be no well-being).

However, we can find two possible alternatives that, as a suggestion to the reader, could solve the apparent dilemma. While Ortega argues that the purpose of technology is well-being, this should not necessarily be understood as the destruction of nature. This can be glimpsed in the famous phrase of Ortega (1964): “I am me and my circumstance and if I don’t save it, I don’t save myself” (p. 322). As we indicated earlier, with Ferrater Mora’s explanation, Ortega does not hold a subjectivism, much less solipsism. Without a *quo* condition, there can be no conditions *ad quem*. Rather, we should understand well-being from a conception that the first vital function is the affirmation of all other possibilities or vital functions, that is: survival itself. Not all technological actions of well-being are survival, but survival is a set of acts that tend to well-being. Then, following Alonso (2018), Orteguian philosophy is radically ecological.

In this order of ideas, it is concluded that, whether the technological need is understood as survival or as well-being, both lead to bioethics in which the preservation and care of the environment are proposed as a necessary condition of good living of the human race.

Notes

1. Understanding ‘creator’ in this case in the sense of the Greek ποιησις and not as *creatio ex nihilo* (בְּרֵאשִׁית [bârâ]). The creation discussed here is not absolute (Brown et al., 1906, voice בְּרֵאשִׁית), but rather refers to a transformation of matter from one state to another

- (as is the case with the stone that, after the intervention of the artist, becomes a sculpture) (Lydell and Scott, 1996, voice ποιησις) (cf. Hernández and Pérez, 2018, p. 51).
2. It is often said that a question is transcendental when investigating the conditions of the possibility of something. This is defined by Kant (2011): “Not all prior knowledge should be called transcendental, but only that by which we know that (and how) certain representations (intuitions or concepts) only apply a priori or only a priori is possible (that is, the possibility of knowing or using it a priori)” (A56 / B80).
 3. Understood as a separable verb („Er ist auf der Welt da“ [“he is in the world”]) (cf. Weibl and Herndina, 1997, voice *dasein*) and not as a noun *dasein* (“existence”) or as the assigned hypostasis to a subject (*dasein*) (“the existing one”), created by Heidegger (2014).
 4. ‘Existence’ is a classic concept of metaphysics. In its original sense, the concept comes from a construct (ex-sistere) that means “to be outside of...”, “to emerge”, “to appear” (Lewis et al., 1956) (cf. Hernández and Pérez, 2018, pp. 51-57).
 5. A similar distinction can be found in Hernández (2019) to refute the paradoxes about the omnipotence of God (pp. 475 ss.). The distinction illustrates the difference between an optional or a priori need and one of a posteriori hypothetical action.
 6. This term (reductionist naturalism) is not used by Ortega, however, it summarizes well the approach of his criticisms. Examples of this vision are Herskovits (2011), Küng (1999), Potter (1998) and Morin (2006), or as we will see later, Hans Jonas (1995). For more information about the Orteguian overcoming of naturalism, see Conill (2012).
 7. Perhaps here are visions of Heidegger’s metaphysical concept of ‘authentic existence’ (Heidegger, 2014, §§ 48 ss.). However, it is necessary to clarify that the existence (understood as the a priori conditions of any action, fact or state, independent of any cognitive subject) cannot be authentic or inauthentic. Only reality can be valued as it’s own or improper, adequate or inadequate, genuine or false. Existence is that independent of every observer (the Greek τὸ ὄν); the reality, the appropriation or recognition that a subject makes of this (the φάνερον) (cf. Hernández and Baracaldo, 2018, pp. 334 ss.).
 8. Read: “If not for all x that that x is the well-being and that x is survival, then it is possible that there is such and that that y is the well-being and that and is no survival.” In other words, given that not everything that is done for well-being is for survival, it is possible that there is a fact that is not for survival, but for welfare.
 9. Here it is possible to find a special connection between this central concept of Ortega’s (‘well-being’) and Nietzsche’s (2006) concept of ‘will to power’ (wille zur macht) for two reasons: first, because this desire is characterized as essential and irreducible element of the human condition, and second, because the concept ‘life’ is not reduced to ‘existence’, but has a deeper meaning: the appropriation of that same existence by that will (desire) to live (§ § 633-652).
 10. “As for the Being Necessary, it is either necessary in itself or not necessary in itself. The one that is necessary in itself is the one that is the cause of its own essence, not because of some other, whatever it may be, since the hypothesis of its non-existence would imply a contradiction. As for the necessary being that is not by itself, it is the one that becomes necessary for something other than him that is added; for example, four is necessary not by itself, but as long as two and two are aggregated; combustion is not necessary in itself, but as soon as the contest of active power by nature is assumed, that is, what it burns and what is burned” (Avicenna, 1950, § 14;



cf. Avicenna, 1980, pp. 24-37; Aristotle, 2014, c. 5, 1015a, pp. 20-35; Aquinas, 1951, q. 82, a. 1, sol.).

11. Keep in mind that this set of functions (projections) of the vital act of technology is closely linked to the ideal of life or vital project of the man that one wishes to be: "For Ortega it is not possible to separate the idea of a personal project from the development of technology. The man is technological. Technology is the realization of human projects. However, not all human projects are the same [...]. This step is essential. Because a connection between the human project and the development of the whole technology is determined. This equation is perfect. Man thinks of a world in which to live and realizes that he can do it through technology. For this reason, it is essential to understand what kind of man we want to be. The bodhisattva, the gentleman and the gentleman are not the same type of man" (Piro, 2013, pp. 53-54).
12. This risk is quite close to the risk that Heidegger (1997) spoke about: "You want, as they say, 'to have in your spiritual hand technology'. One wants to dominate it. Wanting to dominate it becomes all the more urgent, the more technology threatens to escape the control of man" (p. 115). In this case, the loss of control of technology may be due to the fact that, thanks to its transhuman or functional nature, the same technology is supplying all the needs and disregarding future technological acts and even the creative exercise of man.
13. "Its maximum capacity holds water at 91 meters above the level of the river itself and contains approximately 39.3 billion cubic meters of water in an area of 632 square km. We are talking about an approximate weight of 42 billion tons concentrated to a very small extent - in planetary terms - enough to alter the land course" (Chakraparty, 2009, p. 207).
14. On this, St. Augustine (1958) writes: "The soul must be purified, so that it can contemplate that light and adhere to it after contemplation. We can consider this purification as true walk and navigation towards the country because we do not approach that which is present in all places by bodily movements but by goodwill and good customs" (p. 10).
15. "It is found to keep them more or less in difficulty depending on whether the one who acquires them is more or less virtuous. And since this event of becoming a ruler, in particular, presupposes either virtue or luck, it seems that one or the other of these things partially mitigates many difficulties: however, he who has relied less on luck has remained more" (Machiavelli, 1990, p. 71).
16. All these ethics tacitly share three premises: "I) The human condition, resulting from the nature of man and things, remains fundamentally fixed once and for all; II) On that basis it is possible to determine clearly and without difficulties the human good; III) The scope of human action and, therefore, of human responsibility is strictly limited" (Jonas, 1995, p. 9).
17. "A few years ago, the discussion typically revolved around the question: 'is this science fiction'? Are we talking about real future possibilities? 'Now discussions tend to start from the position that yes, it will be increasingly possible to modify human capabilities. The question now is whether we should do it. And if the answer is positive, what are the ethical limitations?" (Sutherland, 2009).
18. In a more pessimistic tone says Borges (1974): "Dilating the lives of men would be to dilate their agony and multiply the number of their deaths" (p. 533).
19. "Should we overcome aggressiveness by electronically pacifying certain brain regions? Should we provoke feelings of happiness (...) through independent stimu-



- lation of pleasure centers [...] and their attainment in personal life and actions?
”(Jonas, 1995, p. 53).
20. This problem can best be expressed in Luther’s concept of *servo arbitrio*. For Luther, the freedom of the Christian is to freely surrender his agency so that it is God who decides his destiny. Thus, for Luther, the freedom of the Christian lies in returning to his agency, a servile agency to Christ (2006, pp. 155-170). The metaphysical question that arises here is: Can freedom deny itself? Can anyone freely choose to be a prisoner of something or someone? In our case: Can we freely choose to be prisoners of technology? If we can: Are we free by being prisoners? On the one hand, it seems so, since we freely choose it; on the other, no, because we are prisoners. Such being things: from technology can we deny our freedom?

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